VistaGen Therapeutics, Inc.
Form S-1
May 12, 2014

As filed with the Securities and Exchange Commission on May12, 2014

Registration No. 333- _____

UNITED STATES SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

FORM S-1
REGISTRATION STATEMENT

UNDER
THE SECURITIES ACT OF 1933

VISTAGEN THERAPEUTICS, INC.
(Exact name of registrant as specified in its charter)

Nevada	3841	20-5093315
(State or other jurisdiction of incorporation or organization)	(Primary Standard Industrial Classification Code Number)	(I.R.S. Employer Identification Number)

343 Allerton Avenue
South San Francisco, CA 94080
(650) 577-3600
(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Shawn K. Singh, J.D.
Chief Executive Officer
VistaGen Therapeutics, Inc.
343 Allerton Avenue
South San Francisco, CA 94080
(650) 577-3600
(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies of all communications to:

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Approximate date of commencement of proposed sale to the public: As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to

Rule 415 under the Securities Act, check the following box. [X]

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

If this Form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. [ ]

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definition of “large accelerated filer,” “accelerated filer” and “smaller reporting company” in Rule 12b-2 of the Exchange Act.

Large accelerated filer [ ]		Smaller reporting company
Accelerated filer [ ]	Non-accelerated filer [ ] (Do not check if a smaller reporting company)	[X]

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CALCULATION OF REGISTRATION FEE

Title Of Each Class Of Securities To Be Registered	Amount To Be Registered	Proposed Maximum Aggregate Offering Price Per Share	Proposed Maximum Aggregate Offering Price (1)	Amount Of Registration Fee	
Common stock, par value $0.001 per share (2)		$	$ 10,000,000	$ 1,288.00	(1)

(1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933.

(2) This Registration Statement covers, under one prospectus, our direct offering of an indeterminate number of shares of our common stock that may be sold by us from time to time, for a maximum aggregate offering price of all securities not to exceed $10,000,000.

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Subject to Completion, dated _____, 2014

The information in this preliminary prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This preliminary prospectus is not an offer to sell these securities and we are not soliciting an offer to buy these securities in any state where the offer or sale is not permitted.

Preliminary Prospectus

_____ Shares of Common Stock

We are offering _____ shares of our common stock (the “Offering”) on a "best efforts" basis through our officers and directors, who will not receive any commissions or other remuneration for selling shares.

There is no minimum number of shares that must be sold by us for the Offering to close, and therefore we may receive no proceeds or very minimal proceeds from the Offering. The aggregate offering price of all securities sold under this Offering may not exceed $_____.

We will retain the proceeds from the sale of any of the offered shares that are sold. The Offering is being conducted on a self-underwritten, best efforts basis, which means this prospectus will permit our officers and directors to sell the shares directly to the public, with no commission or other remuneration payable to them for any shares they may sell. The Company may not sell the shares to the public until the Registration Statement of which this prospectus is a part is declared effective by the Securities and Exchange Commission (“SEC”).

We have no arrangement to place the proceeds from this Offering in an escrow, trust or similar account. Any funds raised from sales of shares to the public pursuant to this Offering will be immediately available to us for our use and retained by us regardless of whether or not there are any additional sales under this Offering. You will not have the right to withdraw your funds during the Offering. We may offer and sell these securities through the method described under “Plan of Distribution” in this prospectus.

The Offering will terminate upon the earlier to occur of: (i) the sale of all _____ shares being offered, or (ii) 365 days after the Registration Statement of which this prospectus is a part is declared effective by the SEC.

Our securities are not listed on any national securities exchange. Our common stock is quoted on the Over-the-Counter Market (OTCQB) under the symbol “VSTA”. On May 9, 2014 the closing price for our common stock was $0.40 per share.

Investing in our securities involves a high degree of risk. See "Risk Factors" beginning on page 9 of this prospectus.

	Per Share	Total
Price to the public (1)	$_____	$_____
Proceeds, before expenses, to us	$_____	$_____

(1) Omitted in reliance upon Rule 430A under the Securities Act and may be based upon a discount to the market price of the Company's common stock at the time of pricing not later than 15 business days after the effective date of the registration statement of which this prospectus is a part.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2014

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You should rely only on the information contained in this prospectus. We have not authorized anyone to provide you with additional information or information different from that contained in this prospectus. We are offering to sell, and seeking offers to buy, shares of our common stock only in jurisdictions where offers and sales are permitted. The information contained in this prospectus is accurate only as of the date of this prospectus, regardless of the time of delivery of this prospectus or any sale of our common stock.

We own or have rights to use a number of common law trademarks and trade names that we use in connection with our business, including VistaGen Therapeutics, Inc., VistaGen, our logo, Better Cells Lead to Better Medicine, Human Clinical Trials in a Test Tube, ECG in a Test Tube, Putting Humans First, Drug Rescue Candidates, Drug Rescue Variants, CardioSafe 3D and LiverSafe 3D. Solely for convenience, the trademarks and trade names referred to in certain portions of this prospectus may have been included without the TM symbol, but any such references are not intended to indicate in any way that we will not assert to the fullest extent under applicable law our rights to use those trademarks and trade names. All other trademarks, service marks and trade names referred to in this prospectus, if any, are, to our knowledge, the property of their respective owners.

Unless the context otherwise requires, the words "VistaGen Therapeutics, Inc." "VistaGen," "we," "the Company," "us" and "
refer to VistaGen Therapeutics, Inc., a Nevada corporation. "VistaGen California" refers to VistaGen Therapeutics, Inc.,
a California corporation and our wholly-owned subsidiary.

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PROSPECTUS SUMMARY

This summary highlights selected information appearing elsewhere in this prospectus and does not contain all the information you should consider before investing in our common stock. You should carefully read this prospectus in its entirety before investing in our common stock, including the section entitled "Risk factors" and our financial statements and related notes included elsewhere in this prospectus.

Overview

We are a stem cell company headquartered in South San Francisco, California and focused on drug rescue and regenerative medicine. We believe better cells lead to better medicine™ and that the key to making better cells is precisely controlling the differentiation of human pluripotent stem cells, which are the building blocks of all cells of the human body. For over 15 years, our stem cell research and development teams and collaborators have focused on controlling the differentiation of pluripotent stem cells to produce multiple types of mature, functional, adult human cells, with emphasis on human heart and liver cells for drug rescue applications.

Our Stem Cell Technology Platform - Human Clinical Trials in a Test Tube™

Our stem cell technology platform, which we refer to as Human Clinical Trials in a Test Tube, is based on a combination of proprietary and exclusively licensed technologies for controlling the differentiation of human pluripotent stem cells into multiple types of mature, functional, adult human cells that we use, or plan to develop, to reproduce complex human biology and disease. We are currently producing heart cells and liver cells for our drug rescue applications. Upon completion of this offering, we intend to focus on the drug rescue applications utilizing human heart and liver cells, and further advance, through collaborative research projects, pharmaceutical applications of stem cell-derived blood, bone, cartilage, heart, liver and pancreatic beta-islet cells, including exploring opportunities to leverage our stem cell technology platform for regenerative medicine purposes. Our emphasis in the regenerative medicine arena will be on developing novel human disease models for discovery of small molecule drugs and biologics that activate the endogenous growth and healing processes enabling the body to repair tissue damage caused by certain degenerative diseases.

CardioSafe 3D™

Using mature cardiomyocytes (heart cells) differentiated from human pluripotent stem cells, we have developed CardioSafe 3D, as a novel, in vitro bioassay system used to assess new drug candidates for potential cardiac toxicity before they are tested in animals or humans. We believe CardioSafe 3D is capable of predicting the in vivo cardiac effects, both toxic and non-toxic, of small molecule drug candidates with greater speed and precision than the long-established, surrogate safety models most often used in drug development, including models using animal cells or live animals, and cellular assays using cadaver, immortalized or transformed cells. Our pluripotent stem cell derived cardiomyocytes (heart cells) and CardioSafe 3D are key components of our Human Clinical Trials in a Test Tube platform and drug rescue programs.

LiverSafe 3D™

Using mature, hepatocytes (liver cells) derived from human pluripotent stem cells, with adult functional properties, we are currently validating LiverSafe 3D, our second novel stem cell technology-based bioassay system. We believe LiverSafe 3D will enable us to assess new drug candidates for potential liver toxicity and metabolism-based safety issues resulting in adverse drug-drug interactions, early in development, before animal or human testing. Drug-related liver toxicity and adverse drug metabolism, as a group, represent one of the top-two reasons for safety-related drug failure during clinical development. We plan to use LiverSafe 3D, and the clinically predictive liver biology insight

we believe it provides, to expand the scope of our commercial opportunities related to drug rescue.

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Drug Rescue

We believe drug rescue, using our novel in vitro bioassay systems, CardioSafe 3D and LiverSafe 3D, the foundation of our Human Clinical Trials in a Test Tube platform, is the highest-value near term commercial application of the human cells we produce. Detailed information is available to us in the public domain regarding the efficacy, pharmacology, formulation and toxicity of promising small molecule drug candidates developed by pharmaceutical and biotechnology companies which have failed due to unexpected heart or liver toxicity. These promising drug candidates have already been tested extensively and validated by a pharmaceutical or biotechnology company for their therapeutic (efficacy) and commercial potential. We refer to these promising new drug candidates that have been discovered, developed and ultimately terminated by pharmaceutical and biotechnology companies as Drug Rescue Candidates™.

Failure of promising new drug candidates due to unexpected human clinical toxicity highlights the need for new paradigms to evaluate potential toxicity early in drug development. While efforts of pharmaceutical and biotechnology companies to improve their prediction of human clinical toxicity for new drug candidates is ongoing, the existence of many Drug Rescue Candidate offers us an opportunity to use our novel drug rescue technology to take advantage of these promising Drug Rescue Candidates, each with early signs of efficacy, by eliminating the toxicity that caused them to be terminated, and bring new, safer versions back into development protected by new intellectual property. We refer to these new, safer versions of Drug Rescue Candidates we produce with our medicinal chemistry collaborator and validate internally in our bioassay systems as Drug Rescue Variants™.

We have designed our drug rescue model to leverage publicly available information and substantial prior investment by pharmaceutical companies and others in Drug Rescue Candidates. The key commercial objective of our drug rescue model is to generate revenue from license, development and commercialization arrangements involving the new, safer and proprietary Drug Rescue Variants that we produce with our medicinal chemistry collaborator and validate internally in our bioassay systems prior to license. We anticipate that each validated lead Drug Rescue Variant will be suitable as a promising drug development program, either internally or in collaboration with a strategic partner. Through stem cell technology-based drug rescue, we intend to become a leading source of proprietary, small molecule drug candidates to the global pharmaceutical industry.

Our Drug Rescue Strategy

We believe the pre-existing public domain knowledge base supporting the therapeutic and commercial potential of our Drug Rescue Candidates will provide us with a valuable head start as we launch our drug rescue programs. Leveraging the substantial prior investments by global pharmaceutical companies and others in discovery and efficacy validation of Drug Rescue Candidates is an essential component of our drug rescue strategy.

Our current drug rescue emphasis is on Drug Rescue Candidates discontinued prior to FDA market approval due to unexpected cardiac safety concerns. By using CardioSafe 3D to enhance our understanding of the cardiac liability profile of Drug Rescue Candidates, biological insight not previously available when the Drug Rescue Candidate was originally discovered and developed, we believe we can demonstrate in vitro proof-of-concept as to the efficacy and safety of Drug Rescue Variants earlier in development and with substantially less investment in discovery and development than was required of the pharmaceutical companies prior to their decision to terminate the Drug Rescue Candidates.

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The key elements of our current drug rescue strategy are as follows:

- identify potential Drug Rescue Candidates with heart safety issues utilizing drug discovery and development information available in the public domain through open source, licensed databases, and published patents, as well as through our strategic relationships with our drug rescue and scientific advisors and consultants, including Synterys, Inc. and Cato Research Ltd., our preferred provider of contract medicinal chemistry and contract clinical development services, respectively;

- leverage substantial prior R&D investments made by global pharmaceutical companies and others to support the therapeutic and commercial potential of Drug Rescue Candidates, as an important criterion for selection of Drug Rescue Candidates and potential lead Drug Rescue Variants;

- use CardioSafe 3D to enhance our understanding of the cardiac liability profile of Drug Rescue Candidates, important biological insight not available when the Drug Rescue Candidates were originally discovered and developed by pharmaceutical companies;

- leverage our knowledgebase about each Drug Rescue Candidate's specific chemistry to design and produce a portfolio of novel potential lead Drug Rescue Variants for each Drug Rescue Candidate;

- use CardioSafe 3D and pre-existing in vitro efficacy models to assess the efficacy and cardiac safety of potential Drug Rescue Variants and identify and validate a lead Drug Rescue Variant; and

- license each validated lead Drug Rescue Variant to a global pharmaceutical company in a revenue-generating agreement providing for the full development, market approval and commercial sale of the Drug Rescue Variant.

Drug Rescue Candidates

Our current CardioSafe 3D Drug Rescue Candidates are set forth in the table below:

Drug Rescue Candidate	Indication	Developer	Terminated	Reason for Termination	Mechanism
VSTA-1C05	Cancer	Pharma	Phase 1/2	Cardiotoxicity	Aurora kinase inhibitors
VSTA-1A08	Cancer	Biotech	Preclinical	Cardiotoxicity	PI3 kinase inhibitor
VSTA-2A21	Dementia	Pharma	Preclinical	Cardiotoxicity	Nicotinic a7 receptors
VSTA-5A03	HIV	Pharma	Preclinical	Cardiotoxicity	Integrase inhibitor

We believe our exclusive focus on Drug Rescue Candidates with established, therapeutic and commercial potential, and our ability to build on that valuable head start using our expertise in human biology, will help us to generate Drug Rescue Variants without incurring many of the high costs and risks typically inherent in the labor-intensive early-stage drug discovery screening necessary to identify a lead compound that has a desired therapeutic profile. Although we plan to continue to identify Drug Rescue Candidates in the public domain, we may also seek to acquire rights to Drug Rescue Candidates not currently available to us in the public domain by entering into contractual arrangements with third-parties.

Strategic Licensing of Drug Rescue Variants

We believe many pharmaceutical companies are experiencing, and will continue to experience, critical R&D productivity issues, as measured by their lack of, or very low number of, FDA-approved products each year during the past decade. For example, in 2013, the U.S. pharmaceutical industry invested over $51 billion in R&D and the Center for Drug Evaluation and Research (CDER) of the FDA approved a total of only thirty-nine novel drugs, known as

New Molecular Entities (NMEs). In 2013, CDER approved only twenty-seven NMEs, thirteen of which NME approvals (48%) were received by only five pharmaceutical companies, including Bayer (2), GlaxoSmithKline (4), Johnson & Johnson (3), Roche (2) and Takeda (2). Despite remarkable levels of R&D investment by the global pharmaceutical industry as a whole, since 2003, the FDA has only approved an average of approximately twenty-six NMEs per year. In addition, we believe many pharmaceutical companies with established products that are no longer patent protected are also experiencing substantial market pressure from generic competition.

As a result of R&D productivity issues, diminishing product pipelines and generic competition, we believe there is and will continue to be a critical need among pharmaceutical companies to license the new, safer Drug Rescue Variants we are focused on developing, including companies that originally discovered, developed and ultimately discontinued the Drug Rescue Candidates we select for our drug rescue programs.

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Once we achieve proof-of-concept (POC) in vitro as to the efficacy and safety of a lead Drug Rescue Variant, we intend to announce the results of our internal POC studies and, at that time, consider whether we will seek to license that Drug Rescue Variant to a pharmaceutical company, including the company that developed the Drug Rescue Candidate, or further develop it on our own. If we decide to license a lead Drug Rescue Variant to a pharmaceutical company, through a form of license arrangement we believe is generally accepted in the pharmaceutical industry, we anticipate that the pharmaceutical company will be responsible for all subsequent development, manufacturing, regulatory approval, marketing and sale of the Drug Rescue Variant and that we will receive licensing revenue through payments to us from the license upon signing the license agreement, achievement of development and regulatory milestones, and, if approved and marketed, upon commercial sales.

Regenerative Medicine and Drug Discovery

Although we believe the best and most valuable near term commercial application of our stem cell technology platform, Human Clinical Trials in a Test Tube, is for small molecule drug rescue, we also believe stem cell technology-based regenerative medicine has the potential to transform healthcare in the U.S. over the next decade by altering the fundamental mechanisms of disease and help slow rapidly rising healthcare costs in the U.S. Upon completion of this offering, we intend to explore opportunities to leverage our stem cell technology platform for regenerative medicine purposes, with emphasis on developing novel human disease models for discovery of small molecule drugs and biologics with regenerative and therapeutic potential. Our regenerative medicine focus will be based on our expertise in human biology and differentiation of human pluripotent stem cells to develop functional adult human cells and tissues involved in human disease, including blood, bone, cartilage, heart, liver and insulin-producing pancreatic beta-islet cells. Our objective will be to explore regenerative medicine opportunities through pilot nonclinical proof-of-concept studies, after which we intend to assess any potential opportunities for further development and commercialization of therapeutically and commercially promising regenerative medicine programs, either on our own or with strategic partners.

AV-101 for Neuropathic Pain, Epilepsy and Depression

With $8.8 million of grant funding awarded from the U.S. National Institutes of Health, we have successfully completed Phase 1 development of AV-101. AV-101, also known as “L-4-chlorokynurenine” and “4-Cl-KYN”, is an orally available small molecule prodrug candidate aimed at the multi-billion dollar neurological disease and disorders market, including neuropathic pain, a serious and chronic condition causing pain after an injury or disease of the peripheral or central nervous system, epilepsy and depression. Our AV-101 IND application on file at the FDA covers clinical development for neuropathic pain. However, we believe the Phase 1 AV-101 safety studies completed to date will support development of AV-101 for multiple indications, including epilepsy and depression. Upon completion of this offering, we intend to pursue potential opportunities for further development and commercialization of AV-101 for neuropathic pain, epilepsy and depression, either on our own or with a strategic partner. In the event that we successfully complete a strategic partnering arrangement for AV-101, we plan to use the net proceeds from such an arrangement to expand our drug rescue and regenerative medicine programs.

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Risk Factors

Our business is subject to a number of risks of which you should be aware before making an investment decision.

These risks are discussed more fully under the caption “Risk factors” and include, but are not limited to, the following:

- We have incurred significant losses since inception, and anticipate that we will continue to incur substantial losses for the foreseeable future. We may never achieve or sustain profitability, which would depress the market price of our common stock, and could cause you to lose all or a part of your investment.

- If we are unable to develop products that achieve sufficient market acceptance, our revenue will be adversely affected.

- Our future success is highly dependent upon our ability to produce, validate and license to pharmaceutical and biotechnology companies novel Drug Rescue Variants, which are intended to be safer, proprietary chemical variants of once-promising small molecule drug candidates which pharmaceutical companies and others discovered, determined to have therapeutic and commercial potential, and ultimately discontinued due to heart or liver safety concerns after substantial investment and prior to receiving FDA approval.

- Our human heart cell- and liver cell-based bioassay systems may not be meaningfully more clinically predictive of human biology than surrogate safety models currently used in drug development.

- The life sciences field undergoes rapid technological changes, frequent new product introductions, changing needs and preferences, emerging competition, evolving standards and strong competition.

- We utilize certain technologies that are licensed to us. If we are unable to maintain our licenses, our business could be adversely affected.

- Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain and we may be involved in lawsuits to protect or enforce our patents and proprietary rights or to defend against intellectual property infringement claims.

Corporate information

VistaGen Therapeutics, Inc. (formerly Excaliber Enterprises, Ltd.), a Nevada corporation, is the parent of VistaGen Therapeutics, Inc., a California corporation founded in 1998. Our principal executive offices are located at 343 Allerton Avenue, South San Francisco, California 94080, and our telephone number is (650) 577-3600. Our website address is www.vistagen.com. The information on our website is not part of this prospectus. We have included our website address as a factual reference and do not intend it to be an active link to our website.

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THE OFFERING

Common stock offered by VistaGen Therapeutics, Inc.	_____ shares
Common stock to be outstanding after this Offering	_____ shares
Use of proceeds	We intend to use the net proceeds from this Offering for funding our operations, approximately as follows: $_____ for research and product development expenses related to our stem cell technology-based Human Clinical Trials in a Test Tube platform, including Drug Rescue Variants, novel human cell-based assay systems for drug discovery, and pilot nonclinical regenerative medicine studies; $_____ for general and administrative expenses, including audit, legal and other professional services related to being public company; $_____ for property, plant and equipment expenses; and the remaining proceeds for working capital and other general corporate purposes. We may also acquire or invest in complementary businesses or other assets; however, we currently have no agreements or commitments to complete any such transaction. See “Use of Proceeds” on page 44.
Dividend policy	We have never declared or paid and do not anticipate declaring or paying any cash dividends on our common stock in the near future. You should read the “Dividend policy” section of this prospectus for more information on future declarations and payments of dividends.
OTCQB symbol	VSTA
Risk factors	See “Risk factors” beginning on page 9 of this prospectus for a discussion of factors you should carefully consider before investing in our securities.

The number of shares of common stock to be outstanding after this Offering is based on 24,236,877 shares outstanding as of April 30, 2014, and does not include, as of that date:

- 4,227,357 shares issuable upon the exercise of outstanding options;
- 735,200 shares of our common stock reserved for issuance in connection with future awards under our stock 2008 Stock Incentive Plan;
- 17,845,633 shares of our common stock that have been reserved for issuance upon exercise of outstanding warrants;
- 15,000,000 shares of our common stock issuable upon the exchange of our Series A Preferred Stock (“Series A Preferred”);
- 7,500,000 shares of our common stock issuable upon the exercise of warrants to be issued upon the exchange of our Series A Preferred; and

- 80,000 shares of common stock and warrants issued upon the purchase of units consisting of shares of common stock, promissory notes and common stock purchase warrants issued in a private placement after April 30, 2014

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SUMMARY FINANCIAL DATA

The following table presents summary financial data for the periods indicated. The summary statements of operations data for the years ended March 31, 2012 and 2013 and the balance sheet data as of March 31, 2012 and 2013 have been derived from our audited financial statements and notes thereto, which are included elsewhere in this prospectus. The unaudited summary statements of operations data for the nine months ended December 31, 2012 and 2013 and the unaudited balance sheet data as of December 31, 2013 have been derived from our unaudited financial statements included elsewhere in this prospectus. We have prepared the unaudited financial information on the same basis as the audited consolidated financial statements and have included, in our opinion, all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim results are not necessarily indicative of the results to be expected for the full fiscal year. You should read this information together with our financial statements and related notes, "Management's Discussion and Analysis of Financial Condition and Results of Operations," "Use of Proceeds" and "Capitalization" included elsewhere in this prospectus.

(Dollars in thousands, except share and per share data)	Fiscal Year Ended March 31,		Nine Months Ended December 31,	
	2013	2012	2013	2012
Revenues:				
Grant revenue	$ 200	$ 1,342	$ -	$ 200
Total revenues	200	1,342	-	200
Operating expenses:				
Research and development	3,431	5,389	1,916	3,092
General and administrative	3,562	4,997	2,048	2,430
Total operating expenses	6,993	10,386	3,964	5,522
Loss from operations	(6,793)	(9,044)	(3,964)	(5,322)
Other expenses, net:				
Interest expense, net	(921)	(1,893)	(1,000)	(612)
Change in warrant and other derivative liabilities	(1,636)	(78)	3,824	358
Loss on early extinguishment of debt	(3,568)	(1,193)	-	(3,537)
Other income	35	-	-	-
Loss before income taxes	(12,883)	(12,208)	(1,140)	(9,113)
Income taxes	(4)	(2)	(3)	(4)
Net loss	(12,887)	(12,210)	(1,143)	(9,117)
Deemed dividend on Series A Preferred Stock	(10,193)	-	-	(10,193)
Net loss attributable to common stockholders	$ (23,080)	$ (12,210)	$ (1,143)	$ (19,310)
Net loss attributable to common stockholders, basic and diluted	$ (1.27)	$ (0.83)	$ (0.05)	$ (1.11)
Weighted average shares used in computing basic and diluted net loss attributable to common stockholders	18,108,444	14,736,651	21,554,929	17,411,993
Pro-forma net loss attributable to common stockholders, basic and diluted (1)	$ _____	$ _____	$ _____	$ _____

Weighted average shares used in computing pro-forma basic and diluted net loss attributable to common stockholders	_____	_____	_____	_____

(1) The number of weighted-average common shares used in computing pro forma net loss per share attributable to common stockholders in the table above gives effect to the issuance of _____ shares of common stock pursuant to this Offering on a retroactive basis for each of the periods presented.

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(dollars in thousands) Balance sheet data:	March 31, 2013	March 31, 2012	December 31, 2013	Pro forma as adjusted(1)
Cash and cash equivalents	$ 638	$ 81	$ 21	$ _____
Total current assets	672	238	91	_____
Total assets	882	342	329	_____
Total current liabilities	2,414	3,183	3,712	_____
Long-term debt, less current portion	4,624	2,798	5,470	_____
Accumulated deficit	(67,669)	(54,783)	(68,812)	_____
Stockholders' deficit	(12,556)	(5,706)	(11,670)	_____

(1) The pro forma as adjusted balance sheet data reflects estimated net proceeds of $_____ received pursuant to the sale of _____ shares of our common stock at an assumed public offering price of $____ per share, inclusive of estimated Offering expenses, as of December 31, 2013.

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RISK FACTORS

Investing in our common stock involves a high degree of risk. You should consider carefully the risks and uncertainties described below, together with all of the other information in this prospectus, including our financial statements and related notes, before deciding whether to purchase shares of our common stock. If any of the following risks are realized, our business, financial condition, results of operations and prospects could be materially and adversely affected. In that event, the price of our common stock could decline and you could lose part or all of your investment.

Risks Related to Our Business and Strategy

We are a development stage biotechnology company with no approved products, which makes it difficult to assess our future viability.

We are a development stage biotechnology company. Since inception, we have generated approximately $16.4 million of revenues from strategic collaborations and grant awards. However, we currently have no approved products and generate no revenues, and we have not yet fully demonstrated an ability to overcome many of the fundamental risks and uncertainties frequently encountered by development stage companies in new and rapidly evolving fields of technology, particularly biotechnology. To execute our business plan successfully, we will need to accomplish the following fundamental objectives, either on our own or with strategic collaborators:

- produce product candidates;
- develop and obtain required regulatory approvals for commercialization of products we produce;
- maintain, leverage and expand our intellectual property portfolio;
- establish and maintain sales, distribution and marketing capabilities;
- gain market acceptance for our products;
- obtain adequate capital resources and manage our spending as costs and expenses increase due to research, production, development, regulatory approval and commercialization of product candidates.

If we are unsuccessful in accomplishing these fundamental objectives, we may not be able to develop product candidates, raise capital, expand our business or continue our operations.

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Our future success is highly dependent upon our ability to produce product candidates, including Drug Rescue Variants, using stem cell technology, human cells derived from stem cells, our proprietary human cell-based bioassay systems and medicinal chemistry, and we cannot provide any assurance that we will successfully produce Drug Rescue Variants or other product candidates, or that, if produced, any of our Drug Rescue Variants or other product candidates will be developed and commercialized.

Research programs designed to identify and produce product candidates, including Drug Rescue Variants, require substantial technical, financial and human resources, whether or not any product candidates are ultimately identified and produced. In particular, our drug rescue programs may initially show promise in identifying potential Drug Rescue Variants, yet fail to yield lead Drug Rescue Variants suitable for preclinical or clinical development or commercialization for many reasons, including the following:

- our research methodology may not be successful in identifying potential Drug Rescue Candidates;
- competitors may develop alternatives that render our Drug Rescue Variants obsolete;
- a Drug Rescue Variant may, on further study, be shown to have harmful side effects or other characteristics that indicate it is unlikely to be effective or otherwise does not meet applicable regulatory criteria;
- a Drug Rescue Variant may not be capable of being produced in commercial quantities at an acceptable cost, or at all; or
- a Drug Rescue Variant may not be accepted as safe and effective by regulatory authorities, patients, the medical community or third-party payors

Our future success depends heavily on our ability to use stem cell technology, human cells derived from stem cells, proprietary human cell-based bioassay systems, especially CardioSafe 3D, and medicinal chemistry to produce Drug Rescue Variants and, develop, obtain regulatory approval for, and commercialize lead Drug Rescue Variants, on our own or in strategic collaborations, which may never occur. We have limited operating history with respect to the identification and assessment of potential Drug Rescue Candidates and no operating history with respect to the production of Drug Rescue Variants, and we may never be able to produce a Drug Rescue Variant. If we are unable to identify suitable Drug Rescue Candidates for our drug rescue programs or produce suitable lead Drug Rescue Variants for license to and preclinical and clinical development by pharmaceutical companies and others, we may not be able to obtain sufficient revenues in future periods, which likely would result in significant harm to our financial position and adversely impact our stock price. Even if we do produce a Drug Rescue Variant, we can give no assurance that we will be able to develop and commercialize it as a marketable drug, on our own or in a strategic collaboration. There are a number of factors, in addition to the utility of CardioSafe 3D, that may impact our ability to identify and assess Drug Rescue Candidates and produce, develop and commercialize Drug Rescue Variants, independently or with strategic partners, including:

our ability to identify potential Drug Rescue Candidates in the public domain, obtain sufficient quantities of them, and assess them using our assay systems;

if we seek to rescue Drug Rescue Candidates that are not available to us in the public domain, the extent to which third parties may be willing to license or sell Drug Rescue Candidates to us on commercially reasonable terms;

our medicinal chemistry collaborator's ability to design and produce proprietary Drug Rescue Variants based on the novel biology and structure-function insight

we provide using CardioSafe 3D or LiverSafe 3D; and

financial resources available to us to develop and commercialize lead Drug Rescue Variants internally, or, if we license them to strategic partners, the resources such partners choose to dedicate to development and commercialization of any Drug Rescue Variants licensed from us.

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Our CardioSafe 3D internal validation studies have not been subjected to extensive external peer review or validation.

Our proprietary internal studies conducted to validate the utility of CardioSafe 3D for drug rescue, including our ability to use it to predict the cardiac effects, both toxic and nontoxic, of Drug Rescue Candidates, have not been subjected to extensive external peer review or validation. It is possible, therefore, that the results we have obtained from our successful internal validation studies may not be replicable by external peer reviewers. We are currently focused on identifying and assessing Drug Rescue Candidates available in the public domain. However, should we seek to license or acquire Drug Rescue Candidates from third-parties, and such third-parties cannot replicate our results or do not have confidence in the capabilities of CardioSafe 3D, it may be difficult for us to acquire from them certain Drug Rescue Candidates which might be of interest to us. Even if such results can be replicated by external peer reviewers or other third-parties, they may nevertheless conclude that their current screening models are better than our CardioSafe 3D and that a license to the Drug Rescue Candidate we seek from them is not warranted. Our drug rescue business model is predicated on our ability to identify and, if information is not otherwise available in the public domain, obtain licenses from third-parties to Drug Rescue Candidates of interest to us. If third-party licenses are required, and if we cannot obtain such licenses to on reasonable terms, or at all, our business may be adversely affected.

If CardioSafe 3D fails to predict accurately and efficiently the cardiac effects, both toxic and nontoxic, of Drug Rescue Candidates and Drug Rescue Variants, then our drug rescue business will be adversely affected.

Our success is highly dependent on our ability to use CardioSafe 3D to identify and predict, accurately and efficiently, the potential toxic and nontoxic cardiac effects of Drug Rescue Candidates and Drug Rescue Variants. If CardioSafe 3D is not capable of providing physiologically relevant and clinically predictive information regarding human cardiac biology, our drug rescue business will be adversely affected.

We have not yet fully validated LiverSafe 3D for potential drug rescue applications, and we may never do so.

We have successfully developed proprietary protocols for controlling the differentiation of human pluripotent stem cells to produce functional, mature, adult liver cells. However, we have not yet fully validated our ability to use the human liver cells we produce for LiverSafe 3D to predict important biological effects, both toxic and nontoxic, of reference drugs, Drug Rescue Candidates or Drug Rescue Variants on the human liver, including direct liver toxicity and drug metabolism. Furthermore, we may never be able to do so, which could adversely affect our business and the potential applications of our Human Clinical Trials in a Test Tube platform for drug rescue and regenerative medicine.

CardioSafe 3D, and, when validated, LiverSafe 3D may not be meaningfully more predictive of the behavior of human cells than existing products.

The success of our drug rescue business is highly dependent, in the first instance, upon CardioSafe 3D, and, in the second instance, when fully validated, LiverSafe 3D, being more accurate, efficient and clinically predictive than long-established surrogate safety models, including animal cells and live animals, and immortalized, primary and transformed cells, currently used by pharmaceutical companies and others. We cannot give assurance that CardioSafe 3D, and, when fully-validated, LiverSafe 3D, will be more efficient or accurate at predicting the heart or liver safety of new drug candidates than the testing models currently used. If CardioSafe 3D and LiverSafe 3D fail to provide a meaningful difference compared to existing or new models in predicting the behavior of human heart and liver cells, respectively, their utility for drug rescue will be limited and our drug rescue business will be adversely affected.

We may invest in producing Drug Rescue Variants for which there proves to be no demand.

To generate revenue from our drug rescue activities, we must produce Drug Rescue Variants for which there proves to be demand within the healthcare marketplace, and, if we intend to license a particular Drug Rescue Variant for development and commercialization prior to market approval, then also among pharmaceutical companies and other potential strategic collaborators. However, we may produce Drug Rescue Variants for which there proves to be no or limited demand in the healthcare market and/or among pharmaceutical companies and others. If we misinterpret market conditions, underestimate development costs and/or seek to rescue the wrong Drug Rescue Candidates, we may fail to generate sufficient revenue or other value, on our own or in collaboration with others, to justify our investments, and our drug rescue business may be adversely affected.

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We may experience difficulty in producing human cells and our future stem cell technology research and development efforts may not be successful within the timeline anticipated, if at all.

Our human pluripotent stem cell technology is new and technically complex, and the time and resources necessary to develop new cell types and bioassay systems are difficult to predict in advance. We intend to devote significant personnel and financial resources to research and development activities designed to expand, in the case of drug rescue, and explore, in the case of regenerative medicine, potential applications of our Human Clinical Trials in a Test Tube platform. In particular, we are planning to conduct development programs related to producing and using functional, mature adult liver cells to validate LiverSafe 3D as a novel bioassay system for drug rescue, as well as exploratory nonclinical regenerative medicine programs involving blood, bone, cartilage, heart, liver and insulin-producing pancreatic beta-islet cells. Although we and our collaborators have developed proprietary protocols for the production of multiple differentiated cell types, we may encounter difficulties in differentiating particular cell types, even when following these proprietary protocols. These difficulties may result in delays in production of certain cells, assessment of certain Drug Rescue Candidates and Drug Rescue Variants, and performance of certain exploratory nonclinical regenerative medicine studies. In the past, our stem cell research and development projects have been significantly delayed when we encountered unanticipated difficulties in differentiating human pluripotent stem cells into heart, liver and pancreatic cells. Although we have overcome such difficulties in the past, we may have similar delays in the future, and we may not be able to overcome them or obtain any benefits from our future stem cell technology research and development activities. Any delay or failure by us, for example, to produce functional, mature blood, bone, cartilage, liver and insulin-producing pancreatic beta-islet cells could have a substantial adverse effect on our potential drug rescue and regenerative medicine business opportunities and results of operations.

If we are unable to keep up with rapid technological changes in our field, we will be unable to operate profitably.

We are engaged in activities in the life sciences field, which is characterized by rapid technological changes, frequent new product introductions, changing needs and preferences, emerging competition, and evolving industry standards. If we fail to anticipate or respond adequately to technological developments, our business, revenue, financial condition and operating results could suffer materially. Although we believe we are the first stem cell technology company focused primarily on drug rescue, we anticipate that we will face increased competition in the future as competitors develop or access new or improved bioassay systems and explore and enter the drug rescue market with new technologies. Competitors may have significantly greater financial, manufacturing, sales and marketing resources and may be able to respond more quickly and effectively than we can to new opportunities. In light of these advantages, even if our technology is effective in producing Drug Rescue Variants, potential development partners might prefer new drug candidates available from others or develop their own new drug candidates in lieu of licensing or purchasing our Drug Rescue Variants. We may not be able to compete effectively against these organizations. Our failure to compete effectively could materially and adversely affect our business, financial condition and results of operations.

We face substantial competition, which may result in others discovering, developing or commercializing product candidates before, or more successfully, than we do.

Our future success depends on our ability to demonstrate and maintain a competitive advantage with respect to the design, development and commercialization of Drug Rescue Variants. Our competitors may succeed in developing product candidates for the same indications we are pursuing before we do, obtaining regulatory approval for competing products or gaining acceptance of their products within the same markets that we are targeting for our Drug Rescue Variants. If, either on our own or in collaboration with a strategic partner, we are not "first to market" with one of our Drug Rescue Variants, our competitive position could be compromised because it may be more difficult for us or our partner to obtain marketing approval for our Drug Rescue Variant and successfully market it as a second competitor.

We expect any Drug Rescue Variants that we commercialize, either independently or in collaboration, will compete with products from other companies in the biotechnology and pharmaceutical industries.

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Many of our competitors have substantially greater research and development and commercial infrastructures and financial, technical and personnel resources than we have. We will not be able to compete successfully unless we:

- design, develop, produce and commercialize, either on our own or with collaborators, Drug Rescue Variants that are superior to other products in development or in the market;
- attract qualified scientific, medical, sales and marketing and commercial personnel or collaborators;
- obtain patent and/or other proprietary protection for our Drug Rescue Variants; and
- obtain, either on our own or in collaboration with strategic partners, required regulatory approvals for our Drug Rescue Variants.

Established competitors may invest heavily to quickly discover and develop novel compounds that could make our Drug Rescue Variants obsolete. In addition, any new product that competes with an approved product must demonstrate compelling advantages in efficacy, convenience, tolerability and safety in order to overcome price competition and to be commercially successful. If we are not able to compete effectively against our current and future competitors, our business will not grow and our financial condition and operations will suffer.

Other companies, academic institutions, government agencies and other public and private research organizations are conducting research, seeking patent protection and establishing collaborative arrangements for research, development and marketing of assays similar to ours and Drug Rescue Variants we may produce. These companies and institutions also compete with us in recruiting and retaining qualified scientific and management personnel, obtaining collaborators and licensees, as well as in acquiring technologies complementary to our programs.

As a result of the foregoing, our competitors may develop more effective or more affordable products, or achieve earlier patent protection or product commercialization than we will. Most significantly, competitive products may render any technologies and Drug Rescue Variants that we develop obsolete, which would negatively impact our business and ability to sustain operations.

With respect to drug rescue, the licensing and acquisition of proprietary small molecule compounds, even compounds that have failed in development due to heart or liver safety concerns, is a highly competitive area, and a number of more established companies may also pursue strategies to license, acquire, rescue and develop small molecule compounds that we may consider to be Drug Rescue Candidates. These established companies have a competitive advantage over us due to their size, cash resources and greater clinical development and commercialization capabilities. In addition, companies that perceive us to be a competitor may be unwilling to sell or license Drug Rescue Candidate rights to us. We have limited experience in negotiating licenses to drug candidates and there can be no assurances that we will be able to acquire or obtain licenses to Drug Rescue Candidates in the future, on commercially reasonable terms, if at all, should we elect to pursue such third-party licenses. If we are unable to acquire or obtain licenses to Drug Rescue Candidates we seek, our business may be adversely affected.

Restrictions on research and development involving human embryonic stem cells and political commentary regarding such research and development could impair our ability to conduct or sponsor certain potential collaborative research and development programs and adversely affect the market price of our common stock.

Some of our most important ongoing and planned research and development programs involve the use of human embryonic stem cells (hESCs). Some believe the use of hESCs gives rise to ethical and social issues regarding the appropriate use of these cells. Our research related to differentiation of hESCs may become the subject of adverse commentary or publicity, which could significantly harm the market price of our common stock. Although now

substantially less than in years past, certain political and religious groups in the United States and elsewhere voice opposition to hESC technology and practices. We use hESCs derived from excess fertilized eggs that have been created for clinical use in in vitro fertilization (IVF) procedures and have been donated for research purposes with the informed consent of the donors after a successful IVF procedure because they are no longer desired or suitable for IVF. Certain academic research institutions have adopted policies regarding the ethical use of human embryonic tissue. These policies may have the effect of limiting the scope of future collaborative research opportunities with such institutions, thereby potentially impairing our ability to conduct certain research and development in this field that we believe is necessary to expand the drug rescue capabilities of our technology.

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The use of embryonic or fetal tissue in research (including the derivation of hESCs) in other countries is regulated by the government, and varies widely from country to country. Government-imposed restrictions with respect to use of hESCs in research and development could have a material adverse effect on us by harming our ability to establish critical collaborations, delaying or preventing progress in our research and development, and causing a decrease in the market interest in our stock. These potential ethical concerns do not apply to induced pluripotent stem cells (iPSCs), or our plans to pursue pilot nonclinical regenerative medicine studies involving human cells derived from iPSCs, because their derivation does not involve the use of embryonic tissues.

We have assumed that the biological capabilities of induced pluripotent stem cells (iPSCs) and hESCs are likely to be comparable. If it is discovered that this assumption is incorrect, our exploratory research and development activities focused on potential regenerative medicine applications of our Human Clinical Trials in a Test Tube platform could be harmed.

We use both hESCs and iPSCs for drug rescue purposes. However, we anticipate that our future exploratory research and development focused on potential regenerative medicine applications of our Human Clinical Trials in a Test Tube platform primarily will involve iPSCs. With respect to iPSCs, we believe scientists are still somewhat uncertain about the clinical utility, life span, and safety of such cells, and whether such cells differ in any clinically significant ways from hESCs. If we discover that iPSCs will not be useful for whatever reason for potential regenerative medicine applications of our Human Clinical Trials in a Test Tube platform, this would negatively affect our ability to explore expansion of our platform, including, in particular, where it would be preferable to use iPSCs to reproduce rather than approximate the effects of certain specific genetic variations.

If we fail to attract and retain senior management and key scientific personnel, we may be unable to successfully produce, develop trials and commercialize our Drug Rescue Variants.

Our success depends in part on our continued ability to attract, retain and motivate highly qualified management and scientific and technical personnel. We are highly dependent upon our senior management, as well as other employees, consultants and scientific collaborators. As of April 30, 2014, we had 10 full-time employees, which may make us more reliant on our individual employees than companies with a greater number of employees. Although none of our key scientific personnel or members of our senior management has informed us that he or she intends to resign or retire in the near future, the loss of services of any of these individuals could delay or prevent the successful development of potential expansions and applications of our Human Clinical Trials in a Test Tube platform and our production of Drug Rescue Variants or disrupt our administrative functions.

Although we have not historically experienced unique difficulties attracting and retaining qualified employees, we could experience such problems in the future. For example, competition for qualified personnel in the biotechnology and pharmaceuticals field is intense. We will need to hire additional personnel as we expand our research and development activities. We may not be able to attract and retain quality personnel on acceptable terms.

In addition, we rely on consultants and advisors, including scientific and clinical advisors, to assist us in formulating our research and development strategy, including our drug rescue strategy. Our consultants and advisors may be employed by employers other than us and may have commitments under consulting or advisory contracts with other entities that may limit their availability to us.

If our employees commit fraud or other misconduct, including noncompliance with regulatory standards and requirements and insider trading, our business may experience serious adverse consequences.

We are exposed to the risk of employee fraud or other misconduct, including scientific misconduct. We have adopted a Code of Business Conduct and Ethics, but it is not always possible to identify and deter employee misconduct, and

the precautions we take to detect and prevent this activity may not be effective in controlling unknown or unmanaged risks or losses or in protecting us from governmental investigations or other actions or lawsuits stemming from a failure to be in compliance with such laws or regulations. If any such actions are instituted against us, and we are not successful in defending ourselves or asserting our rights, those actions could have a significant impact on our business, including the imposition of significant fines or other sanctions. In addition, during the course of our operations, our directors, executives and employees may have access to material, nonpublic information regarding our business, our results of operations or potential transactions we are considering.

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Despite the adoption of an Insider Trading Policy, we may not be able to prevent a director, executive or employee from trading in our common stock on the basis of, or while having access to, material, nonpublic information. If a director, executive or employee was to be investigated, or an action was to be brought against a director, executive or employee for insider trading, it could have a negative impact on our reputation and our stock price. Such a claim, with or without merit, could also result in substantial expenditures of time and money, and divert attention of our management team from other tasks important to the success of our business.

We may encounter difficulties in managing our growth and expanding our operations successfully.

As we seek to advance our proposed CardioSafe 3D drug rescue programs, produce and develop Drug Rescue Variants, and develop and validate LiverSafe 3D, we will need to expand our research and development capabilities or contract with third parties to provide these capabilities for us. As our operations expand, we expect that we will need to manage additional relationships with various strategic partners and other third parties. Future growth will impose significant added responsibilities on members of management. Our future financial performance and our ability to develop and commercialize our product candidates and to compete effectively will depend, in part, on our ability to manage any future growth effectively. To that end, we must be able to manage our research and development efforts effectively and hire, train and integrate additional management, administrative and technical personnel. The hiring, training and integration of new employees may be more difficult, costly and/or time-consuming for us because we have fewer resources than a larger organization. We may not be able to accomplish these tasks, and our failure to accomplish any of them could prevent us from successfully growing the Company.

If product liability lawsuits are brought against us, we may incur substantial liabilities and may be required to limit commercialization of our product candidates.

If we produce and develop Drug Rescue Variants or regenerative medicine products, either on our own or in collaboration with others, we will face an inherent risk of product liability as a result of the required clinical testing of such product candidates, and will face an even greater risk if we or our collaborators commercialize any such products. For example, we may be sued if any Drug Rescue Variant or regenerative medicine product we develop allegedly causes injury or is found to be otherwise unsuitable during product testing, manufacturing, marketing or sale. Any such product liability claims may include allegations of defects in manufacturing, defects in design, a failure to warn of dangers inherent in the product, negligence, strict liability, and a breach of warranties. Claims could also be asserted under state consumer protection acts. If we cannot successfully defend ourselves against product liability claims, we may incur substantial liabilities or be required to limit commercialization of our product candidates. Even successful defense would require significant financial and management resources. Regardless of the merits or eventual outcome, liability claims may result in:

- decreased demand for our Drug Rescue Variants or other products that we may develop;
- injury to our reputation;
- withdrawal of clinical trial participants;
- costs to defend the related litigation;
- a diversion of management's time and our resources;
- substantial monetary awards to trial participants or patients;
- product recalls, withdrawals or labeling, marketing or promotional restrictions;

- loss of revenue;
- the inability to commercialize our product candidates; and
- a decline in our stock price.

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Our inability to obtain and retain sufficient product liability insurance at an acceptable cost to protect against potential product liability claims could prevent or inhibit the commercialization of products we develop. Although we maintain liability insurance, any claim that may be brought against us could result in a court judgment or settlement in an amount that is not covered, in whole or in part, by our insurance or that is in excess of the limits of our insurance coverage. Our insurance policies also have various exclusions, and we may be subject to a product liability claim for which we have no coverage. We will have to pay any amounts awarded by a court or negotiated in a settlement that exceed our coverage limitations or that are not covered by our insurance, and we may not have, or be able to obtain, sufficient capital to pay such amounts.

To the extent we enter into licensing or collaboration agreements to develop and commercialize our product candidates, including Drug Rescue Variants, our dependence on such relationships may adversely affect our business.

We may enter into strategic partnerships in the future, including collaborations with other biotechnology or pharmaceutical companies, to enhance and accelerate the development and commercialization of our product candidates. Our strategy to produce, develop and commercialize our product candidates, including any Drug Rescue Variants, may depend on our ability to enter into such agreements with third-party collaborators. We face significant competition in seeking appropriate strategic partners. Supporting diligence activities conducted by potential collaborators and negotiating the financial and other terms of a collaboration agreement are long and complex processes with uncertain results. Moreover, we may not be successful in our efforts to establish a strategic partnership or other alternative arrangements for any future product candidates and programs because our research and development pipeline may be insufficient, our product candidates and programs may be deemed to be at too early of a stage of development for collaborative effort and/or third parties may not view our product candidates and programs as having the requisite potential to demonstrate safety and efficacy. Even if we are successful in entering into one or more strategic collaboration agreements with third-parties, such collaborations may involve greater uncertainty for us, as we may have less control over certain aspects of our collaborative programs than we do over our proprietary internal development and commercialization programs. We may determine that continuing a collaborative arrangement under the terms provided is not in our best interest, and we may terminate the collaboration. Our collaborators could also delay or terminate their agreements, and our products subject to collaborative arrangements may never be successfully commercialized.

Further, our future collaborators may develop alternative products or pursue alternative technologies either on their own or in collaboration with others, including our competitors, and the priorities or focus of our collaborators may shift such that our programs receive less attention or resources than we would like, or they may be terminated altogether. Any such actions by our collaborators may adversely affect our business prospects and ability to earn revenues. In addition, we could have disputes with our future collaborators, such as the interpretation of terms in our agreements. Any such disagreements could lead to delays in the development or commercialization of potential products or could result in time-consuming and expensive litigation or arbitration, which may not be resolved in our favor.

Even with respect to certain other products that we intend to commercialize ourselves, we may enter into agreements with collaborators to share in the burden of conducting preclinical studies, clinical trials, manufacturing and marketing our product candidates or products. In addition, our ability to apply our proprietary technologies to develop proprietary compounds will depend on our ability to establish and maintain licensing arrangements or other collaborative arrangements with the holders of proprietary rights to such compounds. We may not be able to establish such arrangements on favorable terms or at all, and our future collaborative arrangements may not be successful.

We cannot provide any assurance that our future collaborations will not terminate development before achievement of revenue-generating milestones or market approval, that our future collaborative arrangements will result in successful development and commercialization of Drug Rescue Variants, or that we will derive any revenues from such future

arrangements. The failure of any collaborator to conduct, successfully and diligently, their collaborative activities relating to the product candidate we license or sell to them would have a material adverse effect on us. Additionally, to the extent that we are unable to license or sell our Drug Rescue Variants to pharmaceutical companies or others, we would require substantial additional capital to undertake development and commercialization activities for any such product candidate on our own, and that substantial additional capital may not be available to us on a timely basis, on reasonable terms, or at all.

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Our and our collaborators' relationships with customers and third-party payors in the United States and elsewhere will be subject to applicable anti-kickback, fraud and abuse and other healthcare laws and regulations, which could expose us to criminal sanctions, civil penalties, contractual damages, reputational harm and diminished profits and future earnings.

Healthcare providers, physicians and third-party payors in the United States and elsewhere will play a primary role in the recommendation and prescription of any product candidates for which we may obtain marketing approval. Our or our future collaborator's arrangements with third-party payors and customers may expose us to broadly applicable fraud and abuse and other healthcare laws and regulations that may constrain the business or financial arrangements and relationships through which we market, sell and distribute our products for which we or they obtain marketing approval. Restrictions under applicable federal, state and foreign healthcare laws and regulations include the following:

- the federal healthcare anti-kickback statute prohibits, among other things, persons from knowingly and willfully soliciting, offering, receiving or providing remuneration, directly or indirectly, in cash or in kind, to induce or reward either the referral of an individual for, or the purchase, order or recommendation of, any good or service for which payment may be made under federal and state healthcare programs such as Medicare and Medicaid;

- the federal False Claims Act imposes criminal and civil penalties, against individuals or entities for knowingly presenting, or causing to be presented, to the federal government, claims for payment that are false or fraudulent or making a false statement to avoid, decrease or conceal an obligation to pay money to the federal government and also includes provisions allowing for private, civil whistleblower or "qui tam" actions;

- the federal Health Insurance Portability and Accountability Act of 1996 (HIPAA), as amended by the Health Information Technology for Economic and Clinical Health Act (HITECH), imposes criminal and civil liability for executing a scheme to defraud any healthcare benefit program. HIPAA and HITECH also regulate the use and disclosure of identifiable health information by health care providers, health plans and health care clearinghouses, and impose obligations, including mandatory contractual terms, with respect to safeguarding the privacy, security and transmission of identifiable health information as well as requiring notification of regulatory breaches. HIPAA and HITECH violations may prompt civil and criminal enforcement actions as well as enforcement by state attorneys general;

- the federal false statements statute prohibits knowingly and willfully falsifying, concealing or covering up a material fact or making any materially false statement in connection with the delivery of or payment for healthcare benefits, items or services;

- the federal transparency requirements under the Health Care Reform Law requires manufacturers of drugs, devices, biologics and medical supplies to report to the Department of Health and Human Services information related to physician payments and other transfers of value and physician ownership and investment interests;

- analogous state laws and regulations, such as state anti-kickback and false claims laws, may apply to sales or marketing arrangements and claims involving healthcare items or services reimbursed by non-governmental third-party payors, including private insurers, and some state laws require pharmaceutical companies to comply with the pharmaceutical industry's voluntary compliance guidelines and the relevant compliance guidance promulgated by the federal government in addition to requiring drug manufacturers to report information related to payments to physicians and other health care providers or marketing expenditures; and

- analogous anti-kickback, fraud and abuse and healthcare laws and regulations in foreign countries.

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Efforts to ensure that our and our future collaborators' business arrangements with third parties will comply with applicable healthcare laws and regulations will involve substantial costs. It is possible that governmental authorities will conclude that our or their business practices may not comply with current or future statutes, regulations or case law involving applicable fraud and abuse or other healthcare laws and regulations. If our or their operations are found to be in violation of any of these laws or any other governmental regulations that may apply to us, we may be subject to significant civil, criminal and administrative penalties, damages, fines, exclusion from government funded healthcare programs, such as Medicare and Medicaid, and the curtailment or restructuring of our operations. If any of the physicians or other providers or entities with whom we or our collaborators expect to do business are found to be not in compliance with applicable laws, they may be subject to criminal, civil or administrative sanctions, including exclusions from government funded healthcare programs.

If we fail to comply with environmental, health and safety laws and regulations, we could become subject to fines or penalties or incur costs that could have a material adverse effect on the success of our business.

We are subject to numerous environmental, health and safety laws and regulations, including those governing laboratory procedures and the handling, use, storage, treatment and disposal of hazardous materials and wastes. Our operations involve the use of hazardous and flammable materials, including chemicals and biological materials. Our operations also produce hazardous waste products. We generally contract with third parties for the disposal of these materials and wastes. We cannot eliminate the risk of contamination or injury from these materials. In the event of contamination or injury resulting from our use of hazardous materials, we could be held liable for any resulting damages, and any liability could exceed our resources. We also could incur significant costs associated with civil or criminal fines and penalties.

Although we maintain workers' compensation insurance to cover us for costs and expenses we may incur due to injuries to our employees resulting from the use of hazardous materials, this insurance may not provide adequate coverage against potential liabilities. We do not maintain insurance for environmental liability or toxic tort claims that may be asserted against us in connection with our storage or disposal of biological, hazardous or radioactive materials.

In addition, we may incur substantial costs in order to comply with current or future environmental, health and safety laws and regulations. These current or future laws and regulations may impair our research, development or production efforts. Failure to comply with these laws and regulations also may result in substantial fines, penalties or other sanctions.

To the extent our research and development activities involve using induced pluripotent stem cells, we will be subject to complex and evolving laws and regulations regarding privacy and informed consent. Many of these laws and regulations are subject to change and uncertain interpretation, and could result in claims, changes to our research and development programs and objectives, increased cost of operations or otherwise harm the Company.

To the extent that we pursue research and development activities involving iPSCs, we will be subject to a variety of laws and regulations in the United States and abroad that involve matters central to such research and development activities, including obligations to seek informed consent from donors for the use of their blood and other tissue to produce, or have produced for us, iPSCs, as well as state and federal laws that protect the privacy of such donors. United States federal and state and foreign laws and regulations are constantly evolving and can be subject to significant change. If we engage in iPSC-related research and development activities in countries other than the United States, we may become subject to foreign laws and regulations relating to human subjects research and other laws and regulations that are often more restrictive than those in the United States. In addition, both the application and interpretation of these laws and regulations are often uncertain, particularly in the rapidly evolving stem cell technology sector in which we operate. These laws and regulations can be costly to comply with and can delay or impede our research and development activities, result in negative publicity, increase our operating costs, require

significant management time and attention and subject us to claims or other remedies, including fines or demands that we modify or cease existing business practices.

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Legal, social and ethical concerns surrounding the use of iPSCs, biological materials and genetic information could impair our operations.

To the extent that our future research and development activities involve the use of iPSCs and the manipulation of human tissue and genetic information, the information we derive from such iPSC-related research and development activities could be used in a variety of applications, which may have underlying legal, social and ethical concerns, including the genetic engineering or modification of human cells, testing for genetic predisposition for certain medical conditions and stem cell banking. Governmental authorities could, for safety, social or other purposes, call for limits on or impose regulations on the use of iPSCs and genetic testing or the manufacture or use of certain biological materials involved in our iPSC-related research and development programs. Such concerns or governmental restrictions could limit our future research and development activities, which could have a material adverse effect on our business, financial condition and results of operations.

Our human cell-based bioassay systems and human cells we derive from human pluripotent stem cells, although not currently subject to regulation by the FDA or other regulatory agencies as biological products or drugs, could become subject to regulation in the future.

Our human cells and human cell-based bioassay systems, including CardioSafe 3D and LiverSafe 3D, are not currently sold, for research or any other purpose, to biotechnology or pharmaceutical companies, government research institutions, academic and nonprofit research institutions, medical research organizations or stem cell banks, and they are not therapeutic procedures. As a result, they are not subject to regulation as biological products or drugs by the FDA or comparable agencies in other countries. However, if, in the future, we seek to include cells we derive from human pluripotent stem cells in therapeutic applications or product candidates, such applications and/or product candidates would be subject to the FDA's pre- and post-market regulations. For example, if we seek to develop and market human cells we produce for use in performing cell therapy or for other regenerative medicine applications, such as tissue engineering or organ replacement, we would first need to obtain FDA pre-market clearance or approval. Obtaining such clearance or approval from the FDA is expensive, time-consuming and uncertain, generally requiring many years to obtain, and requiring detailed and comprehensive scientific and clinical data. Notwithstanding the time and expense, these efforts may not result in FDA approval or clearance. Even if we were to obtain regulatory approval or clearance, it may not be for the uses that we believe are important or commercially attractive.

We intend to rely on third-party contract manufacturers to produce our product candidate supplies and we intend to rely on such third-party manufacturers to produce commercial supplies of any approved product candidates we develop on our own. Any failure by a third-party manufacturer to produce for us supplies of product candidates we elect to develop on our own may delay or impair our ability to initiate or complete clinical trials, commercialize our product candidates, or continue to sell any products we commercialize.

We do not currently own or operate any manufacturing facilities, and we lack sufficient internal staff to produce product candidate supplies ourselves. As a result, we plan to work with third-party contract manufacturers to produce sufficient quantities of our product candidates for future preclinical and clinical testing and commercialization. If we are unable to arrange for such a third-party manufacturing source, or fail to do so on commercially reasonable terms or on a timely basis, we or our potential strategic partner may not be able to successfully produce, develop, and market our product candidates or may be delayed in doing so.

Reliance on third-party manufacturers entails risks to which we or our potential collaborators would not be subject if we or they manufactured product candidates ourselves or themselves, including reliance on the third party for regulatory compliance and quality assurance, the possibility of breach of the manufacturing agreement by the third party because of factors beyond our control (including a failure to synthesize and manufacture our product candidates in accordance with our product specifications), the possibility of termination or nonrenewal of the agreement by the

third party, based on its own business priorities, at a time that is costly or damaging to us, or misappropriation of proprietary formulas or protocols. We will be, and our potential strategic partners may be, dependent, on the ability of these third-party manufacturers to produce adequate supplies of drug product to support development programs and future commercialization of our product candidates. In addition, the FDA and other regulatory authorities require that all product candidates be manufactured according to cGMP and similar foreign standards. Any failure by our or our collaborators' third-party manufacturers to comply with cGMP or failure to scale up manufacturing processes, including any failure to deliver sufficient quantities of product candidates in a timely manner, could lead to a delay in, or failure to obtain, regulatory approval for trial initiation or marketing of any product candidates we may produce, including Drug Rescue Variants. In addition, such failure could be the basis for action by the FDA to withdraw approvals for product candidates previously granted and for other regulatory action, including recall or seizure, fines, imposition of operating restrictions, total or partial suspension of production or injunctions.

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We have limited staffing. We will, and our potential strategic partners may, rely on contract manufacturers to purchase from third-party suppliers the materials necessary to produce our product candidates for required studies. There may be a small number of suppliers for certain capital equipment and materials that we or our collaborators use to manufacture our product candidates. Such suppliers may not sell these materials to our manufacturers at the times we or they need them or on commercially reasonable terms. We will not have any control over the process or timing of the acquisition of these materials by our manufacturers. Although we and our collaborators generally will not begin a required study unless we or they believe a sufficient supply of a product candidate exists to complete the study, any significant delay in the supply of a product candidate or the material components thereof for an ongoing study due to the need to replace a third-party manufacturer could considerably delay completion of the studies, product testing and potential regulatory approval. If we or our manufacturers are unable to purchase these materials after regulatory approval has been obtained for our product candidates, the commercial launch of our product candidates could be delayed or there could be a shortage in supply, which would impair our ability to generate revenues from the sale of our product candidates.

In addition, we or our potential strategic partner may need to optimize the manufacturing processes for a particular drug substance and/or drug product so that certain product candidates may be produced in sufficient quantities of adequate quality, and at an acceptable cost, to support required development activities and commercialization. Contract manufacturers may not be able to adequately demonstrate that an optimized product candidate is comparable to a previously manufactured product candidate which could cause significant delays and increased costs to our or our collaborators' development programs. Our manufacturers may not be able to manufacture our product candidates at a cost or in quantities or in a timely manner necessary to develop and commercialize them. If we successfully commercialize any of our drugs, we may be required to establish or access large-scale commercial manufacturing capabilities. In addition, assuming that our drug development pipeline increases and matures, we will have a greater need for clinical trial and commercial manufacturing capacity. To meet our projected needs for commercial manufacturing, third party manufactures with whom we work will need to increase their scale of production or we will need to secure alternate suppliers.

If, in the future, we are unable to enter into licensing or collaboration agreements for the sales, marketing and distribution of our Drug Rescue Variants and other product candidates, such as AV-101, we may not be successful in commercializing our Drug Rescue Variants and other product candidates.

We currently have a relatively small number of employees and do not have a sales or marketing infrastructure, and we, including our executive officers, do not have any significant sales, marketing or distribution experience. We will be opportunistic in seeking to collaborate with others to develop and commercialize Drug Rescue Variants and future products if and when they are developed and approved. If we enter into arrangements with third parties to perform sales, marketing and distribution services for our products, the resulting revenues or the profitability from these revenues to us are likely to be lower than if we had sold, marketed and distributed our products ourselves. In addition, we may not be successful in entering into arrangements with third parties to sell, market and distribute our Drug Rescue Variants or other product candidates or may be unable to do so on terms that are favorable to us. We likely will have little control over such third parties, and any of these third parties may fail to devote the necessary resources and attention to sell, market and distribute our products effectively. If we do not establish sales, marketing and distribution capabilities successfully, in collaboration with third parties, we will not be successful in commercializing our product candidates.

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Our business is subject to the risks of earthquakes, fire, floods and other natural catastrophic events, and to interruption by man-made problems such as computer viruses or terrorism.

Our corporate headquarters are located in the San Francisco Bay Area, a region known for seismic activity. A significant natural disaster, such as an earthquake, fire or a flood, could harm our business. In addition, our servers are vulnerable to computer viruses, break-ins and similar disruptions from unauthorized tampering with our computer systems. In addition, acts of terrorism or war could cause disruptions in our business or the economy as a whole.

We incur significant costs to ensure compliance with corporate governance, federal securities law and accounting requirements.

Since becoming a public company by means of a strategic reverse merger in 2011, we have been subject to the reporting requirements of the Securities Exchange Act of 1934, as amended ("Exchange Act"), which requires that we file annual, quarterly and current reports with respect to our business and financial condition, and the rules and regulations implemented by the Securities and Exchange Commission ("SEC"), the Sarbanes-Oxley Act of 2002, the Dodd-Frank Act, and the Public Company Accounting Oversight Board, each of which imposes additional reporting and other obligations on public companies. We have incurred and will continue to incur significant costs to comply with these public company reporting requirements, including accounting and related audit costs, legal costs to comply with corporate governance requirements and other costs of operating as a public company. These legal and financial compliance costs will continue to require us to divert a significant amount of money that we could otherwise use to achieve our research and development and other strategic objectives.

The filing and internal control reporting requirements imposed by federal securities laws, rules and regulations are rigorous and we may not be able to continue to meet them, resulting in a possible decline in the price of our common stock and our inability to obtain future financing. Certain of these requirements may require us to carry out activities we have not done previously and complying with such requirements may divert management's attention from other business concerns, which could have a material adverse effect on our business, results of operations, financial condition and cash flows. Any failure to adequately comply with federal securities laws, rules or regulations could subject us to fines or regulatory actions, which may materially adversely affect our business, results of operations and financial condition.

In addition, changing laws, regulations and standards relating to corporate governance and public disclosure are creating uncertainty for public companies, increasing legal and financial compliance costs and making some activities more time consuming. These laws, regulations and standards are subject to varying interpretations, in many cases due to their lack of specificity, and, as a result, their application in practice may evolve over time as new guidance is provided by regulatory and governing bodies. This could result in continuing uncertainty regarding compliance matters and higher costs necessitated by ongoing revisions to disclosure and governance practices. We will continue to invest resources to comply with evolving laws, regulations and standards, however this investment may result in increased general and administrative expenses and a diversion of management's time and attention from revenue-generating activities to compliance activities. If our efforts to comply with new laws, regulations and standards differ from the activities intended by regulatory or governing bodies due to ambiguities related to their application and practice, regulatory authorities may initiate legal proceedings against us and our business may be adversely affected.

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Our compliance with the Sarbanes-Oxley Act of 2002 and SEC rules concerning internal controls is costly, difficult and time-consuming.

Prior to May 2011, we did not operate as a publicly-traded company. Given our limited size and personnel resources, it is costly, difficult and time consuming for us to maintain the internal controls and reporting procedures of publicly traded companies required by the Sarbanes-Oxley Act of 2002. If we are unable to comply with the Sarbanes-Oxley Act's internal controls and disclosure requirements, we may not be able to obtain the independent registered public accounting firm attestations that the Sarbanes-Oxley Act of 2002 requires certain publicly-traded companies to obtain. If it is determined that we have a material weakness in our internal control over financial reporting, or if our independent registered accounting firm is unable to provide an unqualified attestation report on our internal controls when such a report is required, we could incur additional costs and suffer adverse publicity and other consequences of any such determination, investors could lose confidence in our financial information and the price of our common stock could decline.

We are a "smaller reporting company" and we cannot be certain if the reduced disclosure requirements and relief from certain other significant obligations that are applicable to smaller reporting companies will make our common stock less attractive to investors

We are a "smaller reporting company," as defined in the Exchange Act and, as such, we are exempted from various reporting requirements that are applicable to larger public companies, including, but not limited to, being required to comply with the auditor attestation requirements of Section 404 of the Sarbanes-Oxley Act of 2002, more extensive disclosure obligations regarding executive compensation in our periodic reports and proxy statements, the requirements to hold a nonbinding advisory vote on executive compensation and shareholder approval of any golden parachute payments not previously approved. Our classification as a "smaller reporting company" is determined on September 30 of each year, based on whether our public float (the product of the number of outstanding shares of our common stock held by non-affiliate (less than 10% ownership) stockholders multiplied by the closing market price of our common stock) on that day is less than $75 million. We intend to take advantage of these reporting exemptions until we no longer qualify as a "smaller reporting company." Subsequent to the completion of this Offering and, in the event we experience an increase in the market price for our stock, we may no longer be classified as a "smaller reporting company." We cannot predict whether investors find our common stock less attractive because we are currently relying on these exemptions. If some investors find our common stock less attractive, there may be a less active trading market for our common stock and our stock price may be more volatile.

Internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements in accordance with GAAP. Our management is currently required to assess the effectiveness of our controls and we are required to disclose changes made in our internal control over financial reporting on a quarterly basis. As a "smaller reporting company," however, our independent registered public accounting firm is not required to attest to the effectiveness of our internal control over financial reporting pursuant to Section 404 of the Sarbanes-Oxley Act of 2002. If we cannot continue to favorably assess the effectiveness of our internal control over financial reporting, or if our independent registered public accounting firm is unable to provide an unqualified attestation report on our internal controls whenever required in the future, investors could lose confidence in our financial information and the price of our common stock could decline. Additionally, should we cease to be a "smaller reporting company", we will incur additional expense and management effort to facilitate the required attestation of the effectiveness of our internal control over financial reporting by our independent registered public accounting firm.

Risks Related to Production, Development, and Regulatory Approval of Product Candidates

We are currently dependent on CardioSafe 3D and medicinal chemistry to produce lead product candidates, and we cannot provide any assurance that we will produce any product candidates that will be commercialized.

To date, we have invested a significant portion of our efforts and financial resources in the development of CardioSafe 3D and AV-101, which has successfully completed Phase 1 clinical development. Our future success depends heavily on our ability to successfully produce and, either on our own or in collaboration with others, develop, obtain regulatory approval for, and commercialize Drug Rescue Variants and AV-101, which may never occur. We currently generate no revenues, and we may never be able to develop or commercialize a marketable drug.

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Before we generate any revenues from product sales, we must produce additional product candidates through drug rescue and we or our potential strategic collaborator must complete preclinical and clinical development of one or more of our product candidates, conduct human subject research, submit clinical and manufacturing data to the FDA, qualify a third party contract manufacturer, receive regulatory approval in one or more jurisdictions, satisfy the FDA that our contract manufacturer is capable of manufacturing the product in compliance with cGMP, build a commercial organization, make substantial investments and undertake significant marketing efforts ourselves or in partnership with others. We are not permitted to market or promote any of our product candidates before we receive regulatory approval from the FDA or comparable foreign regulatory authorities, and we may never receive such regulatory approval for any of our product candidates.

We have not previously submitted a biologics license application, or BLA, or a new drug application or NDA, to the FDA, or similar drug approval filings to comparable foreign authorities, for any product candidate. We cannot be certain that any of our product candidates will be successful in clinical trials or receive regulatory approval. Further, our product candidates may not receive regulatory approval even if they are successful in clinical trials. If we do not receive regulatory approvals for our product candidates, we may not be able to continue our operations. Even if we successfully obtain regulatory approvals to market one or more of our product candidates, our revenues will be dependent, in part, upon the size of the markets in the territories for which we gain regulatory approval and have commercial rights. If the markets for patient subsets that we are targeting are not as significant as we estimate, we may not generate significant revenues from sales of such products, if approved.

We or our potential collaborator may also seek regulatory approval to commercialize our product candidates in the United States, the European Union and potentially in additional foreign countries. While the scope of regulatory approval is similar in other countries, to obtain separate regulatory approval in many other countries we must comply with numerous and varying regulatory requirements of such countries regarding safety and efficacy, clinical trials and commercial sales, pricing and distribution of our product candidates, and we cannot predict success in these jurisdictions.

Developing and obtaining FDA approval to develop, market and sell new Drug Rescue Variants in the U.S. is complex, expensive, time-consuming and uncertain.

Companies seeking FDA approval to sell a new prescription drug in the United States must test it in various ways. Currently, first are laboratory and animal tests. Next are tests in humans to see if the drug candidate is safe and effective when used to treat or diagnose a disease. After testing the drug candidate, the company developing it then sends the FDA an application called a New Drug Application (NDA). Some drug candidates are made out of biologic materials, including human cells, such as the human cells derived from human pluripotent stem cells. Instead of an NDA, new biologic drug candidates are approved using a Biologics License Application (BLA). Whether an NDA or a BLA, the application includes:

the drug candidate’s test results;

manufacturing information to demonstrate the company developing the drug candidate can properly manufacture it; and

the proposed label for the drug candidate, which provides necessary information about the drug candidate, including uses for which it has been shown to be effective, possible risks, and how to use it.

If a review by FDA physicians and scientists shows the drug candidate's benefits outweigh its known risks and the drug candidate can be manufactured in a way that ensures a quality product, the drug candidate is approved and can be marketed in the United States.

New drug and biological product development and approval takes many years, involves the expenditure of substantial resources and is uncertain to succeed. Many new drug and biological candidates appear promising in early stages of development but ultimately do not reach the market because they cannot meet FDA or other regulatory requirements. In addition, there can be no assurance that the current regulatory framework will not change through regulatory, legislative or judicial actions or that additional regulations will not arise during development that may affect approval, delay the submission or review of an application, if required, or require additional expenditures by us or our prospective collaborators.

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The activities required before a new drug or biological candidate may be approved for marketing in the U.S. begin with nonclinical testing, which includes laboratory evaluation and animal studies to assess the potential safety and efficacy of the product as formulated. Results of nonclinical studies are summarized in an Investigational New Drug (IND) application to the FDA. Human clinical trials may begin 30 days following submission of an IND application, unless the FDA requires additional time to review the application or raise questions.

Clinical testing involves the administration of the new drug or biological candidate to healthy human volunteers or to patients under the supervision of a qualified principal investigator, usually a physician, pursuant to an FDA-reviewed protocol. Each clinical study is conducted under the auspices of an institutional review board (IRB) at each of the institutions at which the study will be conducted. A clinical plan, or "protocol," accompanied by the approval of an IRB, must be submitted to the FDA as part of the IND application prior to commencement of each clinical trial. Human clinical trials are conducted typically in three sequential phases. Phase I trials primarily consist of testing the product's safety in a small number of patients or healthy volunteers. In Phase II trials, the safety and efficacy of the biological candidate is evaluated in a specific patient population. Phase III trials typically involve additional testing for safety and clinical efficacy in an expanded patient population at geographically dispersed sites. The FDA may order the temporary or permanent discontinuance of a nonclinical or clinical trial at any time for a variety of reasons, particularly if safety concerns exist.

Our or our collaborator's future clinical trials can be delayed or halted for many reasons, including:

- delays or failure reaching agreement on acceptable terms with prospective contract manufacturing organizations (CMOs), contract research organizations (CROs), and clinical trial sites, the terms of which can be subject to extensive negotiation and may vary significantly among different CROs and trial sites;

- failure of third-party contractors, such as CROs and CMOs, or investigators to comply with regulatory requirements or otherwise meet their contractual obligations in a timely manner;

- delays or failure in obtaining the necessary approvals from regulators or institutional review boards (IRBs) in order to commence a clinical trial at a prospective trial site;

- inability to manufacture, or obtain from third parties, a supply of drug product sufficient to complete preclinical studies and clinical trials;

- the FDA requiring alterations to study designs, preclinical strategy or manufacturing plans;

- delays in patient enrollment, and variability in the number and types of patients available for clinical trials, or high drop-out rates of patients;

- clinical trial sites deviating from trial protocols or dropping out of a trial and/or the inability to add new clinical trial sites;

- difficulty in maintaining contact with patients after treatment, resulting in incomplete data;

- poor effectiveness of our product candidates during clinical trials;

- safety issues, including serious adverse events associated with our product candidates and patients' exposure to unacceptable health risks;

-

receipt by a competitor of marketing approval for a product targeting an indication that one of our product candidates targets, such that we are not "first to market" with our product candidate;

- governmental or regulatory delays and changes in regulatory requirements, policy and guidelines; or
- varying interpretations of data by the FDA and similar foreign regulatory agencies.

We or our collaborator could also encounter delays if a clinical trial is suspended or terminated by us, our collaborator, the IRBs of the institutions in which a trial is being conducted, by the Data Safety Monitoring Board (DSMB) for a trial, or by the FDA or other regulatory authorities. Such authorities may suspend or terminate a clinical trial due to a number of factors, including failure to conduct the clinical trial in accordance with regulatory requirements or clinical protocols, inspection of the clinical trial operations or trial site by the FDA or other regulatory authorities resulting in the imposition of a clinical hold, unforeseen safety issues or adverse side effects, failure to demonstrate a benefit from using a drug, changes in governmental regulations or administrative actions or lack of adequate funding to continue the clinical trial.

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In the event we or our collaborators are able to conduct a pivotal clinical trial of a product candidate, the results of such trial may not be adequate to support marketing approval. For any such pivotal trial, if the FDA disagrees with the choice of primary endpoint or the results for the primary endpoint are not robust or significant relative to control, are subject to confounding factors, or are not adequately supported by other study endpoints, including possibly overall survival or complete response rate, the FDA may refuse to approve a BLA or NDA based on such pivotal trial. The FDA may require additional clinical trials as a condition for approving our product candidates.

If we or our collaborator experience delays in the completion of, or termination of, any clinical trial of our product candidates, the commercial prospects of our product candidates will be harmed, and our ability to commence product sales and generate product revenues from any of our product candidates will be delayed. In addition, any delays in completing our clinical trials will increase our costs and slow our product candidate development and approval process. Delays in completing clinical trials could also allow our competitors to obtain marketing approval before we do or shorten the patent protection period during which we may have the exclusive right to commercialize our product candidates. Any of these occurrences may significantly harm our business, financial condition and prospects. In addition, many of the factors that cause, or lead to, a delay in the commencement or completion of clinical trials may also ultimately lead to the denial of regulatory approval of our product candidates.

As noted, a company seeking FDA approval to market a new drug candidate must file an NDA; a company seeking FDA approval to market a new biological candidate must file a BLA. In addition to reports of the nonclinical and human clinical trials conducted under the IND application, the NDA and BLA include evidence of the product's safety, purity, potency and efficacy, as well as manufacturing, product identification and other information. Submission of an NDA or BLA does not assure FDA approval for marketing. The application review process generally takes at least one to three years to complete, although reviews of drugs or biological products for life-threatening diseases may be accelerated or expedited. However, the process may take substantially longer.

The FDA requires at least one and generally two properly conducted, adequate and well-controlled clinical studies demonstrating efficacy with sufficient levels of statistical assurance. However, additional information may be required. Notwithstanding the submission of such data, the FDA ultimately may decide that the NDA or BLA, as the case may be, does not satisfy the regulatory criteria for approval and deny the application. The FDA may impose post-approval obligations, such as additional clinical tests following NDA or BLA approval to confirm safety and efficacy (Phase IV human clinical trials). The FDA may, in some circumstances, also impose restrictions on the use of the biological product that may be difficult and expensive to administer. Further, the FDA requires reporting of certain safety and other information that becomes known to a manufacturer of an approved biological product. Product approvals may be withdrawn if compliance with regulatory requirements is not maintained or if problems occur after the product reaches the market.

Prior to approving an application, the FDA will inspect the prospective manufacturer to ensure that the manufacturer conforms to the FDA's current good manufacturing practice (cGMP) regulations that applicable to new biological candidates. To comply with the cGMP regulations, manufacturers must expend time, money and effort in product recordkeeping and quality control to assure that the product meets applicable specifications and other requirements. The FDA periodically inspects manufacturing facilities in the U.S. and abroad to assure compliance with applicable cGMP requirements. Our failure to comply with the FDA's cGMP regulations or other FDA regulatory requirements could have a significant adverse effect on us.

After a product is approved for a given indication in an NDA or BLA, subsequent new indications or dosage levels for the same product are reviewed by the FDA via the filing and approval of an NDA or BLA supplement. The NDA or BLA supplement is more focused than the NDA or BLA and deals primarily with safety and effectiveness data related to the new indication or dosage. Applicants are required to comply with certain post-approval obligations, such as compliance with cGMPs. Product approvals may be withdrawn by the FDA if compliance with regulatory

requirements is not maintained or if problems occur after the product reaches the market.

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We have limited experience as a corporation developing new drug candidates, including Drug Rescue Variants, biological candidates or regenerative medicine product candidates, including conducting clinical trials and other areas required for the successful development and commercialization of therapeutic products.

We and any future strategic partner will need to receive regulatory approval for any new drug candidate, including each Drug Rescue Variant, biological candidate or regenerative medicine product before it may be marketed and distributed. Such regulatory approval will require, among numerous other things, completing carefully controlled and well-designed clinical trials demonstrating the safety and efficacy of each new product candidate. This process is lengthy, expensive and uncertain. As a company, we have limited experience developing new drug candidates, including Drug Rescue Variants, biological candidates or regenerative medicine products, including conducting clinical trials and in other areas required for the successful development and commercialization of therapeutic products. Such trials will require additional financial and management resources, third-party collaborators with the requisite clinical experience or reliance on third party clinical investigators, contract research organizations and independent consultants. Relying on third parties may force us to encounter delays that are outside of our control, which could materially harm our business.

We also do not currently have marketing and distribution capabilities for product candidates. Developing an internal sales and distribution capability would be an expensive and time-consuming process. To market and distribute any new drug candidate, including any Drug Rescue Variants, biological candidate or regenerative medicine product, we plan to enter into strategic partnering arrangements for marketing and distribution. However, these third-party collaborators may not be capable of successfully selling any of our new product candidates.

Entry into clinical trials with one or more new drug candidates, including Drug Rescue Variants, may not result in any commercially viable products.

We may never generate revenues from sales of a Drug Rescue Variant or any other product because of a variety of risks inherent in our business, including the following:

- clinical trials may not demonstrate the safety and efficacy of any Drug Rescue Variant, other new drug candidate, biological candidate or regenerative medicine product candidate;
- completion of nonclinical or clinical trials may be delayed, or costs of nonclinical or clinical trials may exceed anticipated amounts;
- we may not be able to obtain regulatory approval of any Drug Rescue Variant, other new drug candidate, biological candidate or regenerative medicine product candidate; or we may experience delays in obtaining any such approval;
- we may not be able to manufacture, or have manufactured for us, Drug Rescue Variants, other new drug candidates, biological candidates or regenerative medicine product candidates economically, timely and on a commercial scale;
- we and any licensees of ours may not be able to successfully market Drug Rescue Variants, other new drug candidates, biological candidates or regenerative medicine product candidates;
- physicians may not prescribe our products, or patients or third party payors may not accept our Drug Rescue Variants, other drug candidates, biological candidates or regenerative medicine product candidates;

may have proprietary rights which prevent us from marketing our Drug Rescue Variants, other new drug candidates, biological candidates or regenerative medicine product candidates; and

competitors may sell similar, superior or lower-cost products.

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Results of earlier clinical trials may not be predictive of the results of later-stage clinical trials.

The results of preclinical studies and early clinical trials of product candidates may not be predictive of the results of later-stage clinical trials. Product candidates in later stages of clinical trials may fail to show the desired safety and efficacy results despite having progressed through preclinical studies and initial clinical trials. Many companies in the biopharmaceutical industry have suffered significant setbacks in advanced clinical trials due to adverse safety profiles or lack of efficacy, notwithstanding promising results in earlier studies. Similarly, our future clinical trial results may not be successful for these or other reasons.

This drug candidate development risk is heightened by any changes in planned clinical trials compared to completed clinical trials. As product candidates are developed through preclinical to early and late stage clinical trials towards approval and commercialization, it is customary that various aspects of the development program, such as manufacturing and methods of administration, are altered along the way in an effort to optimize processes and results. While these types of changes are common and are intended to optimize the product candidates for later stage clinical trials, approval and commercialization, such changes do carry the risk that they will not achieve these intended objectives.

For example, the results of planned clinical trials may be adversely affected if we or our collaborator seek to optimize and scale-up production of a product candidate. In such case, we will need to demonstrate comparability between the newly manufactured drug substance and/or drug product relative to the previously manufactured drug substance and/or drug product. Demonstrating comparability may cause us to incur additional costs or delay initiation or completion of our clinical trials, including the need to initiate a dose escalation study and, if unsuccessful, could require us to complete additional preclinical or clinical studies of our product candidates.

If we or our potential strategic partners experience delays in the enrollment of patients in clinical trials involving our product candidates, our receipt of necessary regulatory approvals could be delayed or prevented.

We or our potential strategic partners may not be able to initiate or continue clinical trials for our product candidates if we or they are unable to locate and enroll a sufficient number of eligible patients to participate in these trials as required by the FDA or other regulatory authorities. Patient enrollment, a significant factor in the timing of clinical trials, is affected by many factors including the size and nature of the patient population, the proximity of patients to clinical sites, the eligibility criteria for the trial, the design of the clinical trial, competing clinical trials and clinicians' and patients' perceptions as to the potential advantages of the drug being studied in relation to other available therapies, including any new drugs that may be approved for the indications we or our collaborators may be investigating. If we or they fail to enroll and maintain the number of patients for which the clinical trial was designed, the statistical power of that clinical trial may be reduced, which would make it harder to demonstrate that the product candidate being tested is safe and effective. Additionally, enrollment delays in clinical trials may result in increased development costs for our product candidates, which would cause the value of our common stock to decline and limit our ability to obtain additional financing. Our inability to enroll a sufficient number of patients for any of our current or future clinical trials would result in significant delays or may require us to abandon one or more clinical trials, and, therefore, product candidates, altogether.

Even if we receive regulatory approval for any of our Drug Rescue Variants or other product candidates, our Drug Rescue Variants or other products may not be successful commercially, and we and/or our potential strategic partners will be subject to ongoing FDA obligations and continued regulatory review, which may result in significant additional expense. Additionally, our product candidates, if approved, could be subject to labeling and other restrictions and market withdrawal and we may be subject to penalties if we fail to comply with regulatory requirements or experience unanticipated problems with our products.

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Any regulatory approvals that we or our potential strategic partners receive for our Drug Rescue Variants or other product candidates may also be subject to limitations on the approved indicated uses for which the product may be marketed or to the conditions of approval, or contain requirements for potentially costly post-marketing testing, including Phase 4 clinical trials, and surveillance to monitor the safety and efficacy of the product candidate, all of which could adversely affect the product's commercial potential and our revenues. In addition, if the FDA approves any of our product candidates, the manufacturing processes, testing, packaging, labeling, storage, distribution, field alert or biological product deviation reporting, adverse event reporting, advertising, promotion and recordkeeping for the product will be subject to extensive and ongoing regulatory requirements. These requirements include submissions of safety and other post-marketing information and reports, as well as continued compliance with cGMP for commercial manufacturing and good clinical practices, or GCP, for any clinical trials that we conduct post-approval. Later discovery of previously unknown problems with a product, including adverse events of unanticipated severity or frequency, or with our third-party manufacturers or manufacturing processes, or failure to comply with regulatory requirements, may result in, among other things:

- restrictions on the marketing or manufacturing of the product, withdrawal of the product from the market, or voluntary or mandatory product recalls;
- warning letters or holds on clinical trials;
- refusal by the FDA to approve pending applications or supplements to approved applications filed by us or our strategic partners, or suspension or revocation of product license approvals;
- product seizure or detention, or refusal to permit the import or export of products; and
- injunctions, fines or the imposition of other civil or criminal penalties.

We cannot predict the likelihood, nature or extent of government regulation that may arise from future legislation or administrative action, either in the United States or abroad. If we are slow or unable to adapt to changes in existing requirements or the adoption of new requirements or policies, or if we are not able to maintain regulatory compliance, we may lose any marketing approval that we may have obtained and we may not achieve or sustain profitability, which would adversely affect our business.

Risks Related to Our Financial Position and Capital Requirements

We have incurred significant net losses since inception and anticipate that we will continue to incur substantial operating losses for the foreseeable future. We may never achieve or sustain profitability, which would depress the market price of our common stock, and could cause you to lose all or a part of your investment.

We have incurred significant net losses in each fiscal year since our inception, including net losses of $12.2 million and $12.9 million during fiscal years ending March 31, 2012 and 2013, respectively. We incurred net losses of $9.1 million and $1.1 million during the nine months ended December 31, 2012 and 2013, respectively. As of December 31, 2013, we had an accumulated deficit of $68.8 million. We do not know whether or when we will become profitable. To date, although we have generated approximately $16.4 million in revenues, we have not commercialized any products or generated any revenues from product sales. Our losses have resulted principally from costs incurred in our research and development programs and from general and administrative expenses. We anticipate that our operating losses will substantially increase over the next several years as we execute our plan to expand our drug rescue, stem cell technology research and development, drug development and potential commercialization activities. Additionally, following this Offering, we expect that our general and administrative expenses will increase due to additional operational and reporting costs associated with achieving our goal of obtaining a listing on a national

securities exchange. The net losses we incur may fluctuate from quarter to quarter.

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We anticipate that our business will generate operating losses until we successfully implement our drug rescue strategy and generate significant revenue to support our level of operating expenses. Because of the numerous risks and uncertainties associated with our drug rescue efforts and future strategic partnering and product development arrangements, we are unable to predict when we will become profitable, and we may never become profitable. Even if we do achieve profitability, we may not be able to sustain or increase our profitability. With the net proceeds from this Offering, we believe that our cash, cash equivalents and marketable securities will be sufficient to fund our operations and our capital expenditures for at least the next 24 months. If our cash is insufficient to meet future operating requirements, we will have to raise additional funds. If we are unable to obtain additional funds on terms favorable to us or at all, we may be required to cease or reduce our operating activities or sell or license to third parties some or all of our intellectual property. If we raise additional funds by selling additional shares of our capital stock, the ownership interests of our current stockholders will be diluted. If we need to raise additional funds through the sale or license of our intellectual property, we may be unable to do so on terms favorable to us, if at all.

If we do not successfully develop, license, sell or obtain regulatory approval for our future product candidates and effectively manufacture, market and sell, or collaborate to accomplish such activities, for any product candidates that are approved, we may never generate revenues from product sales, and even if we do generate product sales revenues, we may never achieve or sustain profitability on a quarterly or annual basis. Our failure to become and remain profitable would depress the market price of our common stock and could impair our ability to raise capital, expand our business, diversify our product offerings or continue our operations. A decline in the market price of our common stock also could cause you to lose all or a part of your investment.

We will require substantial additional financing to achieve our goals, and a failure to obtain this necessary capital when needed could force us to delay, limit, reduce or terminate our product development or commercialization efforts.

Since our inception, most of our resources have been dedicated to research and development of the drug rescue capabilities of our human pluripotent stem cell technology. In particular, we have expended substantial resources developing CardioSafe 3D and believe that we will continue to expend substantial resources for the foreseeable future developing LiverSafe 3D and CardioSafe 3D Drug Rescue Variants. These expenditures will include costs associated with general and administrative costs, facilities costs, research and development, acquiring new technologies, manufacturing product candidates, conducting preclinical experiments and clinical trials and obtaining regulatory approvals, as well as commercializing any products approved for sale. Furthermore, we expect to incur additional costs associated with operating as a public company.

We have no current source of revenue to sustain our present activities, and we do not expect to generate revenue until, and unless, we obtain approval from the FDA or other regulatory authorities and we successfully commercialize one or more of our compounds. As the outcome of our product candidate development activities and our anticipated clinical trials is highly uncertain, we cannot reasonably estimate the actual amounts necessary to successfully complete the development and commercialization of our product candidates. In addition, other unanticipated costs may arise. As a result of these and other factors currently unknown to us, we may need to seek additional funds sooner than planned, through public or private equity or debt financings or other sources, such as strategic partnerships and alliances and licensing arrangements. In addition, we may seek additional capital due to favorable market conditions or strategic considerations even if we believe we have sufficient funds for our current or future operating plans.

Our future capital requirements depend on many factors, including:

- the number and characteristics of the product candidates we pursue;
- the scope, progress, results and costs of researching and developing our product candidates, and conducting preclinical and clinical studies;

- the timing of, and the costs involved in, obtaining regulatory approvals for our product candidates;
- the cost of commercialization activities if any of our product candidates are approved for sale, including marketing, sales and distribution costs;
- the cost of manufacturing our product candidates and any products we successfully commercialize;

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- our ability to establish and maintain strategic partnerships, licensing or other arrangements and the financial terms of such agreements;
- market acceptance of our products;
- the effect of competing technological and market developments;
- our ability to obtain government funding for our programs;
- the costs involved in preparing, filing, prosecuting, maintaining, defending and enforcing patent claims necessary to preserve our freedom to operate in the stem cell industry, including litigation costs associated with any claims that we infringe third-party patents or violate other intellectual property rights and the outcome of such litigation;
- the timing, receipt and amount of potential future licensee fees, milestone payments, and sales of, or royalties on, our future products, if any; and
- the extent to which we acquire or invest in businesses, products and technologies, although we currently have no commitments or agreements relating to any of these types of transactions.

Additional funds may not be available when we need them, on terms that are acceptable to us, or at all. If adequate funds are not available to us on a timely basis, we may be required to delay, limit, reduce or terminate drug rescue programs, preclinical studies, clinical trials or other research and development activities for one or more of our product candidates, any of which could harm our operating results.

Raising additional capital may cause dilution to our existing stockholders, restrict our operations or require us to relinquish rights to our technologies or product candidates.

We may seek additional capital through a combination of private and public equity offerings, debt financings, strategic partnerships and alliances and licensing arrangements. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interests of existing stockholders will be diluted, and the terms of the new capital may include liquidation or other preferences that adversely affect existing stockholder rights. Debt financing, if available, may involve agreements that include covenants limiting or restricting our ability to take certain actions, such as incurring debt, making capital expenditures or declaring dividends. If we raise additional funds through strategic partnerships and alliances and licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies or product candidates, or grant licenses on terms that are not favorable to us. If we are unable to raise additional funds through equity or debt financing when needed, we may be required to delay, limit, reduce or terminate our product development or commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Some of our programs have been partially supported by government grants, which may not be available to us in the future.

Since inception, we have received substantial funds under grant award programs funded by state and federal governmental agencies, such as the NIH, the NIH's National Institute of Neurological Disease and Stroke and the California Institute for Regenerative Medicine. To fund a portion of our future research and development programs, we may apply for additional grant funding from such or similar governmental organizations. However, funding by these governmental organizations may be significantly reduced or eliminated in the future for a number of reasons. For example, some programs are subject to a yearly appropriations process in Congress. In addition, we may not receive funds under future grants because of budgeting constraints of the agency administering the program.

Therefore, we cannot assure you that we will receive any future grant funding from any government organization or otherwise. A restriction on the government funding available to us could reduce the resources that we would be able to devote to future research and development efforts. Such a reduction could delay the introduction of new products and hurt our competitive position.

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Our independent auditors have expressed substantial doubt about our ability to continue as a going concern.

We believe that the net proceeds from this Offering will be sufficient to meet our anticipated cash requirements for at least the next 24 months. Our consolidated financial statements for the year ended March 31, 2013 included in this prospectus have been prepared assuming that we will continue to operate as a going concern. However, due to our continuing operating losses and our accumulated deficit, the report of our independent registered public accounting firm on our consolidated financial statements for the fiscal year ended March 31, 2013, includes an explanatory paragraph discussing conditions that raise a substantial doubt about our ability to continue as a going concern.

Our ability to use net operating losses to offset future taxable income is subject to certain limitations.

If we do not generate sufficient taxable income we may not be able to use a material portion, or any portion, of our existing net operating losses (NOLs). Furthermore, our existing NOLs may be subject to limitations under Section 382 of the Internal Revenue Code of 1986, as amended, which in general provides that a corporation that undergoes an "ownership change" is limited in its ability to utilize its pre- change NOLs to offset future taxable income. Our existing NOLs are subject to limitations arising from previous ownership changes, and if we undergo an ownership change in connection with or after this Offering, our ability to utilize NOLs could be further limited by Section 382 of the Internal Revenue Code. Future changes in our stock ownership, some of which are outside of our control, could result in an ownership change under Section 382 of the Internal Revenue Code.

Risks Related to Intellectual Property

We utilize certain technologies that are licensed to us. If we are unable to maintain these licenses, our business could be adversely affected.

We currently use certain licensed technologies to produce cells that are material to our research and development programs, including our drug rescue programs, and we may enter into additional license agreements in the future. Our rights to use such licensed technologies are subject to the negotiation of, continuation of and compliance with the terms of the applicable licenses, including payment of any royalties and diligence, insurance, indemnification and other obligations. If a licensor believes that we have failed to meet our obligations under a license agreement, the licensor could seek to limit or terminate our license rights, which could lead to costly and time-consuming litigation and, potentially, a loss of the licensed rights. During the period of any such litigation, our ability to carry out the development and commercialization of potential products could be significantly and negatively affected.

Our license rights are further subject to the validity of the owner's intellectual property rights. We cannot be certain that drafting and/or prosecution of the licensed patents and patent applications by the licensors have been or will be conducted in compliance with applicable laws and regulations or will result in valid and enforceable patents and other intellectual property rights. Legal action could be initiated by or against the owners of the intellectual property that we license. Even if we are not a party to these legal actions, an adverse outcome could harm our business because it might prevent these other companies or institutions from continuing to license intellectual property that we may need to operate our business. In some cases, we do not control the prosecution, maintenance or filing of the patents to which we hold licenses, or the enforcement of these patents against third parties.

Certain of our license agreements are subject to termination by the licensor in specific circumstances. Any such termination of these licenses could prevent us from producing cells for our research and development programs and future commercial activities, including selling or marketing products. Because of the complexity of our human pluripotent stem cell technology and the patents we have licensed, determining the scope of the license and related royalty obligation can be difficult and can lead to disputes between us and the licensor. An unfavorable resolution of such a dispute could lead to an increase in the royalties payable pursuant to the license. If a licensor believed we were

not paying the royalties due under the license or were otherwise not in compliance with the terms of the license, the licensor might attempt to revoke the license. If our license rights were restricted or ultimately lost, our ability to continue our business based on the affected technology would be severely adversely affected.

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We may engage in discussions regarding possible commercial, licensing and cross-licensing agreements with third parties from time to time. There can be no assurance that these discussions will lead to the execution of commercial license or cross-license agreements or that such agreements will be on terms that are favorable to us. If these discussions are successful, we could be obligated to pay license fees and royalties to such third parties. If these discussions do not lead to the execution of mutually acceptable agreements, we may be limited or prevented from producing and selling our existing products and developing new products. One or more of the parties involved in such discussions could resort to litigation to protect or enforce its patents and proprietary rights or to determine the scope, coverage and validity of the proprietary rights of others. In addition, if we enter into cross-licensing agreements, there is no assurance that we will be able to effectively compete against others who are licensed under our patents.

If we seek to leverage prior discovery and development of Drug Rescue Candidates under license arrangements with academic laboratories, biotechnology companies, the NIH, pharmaceutical companies or other third parties, it is uncertain what ownership rights, if any, we will obtain over intellectual property we derive from such licenses to Drug Rescue Variants we generate in connection with any such third-party licenses.

If, instead of identifying Drug Rescue Candidates based on information available to us in the public domain, we seek to license Drug Rescue Candidates from biotechnology, medicinal chemistry and pharmaceutical companies, academic, governmental and nonprofit research institutions, including the NIH, or other third-parties, there can be no assurances that we will obtain material ownership or economic participation rights over intellectual property we may derive from such licenses or similar rights to the Drug Rescue Variants we may generate and develop. If we are unable to obtain ownership or substantial economic participation rights over intellectual property related to Drug Rescue Variants we generate, our business may be adversely affected.

We could be unsuccessful in obtaining adequate patent protection for one or more of our product candidates.

We cannot be certain that patents we have filed or may file in the future will be issued or granted, or that issued or granted patents will not later be found to be invalid and/or unenforceable. The patent position of biotechnology and pharmaceutical companies is generally uncertain because it involves complex legal and factual considerations. The standards applied by the United States Patent and Trademark Office (US PTO) and foreign patent offices in granting patents are not always applied uniformly or predictably. For example, there is no uniform worldwide policy regarding patentable subject matter or the scope of claims allowable in biotechnology and pharmaceutical patents. Consequently, patents may not issue from our pending or future patent applications. As such, we do not know the degree of future protection that we will have on certain our proprietary products and technology.

Our patents and patent applications may not be sufficient to protect our products, product candidates and technologies from commercial competition. Our inability to obtain adequate patent protection for our product candidates or platform technology could adversely affect our business.

Publication of discoveries in scientific or patent literature tends to lag behind actual discoveries by at least several months and sometimes several years. Therefore, the persons or entities that we or our licensors name as inventors in our patents and patent applications may not have been the first to invent the inventions disclosed in the patent applications or patents, or the first to file patent applications for these inventions. As a result, we may not be able to obtain patents for discoveries that we otherwise would consider patentable and that we consider to be extremely significant to our future success.

Where several parties seek U.S. patent protection for the same technology, the US PTO may declare an interference proceeding in order to ascertain the party to which the patent should be issued. Patent interferences are typically complex, highly contested legal proceedings, subject to appeal. They are usually expensive and prolonged, and can cause significant delay in the issuance of patents. Moreover, parties that receive an adverse decision in interference

can lose patent rights. Our pending patent applications, or our issued patents, may be drawn into interference proceedings, which may delay or prevent the issuance of patents or result in the loss of issued patent rights. If more groups become engaged in scientific research related to hESCs, the number of patent filings by such groups and therefore the risk of our patents or applications being drawn into interference proceedings may increase. The interference process can also be used to challenge a patent that has been issued to another party.

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Outside of the U.S., certain jurisdictions, such as Europe, Japan, New Zealand and Australia, permit oppositions to be filed against the granting of patents. Because we may seek to develop and commercialize our product candidates internationally, securing both proprietary protection and freedom to operate outside of the U.S. is important to our business. In addition, the European Patent Convention prohibits the granting of European patents for inventions that concern "uses of human embryos for industrial or commercial purposes". The European Patent Office is presently interpreting this prohibition broadly, and is applying it to reject patent claims that pertain to hESCs. However, this broad interpretation is being challenged through the European Patent Office appeals system. As a result, we do not yet know whether or to what extent we will be able to obtain European patent protection for our proprietary hESC-based technology and systems.

Patent opposition proceedings are not currently available in the U.S. patent system, but legislation is pending to introduce them. However, issued U.S. patents can be re-examined by the US PTO at the request of a third party. Patents owned or licensed by us may therefore be subject to re-examination. As in any legal proceeding, the outcome of patent re-examinations is uncertain, and a decision adverse to our interests could result in the loss of valuable patent rights.

Successful challenges to our patents through interference, opposition or re-examination proceedings could result in a loss of patent rights in the relevant jurisdiction(s). As more groups become engaged in scientific research and product development areas of hESCs, the risk of our patents being challenged through patent interferences, oppositions, re-examinations or other means will likely increase. If we institute such proceedings against the patents of other parties and we are unsuccessful, we may be subject to litigation, or otherwise prevented from commercializing potential products in the relevant jurisdiction, or may be required to obtain licenses to those patents or develop or obtain alternative technologies, any of which could harm our business.

Furthermore, if such challenges to our patent rights are not resolved promptly in our favor, our existing business relationships may be jeopardized and we could be delayed or prevented from entering into new collaborations or from commercializing certain products, which could materially harm our business.

Issued patents covering one or more of our product candidates or technologies could be found invalid or unenforceable if challenged in court.

If we were to initiate legal proceedings against a third party to enforce a patent covering one of our product candidates or technologies, the defendant could counterclaim that our patent is invalid and/or unenforceable. In patent litigation in the United States, defendant counterclaims alleging invalidity and/or unenforceability are commonplace. Grounds for a validity challenge could be an alleged failure to meet any of several statutory requirements, for example, lack of novelty, obviousness or non-enablement. Grounds for an unenforceability assertion could be an allegation that someone connected with prosecution of the patent withheld relevant information from the U.S. Patent and Trademark Office, or made a misleading statement, during prosecution. The outcome following legal assertions of invalidity and unenforceability during patent litigation is unpredictable. With respect to the patent validity, we cannot be certain, for example, that there is no invalidating prior art, of which we and the patent examiner were unaware during prosecution. If a defendant were to prevail on a legal assertion of invalidity and/or unenforceability, we would lose at least part, and perhaps all, of the patent protection on one or more of our products or certain aspects of our platform technology, Human Clinical Trials in a Test Tube. Such a loss of patent protection could have a material adverse impact on our business.

Claims that our Human Clinical Trials in a Test Tube platform, our product candidates or, if commercialized, the sale or use of our products infringe the patent rights of third parties could result in costly litigation or could require substantial time and money to resolve, even if litigation is avoided.

We cannot guarantee that our product candidates, the use of our product candidates, or our platform technology, do not or will not infringe third party patents. Third parties might allege that we are infringing their patent rights or that we have misappropriated their trade secrets. Such third parties might resort to litigation against us. The basis of such litigation could be existing patents or patents that issue in the future. Our failure to successfully defend against any claims that our product candidates or platform technology infringe the rights of third parties could also adversely affect our business. Failure to obtain any required licenses could restrict our ability to commercialize our products in certain territories or subject us to patent infringement litigation, which could result in us having to cease commercialization of our products and subject us to money damages in such territories.

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It is also possible that we may fail to identify relevant patents or applications. For example, applications filed before November 29, 2000 and certain applications filed after that date that will not be filed outside the United States remain confidential until patents issue. Patent applications in the United States and elsewhere are published approximately 18 months after the earliest filing for which priority is claimed, with such earliest filing date being commonly referred to as the priority date. Therefore, patent applications covering our products or platform technology could have been filed by others without our knowledge. Additionally, pending patent applications which have been published can, subject to certain limitations, be later amended in a manner that could cover our platform technologies, our products or the use of our products.

To avoid or settle potential claims with respect to any patent rights of third parties, we may choose or be required to seek a license from a third party and be required to pay license fees or royalties or both. These licenses may not be available on acceptable terms, or at all. Even if we or any future strategic partners were able to obtain a license, the rights may be nonexclusive, which could result in our competitors gaining access to the same intellectual property. Ultimately, we could be prevented from commercializing one or more of our products, or be forced to cease some aspect of our business operations, if, as a result of actual or threatened patent infringement claims, we are unable to enter into licenses on acceptable terms. This could harm our business significantly.

Defending against claims of patent infringement or misappropriation of trade secrets could be costly and time consuming, regardless of the outcome. Even if we were to ultimately prevail, or to settle at an early stage, such litigation could burden us with substantial unanticipated costs. In addition, litigation or threatened litigation could result in significant demands on the time and attention of our management team, distracting them from the pursuit of other business.

Unfavorable outcomes in intellectual property litigation could limit our research and development activities and/or our ability to commercialize certain products.

If third parties successfully assert intellectual property rights against us, we might be barred from using certain aspects of our platform technology, or barred from developing and commercializing certain products. Prohibitions against using certain technologies, or prohibitions against commercializing certain products, could be imposed by a court or by a settlement agreement between us and a plaintiff. In addition, if we are unsuccessful in defending against allegations of patent infringement or misappropriation of trade secrets, we may be forced to pay substantial damage awards to the plaintiff. There is inevitable uncertainty in any litigation, including intellectual property litigation. There can be no assurance that we would prevail in any intellectual property litigation, even if the case against us is weak or flawed. If litigation leads to an outcome unfavorable to us, we may be required to obtain a license from the patent owner to continue our research and development programs or to market our product(s). It is possible that the necessary license will not be available to us on commercially acceptable terms, or at all. This could limit our research and development activities, our ability to commercialize certain products, or both.

Most of our competitors are larger than we are and have substantially greater resources. They are, therefore, likely to be able to sustain the costs of complex patent litigation longer than we could. In addition, the uncertainties associated with litigation could have a material adverse effect on our ability to raise the funds necessary to continue our internal research programs, conduct clinical trials, continue to in-license needed technology, or enter into strategic partnerships that would help us bring our product candidates to market.

In addition, any future patent litigation, interference or other administrative proceedings will result in additional expense and distraction of our personnel. An adverse outcome in such litigation or proceedings may expose us or any future strategic partners to loss of our proprietary position, expose us to significant liabilities, or require us to seek licenses that may not be available on commercially acceptable terms, if at all.

Intellectual property litigation may lead to unfavorable publicity that harms our reputation and causes the market price of our common stock to decline.

During the course of any patent litigation, there could be public announcements of the results of hearings, rulings on motions, and other interim proceedings in the litigation. If securities analysts or investors regard these announcements as negative, the perceived value of our products, programs, or intellectual property could be diminished. Accordingly, the market price of our common stock may decline.

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Key aspects of our Human Clinical Trials in a Test Tube platform are protected by intellectual property exclusively licensed from academic institutions. If the licensors terminate the licenses or fail to maintain or enforce the underlying patents, our competitive position and market share will be harmed.

We are a party to several license agreements under which certain aspects of our business depend on patents and/or patent applications owned by other institutions. We are likely to enter into additional license agreements as part of the development of our business in the future. Our licensors may not successfully prosecute certain patent applications under which we are licensed and on which our business depends. Even if patents issue from these applications, our licensors may fail to maintain these patents, may decide not to pursue litigation against third party infringers, may fail to prove infringement, or may fail to defend against counterclaims of patent invalidity or unenforceability. In addition, in spite of our best efforts, our licensors might conclude that we have materially breached our license agreements and might therefore terminate the license agreements, thereby removing our ability to obtain regulatory approval and to market products covered by these license agreements. Our licensors may also terminate the license agreements if we fail to meet specified milestones. If these in-licenses are terminated, or if the underlying patents fail to provide the intended market exclusivity, competitors would have the freedom to seek regulatory approval of, and to market, products identical to ours. This could have a material adverse effect on our competitive business position and our business prospects.

Confidentiality agreements with employees and third parties may not prevent unauthorized disclosure of trade secrets and other proprietary information.

In addition to patents, we rely on trade secrets, technical know-how, and proprietary information concerning our business strategy in order to protect our competitive position in the field of stem cell research and product candidate development. In the course of our research and development activities and other business activities, we often rely on confidentiality agreements to protect our proprietary information. Such confidentiality agreements are used, for example, when we talk to vendors of laboratory or clinical development services or potential strategic partners. In addition, each of our employees is required to sign a confidentiality agreement upon joining the Company. We take steps to protect our proprietary information, and our confidentiality agreements are carefully drafted to protect our proprietary interests. Nevertheless, there can be no guarantee that an employee or an outside party will not make an unauthorized disclosure of our proprietary confidential information. This might happen intentionally or inadvertently. It is possible that a competitor will make use of such information, and that our competitive position will be compromised, in spite of any legal action we might take against persons making such unauthorized disclosures.

Trade secrets are difficult to protect. Although we use reasonable efforts to protect our trade secrets, our employees, consultants, contractors, or outside scientific collaborators might intentionally or inadvertently disclose our trade secret information to competitors. Enforcing a claim that a third party illegally obtained and is using any of our trade secrets is expensive and time consuming, and the outcome is unpredictable. In addition, courts outside the United States sometimes are less willing than U.S. courts to protect trade secrets. Moreover, our competitors may independently develop equivalent knowledge, methods and know-how.

Our research and development strategic partners may have rights to publish data and other information to which we have rights. In addition, we sometimes engage individuals or entities to conduct research relevant to our business. The ability of these individuals or entities to publish or otherwise publicly disclose data and other information generated during the course of their research is subject to certain contractual limitations. These contractual provisions may be insufficient or inadequate to protect our confidential information. If we do not apply for patent protection prior to such publication, or if we cannot otherwise maintain the confidentiality of our proprietary technology and other confidential information, then our ability to obtain patent protection or to protect our trade secret information may be jeopardized.

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Intellectual property rights do not necessarily address all potential threats to our competitive advantage.

The degree of future protection afforded by our intellectual property rights is uncertain because intellectual property rights have limitations, and may not adequately protect our business, or permit us to maintain our competitive advantage. The following examples are illustrative:

- Others may be able to make compounds that are the same as or similar to our product candidates but that are not covered by the claims of the patents that we may own or have exclusively licensed;

- We or our licensors or any future strategic partners might not have been the first to make the inventions covered by the issued patent or pending patent application that we may own or have exclusively licensed;

- We or our licensors or any future strategic partners might not have been the first to file patent applications covering certain of our inventions;

- Others may independently develop similar or alternative technologies or duplicate any of our technologies without infringing our intellectual property rights;

- It is possible that our pending patent applications will not lead to issued patents;

- Issued patents that we own or have exclusively licensed may not provide us with any competitive advantages, or may be held invalid or unenforceable, as a result of legal challenges by our competitors;

- Our competitors might conduct research and development activities in countries where we do not have patent rights and then use the information learned from such activities to develop competitive products for sale in our major commercial markets;

- We may not develop additional proprietary technologies that are patentable and

- The patents of others may have an adverse effect on our business.

Changes in U.S. patent law could diminish the value of patents in general, thereby impairing our ability to protect our products.

As is the case with other development stage biotechnology companies, our success is heavily dependent on intellectual property, particularly patents. Obtaining and enforcing patents in the biotechnology and pharmaceutical industries involve both technological and legal complexity. Therefore, obtaining and enforcing patents is costly, time-consuming and inherently uncertain. In addition, Congress has passed patent reform legislation which provides new limitations on attaining, maintaining and enforcing intellectual property. Further, the Supreme Court has ruled on several patent cases in recent years, either narrowing the scope of patent protection available in certain circumstances or weakening the rights of patent owners in certain situations. In addition to increasing uncertainty with regard to our ability to obtain patents in the future, this combination of events has created uncertainty with respect to the value of patents, once obtained. Depending on decisions by the U.S. Congress, the federal courts, and the U.S. Patent and Trademark Office, the laws and regulations governing patents could change in unpredictable ways that would weaken our ability to obtain new patents or to enforce our existing patents and patents that we might obtain in the future.

If we are not able to obtain and enforce patent protection or other commercial protection for AV-101, the value of AV-101 will be harmed.

Commercial protection of AV-101, our small molecule drug candidate for neuropathic pain and other neurological conditions is important to our business. Our success related to AV-101 will depend in part on our or a potential collaborator's ability to obtain and enforce potential patents and maintain our trade secrets and secure New Drug Product Exclusivity provided by the FDA under section 505(c)(3)(E) and 505(j)(5)(F) of the Federal Food, Drug, and Cosmetic Act.

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Additional patents may not be granted, and potential U.S. patents, if issued, might not provide us with commercial benefit or might be infringed upon, invalidated or circumvented by others. The principle U.S. method of use patent and its foreign counterparts for AV-101 have expired. Although we have recently filed three new U.S. patent applications relating to AV-101, we or others with whom we may collaborate for the development and commercialization of AV-101 may choose not to seek, or may be unable to obtain, patent protection in a country that could potentially be an important market for AV-101.

Our ability to protect our intellectual property and proprietary technology through patents and other means is uncertain.

Our commercial success will depend in part on our ability to protect our intellectual property and proprietary technologies. We rely on patents, where appropriate and available, as well as a combination of copyright, trade secret and trademark laws, license agreements and nondisclosure, confidentiality and other contractual restrictions to protect our proprietary technology. However, these legal means afford only limited protection and may not adequately protect our rights or permit us to gain or keep any competitive advantage. Pending patent applications of ours or our licensors may not issue as patents or may not issue in a form that will be sufficient to protect our proprietary technology and gain or maintain our competitive advantage. Any patents we have obtained or may obtain in the future, or the rights we have licensed, may be subject to re-examination, reissue, opposition or other administrative proceeding, or may be challenged in litigation, and such challenges could result in a determination that the patent is invalid or unenforceable. In addition, competitors may be able to design alternative methods or products that avoid infringement of these patents or technologies. To the extent our intellectual property, including licensed intellectual property, offers inadequate protection, or is found to be invalid or unenforceable, we are exposed to a greater risk of direct competition. If our intellectual property does not provide adequate protection against our competitors' products, our competitive position could be adversely affected, as could our business. Both the patent application process and the process of managing patent disputes can be time consuming and expensive.

The patent positions of companies in the life sciences industry can be highly uncertain and involve complex legal and factual questions for which important legal principles remain unresolved. A number of life sciences, biopharmaceutical and other companies, universities and research institutions have filed patent applications or have been issued patents relating to stem cells, use of stem cells and other modified cells to treat disease, disorder or injury, and other technologies potentially relevant to or required by our existing and planned products. We cannot predict which, if any, of such pending applications will issue as patents or the claims that might be allowed. No consistent policy regarding the breadth of claims allowed in life sciences patents has emerged to date in the United States. The laws of some non-U.S. countries do not protect intellectual property rights to the same extent as the laws of the United States, and many companies have encountered significant problems in protecting and defending such rights in foreign jurisdictions. The legal systems of certain countries, particularly certain developing countries, do not favor the enforcement of patents and other intellectual property protection, particularly those relating to biopharmaceuticals, which could make it difficult for us to prevent the infringement of our patents. Proceedings to enforce our intellectual property rights could result in substantial cost and divert our efforts and attention from other aspects of our business and we may not prevail. Changes in either the patent laws or in interpretations of patent laws in the United States or in other countries may diminish the value of our intellectual property. We cannot predict the breadth of claims that may be allowed or enforced in our patents or in third-party patents.

Certain of our technology may not be eligible for patent protection, which leaves us vulnerable to theft of the technology we protect under trade secret law. We take steps to protect such intellectual property and proprietary technology, by limiting access to the materials embodying such intellectual property and by entering into confidentiality agreements and intellectual property assignment agreements with our employees, consultants, collaborators and, when needed, our advisors. Such agreements may not be enforceable or may not provide meaningful protection or adequate remedies in the event of unauthorized use or disclosure or other breaches of the

agreements, and we may not be able to prevent such unauthorized disclosure. Monitoring unauthorized disclosure is difficult, and we cannot ensure that the steps we have taken to prevent such disclosure are, or will be, adequate. In addition, courts outside the United States may be less willing or unwilling to protect trade secrets. Further, others may independently discover or invent trade secrets and proprietary information similar to ours, and in such cases we could not assert any trade secret rights against such party.

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We may be involved in lawsuits to protect or enforce our patents and proprietary rights, to determine the scope, coverage and validity of others' proprietary rights or to defend against third party claims of intellectual property infringement, which in each case could require us to spend significant time and money and could prevent us from selling our products or adversely impact our stock price.

Litigation or other proceedings may be necessary for us to enforce our patent and proprietary rights and/or to determine the scope, coverage and validity of others' proprietary rights. To determine the priority of inventions, which is determinative of patent rights, we may have to initiate and participate in interference proceedings declared by the U.S. Patent and Trademark Office that could result in substantial legal fees and could substantially affect the scope of our patent protection. Also, our intellectual property may be subject to significant administrative and litigation proceedings such as invalidity, unenforceability, re-examination or opposition proceedings against our patents. We cannot be certain that we do not and will not infringe on the intellectual property rights of others. The outcome of any litigation or other proceeding is inherently uncertain and might not be favorable to us, and we might not be able to obtain licenses to technology that we require. Even if such licenses are obtainable, they may not be available at a reasonable cost or on otherwise favorable terms. We could therefore incur substantial costs related to royalty payments for licenses obtained from third parties, which could negatively affect our profitability. Further, we could encounter delays in product introductions, or interruptions in product sales, as we develop alternative methods or products.

In addition, if we resort to legal proceedings to enforce our intellectual property rights or to determine the validity, scope and coverage of the intellectual property or other proprietary rights of others, the proceedings could be burdensome and expensive, even if we were to prevail. In the event that we are unsuccessful in enforcing our intellectual property rights or other proprietary rights of others, our business would be negatively impacted and the price of our common stock could decline.

Our commercial success may depend in part on our non-infringement of the patents or proprietary rights of third parties. Numerous significant intellectual property issues have been litigated, and will likely continue to be litigated, between existing and new participants in the stem cell market, and competitors may assert that our products infringe their intellectual property rights as part of a business strategy to impede our successful entry into those markets. Third parties may assert that we are employing their proprietary technology without authorization.

In addition, our competitors and others may have patents or may in the future obtain patents that broadly apply to the manufacture of human cells and their uses and claim that the manufacture or use of our products infringes these patents. As we move into new markets and applications for our products, incumbent participants in such markets may assert their patents and other proprietary rights against us as a means of slowing our entry into such markets or as a means to extract substantial license and royalty payments from us.

Patent infringement suits can be expensive, lengthy and disruptive to business operations. We could incur substantial costs and divert the attention of our management and technical personnel in prosecuting or defending against any claims, and these claims may harm our reputation. We cannot be certain that we will have the required resources to pursue litigation or otherwise to protect our proprietary rights or that we will prevail in any suit. Furthermore, parties making claims against us may be able to obtain injunctive or other relief, which could block our ability to develop, commercialize and sell products, and could result in the award of substantial damages against us, including treble damages and attorneys' fees and costs in the event that we are found to be a willful infringer of third party patents.

In the event of a successful claim of infringement against us, we may be required to obtain one or more licenses from third parties, which we may not be able to obtain at a reasonable cost or on otherwise favorable terms, if at all. In addition, we could encounter delays in product introductions while we attempt to develop alternative methods or products to avoid infringing third-party patents or proprietary rights. Defense of any lawsuit or failure to obtain any

required licenses on favorable terms could prevent us from commercializing our products, and the risk of a prohibition on the sale of any of our products could adversely affect our ability to grow and gain market acceptance for our products.

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Furthermore, because of the substantial amount of discovery required in connection with intellectual property litigation, there is a risk that some of our confidential information could be compromised by disclosure during this type of litigation. In addition, during the course of this kind of litigation, there could be public announcements of the results of hearings, motions or other interim proceedings or developments. If securities analysts or investors perceive these results to be negative, it could have a substantial adverse effect on the price of our common stock.

In addition, our agreements with some of our suppliers, distributors, customers and other entities with whom we do business may require us to defend or indemnify these parties to the extent they become involved in infringement claims against us, including the claims described above. We could also voluntarily agree to defend or indemnify third parties in instances where we are not obligated to do so if we determine that it would be important to our business relationships. If we are required or agree to defend or indemnify any of these third parties in connection with any infringement claims, we could incur significant costs and expenses that could adversely affect our business, operating results or financial condition.

We may be subject to litigation that will be costly to defend or pursue and uncertain in its outcome.

Our business may bring us into conflict with our consultants, contractors, employees, investors, licensees, licensors, service providers, suppliers or others with whom we have contractual or other business relationships, or with our competitors or others whose interests differ from ours. If we are unable to resolve such conflicts on terms that are satisfactory to all parties, we may become involved in litigation brought by or against us. Any such litigation is likely to be expensive and may require a significant amount of management's time and attention, at the expense of other aspects of our business. The outcome of litigation is always uncertain, and in some cases could include judgments against us that require us to pay damages, enjoin us from certain activities, or otherwise affect our legal or contractual rights, which could have a significant adverse effect on our business.

Much of the information and know-how that is critical to our business is not patentable and we may not be able to prevent others from obtaining this information and establishing competitive enterprises.

We rely, in part, on trade secrets to protect our proprietary stem cell technologies, especially in circumstances in which we believe patent protection may not be appropriate or available. We attempt to protect our proprietary technologies in part by confidentiality agreements with our advisors, collaborators, consultants, contractors and employees. We cannot assure you that these agreements will not be breached, that we would have adequate remedies for any breach, or that our trade secrets will not otherwise become known or be independently discovered by competitors, any of which would harm our business significantly.

We may become subject to damages resulting from claims that we or our future employees have wrongfully used or disclosed alleged trade secrets of our employees' former employers.

Our ability to execute on our business plan will depend on the talents and efforts of highly skilled individuals with specialized training in the field of stem cell research and bioassay development, as well as medicinal chemistry and in vitro drug candidate screening and nonclinical and clinical development. Our future success depends on our ability to identify, hire and retain these highly skilled personnel during our development stage. We anticipate hiring additional highly skilled scientific and technical employees following the completion of this Offering, including employees who may have been previously employed at biopharmaceutical companies, including our competitors or potential competitors, and who may have executed invention assignments, nondisclosure agreements and/or non-competition agreements in connection with such previous employment. As to such future employees, we may become subject to claims that we, or these future employees, have inadvertently or otherwise used or disclosed trade secrets or other proprietary information of their former employers. Litigation may be necessary to defend against these claims. If we fail in defending such claims, in addition to paying monetary damages, we may lose valuable intellectual property or

personnel. A loss of key research personnel or their work product could hamper or prevent our ability to commercialize certain potential products, which could severely harm our business. Even if we are successful in defending against these claims, litigation could result in substantial costs and be a distraction to management.

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Risks Related to Our Common Stock and this Offering

We do not know whether an active, liquid and orderly trading market will develop for our common stock or what the market price of our common stock will be and, as a result, it may be difficult for you to sell your shares of our common stock.

Prior to this Offering, there has been a limited public market for shares of our common stock on the OTC Markets (OTCQB), formerly the OTC Bulletin Board or OTCBB. We do not yet meet the initial listing standards of the New York Stock Exchange, the NASDAQ Global Market, or other similar national securities exchanges. Until our common stock is listed on a broader exchange, we anticipate that it will remain quoted on the OTC markets, another over-the-counter quotation system, or in the "pink sheets." In those venues, investors may find it difficult to obtain accurate quotations as to the market value of our common stock. In addition, if we fail to meet the criteria set forth in SEC regulations, various requirements would be imposed by law on broker-dealers who sell our securities to persons other than established customers and accredited investors. Consequently, such regulations may deter broker-dealers from recommending or selling our common stock, which may further affect liquidity. This could also make it more difficult to raise additional capital.

We cannot predict the extent to which investor interest in the Company will lead to the development of a more active trading market on the OTCQB, whether we will meet the initial listing standards of the New York Stock Exchange, the NASDAQ Global Market, or other similar national securities exchanges, or how liquid that market might become. If an active trading market does not develop, you may have difficulty selling any of the shares of our common stock that you buy. In addition, the trading price of our common stock following this Offering may be highly volatile and could be subject to wide fluctuations in response to various factors, some of which are beyond our control. These factors include:

- actual or anticipated quarterly variation in our results of operations or the results of our competitors;
- announcements by us or our competitors of new commercial products, significant contracts, commercial relationships or capital commitments;
- financial projections we may provide to the public, any changes to those projections, or our failure to meet those projections;
- issuance of new or changed securities analysts' reports or recommendations for our stock;
- developments or disputes concerning our intellectual property or other proprietary rights;
- commencement of, or our involvement in, litigation;
- market conditions in the biopharmaceutical and life sciences sectors;
- failure to complete significant sales;
- changes in legislation and government regulation;
- public concern regarding the safety, efficacy or other aspects of our products;
- entering into, changing or terminating collaborative relationships;

- any shares of our common stock or other securities eligible for future sale;
- any major change to the composition of our board of directors or management; and
- general economic conditions and slow or negative growth of our markets.

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The stock market in general, and biotechnology-based companies like ours in particular, has from time to time experienced volatility in the market prices for securities that often has been unrelated to the operating performance of the underlying companies. These broad market and industry fluctuations may adversely affect the market price of our common stock, regardless of our operating performance. In certain recent situations in which the market price of a stock has been volatile, holders of that stock have instituted securities class action litigation against the company that issued the stock. If any of our stockholders were to bring a lawsuit against us, the defense and disposition of the lawsuit could be costly and divert the time and attention of our management and harm our operating results. You should also be aware that price volatility is likely to be worse if the trading volume of our common stock remains low and limited.

A significant portion of our total outstanding shares are restricted from immediate resale but may be sold into the market in the near future. Future sales of shares by existing stockholders could cause our stock price to decline, even if our business is doing well.

Sales of a substantial number of shares of our common stock in the public market could occur at any time. These sales, or the perception in the market that the holders of a large number of shares intend to sell shares, could reduce the market price of our common stock. Prior to this Offering, there has been a limited public market for shares of our common stock on the OTCQB. Future sales of substantial amounts of shares of our common stock, including shares issued upon the exchange of our Series A Preferred and exercise of outstanding options and warrants, in the public market after this Offering, or the possibility of these sales occurring, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital in the future. Upon the completion of this Offering, based on the number of shares outstanding as of April 30, 2014, we will have _____ shares of common stock outstanding, assuming no conversion of convertible promissory notes for common stock, no exchange of Series A Preferred for common stock and no exercise of outstanding options or warrants. Of these outstanding shares, all _____ shares of common stock sold by us in this Offering will be freely tradable in the public market without restriction or further registration under the Securities Act. All other outstanding shares of common stock will be restricted securities eligible for sale in the public market under Rule 144 of the Securities Act, 6,103,025 of which restricted shares are held by directors, executive officers and other affiliates and will be subject to volume limitations under Rule 144 under the Securities Act. In addition, 22,072,990 shares of common stock that are subject to outstanding options and warrants as of April 30, 2014 will become eligible for sale in the public market to the extent permitted by the provisions of various vesting agreements and Rules 144 and 701 under the Securities Act as described in the “Shares Eligible for Future Sale” section of this prospectus.

Our principal institutional stockholders will continue to have substantial control over us after this Offering and could limit your ability to influence the outcome of key transactions, including changes in control.

Certain of our current institutional stockholders and their respective affiliates own a significant percentage of our outstanding common stock or other securities convertible or exercisable into our common stock. Accordingly, these stockholders will have substantial influence over the outcome of corporate actions requiring stockholder approval, including the election of directors, any merger, consolidation or sale of all or substantially all of our assets or any other significant corporate transactions. These stockholders may also delay or prevent a change of control of us, even if such a change of control would benefit our other stockholders. The significant concentration of stock ownership may adversely affect the trading price of our common stock due to investors’ perception that conflicts of interest may exist or arise. For information regarding the ownership of our outstanding stock by such stockholders, see “Principal stockholders.”

If securities or industry analysts do not publish research or publish inaccurate or unfavorable research about our business, our stock price and trading volume could decline.

The trading market for our common stock will depend in part on the research and reports that securities or industry analysts publish about us and our business. Securities and industry analysts do not currently, and may never, publish research on the Company. If no or too few securities or industry analysts commence coverage of the Company, the trading price for our stock would likely be negatively impacted. In the event securities or industry analysts initiate coverage, if one or more of the analysts who cover us downgrade our stock or publish inaccurate or unfavorable research about our business, our stock price would likely decline. In the event we obtain analyst coverage, we will not have any control of the analysts or the content and opinions included in their reports. If one or more equity research analysts cease coverage of the Company or fail to publish reports on us regularly, demand for our stock could decrease, which in turn could cause our stock price or trading volume to decline.

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Purchasers in this Offering will experience immediate and substantial dilution in the book value of their investment.

If we successfully sell all shares registered by this Offering, new investors will contribute approximately _____% of the total amount of equity capital raised by us through the date of this Offering, and will own approximately _____% of the outstanding shares. In addition, we may have issued options and warrants to acquire common stock at prices below the public offering price. To the extent outstanding options and warrants are ultimately exercised, or if we issue restricted stock to our employees under our equity incentive plans, there will be further dilution to investors who purchase shares in this Offering. In addition, if we issue additional equity securities, investors purchasing shares in this Offering will experience additional dilution. For a further description of the dilution that you will experience immediately after this Offering, see “Dilution.”

There may be additional issuances of shares of preferred stock in the future.

Following approval by our stockholders in October 2011, our Articles of Incorporation permit us to issue up to 10.0 million shares of preferred stock and our Board has authorized the issuance of 500,000 shares of Series A Preferred, all of which shares are currently outstanding. Our board of directors could authorize the issuance of additional series of preferred stock in the future and such preferred stock could grant holders preferred rights to our assets upon liquidation, the right to receive dividends before dividends would be declared to holders of our common stock, and the right to the redemption of such shares, possibly together with a premium, prior to the redemption of the common stock. In the event and to the extent that we do issue additional preferred stock in the future, the rights of holders of our common stock could be impaired thereby, including without limitation, with respect to liquidation.

Our common stock may be considered a “penny stock.”

Since we became a publicly-traded company in May 2011, our common stock has traded on the OTCQB at a price of less than $5.00 per share. The SEC has adopted regulations which generally define a “penny stock” as an equity security that has a market price of less than $5.00 per share, subject to specific exemptions. To the extent that the market price of our common stock is less than $5.00 per share and, therefore, may be considered a “penny stock,” brokers and dealers effecting transactions in our common stock must disclose certain information concerning the transaction, obtain a written agreement from the purchaser and determine that the purchaser is reasonably suitable to purchase the securities. These rules may restrict the ability of brokers or dealers to sell our common stock and may affect your ability to sell shares of our common stock. In addition, as long as our common stock remains quoted only on the OTCQB, investors may find it difficult to obtain accurate quotations of the stock, and may find few buyers to purchase such stock and few market makers to support its price.

We have broad discretion in the use of the net proceeds from this Offering and may not use them effectively.

We will have broad discretion in the application of the net proceeds from this Offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. We intend to use the net proceeds from this Offering for funding our operations; research and product development activities; for property, plant and equipment; and for working capital and other general corporate purposes. We may also use a portion of our net proceeds to acquire or invest in complementary businesses or other assets; however, we currently have no agreements or commitments to complete any such transaction. We have not allocated these net proceeds for any specific purposes. We might not be able to yield a significant return, if any, on any investment of these net proceeds. You will not have the opportunity to influence our management’s decisions on how to use the net proceeds from this Offering, and our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

We have never paid dividends on our capital stock, and we do not anticipate paying any cash dividends in the foreseeable future.

We have paid no cash dividends on any of our classes of capital stock to date and currently intend to retain our future earnings, if any, to fund the development and growth of our business. As a result, capital appreciation, if any, of our common stock will be your sole source of gain for the foreseeable future. Any payment of cash dividends will depend upon our financial condition, contractual restrictions, financing agreement covenants, solvency tests imposed by corporate law, results of operations, anticipated cash requirements and other factors and will be at the discretion of our board of directors. Furthermore, we may incur indebtedness that may severely restrict or prohibit the payment of dividends.

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SPECIAL NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus includes forward-looking statements. All statements contained in this prospectus other than statements of historical fact, including statements regarding our future results of operations and financial position, our business strategy and plans, and our objectives for future operations, are forward- looking statements. The words "believe," "may," "estimate," "continue," "anticipate," "intend," "expect" and similar expressions are intended to id forward-looking statements. We have based these forward- looking statements largely on our current expectations and projections about future events and trends that we believe may affect our financial condition, results of operations, business strategy, short-term and long-term business operations and objectives, and financial needs. These forward-looking statements are subject to a number of risks, uncertainties and assumptions, including those described in the "Risk Factors" section. Moreover, we operate in a very competitive and rapidly changing environment. New risks emerge from time to time. It is not possible for our management to predict all risks, nor can we assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements we may make. In light of these risks, uncertainties and assumptions, the future events and trends discussed in this prospectus may not occur and actual results could differ materially and adversely from those anticipated or implied in the forward-looking statements.

You should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur. Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance or achievements. We are under no duty to update any of these forward-looking statements after the date of this prospectus or to conform these statements to actual results or revised expectations. If we do update one or more forward-looking statements, no inference should be drawn that we will make additional updates with respect to those or other forward- looking statements.

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USE OF PROCEEDS

The principal purposes of this Offering are to obtain additional working capital and improve the public market for our common stock. As of the date of this prospectus, we cannot specify with certainty all of the particular uses for the net proceeds of this Offering. However, assuming total net proceeds of $_____ from this Offering, we intend to use the net proceeds from this Offering for funding our operations, approximately as follows: (1) $_____ for research and development expenses related to our stem cell technology-based Human Clinical Trials in a Test Tube platform, including Drug Rescue Variants, novel human cell-based assay systems for drug discovery, and pilot nonclinical regenerative medicine studies; (2) $_____ for general and administrative expenses, including audit, legal and other professional services related to being a public company; (3) $_____ for property, plant and equipment expenses; and (4) the remaining proceeds for working capital and other general corporate purposes. We may also acquire or invest in complementary businesses, technologies or other assets; however, we currently have no agreements or commitments to complete any such transaction.

Pending other uses, we intend to invest our proceeds in short-term investments or hold them as cash. We cannot predict whether the proceeds invested will yield a favorable return. Our management will have broad discretion in the use of the net proceeds, and investors will be relying on the judgment of our management regarding the application of the net proceeds.

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DIVIDEND POLICY

We have never declared or paid and do not anticipate declaring or paying any cash dividends on our common stock in the near future. Any future determination as to the declaration and payment of dividends, if any, will be at the discretion of our board of directors, subject to applicable law, and will depend on then existing conditions, including our financial condition, operating results, contractual restrictions, capital requirements, general business conditions and other factors that our board of directors may deem relevant.

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CAPITALIZATION

The following table sets forth our capitalization as of December 31, 2013 which is derived from our unaudited financial information included elsewhere in this prospectus:

· on an actual basis; and

· on a pro forma basis giving effect to net proceeds from this Offering of approximately $_____.

As of December 31, 2013 (dollars in thousands, except per share amounts)		Actual		Pro forma
Cash and cash equivalents	$	21	$	_____
Long-term debt, excluding current portion		5,470		_____
Stockholders' equity:				
Series A preferred stock, $0.001 par value, 10,000,000 shares, including 500,000 Series A shares authorized, 500,000 Series A shares issued and outstanding, actual; 15,000,000 shares authorized, issued and outstanding, pro forma and pro forma as adjusted		1		_____
Common stock, $0.001 par value, 200,000,000 shares authorized; 25,295,185 shares issued, 22,581,877 outstanding, actual; _____ shares issued and _____ shares outstanding, proforma		25		_____
Additional paid-in capital		61,282		_____
Treasury stock, at cost, 2,713,308 shares		(3,968)		_____
Note receivable from sale of common stock		(198)		_____
Accumulated deficit		(68,812)		_____
Total stockholders' equity		(11,670)		_____
Total capitalization	$	(6,200)	$	_____

Common stock outstanding in the table above excludes the following shares as of December 31, 2013:

· 4,705,270 shares of common stock issuable upon the exercise of outstanding options

· 15,710,885 shares of our common stock issuable upon the exercise of outstanding warrants;

· 412,701 shares of common stock reserved for issuance under our 2008 Equity Incentive Plan;

· 8,980,076 shares of our common stock issuable upon conversion of outstanding convertible notes and related accrued interest into common stock;

· 15,000,000 shares of our common stock issuable upon exchange of our Series A Preferred; and

· 7,500,000 shares of our common stock issuable upon the exercise of warrants to be issued upon the exchange of our Series A Preferred

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DILUTION

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the pro forma net tangible book value per share of our common stock immediately after this Offering. As of December 31, 2013, our pro forma net tangible book value was approximately $____ million, or $____ per share of common stock. Pro forma net tangible book value per share represents the amount of our total tangible assets less total liabilities, divided by shares of common stock outstanding.

Dilution in pro forma net tangible book value per share represents the difference between the amount per share paid by buyers of shares of our common stock in this Offering and the pro forma net tangible book value per share of our common stock immediately following this Offering. After giving effect to the receipt of the net proceeds from our sale of shares of common stock in this Offering at an assumed public offering price of $____ per share, our pro forma as adjusted net tangible book value as of December 31, 2013, would have been approximately $____ million, or $____ per share of common stock. This data represents an immediate increase in pro forma net tangible book value of $____ per share to existing stockholders and an immediate dilution of $____ per share to new investors purchasing shares at the public offering price.

The following table illustrates the per share dilution to investors in this Offering:

Assumed public offering price per share		$____
Pro forma net tangible book value per share as of December 31, 2013	$____	
Increase in pro forma net tangible book value per share attributable to investors in this Offering	____	
Pro forma net tangible book value per share as of December 31, 2013, as adjusted to give effect to this Offering		$____
Less: Pro forma as adjusted dilution per share to investors in this Offering		$____

The following table shows, on the pro forma basis described above, the difference between existing stockholders and new investors in this Offering with respect to the number of shares of common stock purchased from us, the total consideration paid and the average price paid per share, before deducting estimated Offering expenses payable by us.

	Shares purchased		Total consideration		
	Number	Percent	Amount (in thousands)	Percent	Average price per share
Existing stockholders	_____	__%	$ _____	__%	$ $____
New investors	_____	__%	$ _____	__%	$ $____
Total	_____	___%	$ _____	___%	$ $____

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The outstanding share information set forth above is as of December 31, 2013 and excludes:

- 4,705,270 shares of common stock issuable upon the exercise of outstanding options;
- 15,710,885 shares of our common stock issuable upon the exercise of outstanding warrants;
- 412,701 shares of common stock reserved for issuance under our 2008 Equity Incentive Plan;
- 8,980,076 shares of our common stock issuable upon conversion of outstanding convertible notes and related accrued interest into common stock;
- 15,000,000 shares of our common stock issuable upon conversion of our Series A Preferred; and
- 7,500,000 shares of our common stock issuable upon the exercise of warrants to be issued upon the conversion of our Series A Preferred.

To the extent that any outstanding Series A Preferred are exchanged for common stock and/or any outstanding options or warrants are exercised, new investors will experience further dilution.

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SELECTED FINANCIAL DATA

We have derived the selected statement of operations data for the years ended March 31, 2012 and 2013, and the selected balance sheet data as of March 31, 2012 and 2013 from our audited consolidated financial statements included elsewhere in this prospectus. The unaudited condensed consolidated statements of operations data for the nine months ended December 31, 2012 and 2013 and the unaudited condensed consolidated balance sheet data as of December 31, 2013 have been derived from our unaudited condensed consolidated financial statements included elsewhere in this prospectus. We have prepared the unaudited condensed consolidated financial information on the same basis as the audited consolidated financial statements and have included, in our opinion, all adjustments, consisting only of normal recurring adjustments, that we consider necessary for a fair presentation of the financial information set forth in those statements. Our historical results are not necessarily indicative of the results that may be expected in the future, and our interim results are not necessarily indicative of the results to be expected for the full fiscal year. The following selected financial data should be read in conjunction with “Management’s discussion and analysis of financial condition and results of operations” and our financial statements and related notes included elsewhere in this prospectus.

(Dollars in thousands, except share and per share data)	Fiscal Year Ended March 31,		Nine Months Ended December 31,	
	2013	2012	2013	2012
Revenues:				
Grant revenue	$200	$ 1,342	$ -	$ 200
Total revenues	200	1,342	-	200
Operating expenses:				
Research and development	3,431	5,389	1,916	3,092
General and administrative	3,562	4,997	2,048	2,430
Total operating expenses	6,993	10,386	3,964	5,522
Loss from operations	(6,793)	(9,044)	(3,964)	(5,322)
Other expenses, net:				
Interest expense, net	(921)	(1,893)	(1,000)	(612)
Change in warrant and other derivative liabilities	(1,636)	(78)	3,824	358
Loss on early extinguishment of debt	(3,568)	(1,193)	-	(3,537)
Other income	35	-	-	-
Loss before income taxes	(12,883)	(12,208)	(1,140)	(9,113)
Income taxes	(4)	(2)	(3)	(4)
Net loss	(12,887)	(12,210)	(1,143)	(9,117)
Deemed dividend on Series A Preferred Stock	(10,193)	-	-	(10,193)
Net loss attributable to common stockholders	$(23,080)	$ (12,210)	$ (1,143)	$ (19,310)
Net loss attributable to common stockholders, basic and diluted	$(1.27)	$ (0.83)	$ (0.05)	$ (1.11)
Weighted average shares used in computing basic and diluted net loss attributable to common stockholders	18,108,444	14,736,651	21,554,929	17,411,993
Pro-forma net loss attributable to common stockholders, basic and diluted (1)	$____	$ ____	$ ____	$ ____
Weighted average shares used in computing pro-forma basic and diluted net loss	_____	_____	_____	_____

attributable to common stockholders

(1) The number of weighted-average common shares used in computing pro forma net loss per share attributable to common stockholders in the table above gives effect to the issuance of _____ shares of common stock pursuant to this Offering on a retroactive basis for each of the periods presented.

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(dollars in thousands)	March 31, 2013	2012	December 31, 2013	Pro forma as adjusted(1)
Balance sheet data:				
Cash and cash equivalents	$ 638	$ 81	$ 21	$ _____
Total current assets	672	238	91	_____
Total assets	882	342	329	_____
Total current liabilities	2,414	3,183	3,712	_____
Long-term debt, less current portion	4,624	2,798	5,470	_____
Accumulated deficit	(67,669)	(54,783)	(68,812)	_____
Stockholders' deficit	(12,556)	(5,706)	(11,670)	_____

(1) The pro forma as adjusted balance sheet data reflects estimated net proceeds of $_____ received pursuant to the sale of _____ shares of our common stock at an assumed public offering price of $_____ per share, less estimated Offering expenses, as of December 31, 2013.

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MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

You should read the following discussion of our financial condition and results of operations in conjunction with the financial statements and the notes thereto included elsewhere in this prospectus. The following discussion contains forward-looking statements that reflect our plans, estimates and beliefs. Our actual results could differ materially from those discussed in the forward-looking statements. Factors that could cause or contribute to these differences include those discussed below and elsewhere in this prospectus, particularly in “Risk Factors.”

Overview

We are a biotechnology company with expertise applying human pluripotent stem cell technology for drug rescue and regenerative medicine.

Our Human Clinical Trials in a Test Tube platform is based on a combination of proprietary and exclusively licensed stem cell technologies focused on controlling stem cell differentiation and production of multiple types of mature, functional, adult human cells from pluripotent stem cells, with emphasis on the human heart cells and liver cells used in our bioassay systems for drug rescue.

With mature heart cells produced from stem cells, we have developed CardioSafe 3D, a novel bioassay system for assessing cardiotoxicity. We believe CardioSafe 3D is capable of predicting the in vivo cardiac effects, both toxic and non-toxic, of small molecule drug candidates before they are ever tested in animals or humans. We are validating LiverSafe 3D, our novel human liver cell-based bioassay system, for assessing potential liver toxicity and adverse drug-drug interactions early in development. We believe our human pluripotent stem cell-derived bioassay systems will allow us to assess the heart and liver safety profile of new drug candidates with greater speed and precision than nonclinical surrogate safety testing models currently used in drug development.

Our drug rescue business model involves the combination of our human pluripotent stem cell technology with medicinal chemistry. The primary goals of our drug rescue programs are to generate and license to third-parties new, safer proprietary variants of once-promising small molecule drug candidates that pharmaceutical companies and others have discovered, evaluated as having therapeutic and commercial potential and ultimately discontinued prior to market approval due to unexpected heart or liver safety concerns. We refer to these once-promising drug candidates now suitable for our drug rescue programs as Drug Rescue Candidates. And we refer to the new, safer proprietary variants we intend to generate in our drug rescue programs as Drug Rescue Variants. Our drug rescue strategy is to leverage prior investment in Drug Rescue Candidates by pharmaceutical companies and others, unique heart and liver biology insight from CardioSafe 3D and/or LiverSafe 3D, and medicinal chemistry to generate Drug Rescue Variants for license to pharmaceutical companies and others for development and commercialization.

We are utilizing the vast amount of information available in the public domain with respect to identification of potential Drug Rescue Candidates. We may also seek to acquire rights to certain Drug Rescue Candidates from third-parties, including biotechnology, medicinal chemistry and pharmaceutical companies, contract research organizations, and academic, governmental and nonprofit research institutions. We anticipate having economic rights in each lead Drug Rescue Variant we license, including up-front payments, development milestone payments and, if approved for commercial sale, royalty payments on sales.

In addition to our drug rescue programs, we are planning to explore pilot nonclinical development opportunities relating to regenerative medicine, including stem cell-based small molecule drug discovery, focused on blood, bone, cartilage, heart, liver and pancreas (insulin-producing beta-islet) cells. Each of these regenerative medicine programs would be based on the proprietary controlled differentiation and production capabilities of our Human Clinical Trials

in a Test Tube platform.

With grant funding from the U.S. National Institutes of Health ("NIH"), we have successfully completed Phase 1 development of AV-101. AV-101 is an orally available small molecule prodrug candidate aimed at the multi-billion dollar neurological disease and disorders market, including neuropathic pain, a serious and chronic condition causing pain after an injury or disease of the peripheral or central nervous system, epilepsy and depression. We were awarded over $8.8 million of grant funding from the NIH to support our nonclinical and Phase I clinical development of AV-101 for neuropathic pain. We intend to explore potential strategic partnering alternatives for further clinical development and commercialization of AV-101 for neuropathic pain, epilepsy, depression and potentially other neurological conditions and diseases.

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Financial Operations Overview

Net Loss

We are in the development stage and, since inception, have devoted substantially all of our time and efforts to stem cell research and bioassay development, small molecule drug development, creating, protecting and patenting intellectual property, recruiting personnel and raising working capital. As of March 31, 2013 and December 31, 2013, we had an accumulated deficit of $67.7 million and $68.8 million, respectively. Our net loss for the years ended March 31, 2013 and 2012 was $12.9 million and $12.2 million, respectively, and was $1.1 million for the nine months ended December 31, 2013. We expect these conditions to continue for the foreseeable future as we expand our drug rescue activities and the capabilities of our Human Clinical Trials in a Test Tube™ platform.

Summary of Fiscal Year 2013

During the fiscal year ending March 31, 2013, we continued to expand the capabilities of CardioSafe 3D™ and develop and validate LiverSafe 3D™. Additionally, we continued to advance our review of prospective drug rescue candidates and successfully completed Phase 1 clinical development of AV-101, our small molecule drug candidate for neuropathic pain, epilepsy, depression and other neurological disorders. We also directed concentrated effort to finalizing and analyzing our AV-101 Phase 1b clinical trial results and preparing final clinical study reports required under the terms of our NIH grant awards. Our executive management was significantly focused on providing sufficient operating capital to advance our research and development objectives while meeting our continuing operational needs. To that end, in June 2012 and October 2012 we entered into agreements with Platinum Long Term Growth VII, LLC (“Platinum”) pursuant to which we received an aggregate of $3.25 million in cash proceeds from the issuance of senior secured convertible promissory notes and related warrants to purchase 3.25 million restricted shares of our common stock. Subject to certain adjustments, these notes are convertible into restricted shares of our common stock at a conversion price of $0.50 per share and the warrants are exercisable at an exercise price of $0.50 per share. Further, we modified Platinum’s exchange rights with respect to the 500,000 restricted shares of our Series A preferred stock that it holds. Additionally, we entered into strategic debt restructuring agreements with certain long-term service providers and research and development collaborators to modify the payment requirements of our liabilities to them by significantly reducing the monthly cash payment requirements or, in several cases, to entirely restructure the liability so that it is now payable only in restricted shares of our common stock.

In August 2012, we entered into such a strategic debt restructuring agreement with Morrison & Foerster ("M&F"), our former general corporate counsel and our current intellectual property counsel. Pursuant to the M&F strategic debt restructuring agreement, we converted approximately $1.4 million of our then-existing promissory note debt to M&F into a new unsecured promissory note payable only in restricted shares of our common stock in connection with M&F’s future exercise of a warrant to purchase approximately 1.4 million shares of our common stock at $1.00 per share, provided, however, that M&F has the option to require us to repay the note in cash upon a change of control or event of default, as both are defined in the agreement.

In October 2012, we entered into similar strategic debt restructuring agreements with Cato Research Ltd. ("CRL"), our CRO collaborator for development of AV-101, and University Health Network ("UHN"), our long-term stem cell research and development collaborator in Canada, in which we converted approximately $1.0 million of existing accounts payable debt owed to CRL and approximately $0.55 million of existing accounts payable debt owed to UHN into new unsecured promissory notes payable only in restricted shares of our common stock in connection with future warrant exercises by CRL and UHN to purchase approximately 1,000,000 and 550,000 restricted shares of our common stock, respectively, at $1.00 per share. Additionally, we reduced the current monthly unsecured promissory note payment requirements with respect to existing debt of $1.0 million owed to M&F and $0.3 million owed to Cato Holding Company. The Platinum, M&F, CRL and UHN debt restructuring transactions are described in greater detail

in Note 8, Convertible Promissory Notes and Other Notes Payable and Note 9, Capital Stock, in the Consolidated Financial Statements included in our audited financial statements and related notes included elsewhere in this prospectus. The accounting for these transactions resulted in the recognition in the financial statements for fiscal 2013 of (i) non-cash losses attributable to certain of the debt modifications (loss on early extinguishment of debt); (ii) liabilities related to certain of the warrants issued and potentially issuable to Platinum and the related non-cash expense attributable to the change in the fair value of the warrant liability during the period; (iii) non-cash interest expense attributable to the discounts recorded with respect to the Platinum, M&F, CRL and UHN promissory notes; and (iv) a deemed dividend with respect to the modification of the exchange rights for the shares of our Series A preferred stock held by Platinum and the related prospective issuance of a five-year warrant to purchase restricted shares of our common stock upon Platinum's exercise of its Series A preferred stock exchange rights. These transactions and agreements, including the conversion of certain unsecured promissory notes into shares of restricted common stock, the exercise of warrants to purchase restricted common stock or Platinum's exercise of its exchange rights with respect to the shares of our Series A preferred stock it holds, will potentially require the issuance of a significant number of restricted shares of our common stock at various points in the future, which may be substantially dilutive to our existing stockholders. See "Capitalization."

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The following table summarizes the results of our operations for the fiscal years ended March 31, 2013 and 2012 (amounts in $000):

	Fiscal Year Ended March 31,	
	2013	2012
Revenues:		
Grant revenue	$ 200	$ 1,342
Operating expenses:		
Research and development	3,431	5,389
General and administrative	3,562	4,997
Total operating expenses	6,993	10,386
Loss from operations	(6,793)	(9,044)
Other expenses, net:		
Interest expense, net	(921)	(1,893)
Change in warrant and put and note extension option liabilities	(1,636)	(78)
Loss on early extinguishment of debt	(3,568)	(1,193)
Other income	35	-
Loss before income taxes	(12,883)	(12,208)
Income taxes	(4)	(2)
Net loss	$ (12,887)	$ (12,210)
Deemed dividend on Series A Preferred Stock	(10,193)	-
Net loss attributable to common stockholders	$ (23,080)	$ (12,210)

Revenue

Our primary sources of revenue for the fiscal years ended March 31, 2013 and 2012 were government grant awards from the NIH to pursue the development of AV-101 and from California Institute of Regenerative Medicine (CIRM) to develop our bioassay system for predictive liver toxicology and drug metabolism drug screening, and from a strategic research contract with third parties. Our AV-101 grant from the NIH accounted for 94% and 87% of our total revenue for fiscal year 2013 and 2012, respectively. The NIH grant expired in its normal course on June 30, 2012. Our CIRM grant terminated in September 2011 and accounted for 6% of our total revenue in fiscal year 2012. Government grant revenue typically reimburses us for expenses incurred in the subject research area plus a nominal allocation or fee to cover our related administrative and infrastructure costs.

Research and Development Expense

Research and development expense represented approximately 49% and 52% of our operating expenses for the years ended March 31, 2013 and 2012, respectively. Research and development costs are expensed as incurred. Research and development expense consists of both internal and external expenses incurred in sponsored stem cell research and drug development activities, costs associated with the development of AV-101 and costs related to the licensing, application and prosecution of our intellectual property. These expenses primarily consist of the following:

- salaries, benefits, including stock-based compensation costs, travel and related expense for personnel associated with research and development activities;

- fees paid to contract research organizations and other professional service providers for services related to the conduct and analysis of clinical trials and other development activities;

fees paid to third parties for access to licensed technology and costs associated with securing and maintaining patents related to our internally generated inventions;

laboratory supplies and materials;

leasing and depreciation of laboratory equipment; and

allocated costs of facilities and infrastructure.

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General and Administrative Expense

General and administrative expense consists primarily of salaries and related expense, including stock-based compensation expense, for personnel in executive, finance and accounting, and other support functions. Other costs include professional fees for legal, investor relations and accounting services and other strategic consulting and public company expenses as well as facility costs not otherwise included in research and development expense. Following the Merger in May 2011, we increased our administrative headcount and engaged certain consulting services to meet our obligations as a public reporting company.

Other Expenses, Net

We incurred interest expense on the outstanding balance of our convertible promissory notes issued beginning in 2006, substantially all of which were converted into Units consisting of restricted common stock and warrants in May 2011 at a price of $1.75 per Unit in connection with the Merger. We also incurred interest expense on the May 2011 Platinum Note prior to its exchange into our Series A preferred stock in December 2011, on the Senior Secured Convertible Promissory Notes issued to Platinum in October 2012 and in February 2013 and March 2013, and on various notes issued to certain service providers during the years ended March 31, 2011 and 2012 and on the new and modified notes issued to Morrison & Foerster, Cato Research Ltd. and University Health Network during the year ended March 31, 2013.

We recorded non-cash expense in fiscal 2013 and 2012 related to the change in the fair values of the derivatives associated with various promissory notes issued to Platinum prior to fiscal 2012 and during fiscal 2013. In fiscal 2013, we recorded non-cash losses on early extinguishment of debt in connection with the modification of certain promissory notes issued to Platinum, Morrison & Foerster, Cato Holding Company and to investors in convertible promissory notes issued in February 2012 as well as in connection with the settlement of accounts payable by issuing promissory notes to Cato Research Ltd and University Health Network, In fiscal 2012, we recorded a non-cash loss on early extinguishment of debt related to the exchange of the Platinum Note into shares of our Series A preferred stock under the terms of a note and warrant exchange agreement. In fiscal 2013, we also recorded a non-cash deemed dividend related to the modification of the exchange rights of our Series A preferred stock held by Platinum and the impact of the prospective issuance of a five-year warrant to purchase restricted shares of our common stock upon Platinum's exercise of its Series A Preferred exchange rights.

Critical Accounting Policies, Significant Judgments and Estimates

Our financial statements and the related notes included elsewhere in this prospectus are prepared in accordance with accounting principles generally accepted in the United States of America. The preparation of financial statements in conformity with United States generally accepted accounting principles (GAAP) requires us to make estimates and assumptions that affect the reported amounts of assets, liabilities, revenues, costs and expenses and related disclosures in our consolidated financial statements and accompanying notes to our consolidated financial statements. These estimates include useful lives for property and equipment and related depreciation calculations, and assumptions for valuing options, warrants and other stock-based compensation. We base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Changes in accounting estimates may occur from period to period. Accordingly, our actual results could differ significantly from the estimates made by our management. We evaluate our estimates and assumptions on an ongoing basis. To the extent that there are materials differences between these estimates and actual results, our future consolidated financial statement presentation, financial condition, results of operations and cash flows will be affected.

We believe that the following critical accounting policies involve a greater degree of judgment and complexity than our other accounting policies. Accordingly, these are the policies we believe are the most critical to understanding

and evaluating our financial condition and results of operations. Our accounting policies are more fully described in Note 3 of the notes to our consolidated financial statements for our fiscal year ended March 31, 2013 included elsewhere in this prospectus.

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Revenue Recognition

Our revenues consist primarily of revenues from government grant awards and strategic collaborations. We recognize revenue under the provisions of the Securities and Exchange Commission issued Staff Accounting Bulletin 104, Topic 13, Revenue Recognition Revised and Updated ("SAB 104") and Accounting Standards Codification ("ASC") 605-25, Revenue Arrangements-Multiple Element Arrangements ("ASC 605-25"). Revenue for arrangements not having multiple deliverables, as outlined in ASC 605-25, is recognized once costs are incurred and collectability is reasonably assured.

Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer. Consideration received is allocated among the separate units of accounting based on their respective selling prices. The selling price for each unit is based on vendor-specific objective evidence, or VSOE, if available, third party evidence if VSOE is not available, or estimated selling price if neither VSOE nor third party evidence is available. The applicable revenue recognition criteria are then applied to each of the units.

We recognize revenue when the four basic criteria of revenue recognition are met: (1) a contractual agreement exists; (2) the transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. For each source of revenue, we comply with the above revenue recognition criteria in the following manner:

Collaborative arrangements typically consist of non-refundable and/or exclusive technology access fees, cost reimbursements for specific research and development spending, and various milestone and future product royalty payments. If the delivered technology does not have stand-alone value, the amount of revenue allocable to the delivered technology is deferred. Non-refundable upfront fees with stand-alone value that are not dependent on future performance under these agreements are recognized as revenue when received, and are deferred if we have continuing performance obligations and have no objective and reliable evidence of the fair value of those obligations. We recognize non-refundable upfront technology access fees under agreements in which we have a continuing performance obligation ratably, on a straight-line basis, over the period in which we are obligated to provide services. Cost reimbursements for research and development spending are recognized when the related costs are incurred and when collectability is reasonably assured. Payments received related to substantive, performance-based "at-risk" milestones are recognized as revenue upon achievement of the milestone event specified in the underlying contracts, which represent the culmination of the earnings process. Amounts received in advance are recorded as deferred revenue until the technology is transferred, costs are incurred, or a milestone is reached.

Technology license agreements typically consist of non-refundable upfront license fees, annual minimum access fees and/or royalty payments. Non-refundable upfront license fees and annual minimum payments received with separable stand-alone values are recognized when the technology is transferred or accessed, provided that the technology transferred or accessed is not dependent on the outcome of the continuing research and development efforts. Otherwise, revenue is recognized over the period of our continuing involvement.

Government grant awards, which support our research efforts on specific projects, generally provide for reimbursement of approved costs as defined in the terms of grant awards. We recognize grant revenue when associated project costs are incurred.

Impairment of Long-Lived Assets

In accordance with ASC 360-10, Property, Plant & Equipment—Overall, we review for impairment whenever events or changes in circumstances indicate that the carrying amount of property and equipment may not be recoverable.

Determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its eventual disposition. In the event that such cash flows are not expected to be sufficient to recover the carrying amount of the assets, we write down the assets to their estimated fair values and recognize the loss in the statements of operations.

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Research and Development Expenses

Research and development expenses include internal and external costs. Internal costs include salaries and employment related expenses of scientific personnel and direct project costs. External research and development expenses consist of sponsored stem cell research and development costs, costs associated with clinical and non-clinical development of AV-101, our lead drug candidate, and costs related to application and prosecution of patents related to our stem cell technology platform, Human Clinical Trials in a Test Tube™, and AV-101. All such costs are charged to expense as incurred.

Stock-Based Compensation

We account for stock-based payment arrangements in accordance with ASC 718, Compensation-Stock Compensation and ASC 505-50, Equity-Equity Based Payments to Non-Employees which requires the recognition of compensation expense, using a fair-value based method, for all costs related to stock-based payments including stock options and restricted stock awards. We recognize compensation cost for all share-based awards to employees based on their grant date fair value. Share-based compensation expense is recognized over the period during which the employee is required to perform service in exchange for the award, which generally represents the scheduled vesting period. We have no awards with market or performance conditions. For equity awards to non-employees, we re-measure the fair value of the awards as they vest and the resulting value is recognized as an expense during the period over which the services are performed.

We use the Black-Scholes option pricing model to estimate the fair value of stock-based awards as of the grant date. The Black-Scholes model is complex and dependent upon key data input estimates. The primary data inputs with the greatest degree of judgment are the expected terms of the stock options and the estimated volatility of our stock price. The Black-Scholes model is highly sensitive to changes in these two inputs. The expected term of the options represents the period of time that options granted are expected to be outstanding. We use the simplified method to estimate the expected term as an input into the Black-Scholes option pricing model. We determine expected volatility using the historical method, which, because of the limited period during which our stock has been publicly traded, is based on the historical daily trading data of the common stock of a peer group of public companies over the expected term of the option.

Income Taxes

We account for income taxes using the asset and liability approach for financial reporting purposes. We recognize deferred tax assets and liabilities for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established, when necessary, to reduce the deferred tax assets to an amount expected to be realized.

Warrant Liability

We have issued certain warrants to Platinum and, subject to Platinum’s exercise of its rights to exchange shares of our Series A preferred stock that it holds, we are also obligated to issue an additional warrant to Platinum, that each contain an exercise price adjustment feature in the event we subsequently issue additional equity instruments at a price lower than the exercise price of the warrants. We account for these warrants as non-cash liabilities and estimate their fair value as described in Note 4, Fair Value Measurements; Note 7, Convertible Promissory Notes and Other Notes

Payable, and Note 9, Capital Stock in the Consolidated Financial Statements included in our audited financial statements and related notes included elsewhere in this prospectus. We compute the fair value of the warrant liability at each reporting period. The change in the fair value is recorded as non-cash expense or non-cash income. The key component in determining the fair value of the warrant and the related liability is our stock price, which is subject to significant fluctuation and is not under our control. The resulting change in the fair value of the warrant liability on our net income or loss is therefore also subject to significant fluctuation and will continue to be so until all of the warrants are issued and exercised, amended or expire. Assuming all other fair value inputs remain generally constant, we will record an increase in the warrant liability and non-cash expense when our stock price increases and a decrease in the warrant liability and non-cash income when our stock price decreases.

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Recent Accounting Pronouncements

See Note 3 to our consolidated financial statements for our fiscal year ended March 31, 2013 included elsewhere in this prospectus for information on recent accounting pronouncements.

Results of Operations

Comparison of Years Ended March 31, 2013 and 2012

Revenue

The following table compares our primary revenue sources between the periods (in $000):

	Fiscal Year Ended March 31,	
	2013	2012
NIH - AV-101 grant	$ 187	$ 1,163
CIRM grant	-	79
Subcontract revenue	13	100
Total Revenue	$ 200	$ 1,342

Although limited project work on AV-101 continued through fiscal 2013, we reported no grant revenue from the NIH grant after the first quarter of fiscal 2013, as the grant expired in its normal course at June 30, 2012. We had drawn the maximum amount available under the grant award prior to its expiration. Our work under the CIRM grant was completed in the quarter ended September 30, 2011. Revenue associated with our subcontract research arrangement terminated in May 2012.

Research and Development Expense

Research and development expense decreased by 36% to $3.4 million in fiscal 2013 compared to $5.4 million in fiscal 2012. The following table compares the primary components of research and development expense between the periods (in $000):

	Fiscal Years Ended March 31,	
	2013	2012
Salaries and benefits	$ 792	$ 862
Stock-based compensation	510	477
UHN research under SRCA	466	830
Consulting services	14	-
Technology licenses and royalties	136	340
Project-related third-party research and supplies:		
AV-101	1,079	2,191
CIRM	-	37
All other including CardioSafe and LiverSafe	293	410
	1,372	2,638

Rent	115	104
Depreciation	26	37
	-	101
Total Research and Development Expense	$ 3,431	$ 5,389

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Salary and benefits expense decreased primarily as a result of voluntary salary reductions taken by our executive officers during the last three quarters of fiscal 2013 to conserve cash for our operations and the absence in fiscal 2013 of a compensation bonus granted in fiscal 2012, partially offset by the costs attributable to additional scientific personnel added since June 2011. Stock-based compensation increased in fiscal 2013 compared to fiscal 2012 primarily as a result of recognizing (i) the expense resulting from the October 2012 modification of certain stock option grants having exercise prices between $1.13 per share and $2.58 per share made to certain of our scientific personnel, administrative staff and certain strategic consultants in prior years to reduce the exercise price to $0.75 per share and (ii) the March 2013 grant to our Chief Scientific Officer of a ten-year warrant to purchase 1,000,000 shares of our common stock at an exercise price of $0.64 per share. Partially offsetting this increase was the expense impact of certain option grants made in prior years that became fully-vested late in fiscal year 2012 or in the first quarter of fiscal 2013, requiring little, if any, expense during fiscal 2013. Sponsored research in both fiscal 2013 and fiscal 2012 reflects the continuation of our long-term stem cell research collaboration with UHN and Dr. Gordon Keller's laboratory in accordance with modifications to our sponsored research collaboration agreement with UHN made in the third and fourth quarters of fiscal 2012 and in a further modification effective beginning in the third quarter of fiscal 2013. Additionally, fiscal 2012 expense for sponsored research at UHN included a non-cash grant of our common stock valued at $175,000 made in May 2011. Technology license expense decreased in fiscal 2013 reflecting reduced costs for patent prosecution and protection that we are required to fund under the terms of certain of our license agreements. We recognize these costs as they are passed on to us by the licensors and they do not occur ratably throughout the year or between years. We began a Phase 1b clinical trial of AV-101 early in calendar 2012 and completed it late in calendar 2012, with expenses during the second half of fiscal 2013 primarily reflecting the costs associated with finalizing and analyzing the Phase 1b clinical trial results and preparing final clinical study reports required under the terms of the NIH grant, primarily through third-party collaborators, including Cato Research Ltd. ("CRL"). AV-101 expenses in fiscal 2012 included the costs of preparing for the clinical trial and other primarily grant-reimbursable efforts conducted by CRL and other third-party collaborators. The CIRM grant expired at the end of September 2011 and grant-funded effort on that project has ceased. We do not track internal research and development expenses, including compensation costs, by project as we do not currently believe that such project accounting is required given the level and overlap of project resources, including staffing, that are dedicated to our research and development projects. Warrant modification expense in fiscal 2012 relates to the non-cash expense we recorded as a result of the December 2011 Agreement Regarding Payment of Invoices and Warrant Exercises between the Company and Cato Holding Company (CHC), CRL and certain CHC affiliates pursuant to which CHC and the CHC affiliates exercised warrants at discounted exercise prices to purchase an aggregate of 492,541 restricted shares of our common stock and we received $60,200 cash, and, in lieu of cash payment for certain of the warrant exercises, settled outstanding liabilities of $245,300 for past services received from CRL and prepaid $226,400 for future services that were received from CRL.

General and Administrative Expense

General and administrative expense decreased by 29% to $3.6 million in fiscal 2013 compared to $5.0 million in fiscal 2012. The following table compares the primary components of general and administrative expense between the periods (in $000):

	Fiscal Years Ended March 31,	
	2013	2012
Salaries and benefits	$ 617	$ 875
Stock-based compensation	731	1,114
Consulting services	157	558
Legal, accounting and other professional fees	554	1,033

Investor relations	622	343
Insurance	122	101
Travel and entertainment	37	68
Rent and utilities	85	89
Warrant modification expense	507	641
All other	130	175
Total general and administrative expense	$ 3,562	$ 4,997

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The decrease in salaries and benefits expense in fiscal 2013 compared with fiscal 2012 results primarily from our May 2011 forgiveness, in conjunction with our going-public transaction, of notes receivable from certain officers in the aggregate amount of $185,000, plus an accrual for related tax gross-ups aggregating approximately $136,000 to which they remain entitled, which we recorded as compensation expense. Partially offsetting that decrease is the impact of converting certain current employees from consulting status during fiscal 2012 to employee status in fiscal 2013. Stock-based compensation expense decreased in fiscal 2013 as option grants of significant size and expense made in prior years became fully-vested in the second half of fiscal 2012, requiring no additional expense in fiscal 2013. Partially offsetting that decrease is the impact of recognizing (i) the expense resulting from the October 2012 modification of certain stock option grants having exercise prices between $1.13 per share and $2.58 per share made to certain administrative employees and business consultants in prior years to reduce the exercise price to $0.75 per share and (ii) the March 2013 grant to our executive officers and independent members of our board of directors of ten-year warrants to purchase an aggregate of 2,000,000 restricted shares of our common stock at an exercise price of $0.64 per share. Legal, accounting and other professional fees in fiscal 2012 included significant one-time charges related to the Merger and going-public transaction and positioning us for our initial public and SEC reporting status. Expense recorded in the current year reflects more normalized levels. Since becoming a public reporting and publicly-traded company, we have engaged certain third parties to provide us with investor relations and market awareness services that were not necessary as a private company. A portion of the compensation that we have provided to certain of these providers has been in the form of grants of restricted common stock or warrants to purchase restricted common stock. In those situations, we have expensed the grant date fair value of the restricted stock or warrants ratably over the term of the underlying contract, all of which have been completed at March 31, 2013. Additionally, we incurred non-cash warrant modification expense totaling $507,000 in fiscal 2013 related to reducing the exercise price of certain outstanding warrants to purchase our common stock, as described in Note 9 to our Consolidated Financial Statements included elsewhere in this prospectus. In fiscal 2012, we incurred non-cash warrant modification expense of $641,000 related to reducing the exercise price and, in some cases, extending the term, of certain outstanding warrants to purchase our common stock.

Other Expenses, Net

Other expenses, net includes interest expense, net of interest income, in both years, and the non-cash impact of changes in the fair value of the warrant liabilities related to warrants issued or issuable to Platinum as a result of the October 2012 Agreement in fiscal 2013 and of the derivatives treated as liabilities resulting from the issuance of prior notes and warrants to Platinum in fiscal 2012. Other expenses, net also includes the non-cash loss on extinguishment of debt resulting from the modification of indebtedness to Platinum, M&F, CRL and UHN, as well as the conversion by the holders of our 12% Convertible Promissory Notes issued in February 2012 into restricted shares of our common stock and warrants during fiscal 2013, and the cancellation of a $4.0 million note issued to Platinum and Platinum's related exercise of warrants and exchange of restricted shares of our common stock into restricted shares of our Series A preferred stock during fiscal 2012.

The following table compares the primary components of net interest expense between the periods (in $000):

	Fiscal Year Ended March 31,	
	2013	2012
Interest expense on promissory notes, including discount amortization	$ 796	$ 1,887
Charge for fair value of replacement warrants issued in connection with exercise of modified warrants	36	-
Charge related to losses on accounts payable settled by issuance of common stock or notes payable	80	-

Charge for investment banker warrants related to February 2012 Convertible promissory notes	28	-
Charge for legal fees related to issuance of Senior Secured Promissory Notes to Platinum under June and October 2012 agreements	59	-
Other interest expense, including on capital leases and premium financing	5	7
	1,004	1,894
Effect of foreign currency fluctuations on notes payable	(53)	-
Interest Income	(30)	(1)
Interest Expense, net	$ 921	$ 1,893

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The reduction of interest expense applicable to promissory notes and amortization of the related discounts primarily reflects the effect of the December 2011 conversion to equity of $4.0 million principal amount of 10% convertible notes plus accrued interest issued to Platinum prior to fiscal 2012, including the amortization of related note discounts. Further, in April and May 2011, other convertible notes and accrued interest outstanding prior to the Merger were converted into restricted common stock at the time of the Merger. Offsetting these reductions is the accrued interest and discount amortization recorded for the July 2012 through March 2013 issuance and restructuring of an aggregate of $3.3 million of 10% senior secured convertible notes to Platinum and the restructuring of an additional $3.9 million of debt into new convertible notes to other service providers including M&F, CRL and UHN. Additionally, during the quarter ended September 30, 2012, we issued restricted shares of our common stock and a note payable in settlement of certain past due accounts payable liabilities and recognized losses aggregating $80,000 based on the fair value of the restricted stock and note issued compared to the recorded liability. In fiscal 2013, we recognized interest income related to the restructuring of the May 2011 note receivable we accepted for the purchase of shares of our common stock.

In conjunction with the issuance, pursuant to the October 2012 Agreement, of the Senior Secured Convertible Promissory Notes and related Exchange Warrant and Investment Warrants to Platinum in October 2012, February 2013 and March 2013 (as described more completely in Note 8, Convertible Promissory Notes and Other Notes Payable in our Consolidated Financial Statements included elsewhere in this prospectus and the potential issuance of the Series A Exchange Warrant to Platinum (as described in Note 9, Capital Stock in our Consolidated Financial Statements included elsewhere in this prospectus), we determined that the warrants included certain exercise price adjustment features requiring the warrants to be treated as liabilities. We recorded the warrant liability at its estimated fair value as of the date of warrant issuance or contract execution. During fiscal 2013, we recognized non-cash expense of $1.6 million related to the increase in the estimated fair value of these liabilities, which resulted primarily from the increase in the market price of our common stock related to the anticipated exercise price of the warrants. The $78,000 of non-cash expense recognized in fiscal year 2012 related to the termination of liability treatment for certain derivatives associated with earlier notes and warrants issued to Platinum as a result of our May 2011 going-public transaction.

We recognized non-cash losses on the early extinguishment of debt in the aggregate amount of $3.6 million in fiscal 2013 as a result of the restructuring of notes payable to Platinum and CHC, and the restructuring of accounts payable to CRL and UHN that were converted in to notes payable, as well as upon the conversion by the holders of our 12% Convertible Promissory Notes issued in February 2012 into restricted shares of our common stock and warrants, all of which were treated as extinguishment of debt for accounting purposes, all as described more completely in Note 8, Convertible Promissory Notes and Other Notes Payable, in our Consolidated Financial Statements included elsewhere in this prospectus. In fiscal 2012, we recognized a non-cash loss of $1.2 million on the early extinguishment of debt in connection with the cancellation of a $4.0 million note and related accrued interest issued to Platinum and Platinum's related exercise of warrants and exchange of shares of our common stock into shares of our Series A Preferred.

In October 2012, in connection with the Note and Exchange Agreement we entered with Platinum, as described in Note 8, Convertible Promissory Notes and Other Notes Payable, and Note 9, Capital Stock, in our Consolidated Financial Statements included elsewhere in this prospectus, we recorded a non-cash deemed dividend of $10.2 million as a result of the modification of the exchange rights for the Series A Preferred held by Platinum and the related prospective issuance of a five-year warrant to purchase shares of our common stock upon Platinum's exercise of its Series A Preferred exchange rights.

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Comparison of Nine Months Ended December 31, 2013 and 2012

The following table summarizes the results of our operations for the nine months ended December 31, 2013 and 2012 (amounts in $000):

	Nine Months Ended December 31,	
	2013	2012
Revenues:		
Grant revenue	$-	$200
Operating expenses:		
Research and development	1,916	3,092
General and administrative	2,048	2,430
Total operating expenses	3,964	5,522
Loss from operations	(3,964)	(5,322)
Other expenses, net:		
Interest expense, net	(1,000)	(612)
Change in warrant liabilities	3,824	358
Loss on early extinguishment of debt	-	(3,537)
Loss before income taxes	(1,140)	(9,113)
Income taxes	(3)	(4)
Net loss	$(1,143)	$(9,117)
Deemed dividend on Series A Preferred Stock	-	(10,193)
Net loss attributable to common stockholders	$(1,143)	$(19,310)

Revenue

The following table compares our primary revenue sources between the periods (in $000):

	Nine Months Ended December 31,	
	2013	2012
NIH - AV-101 grant	$-	$187
Subcontract revenue	-	13
Total Revenue	$-	$200

We have successfully completed our Phase I development of AV-101, our prodrug candidate for the treatment of neuropathic pain and, potentially, epilepsy, depression and other neurological conditions. Our NIH grant related to AV-101 expired in its normal course on June 30, 2012. We had drawn the maximum amount available under the grant prior to its expiration. Revenue associated with our earlier subcontract research arrangement terminated in May 2012.

Research and Development Expense

Research and development expense totaled $1,916,000 for the nine months ended December 31, 2013, a decrease of 38% compared to $3,092,000 for the nine months ended December 31, 2012. The following table indicates the primary components of research and development for each of the periods (in $000):

	Nine Months Ended

	December 31,	
	2013	2012
Salaries and benefits	$679	$587
Stock-based compensation	340	667
UHN research under SRCA	160	391
Technology licenses and royalties	365	108
Project-related third-party research and supplies:		
AV-101	44	1,049
All other including CardioSafe and LiverSafe	166	189
	210	1,238
Rent	129	86
Depreciation	33	15
Total Research and Development Expense	$1,916	$3,092

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The increase in R&D salaries and benefits expense reflects the impact of (i) the addition of a research technician in April 2013; (ii) the partial restoration in April 2013 of an earlier voluntary salary reduction to below his contractual pay rate taken by our President and Chief Scientific Officer; and (iii) general annual increases in employee benefits costs. In addition to the ratable amortization of stock-based compensation expense over the requisite service period of the respective grants made in both the current year and in prior years, stock-based compensation expense for the nine months ended December 31, 2013 includes approximately $82,000 as the impact of October 2013 and December 2013 modifications to reduce the exercise price of certain outstanding option grants to $0.40 per share or $0.50 per share, as well as approximately $100,000 attributable to the expense resulting from the March 2013 grant of a warrant to our President and Chief Scientific Officer that vests over three years, subject to certain vesting acceleration events. Stock-based compensation expense for the quarter ended December 2012 includes approximately $558,000 as the impact of October 2012 modifications reducing the exercise price to $0.75 per share and reducing any remaining vesting period to two years for certain option grants having exercise prices between $1.13 per share and $2.58 per share made to certain scientific employees and consultants in prior years. Our 2012/2013 sponsored research project budget under the collaboration agreement with Dr. Gordon Keller's laboratory at UHN ended on September 30, 2013. We are currently in discussions with Dr. Keller and UHN regarding the scope of our 2013/2014 sponsored research project budget under the agreement, and we anticipate finalizing such budget in the near term. The expense recorded in 2012 reflects our stem cell research collaboration in accordance with our agreements with UHN made in the third and fourth quarters of our fiscal year ended March 31, 2012 and in a further modification effective beginning in October 2012. Technology license expense has increased in 2013 reflecting significantly increased costs for patent prosecution and protection that we are required to fund under the terms of certain of our license agreements. We recognize these costs as they are invoiced to us by the licensors and they do not occur ratably throughout the year or between years. We began Phase 1b clinical trials of AV-101 early in calendar 2012, completing them by mid-year 2012. We recorded significant expense related to the trials during the nine months ended December 31, 2012. AV-101 expenses in the nine months ended December 31, 2013 reflect the costs associated with finalizing the AV-101 clinical trial results, preparing the final clinical trial and other reports required under the terms of the NIH grant and monitoring for feedback related to the reports, activities performed primarily through our contract research collaborator, Cato Research Ltd. The increase in rent expense and depreciation for the nine months ended December 31, 2013 reflects increased rental costs and the amortization of tenant improvements related to our relocation to expanded facilities in late-July 2013.

General and Administrative Expense

General and administrative expense totaled $2,048,000 for the nine months ended December 31, 2013, a reduction of 16% compared with $2,430,000 for the nine months ended December 31, 2012. The following table indicates the primary components of general and administrative expenses for each of the periods (in $000):

	Nine Months Ended December 31,	
	2013	2012
Salaries and benefits	$553	$433
Stock-based compensation	553	295
Consulting services	87	122
Legal, accounting and other professional fees	275	357
Investor relations	90	509
Insurance	97	92
Travel and entertainment	18	23
Rent and utilities	98	65
Warrant modification expense	174	440
All other expenses	103	94

Total General and Administrative Expense	$2,048	$2,430

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The increase in administrative salaries and benefits expense reflects the impact of (i) the partial restoration in April 2013 of an earlier voluntary salary reduction to below his contractual pay rate taken by our Chief Executive Officer; (ii) the September 2012 conversion of our Chief Financial Officer from part-time consultant to full-time employee status; (iii) the April 2013 conversion of an administrative assistant from part-time consultant to part-time employee status, and (iv) general annual increases in employee benefits costs; all offset by the impact of voluntary resignations of certain administrative personnel. In addition to the ratable amortization of stock-based compensation expense over the requisite service period of the respective grants made in both the current year and in prior years, stock-based compensation expense for the quarter ended December 31, 2013 includes approximately $170,000 as the impact of October 2013 and December 2013 modifications to reduce the exercise price of certain outstanding option grants to $0.40 per share or $0.50 per share, as well as approximately $201,000 attributable to the expense resulting from the March 2013 grant of warrants vesting over three years, subject to certain vesting acceleration events, to certain members of our senior management and to the independent members of our Board of Directors. Stock-based compensation expense for the quarter ended December 2012 includes approximately $231,000 as the impact of October 2012 modifications reducing the exercise price to $0.75 per share and reducing any remaining vesting period to two years for certain option grants having exercise prices between $1.13 per share and $2.58 per share made to certain administrative employees and consultants in prior years. The reduction in legal, accounting and other professional fees is primarily the result of the conversion of our Chief Financial Officer from part-time consultant to full-time employee status, as noted above, partially offset by the impact of temporary employee fees. During 2012, we had engaged third parties to provide us with investor relations services and to conduct market awareness initiatives; for strategic purposes, we have significantly scaled back those initiatives during 2013. The 2013 increase in rent and utilities reflects increased costs related to our relocation to expanded facilities in late-July 2013. Warrant modification expense for 2013 reflects the impact of October 2013 and December 2013 strategic reductions in the exercise price of certain outstanding warrants, generally from $1.75 per share or $1.50 per share, to $0.50 per share, and in limited cases, the extension of the term of certain outstanding warrants. In May 2012 we recorded warrant modification expense also related to the reduction of the exercise price of certain outstanding warrants. The increase in other expenses for 2013 includes one-time costs associated with our late-July 2013 relocation to new facilities.

Interest and Other Expenses, Net

Interest expense, net totaled $1,000,000 for the nine months ended December 31, 2013, a 63% increase compared to the $612,000 reported for the nine months ended December 31, 2012. The following table summarizes the primary components of interest expense for each of the periods (in $000):

	Nine Months Ended December 31,	
	2013	2012
Interest expense on promissory notes, including discount amortization	$1,031	$527
Charge for fair value of replacement warrants issued in connection with exercise of modified warrants	-	36
Charge related to losses on accounts payable settled by issuance of common stock or notes payable	-	78
Charge for investment banker warrants related to February 2012 Convertible promissory notes	-	28
Other interest expense, including on capital leases and premium financing	7	7
	1,038	676
Effect of foreign currency fluctuations on notes payable	(30)	(37)
Interest Income	(8)	(27)
Interest Expense, net	$1,000	$612

The increase in interest expense is primarily attributable to the accrued interest and discount amortization recorded for the July 2012 through July 2013 issuances and restructuring of an aggregate of $3.5 million of 10% senior secured convertible notes to Platinum, including the $250,000 convertible note issued in July 2013, as well as the restructuring in September and October 2012 of an additional $3.9 million of debt into new convertible notes to other service providers including Morrison & Foerster, Cato Research Ltd., and University Health Network. These transactions are described in greater detail in Note 7, Convertible Promissory Notes and Other Notes Payable, in the Condensed Consolidated Financial Statements included in this prospectus.

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In conjunction with the issuance to Platinum, pursuant to the October 2012 Note Exchange and Purchase Agreement, of certain Senior Secured Convertible Promissory Notes and the related Exchange Warrant and Investment Warrants in October 2012, February 2013 and March 2013, and in connection with the similar senior secured convertible promissory note and related warrant issued to Platinum in July 2013, (as described more completely in Note 7, Convertible Promissory Notes and Other Notes Payable, in the Condensed Consolidated Financial Statements included in this prospectus), and the contingent issuance of the Series A Exchange Warrant to Platinum upon Platinum's exchange of shares of our Series A Preferred Stock held by Platinum into shares of our common stock, we determined that the warrants included certain exercise price adjustment features requiring the warrants to be treated as liabilities. Accordingly, we recorded a non-cash warrant liability at its estimated fair value as of the date of warrant issuance or contract execution. During the nine months ended December 31, 2013, we recognized non-cash income of $3,824,000 related to the net decrease in the estimated fair value of these liabilities since March 31, 2013, or issuance in the case of the warrant issued in July 2013, which resulted from a combination of (i) the May 2013 agreement with Platinum (described more completely in Note 9, Capital Stock, in the Condensed Consolidated Financial Statements included in this prospectus), pursuant to which the stated exercise price of the warrants was reduced from $1.50 per share to $0.50 per share, and (ii) the decrease in the market price of our common stock during that period.

We recognized non-cash losses on the early extinguishment of debt in the aggregate amount of $3.5 million during the nine months ended December 31, 2012 as a result of the restructuring of notes payable to Platinum and Cato Holding Company, and the restructuring of accounts payable to Cato Research, Ltd. and University Health Network that were converted in to notes payable, as well as upon the conversion by the holders of our 12% Convertible Promissory Notes issued in February 2012 into restricted shares of our common stock and warrants, all of which were treated as extinguishment of debt for accounting purposes, all as described more completely in Note 7, Convertible Promissory Notes and Other Notes Payable, in the Consolidated Financial Statements included in this prospectus.

In October 2012, in connection with the Note and Exchange Agreement we entered with Platinum, as described in Note 7, Convertible Promissory Notes and Other Notes Payable, and Note 9, Capital Stock, in the Condensed Consolidated Financial Statements included in this prospectus, we recorded a non-cash deemed dividend of $10.2 million as a result of the modification of the exchange rights for the Series A Preferred held by Platinum and the related contingent issuance of a five-year warrant to purchase shares of our common stock upon Platinum's exercise of its Series A Preferred exchange rights .

Liquidity and Capital Resources

At March 31, 2013, we had cash and cash equivalents of $638,100 and our current liabilities exceeded our current assets by $1.7 million. However, in April 2013, we entered into a Securities Purchase Agreement (as amended, the "Autilion Agreement") pursuant to which, we have agreed to sell, and Autilion AG, a company organized and existing under the laws of Switzerland ("Autilion"), has agreed to purchase, 72.0 million restricted shares of our common stock for $0.50 per share resulting in aggregate gross proceeds to us of $36.0 million (the "Autilion Financing"). The Autilion Financing also provides for the election to our board of directors of a designee of Autilion. Through the date of this prospectus, we have completed only a nominal initial closing of the Autilion Financing. During our fiscal year ended March 31, 2013, we financed our operations primarily through the issuance of $3.3 million of 10% Senior Secured Convertible Promissory Notes to Platinum, the sale of units consisting of common stock and five-year warrants to purchase common stock that generated approximately $1.1 million of cash proceeds, and the exercise of warrants, most of which were modified to reduce their original exercise prices, that generated approximately $0.3 million of cash proceeds.

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To meet our working capital needs prior to the closing of the Autilion Financing, during June and July 2013, we offered certain warrant holders the opportunity to exercise outstanding warrants having an exercise price of $1.50 per share to purchase shares of our restricted common stock at a reduced exercise price of $0.50 per share. Through July 2013, warrant holders exercised modified warrants to purchase an aggregate of 528,370 restricted shares of our common stock and we received cash proceeds of $264,200. In addition, certain long-term warrant holders exercised modified warrants to purchase 16,646 shares of our restricted common stock in lieu of payment by us in satisfaction of amounts due for professional services in the aggregate amount of $8,300. Additionally, in July 2013, we issued to Platinum a senior secured convertible note in the face amount of $250,000 (the July 2013 Note) and a five-year warrant to purchase 250,000 shares of our restricted common stock at an exercise price of $0.50 per share. Between August 2013 and February 14, 2014, we entered into securities purchase agreements with accredited investors pursuant to which we sold to such investors Units consisting, in aggregate, of: (i) one-year 10% convertible notes in the aggregate face amount of $970,000; (ii) an aggregate of 1,940,000 shares of our restricted common stock; and (iii) warrants exercisable through July 30, 2016 to purchase an aggregate of 1,940,000 restricted shares of our common stock at an exercise price of $1.00 per share. We received cash proceeds of $970,000 from the sale of the Units, including $50,000 in lieu of repayment of previous advances made to us by one of our executive officers. Under certain circumstances, the July 2013 Note issued to Platinum is convertible into Units.

Since inception in May 1998, we have financed our operations, technology development and technology acquisitions primarily through the issuance and sale of equity and equity-linked securities for cash consideration and convertible promissory notes and short-term promissory notes for cash proceeds of approximately $25.4 million, as well as from an aggregate of approximately $16.4 million of government research grant awards and strategic collaboration payments. Additionally, we have issued equity securities with an approximate value at issuance of $12.6 million, primarily as compensation for professional services rendered to us since inception.

We anticipate that our cash expenditures during the next twelve months will be approximately $4.0 million to $6.0 million. We believe that our current cash and cash equivalents, combined with the expected cash proceeds from either this Offering or the Autilion Financing, will enable us to fund our operations well beyond the next twelve months. However, Autilion is currently in default under the Autilion Agreement, and we can provide no assurance that we will complete the Autilion Financing in a timely manner or at all. In the event we do not complete this Offering and Autilion is unable to complete the Autilion Financing in substantial part or in full, we will need to meet our cash needs and fund our working capital requirements through a combination of additional private placements and public offerings of our securities, which may include both debt and equity securities, research and development collaborations, and government grant awards. Since our inception, we have demonstrated the ability to manage our costs aggressively and increase our operating efficiencies while advancing our stem cell technology platform and AV-101 development programs. To further advance drug rescue applications of our stem cell technology platform, as well as support our operating activities, we plan to continue to manage our monthly operating costs associated with salaries and benefits, regulatory and public company consulting, contract research and development, legal, accounting and other working capital costs carefully.

Although we have been successful since May 1998 with raising sufficient capital, and we will continue to pursue additional financing opportunities, as and when required, to meet our business objectives, there can be no assurance that additional capital will be available to us in sufficient amounts, on terms favorable to us, and without substantial dilution to our current stockholders, if at all. If we are unable to complete this Offering, the Autilion Financing or one or more private placements, or otherwise obtain sufficient financing through strategic collaborations or government grant awards, we may be required to delay, scale back or discontinue certain drug rescue and/or research and development activities, and this will adversely affect our ability to operate as a going concern and could cause our stock price to decline. If we obtain additional financing by selling our equity or debt securities, including sales of our common stock pursuant to the completion of this Offering or the Autilion Financing, substantial dilution to our existing stockholders will result. Our future working capital requirements will depend on many factors, including,

without limitation, the scope and nature of our strategic opportunities related to our stem cell technology platform, including drug rescue and cell therapy research and development efforts, the success of such programs, our ability to obtain government grant awards and our ability to enter into strategic collaborations with institutions on terms acceptable to us.

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Cash and Cash Equivalents

The following table summarizes changes in cash and cash equivalents for the periods stated (in thousands):

	Fiscal Year Ended March 31,	
	2013	2012
Net cash used in operating activities	$ (3,463)	$ (3,566)
Net cash used in investing activities	$ (135)	$ (32)
Net cash provided by financing activities, including warrant exercises and sale of Units in 2012 and sale of Units in 2011	$ 4,156	$ 3,540

Off-Balance Sheet Arrangements

Other than contractual obligations incurred in the normal course of business, we do not have any off-balance sheet financing arrangements or liabilities, guarantee contracts, retained or contingent interests in transferred assets or any obligation arising out of a material variable interest in an unconsolidated entity. We have two inactive, wholly-owned subsidiaries, Artemis Neuroscience, Inc., a Maryland corporation, and VistaStem Canada, Inc., an Ontario corporation.

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BUSINESS

We are a stem cell company headquartered in South San Francisco, California and focused on drug rescue and regenerative medicine. We believe better cells lead to better medicine™ and that the key to making better cells is precisely controlling the differentiation of human pluripotent stem cells, which are the building blocks of all cells of the human body. For over 15 years, our stem cell research and development teams and collaborators have focused on controlling the differentiation of pluripotent stem cells to produce multiple types of mature, functional, adult human cells, with emphasis on human heart and liver cells.

Our stem cell technology platform - Human Clinical Trials in a Test Tube™

Our stem cell technology platform, which we refer to as Human Clinical Trials in a Test Tube, is based on a combination of proprietary and exclusively licensed technologies for controlling the differentiation of human pluripotent stem cells into multiple types of mature, functional, adult human cells that we use, or plan to develop, to reproduce complex human biology and disease. We are currently producing heart cells and liver cells for our drug rescue applications. Upon completion of this Offering, we intend to focus on the drug rescue applications utilizing human heart and liver cells, and further advance, through collaborative research projects, pharmaceutical applications of stem cell-derived blood, bone, cartilage, heart, liver and pancreatic beta-islet cells, including exploring opportunities to leverage our stem cell technology platform for regenerative medicine purposes. Our emphasis in the regenerative medicine arena will be on developing novel human disease models for discovery of small molecule drugs and biologics that activate the endogenous growth and healing processes enabling the body to repair tissue damage caused by certain degenerative diseases.

CardioSafe 3D™

Using mature cardiomyocytes (heart cells) differentiated from human pluripotent stem cells, we have developed CardioSafe 3D, as a novel, in vitro bioassay system used to assess new drug candidates for potential cardiac toxicity before they are tested in humans. We believe CardioSafe 3D is capable of predicting the in vivo cardiac effects, both toxic and non-toxic, of small molecule drug candidates with greater speed and precision than the long-established, surrogate safety models most often used in drug development, including models using animal cells or live animals, and cellular assays using cadaver, immortalized or transformed cells. Our pluripotent stem cell derived cardiomyocytes (heart cells) and CardioSafe 3D are key components of our Human Clinical Trials in a Test Tube platform and drug rescue programs.

LiverSafe 3D™

Using mature, functional adult hepatocytes (liver cells) derived from human pluripotent stem cells, we are currently validating LiverSafe 3D, our second novel stem cell technology-based bioassay system. We believe LiverSafe 3D will enable us to assess, early in development, new drug candidates for potential liver toxicity and particularly metabolism issues that can result in serious adverse drug-drug interactions, before animal or human testing. We plan to use LiverSafe 3D, and the clinically predictive liver biology insight we believe it will provide us, to expand the scope of our commercial opportunities related to drug rescue.

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Drug Rescue

We believe drug rescue, using our novel in vitro bioassay systems, CardioSafe 3D and LiverSafe 3D, the foundation of our Human Clinical Trials in a Test Tube platform, is the highest-value near term commercial application of the human cells we produce. Detailed information is available to us in the public domain regarding the efficacy, pharmacology, formulation and toxicity of promising small molecule drug candidates developed by pharmaceutical and biotechnology companies which have failed due to unexpected heart or liver toxicity. These promising drug candidates have already been tested extensively and validated by a pharmaceutical or biotechnology company for their therapeutic (efficacy) and commercial potential. We refer to these promising new drug candidates that have been discovered, developed and ultimately terminated by pharmaceutical and biotechnology companies as Drug Rescue Candidates™.

Failure of promising new drug candidates due to unexpected human clinical toxicity highlights the need for new paradigms to evaluate potential toxicity early in drug development. While efforts of pharmaceutical and biotechnology companies to improve their prediction of human clinical toxicity for new drug candidates is ongoing, the existence of many Drug Rescue Candidates™ offers us an opportunity to use our novel drug rescue technology to take advantage of these promising Drug Rescue Candidates, each with early signs of efficacy, by eliminating the toxicity that caused them to be terminated, and bring new, safer versions back into development protected by new intellectual property. We refer to these new, safer versions of Drug Rescue Candidates we produce with our medicinal chemistry collaborator and validate internally in our bioassay systems as Drug Rescue Variants™.

We have designed our drug rescue model to leverage publicly available information and substantial prior investment by pharmaceutical companies and others in Drug Rescue Candidates. The key commercial objective of our drug rescue model is to generate revenue from license, development and commercialization arrangements involving the new, safer and proprietary Drug Rescue Variants that we produce with our medicinal chemistry collaborator and validate internally in our bioassay systems prior to license. We anticipate that each validated lead Drug Rescue Variant will be suitable as a promising drug development program, either internally or in collaboration with a strategic partner. Through stem cell technology-based drug rescue, we intend to become a leading source of proprietary, small molecule drug candidates to the global pharmaceutical industry.

Our Drug Rescue Strategy

We believe the pre-existing public domain knowledge base supporting the therapeutic and commercial potential of our Drug Rescue Candidates will provide us with a valuable head start as we launch our drug rescue programs. Leveraging the substantial prior investments by global pharmaceutical companies and others in discovery and efficacy validation of Drug Rescue Candidates is an essential component of our drug rescue strategy.

Our current drug rescue emphasis is on Drug Rescue Candidates discontinued prior to FDA market approval due to unexpected cardiac safety concerns. By using CardioSafe 3D to enhance our understanding of the cardiac liability profile of Drug Rescue Candidates, biological insight not previously available when the Drug Rescue Candidate was originally discovered and developed, we believe we can demonstrate in vitro proof-of-concept as to the efficacy and safety of Drug Rescue Variants earlier in development and with substantially less investment in discovery and development than was required of the pharmaceutical companies prior to their decision to terminate the Drug Rescue Candidates.

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The key elements of our current drug rescue strategy are as follows:

- identify potential Drug Rescue Candidates with heart safety issues utilizing drug discovery and development information available in the public domain through open source, licensed databases, and published patents, as well as through our strategic relationships with our drug rescue and scientific advisors and consultants, including Synterys, Inc. and Cato Research Ltd., our preferred provider of contract medicinal chemistry and contract clinical development services, respectively;

- leverage substantial prior R&D investments made by global pharmaceutical companies and others to support the therapeutic and commercial potential of Drug Rescue Candidates, as an important criterion for selection of Drug Rescue Candidates and potential lead Drug Rescue Variants;

- use CardioSafe 3D to enhance our understanding of the cardiac liability profile of Drug Rescue Candidates, important biological insight not available when the Drug Rescue Candidates were originally discovered and developed by pharmaceutical companies;

- leverage our knowledgebase about each Drug Rescue Candidate's specific chemistry to design and produce a portfolio of novel potential lead Drug Rescue Variants for each Drug Rescue Candidate;

- use CardioSafe 3D and pre-existing in vitro efficacy models to assess the efficacy and cardiac safety of potential Drug Rescue Variants and identify and validate a lead Drug Rescue Variant; and

- license each validated lead Drug Rescue Variant to a global pharmaceutical company in a revenue-generating agreement providing for the full development, market approval and commercial sale of the Drug Rescue Variant.

Drug Rescue Candidates

Our current CardioSafe 3D Drug Rescue Candidates are set forth in the table below:

Drug Rescue Candidate	Indication	Developer	Terminated	Reason for Termination	Mechanism
VSTA-1C05	Cancer	Pharma	Phase 1/2	Cardiotoxicity	Aurora kinase inhibitors
VSTA-1A08	Cancer	Biotech	Preclinical	Cardiotoxicity	PI3 kinase inhibitor
VSTA-2A21	Dementia	Pharma	Preclinical	Cardiotoxicity	Nicotinic a7 receptors
VSTA-5A03	HIV	Pharma	Preclinical	Cardiotoxicity	Integrase inhibitor

We believe our exclusive focus on Drug Rescue Candidates with established, therapeutic and commercial potential, and our ability to build on that valuable head start using our expertise in human biology, will help us to generate Drug Rescue Variants without incurring certain high costs and risks typically inherent in drug discovery and development. Although we plan to continue to identify Drug Rescue Candidates in the public domain, we may also seek to acquire rights to Drug Rescue Candidates not available to us in the public domain by entering into contractual arrangements with third-parties.

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Strategic Licensing of Drug Rescue Variants

We believe many pharmaceutical companies are experiencing, and will continue to experience, critical R&D productivity issues, as measured by their lack of, or very low number of, FDA-approved products each year during the past decade. For example, in 2013, the U.S. pharmaceutical industry invested over $51 billion in R&D and the Center for Drug Evaluation and Research (CDER) of the FDA approved a total of only thirty-nine (39) novel drugs, known as New Molecular Entities (NMEs). In 2013, CDER approved only twenty-seven (27) NMEs, thirteen (13) of which NME approvals (48%) were received by only five (5) pharmaceutical companies, including Bayer (2), GlaxoSmithKline (4), Johnson & Johnson (3), Roche (2) and Takeda (2). Despite remarkable levels of R&D investment by the global pharmaceutical industry as a whole, since 2003, the FDA has only approved an average of approximately twenty-six (26) NMEs per year. In addition, we believe many pharmaceutical companies with established products that are no longer patent protected are also experiencing substantial market pressure from generic competition.

As a result of R&D productivity issues, diminishing product pipelines and generic competition, we believe there is and will continue to be a critical need among pharmaceutical companies to license the new, safer Drug Rescue Variants we are focused on developing, including companies that originally discovered, developed and ultimately discontinued the Drug Rescue Candidates we select for our drug rescue programs.

Once we achieve proof-of-concept (POC) in vitro as to the efficacy and safety of a lead Drug Rescue Variant, we intend to announce the results of our internal POC studies and, at that time, consider whether we will seek to license that Drug Rescue Variant to a pharmaceutical company, including the company that developed the Drug Rescue Candidate, or further develop it on our own. If we decide to license a lead Drug Rescue Variant to a pharmaceutical company, through a form of license arrangement we believe is generally accepted in the pharmaceutical industry, we anticipate that the pharmaceutical company will be responsible for all subsequent development, manufacturing, regulatory approval, marketing and sale of the Drug Rescue Variant and that we will receive licensing revenue through payments to us from the license upon signing the license agreement, achievement of development and regulatory milestones, and, if approved and marketed, upon commercial sales.

Regenerative Medicine and Drug Discovery

Although we believe the best and most valuable near term commercial application of our stem cell technology platform, Human Clinical Trials in a Test Tube, is for small molecule drug rescue, we also believe stem cell technology-based regenerative medicine has the potential to transform healthcare in the U.S. over the next decade by altering the fundamental mechanisms of disease and help slow rapidly rising healthcare costs in the U.S. Upon completion of this Offering, we intend to explore opportunities to leverage our stem cell technology platform for regenerative medicine purposes, with emphasis on developing novel human disease models for discovery of small molecule drugs and biologics with regenerative and therapeutic potential. Our regenerative medicine focus will be based on our expertise in human biology and differentiation of human pluripotent stem cells to develop functional adult human cells and tissues involved in human disease, including blood, bone, cartilage, heart, liver and insulin-producing pancreatic beta-islet cells. Our objective will be to explore regenerative medicine opportunities through pilot nonclinical proof-of-concept studies, after which we intend to assess any potential opportunities for further development and commercialization of therapeutically and commercially promising regenerative medicine programs, either on our own or with strategic partners.

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AV-101 for Neuropathic Pain, Epilepsy and Depression

With $8.8 million of grant funding awarded from the U.S. National Institutes of Health, we have successfully completed Phase 1 development of AV-101. AV-101, also known as “L-4-chlorokynurenine” and “4-Cl-KYN”, is an orally available small molecule prodrug candidate aimed at the multi-billion dollar neurological disease and disorders market, including neuropathic pain, a serious and chronic condition causing pain after an injury or disease of the peripheral or central nervous system, epilepsy and depression. Our AV-101 IND application on file at the FDA covers clinical development for neuropathic pain. However, we believe the Phase 1 AV-101 safety studies completed to date will support development of AV-101 for multiple indications, including epilepsy and depression. Upon completion of this Offering, we intend to pursue potential opportunities for further development and commercialization of AV-101 for neuropathic pain, epilepsy and depression, either on our own or with a strategic partner. In the event that we successfully complete a strategic partnering arrangement for AV-101, we plan to use the net proceeds from such an arrangement to expand our drug rescue and regenerative medicine programs.

Scientific Background

Stem Cell Basics

Stem cells are the building blocks of all cells of the human body. They have the potential to develop into many different mature cell types. Stem cells are defined by a minimum of two key characteristics: (1) their capacity to self-renew, or divide in a way that results in more stem cells; and (2) their capacity to differentiate, or turn into mature, specialized cells that make up tissues and organs. There are many different types of stem cells that come from different places in the body or are formed at different times throughout our lives, including pluripotent stem cells and adult or tissue-specific stem cells, which are limited to differentiating into the specific cell types of the tissues in which they reside. We focus exclusively on human pluripotent stem cells.

Human pluripotent stem cells (hPSCs) can differentiate into all of the more than 200 types of cells in the human body, can be expanded readily, and have diverse medical research, drug discovery, drug rescue, drug development and therapeutic applications. We believe hPSCs can be used to develop numerous cell types and tissues that can mimic complex human biology, including heart and liver biology for drug rescue.

Human pluripotent stem cells are either embryonic stem cells (hESCs) or induced pluripotent stem cells (iPSCs). Both hESCs and iPSCs have the capacity to be maintained and expanded in an undifferentiated state indefinitely. We believe these features make them highly useful research and development tools and as a source of normal, functionally mature cell populations. We use these mature cells as the basis for our novel bioassay systems to test the safety and efficacy of new drug candidates in vitro. These cells also have potential for diverse regenerative medicine applications.

Human Embryonic Stem Cells

Human embryonic stem cells (hESCs) are derived from excess embryos that develop from eggs that have been fertilized in an in vitro fertilization (IVF) clinic and then donated for research purposes with the informed consent of the parental donors after a successful IVF procedure. Human embryonic stem cells are not derived from eggs fertilized in a woman’s body. Human ESCs are isolated when the embryo is approximately 100 cells, well before organs, tissues or nerves have developed.

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Human embryonic stem cells have the greatest and most documented potential to both self-renew and differentiate. They undergo increasingly tissue-restrictive developmental decisions during their differentiation. These "fate decisions" commit the hESCs to becoming only a certain type of mature, functional cells and ultimately tissues. At one of the first fate decision points, hESCs differentiate into epiblasts. Although epiblasts cannot self-renew, they can differentiate into the major tissues of the body. This epiblast stage can be used, for example, as the starting population of cells that develop into millions of blood, heart, muscle, liver and insulin-producing pancreatic beta-islet cells, as well as neurons. In the next step, the presence or absence of certain growth factors, together with the differentiation signals resulting from the physical attributes of the cell culture techniques, induce the epiblasts to differentiate into neuroectoderm or mesendoderm cells. Neuroectoderm cells are committed to developing into cells of the skin and nervous systems. Mesendoderm cells are precursor cells that differentiate into mesoderm and endoderm. Mesoderm cells develop into muscle, bone and blood, among other cell types. Endoderm cells develop into the internal organs such as the heart, liver, pancreas and intestines, among other cell types.

Induced Pluripotent Stem Cells

It is also possible to obtain hPSC lines from individuals without the use of embryos. Induced pluripotent stem cells (iPSCs) are adult cells, typically human skin or fat cells that have been genetically reprogrammed to behave like hESCs by being forced to express genes necessary for maintaining the pluripotential properties of hESCs. Although researchers are exploring non-viral methods, most early iPSCs were produced by using various viruses to express three or four genes required for the immature pluripotential property similar to hESCs. It is not yet precisely known, however, how each gene actually functions to induce cellular pluripotency, nor whether each of the three or four genes is essential for this reprogramming. Although hESCs and iPSCs are believed to be similar in many respects, including their pluripotential ability to form all cells in the body and to self-renew, scientists do not yet know whether they differ in clinically significant ways or have the same ability to self-renew.

Although there are remaining questions in the field about the lifespan, clinical utility and safety of iPSCs, we believe the biology and differentiation capabilities of hESCs and iPSCs are likely to be comparable for drug rescue purposes. There are, however, specific situations in which we may prefer to use one or the other type of hPSC. For example, we may prefer to use iPSCs for potential drug discovery applications based on the relative ease of generating iPSCs from:

- individuals with specific inheritable diseases and conditions that predispose the individual to respond differently to drugs; or
- individuals with specific variations in genes that directly affect drug levels in the body or alter the manner or efficiency of their metabolism, breakdown and/or elimination of drugs.

Because they can significantly affect the therapeutic and/or toxic effects of drugs, these genetic variations have an impact on drug discovery and development. We believe iPSC technologies may allow the rapid and efficient generation of hPSCs from individuals with specific genetic variations. These hPSCs might then be used to produce cells to model specific diseases and genetic conditions for drug discovery and drug rescue purposes.

Proprietary Stem Cell Differentiation Protocols

Over fifteen years of research, together with our co-founder, Dr. Gordon Keller, we have developed proprietary differentiation protocols covering key conditions involved in the differentiation of pluripotent stem cells into multiple types of human cells. The human cells generated by following these proprietary differentiation protocols are integral to our Human Clinical Trials in a Test Tube platform. We believe they support more clinically predictive in vitro bioassay systems than animal testing or cellular assays currently used in drug discovery and development. Our strategic technology licenses from National Jewish Health in Denver, the Icahn School of Medicine at Mount Sinai in

New York and the University Health Network in Toronto relate to proprietary stem cell differentiation protocols developed by Dr. Keller and cover, among other things, the following:

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specific growth and differentiation factors used in the tissue culture medium, applied in specific combinations, at critical concentrations, and at critical times unique to each desired human cell type;
the experimentally controlled regulation of developmental genes, which is critical for determining what differentiation path a human cell will take; and
biological markers characteristic of precursor cells, which are committed to becoming specific human cells and tissues, and which can be used to identify, enrich and purify the desired mature human cell type.

We believe our Human Clinical Trials in a Test Tube platform will allow us to assess the toxicity profile of Drug Rescue Variants and other new drug candidates for a wide range of diseases and conditions with greater speed and precision than nonclinical surrogate safety models most often currently used in drug development.

Growth Factors that Direct and Stimulate the Differentiation Process

The proprietary and licensed technologies underlying our Human Clinical Trials in a Test Tube platform allow us to direct and stimulate the differentiation process of hPSCs. As an example, for hESCs, the epiblast is the first stage in differentiation. One biological factor that controls the first fate decision of the epiblast is the relative concentrations of serum growth factors and activin, a protein involved in early differentiation and many cell fate decisions. Substituting explicit amounts of defined growth factors in place of ill-defined animal serum, and adding the optimal amount of activin is an important step in inducing the reproducible development of functional cells and, in our view, is essential for the development of a robust, efficient, and reproducible model of human cellular differentiation suitable for drug rescue. The use of activin in these applications is core to many of the claims in the patent applications underlying our licensed hPSC technology. Replacing activin with continuous exposure to ill-defined and variable animal serum results in an inefficient and variable differentiation of the human heart, liver, blood and cells of other organs. See “Intellectual Property – Icahn School of Medicine at Mount Sinai Exclusive Licenses.”

In addition to activin, Dr. Keller’s studies have identified a number of other growth and developmental factors that play important roles in the differentiation of hESCs. Some of the patents and patent applications underlying our licensed hPSC technology are directed to the use of a variety of specific growth factors that increase the efficiency and reproducibility of the hPSC differentiation process. We have exclusive rights to certain patents and patent applications with claims relating to growth factor concentrations for hESC differentiation that we believe are core and essential for drug rescue and development. See “Intellectual Property – Icahn School of Medicine at Mount Sinai Exclusive Licenses” and “National Jewish Health Exclusive Licenses.”

Developmental Genes that Direct and Stimulate the Stem Cell Differentiation Process

For the purpose of creating our Human Clinical Trials in a Test Tube platform, we further control the differentiation process by controlling regulation of key developmental genes. By studying natural organ and tissue development, researchers have identified many genes that are critical to the normal differentiation, growth and functioning of tissues of the body. We engineer hESCs in a way that enables us to regulate genes that have been identified as critical to control and direct the normal development of specific types of cells. We can then mimic human biology in a way that allows us to turn on and off the expression of a selected gene by the addition of a specific compound to a culture medium. By adding specific compounds, we have the ability to influence the expression of key genes that are critically important to the normal biology of the cell.

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Cell Purification Approaches

The proprietary protocols we have licensed for our Human Clinical Trials in a Test Tube platform also establish specific marker genes and proteins which can be used to identify, enrich, purify, and study important populations of intermediate precursor cells that have made specific fate decisions and are on a specific developmental pathway towards a certain type of functionally mature cell. These protocols enable a significant increase in the efficiency, reproducibility, and purity of final cell populations. For example, we are able to isolate millions of purified specific precursor cells which, together with a specific combination of growth factors, develop full culture wells of functional, beating human heart cells. Due to their functionality and purity, we believe these cell cultures are ideal for drug rescue.

3D “Micro-Organ” Culture Systems

In addition to standard two-dimensional (2D) cultures which work well for some cell types and cellular assays, the proprietary hPSC technologies underlying our Human Clinical Trials in a Test Tube platform enable us to grow large numbers of normal, non-transformed, human cells to produce novel in vitro 3D “micro-organ” culture systems. For example, for CardioSafe 3D, we grow large numbers of normal, non-transformed, human heart cells in vitro in 3D micro-organ culture systems. The 3D micro-organ cultures induce the cells to grow, mature, and develop 3D cell networks and tissue structures. We believe these 3D cell networks and structures more accurately reflect the structures and biology inside the human body than traditional flat, 2D, single cell layers grown on plastic, that are widely used by pharmaceutical companies today. We believe that the more representative human biology afforded by the 3D system will yield responses to drug candidates that are more predictive of human drug responses.

Medicinal Chemistry

Medicinal chemistry involves designing, synthesizing, or modifying a small molecule compound or drug suitable for clinical development. It is a highly interdisciplinary science combining organic chemistry, biochemistry, physical chemistry, computational chemistry, pharmacology, and statistics. The combination of medicinal chemistry with the proprietary and licensed hPSC technologies underlying our Human Clinical Trials in a Test Tube platform are core components of our drug rescue business model. Working with our strategic contract medicinal chemistry partner, Synterys, Inc., we are focused on using our stem cell biology to generate a pipeline of effective and safe Drug Rescue Variants of once-promising company drug candidates in a more efficient and cost-effective manner than the processes currently used for drug development.

CardioSafe 3D

The limitations of current preclinical drug testing systems used by pharmaceutical companies contribute to the high failure rate of drug candidates. Unexpected cardiotoxicity is one of the top two major safety-related reasons for failure of both drugs and drug candidates. Incorporating human pluripotent stem cell-derived cardiomyocyte (hPSC-CM) assays early in preclinical development offers the potential to improve clinical predictability, decrease rescue and development costs, and avoid adverse patient effects, late-stage clinical termination, and product recall from the market.

With our proprietary human pluripotent stem cell technology, we can generate fully-functional hPSC-CMs at a high level of purity (>95%), without genetic modification or cell selection. This is important because genetic modification and cell selection skew the resulting cell population with indeterminate effects on the ultimate results and clinical predictivity of the assay. In addition to expressing all of the key ion channels and various cardiomyocytic markers of the human heart, our hPSC-CMs function reliably in all cardiac toxicity assays relevant to cardiac drug effects developed and tested to date.

Utilizing fully functional human heart cells that underlie our Human Clinical Trials in a Test Tube platform, we have validated our CardioSafe 3D assay system to screen for both cardiomyopathy (or direct cardiomyocyte cytotoxicity) and arrhythmogenesis (or development of irregular beating patterns). We believe CardioSafe 3D is sensitive, stable, reproducible and capable of generating data enabling a more accurate prediction of the in vivo cardiac effects of Drug Rescue Variants and other new drug candidates than is possible with existing preclinical testing systems.

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We have developed and validated two functional components of our CardioSafe 3D screening system to assess multiple different categories of cardiac toxicities. The first consists of a suite of five fluorescence or luminescence based high-throughput hPSC-CM assays. These five CardioSafe 3D assays measure drug-induced cardiomyopathy, including the following:

1. necrosis;
2. apoptosis;
3. mitochondrial membrane depolarization;
4. oxidative stress; and
5. energy metabolism disruption.

These five CardioSafe 3D assays were validated using reference compounds known to be cardiotoxic in humans versus compounds known to be safe in humans. These reference compounds were representative of eight different drug classes, including:

1. Ion channel blockers: amiodarone, nifedipine;
2. hERG trafficking blockers: pentamidine, amoxapine;
3. -1 adrenoreceptors: doxazosin;
4. Protein and DNA synthesis inhibitors: emetine;
5. DNA intercalating agents: doxorubicin;
6. Antibiotics: ampicillin, cefazolin;
7. NSAID: aspirin; and
8. Kinase inhibitors: staurosporine.

This suite of five CardioSafe 3D assays provided measurement of cardiac drug effects with high sensitivity that are consistent with the expected cardiac responses to each of these compounds. Based on our results, ee believe our CardioSafe 3D assays provide valuable tools for both assessing the effects of pharmaceutical compounds on cardiac cytotoxicity and for elucidating the specific mechanisms of cardiac toxicity, thereby laying a solid foundation for our drug rescue programs.

The other component of our CardioSafe 3D assay system is a sensitive and reliable medium throughput multi-electrode array (MEA) assay developed to predict drug-induced alterations of electrophysiological function of the human heart. We have validated this key component of our CardioSafe 3D assay system with twelve drugs, each with known toxic or non-toxic cardiac effects in humans. These twelve validation compounds are as follows:

1. One FDA-approved drug (aspirin) without cardiac liability to serve as a negative control;
2. Five FDA-approved drugs (astemizole, sotalol, cisapride, terfenadine and sertindole) that were withdrawn from the market due to heart toxicity concerns;
3. Five FDA-approved drugs (fexofenadine, nifedipine, verapamil, lidocaine and propranolol) that have certain measurable clinical non-toxic cardiac effects. Note: fexofenadine is a non-cardiotoxic drug variant of terfenadine; and
4. One research compound (E-4031) failed in Phase I human clinical study before being discontinued due to heart toxicity concerns.

We have validated that our CardioSafe 3D MEA assay was reproducible and consistent with the known human cardiac effects of all the twelve compounds studied, based on the mechanisms of action and dosage of the compounds. For instance, by using CardioSafe 3D, we were able to distinguish between the cardiac effects of terfenadine (SeldaneTM), withdrawn by the FDA due to cardiotoxicity, and the cardiac effects of the close structurally related

fexofenadine (AllegraTM), the non-cardiotoxic chemical variant of terfenadine, which remains on the market. Our validation data suggest that our CardioSafe 3D assay system provides valuable tools for preclinical cardiac safety screening, which we believe will contribute to the efficient and rapid identification of novel, safer Drug Rescue Variants in our drug rescue programs.

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To further evaluate the potential of our CardioSafe 3D assay system to predict cardiac toxicity of drug candidates, including Drug Rescue Variants, we have assessed cardiac effects induced by small molecule kinase inhibitors (KIs), which belong to a new category of drugs that have revolutionized cancer therapy due to decreased systemic toxicity and an increased tumor cell specific effect compared to classic cancer drugs. Since 1998, the FDA has approved eighteen small molecule KIs for cancer therapy. However, many of these FDA-approved KIs have been implicated in causing serious adverse cardiac events in patients which were not identified during drug development.

In our KI-induced cardiotoxicity study, we evaluated nineteen well-known anti-cancer KIs with CardioSafe 3D, some of which are FDA-approved and have been documented as cardiotoxic. . This important validation set of anti-cancer KI compounds is as follows:

1. Inhibitors to growth factor receptors: sunitinib, axitinib, imatinib, dasatinib, sorafenib, erlotinib, lapatinib, tyrphostin AG1478);
2. Inhibitors to the mTOR pathway: everolimus, temsirolimus;
3. Inhibitors to cell cycle regulators: tozasertib, barasertib, alvocidib;
4. Inhibitors to the PI3K pathway : perifosine, LY294002, XL765;
5. Inhibitors to the MEK pathway: PD325901, AZD6264; and
6. Inhibitors to the JAK and other pathways: lestaurtinib.

Our validation data indicate that CardioSafe 3D successfully detected cardiotoxicity induced by each of the representative compounds, cardiotoxicity associated with clinical adverse cardiac events, in each of the foregoing six different KI categories. CardioSafe 3D assay system is able to distinguish between cardiotoxic and safe compounds, and even as between those compounds which inhibit the same kinase pathways. For instance, both sunitinib and axitinib inhibit VEGFR, PDGFR and c-Kit pathways, and our CardioSafe 3D assays indicate that sunitinib is cardiotoxic and axitinib is safe, which is consistent with the reported clinical outcomes.

Furthermore, theCardioSafe 3D profile of each KI provided clues to the potential mechanism(s) causing cardiotoxicity. For example, cardiotoxicity induced by perifosine showed apoptotic responses at lower concentrations, while imatinib was most active in the oxidative stress assays. In addition, no cardiac toxicity or alteration in electrophysiology was detected with drugs that do not have a cardiac liability, emphasizing the specificity of CardioSafe 3D. Having information on the pathways associated with the cardiotoxic effects of compounds provides important clues for novel medicinal chemistry approaches and compound modifications for our CardioSafe 3D drug rescue programs.

Our CardioSafe 3D assay system enables the sensitive measurement of drug effects with results that are consistent with known clinical responses to the compounds. For example, our data indicated that sunitinib and dasatinib caused QT prolongation, arrhythmia, and/or altered contraction rates in hPSC-CMs, which are consistent with clinical observations.

We believe our CardioSafe 3D validation data demonstrate that CardioSafe 3D will improve clinical predictivity as an in vitro cardiac safety assay, helping not only to identify potential cardiac toxicities early in development, but also to discover important potential mechanisms of cardiotoxicity. We believe the results of our CardioSafe 3D validation studies indicate that CardioSafe 3D may be effectively used to identify novel Drug Rescue Variants with reduced heart toxicity. By providing more accurate and timely indications of alterations in electrophysiological activity, as well as direct heart toxicity of drug candidates, than animal models or cellular assay systems currently used by pharmaceutical companies, we believe the results of our CardioSafe 3D validation studies support the central premise of our drug rescue business model: by using our hPSC-derived human heart and liver cell bioassay systems at the front end of the drug development process, we have the opportunity to leverage substantial prior investment by pharmaceutical companies and others in drug discovery and efficacy validation of drug candidates with established

therapeutic and commercial potential that have been terminated prior to FDA approval due to unexpected heart or liver toxicity concerns.

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LiverSafe 3D

LiverSafe 3D is a powerful new in vitro hepatotoxicity assay system that goes a step beyond the current commercially available gold standard primary (cadaver) hepatocyte assay. By combining the flexibility of an in vitro, non-transformed human cell-based assay system with the renewable, reproducible sourcing of human pluripotent stem cells (hPSCs), the functional hPSC-derived hepatocytes we produce for LiverSafe 3D can be maintained in a healthy state for much longer than the current gold standard hepatocyte assays, greatly enhancing the reliability of hepatotoxicity testing for our drug rescue programs.

Until now, reliable human cell-based hepatotoxicity screening platforms have been difficult to establish for high throughput drug development with currently available primary hepatocyte systems. Primary hepatocytes have a short lifespan in culture, during which time they rapidly lose their drug metabolizing capabilities and develop signs of cellular stress. Furthermore, these commercially available primary hepatocytes have significant batch-to-batch genetic variation that alters the function of drug metabolism genes and their critical enzyme activity levels due to the use of hepatocytes from different sources. Additionally, primary hepatocytes are derived from individuals with significant differences in health status, with unknown effects on hepatocyte function. Consequently, it is difficult to maintain quantitative reproducibility using currently available primary hepatocyte assays, and this leads to limitations in the quality and clinical predictiviy of the results and conclusions drawn from these assays.

The foregoing limitations have led many in the field to believe that hPSC-derived hepatocyte assays offer a better alternative to the current gold standard primary hepatocyte assays. This belief is mainly due to the fact that hepatocytes derived from the same hPSC line are genetically identical, normal, non-transformed (that is, not tumor-derived) human cells derived from hPSCs. Importantly, hPSC-derived hepatocytes can be indefinitely propagated and frozen down into large, uniform, quality-controlled cell banks. The challenge to using hPSC-derived hepatocytes has been differentiating the stem cells into mature hepatocytes that express a full complement of functional drug metabolizing enzymes, nuclear receptors, and transporters at least as well as primary hepatocytes. While many groups have taken on this challenge in recent years, published reports indicate that current hPSC differentiation protocols yield immature hepatocytes, especially with respect to extremely low expression of certain key drug metabolizing enzymes, such as CYP3A4. CYP3A4 is a critical liver enzyme responsible for metabolizing approximately 50% of the FDA-approved drugs currently available on the market. It is an important and well-accepted functional gene found almost exclusively in mature, adult hepatocytes. CYP3A4 is the key functional marker that we have used to optimize our hepatocyte differentiation cultures for LiverSafe 3D. We believe our optimized LiverSafe 3D assay system enables us to generate more mature hPSC-derived hepatocytes than are currently available from others in the field and that our LiverSafe 3D system provides the unique ability to specifically select for mature CYP3A4-expressing human hepatocytes.

We developed LiverSafe 3D using hPSC differentiation protocols adapted from the laboratory of our co-founder, Dr. Gordon Keller, and our proprietary hPSC cell line, 3A4BLA. This 3A4BLA cell line is a human embryonic stem cell (hESC) line that contains a humanized BLA functional “reporter” that targets the CYP3A4 gene in a manner tresulting in the expression of BLA only in cells that also express CYP3A4. This allows us to visualize by fluorescence cells that express CYP3A4 based on expression of the BLA reporter. By producing a cell line capable of tracking CYP3A4 expression, we have been able to optimize our hPSC differentiation protocols to increase expression of mature hepatocyte markers and drug metabolizing enzymes and to enrich for CYP3A4-expressing cells by cell sorting. However, even in the absence of cell sorting, our LiverSafe 3D hepatocyte populations contain greater than 80% ALBUMIN-positive cells and greater than 40% CYP3A4-positive cells, with CYP3A4 mRNA expression reaching levels nearly 60-fold higher than side-by-side 38-week human fetal liver controls. Our LiverSafe 3D hepatocytes secrete urea and ALBUMIN at levels that exceed commercially-available primary hepatocytes, and they also store both glycogen and lipids, characteristics that are required of functional, mature adult hepatocytes. Importantly, expression of fetal liver markers decreases over the time course of differentiation of our

LiverSafe 3D hepatocytes. This decreased expression is expected and essential during maturation of hepatocytes, but it has rarely been reported by others in publications describing their hPSC-derived hepatocytes. With the addition of cell sorting, our LiverSafe 3D hepatocyte populations can be highly enriched for CYP3A4-BLA-positive cells, with CYP3A4 message in the positive cell population reaching greater than 30% that of an adult human liver pool control. To our knowledge, this level of CYP3A4 expression exceeds levels reported by others in the literature.

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The most important capabilities of LiverSafe 3D relate to "Phase I" and "Phase II" drug metabolism, which are functional characteristics of mature adult hepatocytes. We have validated these capabilities of LiverSafe 3D by demonstrating its ability to metabolize known substrates, such as testosterone, and its ability to respond properly to known inducers of Phase I-mediated CYP3A4 metabolism, such as rifampicin. Moreover, our LiverSafe 3D hepatocytes demonstrate Phase II-mediated testosterone metabolism levels that exceed commercially available primary hepatocytes. These functional characteristics of mature adult hepatocytes are critical to the development of a reliable and clinically predictive hepatotoxicity screening platform for our drug rescue programs. We are currently focused on expanding our panel of validation assays and compounds to include more P450 substrates, inducers, and inhibitors, as well as adapting the cellular toxicity assays that have been developed for our CardioSafe 3D assay system to our LiverSafe 3D assay system and to apply specific hepatotoxic screening assays, such as ALBUMIN and urea secretion assays.

We believe LiverSafe 3D is a powerful, genetically identical, renewable, and reproducible hepatotoxicity assay system for drug rescue and development that provides great advantages over currently available primary hepatocyte assays. We have demonstrated that our LiverSafe 3D hepatocyte populations, even in the absence of cell sorting, secrete adult hepatocyte levels of ALBUMIN and urea and contain greater than 40% CYP3A4-positive cells, historically difficult to achieve in hPSC differentiation cultures. The proprietary 3A4BLA cell line component of LiverSafe 3D allows us the unique opportunity to enrich CYP3A4-positive cells, resulting in CYP3A4 expression reaching greater than 30% of an adult human liver pool, and to the best of our knowledge, a level higher than described in current literature. Most importantly for drug rescue and development purposes, our hPSC-derived hepatocytes for LiverSafe 3D metabolize known substrates and respond to known inducers in a manner expected only of mature adult hepatocytes, paving the way for our final validation of LiverSafe 3D system as a novel hepatotoxicity assay system that can improve clinical predictivity, decrease the cost of drug rescue and development, reduce use of live animal studies, and improve drug safety.

AV-101

We have successfully completed Phase I development of AV-101, also known as "L-4-chlorokynurenine" or "4-Cl-KYN". AV-101 is a prodrug candidate for the treatment of neuropathic pain, epilepsy and depression. Our AV-101 IND application on file at the FDA covers our Phase I clinical development for neuropathic pain. However, we believe the safety studies done in Phase I development of AV-101 will support development of AV-101 for other indications, including epilepsy, depression and potentially other neurological diseases, such as Huntington's and Parkinson's.

The NIH has awarded us $8.8 million of grant funding for our preclinical and Phase 1 clinical development of AV-101. During 2014, we plan to seek and complete a strategic partnering arrangement for further development and commercialization of AV-101 for neuropathic pain, epilepsy, depression and potentially neurodegenerative diseases related to aging.

AV-101 is an orally available prodrug that is converted in the brain into an active metabolite, 7-chlorokynurenic acid (7-Cl-KYNA), which regulates the N-methyl-D-aspartate (NMDA) receptors. 7-Cl-KYNA is a synthetic analogue of kynurenic acid, a naturally occurring neural regulatory compound, and is one of the most potent and selective blockers of the regulatory GlyB-site of the NMDA receptor. In preclinical studies, AV-101 has very good oral bioavailability, is rapidly and efficiently transported across the blood-brain barrier, and is converted into 7-Cl-KYNA in the brain and spinal cord, preferentially, at the site of seizures and potential neural damage.

The effect of AV-101 on chronic neuropathic pain due to inflammation and nerve damage was assessed in rats by using the Chung nerve ligation model. AV-101 effects were compared to either saline and MK-801, or gabapentin (NeurontinTM) as positive controls. Similar to the therapeutic effects seen in the acute formalin and thermal pain models, AV-101 had a positive effect on chronic neuropathic pain in the Chung model that were greater than two (2) standard deviations of the control, with no adverse behavioral observations. As expected, MK-801 and gabapentin

also demonstrated reduced pain readouts in the Chung model. The effects observed by AV-101 in both the acute and chronic neuropathic pain model systems was dose dependent, and was not associated with any side effects at the range of doses administered. Preclinical AV-101 data demonstrated the potential clinical utility of AV-101 as an analgesic.

Strategic Transactions and Relationships

Strategic collaborations are a cornerstone of our corporate development strategy. We believe that our strategic outsourcing and sponsorship of application-focused research gives us flexible access to medicinal chemistry, hPSC research and development, manufacturing, clinical development and regulatory expertise at a lower overall cost than developing and maintaining such expertise internally. In particular, we collaborate with the types of third parties identified below for the following functions:

- academic research institutions, such as UHN, for hPSC technology research and development;
- contract medicinal chemistry companies, such as Synterys, Inc., to analyze Drug Rescue Candidates and design, produce and analyze Drug Rescue Variants; and
- contract clinical development organizations (CROs), such as Cato Research, Ltd., for regulatory expertise and clinical development support.

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McEwen Centre for Regenerative Medicine, University Health Network

UHN in Ontario, Canada is a major landmark in Canada's healthcare system. UHN is one of the world's largest research hospitals, with major research in transplantation, cardiology, neurosciences, oncology, surgical innovation, infectious diseases and genomic medicine. Providing care to the community for more than two centuries, UHN brings together the talent and resources needed to achieve global impact and provide exemplary patient care, research and education.

The McEwen Centre for Regenerative Medicine (McEwen Centre) is a world-renowned center for stem cell biology and regenerative medicine and a world-class stem cell research facility affiliated with UHN. Our co-founder, Dr. Gordon Keller, is Director of the McEwen Centre. Dr. Keller's lab is one of the world leaders in successfully applying principles from the study of developmental biology of many animal systems to the differentiation of pluripotent stem cell systems, resulting in reproducible, high-yield production of human heart, liver, blood and vascular cells. The results and procedures developed in Dr. Keller's lab are often quoted and used by academic scientists worldwide.

In September 2007, we entered into a long-term sponsored stem cell research and development collaboration with UHN. In December 2010, we extended the collaboration to September 2017. The primary goal of this ten-year collaboration is to leverage the stem cell research, technology and expertise of Dr. Gordon Keller to develop and commercialize industry-leading human pluripotent stem cell differentiation technology and bioassay systems for drug rescue and development and regenerative cell therapy applications. This sponsored research collaboration builds on our existing strategic licenses from National Jewish Health and the Icahn School of Medicine at Mount Sinai to certain stem cell technologies developed by Dr. Keller, and is directed to diverse human pluripotent stem cell-based research projects, including, as expanded and amended, strategic projects related to drug rescue and regenerative medicine. See "Sponsored Research Collaborations and Intellectual Property Rights – University Health Network, McEwen Centre for Regenerative Medicine, Toronto, Ontario", "Intellectual Property – National Jewish Health Exclusive Licenses" and "Intellectual Property – Icahn School of Medicine at Mount Sinai Exclusive Licenses."

Cardiac Safety Research Consortium

We have joined the Cardiac Safety Research Consortium (CERC) as an Associate Member. The CSRC, which is sponsored in part by the FDA, was launched in 2006 through an FDA Critical Path Initiative Memorandum of Understanding with Duke University to support research into the evaluation of cardiac safety of medical products. CSRC supports research by engaging stakeholders from industry, academia, and government to share data and expertise regarding several areas of cardiac safety evaluation, including novel stem cell-based approaches, from preclinical through post-market periods.

Centre for Commercialization of Regenerative Medicine

The Toronto-based Centre for Commercialization of Regenerative Medicine (CCRM) is a not-for-profit, public-private consortium funded by the Government of Canada, six Ontario-based institutional partners and more than 20 companies representing the key sectors of the regenerative medicine industry. CCRM supports the development of foundational technologies that accelerate the commercialization of stem cell- and biomaterials-based products and therapies.

In December 2012, we formalized our membership in the CCRM's Industry Consortium. Other members of CCRM's Industry Consortium include such leading global companies as Pfizer, GE Healthcare and Lonza. The industry leaders that comprise the CCRM consortium benefit from proprietary access to certain licensing opportunities, academic rates on fee-for-service contracts at CCRM and opportunities to participate in large collaborative projects, among other advantages. Our CCRM membership reflects our strong association with CCRM and its core programs and objectives,

both directly and through our strategic relationships with Dr. Gordon Keller and UHN. We believe our long-term sponsored research agreement with Dr. Keller, UHN and UHN's McEwen Centre for Regenerative Medicine offers a solid foundation and unique opportunities for expanding the commercial applications of our Human Clinical Trials in a Test Tube platform by building multi-party collaborations with CCRM and members of its Industry Consortium. We believe these collaborations have the potential to transform medicine and accelerate significant advances in human health and wellness that stem cell technologies and regenerative medicine promise.

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Duke University

In November 2011, we entered into a strategic collaboration with Duke University, one of the premier academic research institutions in the U.S., aimed at combining our complementary expertise in cardiac stem cell technology, electrophysiology and tissue engineering. The initial goal of the collaboration is to explore the potential development of novel, engineered, stem cell-derived cardiac tissues to expand the scope of our drug rescue capabilities focused on heart toxicity. We expect that this collaboration, employing our human stem cell-derived heart cells combined with Duke's technology relating to cardiac electrophysiology and cardiac tissue engineering, will permit us to use micro-patterned cardiac tissue to expand the approaches available to us in our drug rescue programs to quantify drug effects on functional human cardiac tissue.

In May 2013, we announced that our scientists together with researchers at Duke University combined our human stem cell-derived heart cells with Duke's innovative tissue engineering and cardiac electrophysiology technologies to grow what is being called a "heart patch," which mimics the natural functions of native human heart tissue. We believe this is the closest man-made approximation of natural human heart muscle to date. This heart patch technology is being developed to aid in a better understanding of the biology critical to cardiac tissue engineering, for applications in regenerative cell therapy for heart disease, and as predictive in vitro assays for drug rescue and development. We believe the developed contractile forces and other functional properties of these cardiac tissues are remarkable and are significantly higher than any previous reports. The achievement of successfully growing a human heart muscle from cardiomyocytes derived from human pluripotent stem cells expands the scope of our drug rescue capabilities and reflects the advanced nature and potential of our collaboration with Duke University.

Achieving this capability represents a potentially significant breakthrough in heart cell-based therapies and in testing new medicines for potential heart toxicity and potential therapeutic benefits impacting heart disease.

The following are among several key development points from the study:

- The optimized 3D environment of a cardiac tissue patch yields advanced levels of structural and functional maturation of human cardiomyocytes that produce expected responses to drugs;

- Human cardiomyocyte maturation in an optimized 3D patch environment is enhanced relative to that found in industry standard 2D cultures;

- No genetic modifications were used to produce, purify, or mature cardiomyocytes, suggesting potential for future therapeutic applications;

- Cardiac tissue patches generated using VistaGen's cardiomyocytes exhibited 2.2-180 fold higher contractile force generation compared to previous studies;

- Based on a force per cardiomyocyte metric, cardiac tissue engineering methodology that used VistaGen's cardiomyocytes exhibited 4-700-fold higher efficiency than previously reported; and

Cardiac tissue patches generated using VistaGen's cardiomyocytes exhibited velocities of electrical signal propagation 5-fold higher compared to previous reports in human engineered cardiac tissues.

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Cato Research and Cato BioVentures

Cato Research

Cato Research is a contract research and development organization (CRO), with international resources dedicated to helping biotechnology and pharmaceutical companies navigate the regulatory approval process in order to bring new biologics, drugs and medical devices to markets throughout the world. Cato Research has in-house capabilities to assist its sponsors with aspects of the drug development process including regulatory strategy, nonclinical and toxicology development, clinical development, data processing, data management, statistical analysis, regulatory applications, including INDs and NDAs, chemistry, manufacturing, and control programs, cGCP, cGLP and cGMP audit and compliance activities, and due diligence review of emerging technologies. Cato Research's senior management team, including co-founders Allen Cato, M.D., Ph.D. and Lynda Sutton, has over 25 years of experience interacting with the FDA and international regulatory agencies and a successful track record of product approvals. Should we elect to advance development of Drug Rescue Variants internally rather than license or sell them at an early-stage to pharmaceutical companies or others, we believe our long term strategic relationship with Cato Research provides us with real time access to the global connections, insight and knowledge necessary to effectively plan, execute and manage successful nonclinical and clinical development programs throughout the world without incurring the substantial expenses typically associated with establishing and maintaining a wide range of drug development capabilities in-house.

Cato BioVentures

Cato Holding Company, doing business as Cato BioVentures ("Cato BioVentures"), is the venture capital affiliate of Cato Research. Through strategic CRO service agreements with Cato Research, Cato BioVentures invests in therapeutics and medical devices, as well as platform technologies such as our stem cell technology-based Human Clinical Trials in a Test Tube platform, which its principals believe, based on their experience as management of Cato Research, are capable of transforming the traditional drug development process and the R&D productivity of the biotechnology and pharmaceutical industries.

Our Relationship with Cato Research and Cato BioVentures

Cato Research is our primary CRO for development of AV-101. Cato BioVentures is among our largest institutional investors.

As a result of the access Cato Research has to potential Drug Rescue Candidates from its biotechnology and pharmaceutical industry network, as well as Cato BioVentures' strategic long term equity interest in VistaGen, we believe that our relationships with Cato BioVentures and Cato Research may provide us with unique opportunities relating to our drug rescue efforts that will permit us to leverage both their industry connections and the CRO resources of Cato Research, either on a contract research basis or in exchange for economic participation rights, should we develop Drug Rescue Variants on our own rather than license them to strategic partners.

United States National Institutes of Health

Since our inception in 1998, the U.S. National Institutes of Health ("NIH") has awarded us $11.3 million in non-dilutive research and development grants, including $2.3 million to support research and development of our Human Clinical Trials in a Test Tube platform and $8.8 million for nonclinical and Phase 1 clinical development of AV-101, our small molecule drug candidate which has successfully completed Phase 1 clinical development in the U.S. for neuropathic pain and other potential diseases and conditions, including epilepsy and depression.

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California Institute for Regenerative Medicine

The California Institute for Regenerative Medicine ("CIRM") funds stem cell research at academic research institutions and companies throughout California. CIRM was established in 2004 with the passage of Stem Cell Initiative (Proposition 71) by California voters. As a stem cell company based in California since 1998, we are eligible to apply for and receive grant funding under the Stem Cell Initiative. To date we have been awarded approximately $1.0 million of non-dilutive grant funding from CIRM for stem cell research and development related to stem cell-derived human liver cells. This funded research and development focused on the improvement of techniques and the production of engineered human ES Cell lines used to develop mature functional human liver cells as a biological system for testing drugs.

Celsis In Vitro Technologies

In March 2013, we entered into a strategic collaboration with Celsis In Vitro Technologies ("Celsis IVT"), a premier global provider of specialized in vitro products for drug metabolism, drug-drug interaction and toxicity screening, focused on characterizing and functionally benchmarking our human liver cell platform, LiverSafe 3D™ with Celsis IVT products for studying and predicting drug metabolism. We intend to utilize Celsis IVT's experience and expertise in in vitro drug metabolism to help validate LiverSafe 3D. We anticipate that Celsis IVT will not only validate our human liver cells in traditional pharmaceutical metabolism assays, but also will determine genetic variations in our human pluripotent stem cell lines that are important to drug development. In addition, we plan to utilize Celsis IVT's large inventory of cryopreserved primary human liver cells, currently used throughout the pharmaceutical industry for traditional and high-throughput liver toxicology and other bioassays, as reference controls with which to monitor and benchmark the functional properties of LiverSafe 3D.
Collaborating with Celsis IVT scientists, we are focused on the following four key objectives:

- Optimize techniques to handle and maintain primary human cryopreserved primary liver cells as reference controls for various drug development assays;

- Develop a stable supply of characterized and validated human cryopreserved primary liver cells to serve as internal controls and provide benchmark comparisons for the characterization of our pluripotent stem cell-derived liver cells;

- Characterize our human pluripotent stem cell-derived liver cells using many of the same industry-standardized assays used to characterize primary human liver cells; and

- Produce a joint publication of the characterization of our pluripotent stem cell-derived human liver cells.

As an industry leader in the development of in vitro primary hepatocyte technology, we believe Celsis IVT has extensive resources to aid us in the benchmarking LiverSafe 3D to industry standards. We anticipate this collaboration will lead to the further validation of LiverSafe 3D for predicting liver toxicity and drug metabolism issues before costly human clinical trials.

Synterys, Inc.

In December 2011, we entered into a strategic medicinal chemistry collaboration agreement with Synterys, Inc. (Synterys), a leading medicinal chemistry and collaborative drug discovery company. We believe this important collaboration will further our drug rescue initiatives with the support of Synterys' medicinal chemistry expertise. In addition to providing flexible, real-time contract medicinal chemistry services in support of our drug rescue programs, we anticipate potential collaborative opportunities with Synterys wherein we may jointly identify and develop Drug Rescue Variants.

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Intellectual Property

Intellectual Property Rights Underlying our Human Clinical Trials in a Test Tube Platform

We have established our intellectual property rights to the technology underlying our Human Clinical Trials in a Test Tube platform through a combination of exclusive and non-exclusive licenses, patent, and trade secret laws. To our knowledge, we are the first stem cell company focused primarily on stem cell technology-based drug rescue. We have assembled an intellectual property portfolio around the use of pluripotent stem cell technologies in drug discovery and development and with specific application to drug rescue. The differentiation protocols we have licensed direct the differentiation of pluripotent stem cells through:

- a combination of growth factors (molecules that stimulate the growth of cells);
- the experimentally controlled regulation of developmental genes, which is critical for determining what differentiation path a human cell will take; and
- precise selection of immature cell populations for further growth and development.

By influencing key branch points in the cellular differentiation process, our pluripotent stem cell technologies can produce fully-differentiated, non-transformed, highly functional human cells in vitro in an efficient, highly pure and reproducible process.

As of the date of this report, we either own or have licensed 43 issued U.S. patents and 12 U.S. patent applications and certain foreign counterparts relating to the stem cell technologies that underlie our Human Clinical Trials in a Test Tube platform. Our material rights and obligations with respect to these patents and patent applications are summarized below:

Licenses

National Jewish Health (NJH) Exclusive License

We have exclusive licenses to seven issued U.S. patents held by NJH. No foreign counterparts to these U.S. patents and patent application have been obtained. These U.S. patents contain claims covering composition of matter relating to specific populations of cells and precursors, methods to produce such cells, and applications of such cells for ES Cell-derived immature pluripotent precursors of all the cells of the mesoderm and endoderm lineages. Among other cell types, this covers cells of the heart, liver, pancreas, blood, connective tissues, vascular system, gut and lung cells.

Under this license agreement, we must pay to NJH 1% of our total revenues up to $30 million in each calendar year and 0.5% of all revenues for amounts greater than $30 million, with minimum annual payments of $25,000. Additionally, we are obligated under the agreement to make certain royalty payments on sales of products based on NJH's patents or the sublicensing of such technology. The royalty payments are subject to anti-stacking provisions which reduce our payments by a percentage of any royalty payments and fees paid to third parties who have licensed necessary intellectual property to us. This agreement remains in force for the life of the patents so long as neither party elects to terminate the agreement upon the other party's uncured breach or default of an obligation under the agreement. We also have the right to terminate the agreement at any time without cause.

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Icahn School of Medicine at Mount Sinai School (MSSM) Exclusive License

We have an exclusive, field restricted, license to two U.S. patents and two U.S. patent applications, and their foreign counterparts filed by MSSM. Foreign counterparts have been filed in Australia (two), Canada (two), Europe (two), Japan (two), Hong Kong and Singapore. Two of the U.S. applications have been issued and the foreign counterparts in Australia and Singapore have been issued, while the two counterparts in Europe are pending. These patent applications have claims covering composition of matter relating to specific populations of cells and precursors, methods to produce such cells, and applications of such cells, including:

- the use of certain growth factors to generate mesoderm (that is, the precursors capable of developing into cells of the heart, blood system, connective tissues, and vascular system) from hESCs;
- the use of certain growth factors to generate endoderm (that is, the precursors capable of developing into cells of the liver, pancreas, lungs, gut, intestines, thymus, thyroid gland, bladder, and parts of the auditory system) from hESCs; and
- applications of cells derived from mesoderm and endoderm precursors, especially those relating to drug discovery and testing for applications in the field of in vitro drug discovery and development applications.

This license agreement requires us to pay annual license and patent prosecution and maintenance fees and royalty payments based on product sales and services that are covered by the MSSM patent applications, as well as for any revenues received from sublicensing. Any drug candidates that we develop, including any Drug Rescue Variants, will only require royalty payments to the extent they require the practice of the licensed technology. To the extent we incur royalty payment obligations from other business activities, the royalty payments are subject to anti-stacking provisions which reduce our payments by a percentage of any royalty payments or fees paid to third parties who have licensed necessary intellectual property to us. The license agreement will remain in force for the life of the patents so long as neither party terminates the agreement for cause (i) due to a material breach or default in performance of any provision of the agreement that is not cured within 60 days or (ii) in the case of failure to pay amounts due within 30 days.

Wisconsin Alumni Research Foundation (WARF) Non-Exclusive License

We have non-exclusive licenses to 28 issued stem cell-related U.S. patents, 14 stem cell-related U.S. patent applications, of which two have been allowed, and certain foreign counterparts held by WARF, for applications in the field of in vitro drug discovery and development. Foreign counterparts have been filed in Australia, Canada, Europe, China, India, Hong Kong, Israel, Brazil, South Korea, India, Mexico, and New Zealand. The subject matter of these patents includes specific hESC lines and composition of matter and use claims relating to hESCs important to drug discovery, and drug rescue screening. We have rights to:

- use the technology for internal research and drug development;
- provide discovery and screening services to third parties; and
- market and sell research products (that is, cellular assays incorporating the licensed technology).

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This license agreement requires us to make royalty payments based on product sales and services that incorporate the licensed technology. We do not believe that any drug rescue candidates to be developed by us will incorporate the licensed technology and, therefore, no royalty payments will be payable. Nevertheless, there is a minimum royalty of $20,000 per calendar year. There are also milestone fees related to the discovery of therapeutic molecules, though no royalties are owed on such molecules. The royalty payments are subject to anti-stacking provisions which reduce our payments by a percentage of any royalty payments paid to third parties who have licensed necessary intellectual property to us. The agreement remains in force for the life of the patents so long as we pay all monies due and do not breach any covenants, and such breach or default is uncured for 90 days. We may also terminate the agreement at any time upon 60 days' notice. There are no reach through royalties on customer-owned small molecule or biologic drug products developed using the licensed technologies.

Our Patents

We have filed two U.S. patent applications on liver stem cells and their applications in drug development relating to toxicity testing; one patent has issued and a second patent application is pending. Of the related international filings, European, Canadian and Korean patents were issued. The European patent has been validated in 11 European countries. We have filed a U.S. patent application, with foreign counterpart filing in Canada and Europe, directed to methods for producing human pluripotent stem cell-derived endocrine cells of the pancreas, with a specific focus on beta-islet cells, the cells that produce insulin, and their uses in diabetes drug discovery and screening.

The material patents currently related to the generation of human heart and liver cells for use in connection with our drug rescue activities are set forth below:

Territory	Patent No.	General Subject Matter	Expiration
US	7,763,466	Method to produce endoderm cells	May 2025
US	7,955,849	Method of enriching population of mesoderm cells	May 2023
US	8,143,009	Toxicity typing using liver stem cells	June 2023

With respect to AV-101, we recently filed three new U.S. patent applications.

Trade Secrets

We rely, in part, on trade secrets for protection of some of our intellectual property. We attempt to protect trade secrets by entering into confidentiality agreements with third parties, employees and consultants. Our employees and consultants also sign agreements requiring that they assign to us their interests in patents and copyrights arising from their work for us.

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Sponsored Research Collaborations and Intellectual Property Rights

University Health Network, McEwen Centre for Regenerative Medicine, Toronto, Ontario

We have a stem cell research collaboration with our co-founder, Dr. Gordon Keller, Director of the UHN's McEwen Centre, focused on developing improved methods for differentiation of cardiomyocytes (heart cells) from pluripotent stem cells, and their uses as biological systems for drug development. Pursuant to our sponsored research collaboration agreement with UHN, we have the right to acquire exclusive worldwide rights to any inventions arising from studies we sponsor, under pre-negotiated license terms. Such pre-negotiated terms provide for royalty payments based on product sales that incorporate the licensed technology and milestone payments based on the achievement of certain events. Any Drug Rescue Variants that we develop will not incorporate the licensed technology and, therefore, will not require any royalty payments. To the extent we incur royalty payment obligations from other business activities, the royalty payments will be subject to anti-stacking provisions, which reduce our payments by a percentage of any royalty payments paid to third parties who have licensed necessary intellectual property to us. These licenses will remain in force for so long as we have an obligation to make royalty or milestone payments to UHN, but may be terminated earlier upon mutual consent, by us at any time, or by UHN for our breach of any material provision of the license agreement that is not cured within 90 days. We also have the exclusive option to sponsor research for similar cartilage, liver, pancreas and blood cell projects with similar licensing rights.

The sponsored research collaboration agreement with UHN, as amended, has a term of ten years, ending on September 18, 2017. Our 2012/2013 sponsored research project budget under the agreement ended on September 30, 2013. We are currently in discussions with Dr. Keller and UHN regarding the scope of our future sponsored research project budget under the agreement, and we anticipate finalizing such budget upon completion of this Offering. The ten-year term of the agreement is subject to renewal upon mutual agreement of the parties. The agreement may be terminated earlier upon a material breach by either party that is not cured within 30 days. UHN may elect to terminate the agreement if we become insolvent or if any license granted pursuant to the agreement is prematurely terminated. We have the option to terminate the agreement if Dr. Keller stops conducting his research or ceases to work for UHN.

UHN License for Stem Cell Culture Technology

In April 2012, we licensed breakthrough stem cell culture technology from UHN's McEwen Centre. We intend to utilize the licensed technology to develop hematopoietic precursor stem cells from human pluripotent stem cells, with the goal of developing drug screening and cell therapy applications for human blood system disorders. The breakthrough technology is included in a new United States patent application. We believe this stem cell technology dramatically advances our ability to produce and purify this important blood stem cell precursor for both in vitro drug screening and in vivo cell therapy applications. In addition to defining new cell culture methods for our use, the technology describes the surface characteristics of stem cell-derived adult hematopoietic stem cells. Most groups study embryonic blood development from stem cells, but, for the first time, we are now able to not only purify the stem cell-derived precursor of all adult hematopoietic cells, but also pinpoint the precise timing when adult blood cell differentiation takes place in these cultures. We believe these early cells have the potential to be the precursors of the ultimate adult, bone marrow-repopulating hematopoietic stem cells to repopulate the blood and immune system when transplanted into patients prepared for bone marrow transplantation. These cells have important potential therapeutic applications for the restoration of healthy blood and immune systems in individuals undergoing transplantation therapies for cancer, organ grafts, HIV infections or for acquired or genetic blood and immune deficiencies.

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AV-101-Related Intellectual Property

We have exclusive licenses to issued U.S. patents related to the use and function of AV-101, and various central nervous system (CNS)-active molecules related to AV-101. These patents are held by the University of Maryland, Baltimore, the Cornell Research Foundation, Inc. and Aventis, Inc. The principle U.S. method of use patent related to AV-101 expired in February 2011. Foreign counterparts to that U.S. patent expired in February 2012. However, through the date of this report, in 2013, we have filed three new U.S. patent applications relating to AV-101. In addition, among the key components of our commercial protection strategy with respect to AV-101 is the New Drug Product Exclusivity provided by the FDA under section 505(c)(3)(E) and 505(j)(5)(F) of the Federal Food, Drug, and Cosmetic Act (FDCA). The FDA's New Drug Product Exclusivity is available for new chemical entities (NCEs) such as AV-101, which, by definition, are innovative and have not been approved previously by the FDA, either alone or in combination. The FDA's New Drug Product Exclusivity protection provides the holder of an FDA-approved new drug application (NDA) five (5) years of protection from new competition in the U.S. marketplace for the innovation represented by its approved new drug product. This protection precludes FDA approval of certain generic drug applications under section 505(b)(2) of the FDCA, as well certain abbreviated new drug applications (ANDAs), during the five-year exclusivity period, except that such applications may be submitted after four years if they contain a certification of patent invalidity or non-infringement.

Under the terms of our license agreement, we may be obligated to make royalty payments on 2% of net sales of products using the unexpired patent rights, if any, including products containing compounds covered by the patent rights. Additionally, we may be required to pay a 1% royalty on net sales of combination products that use unexpired patent rights, if any, or contain compounds covered by the patent rights. Consequently, future sales of AV-101 may be subject to a 2% royalty obligation. There are no license, milestone or maintenance fees under the agreement. The agreement remains in force until the later of: (i) the expiration or invalidation of the last patent right; and (ii) 10 years after the first commercial sale of the first product that uses the patent rights or contains a compound covered by the patent rights. This agreement may also be terminated earlier at the election of the licensor upon our failure to pay any monies due, our failure to provide updates and reports to the licensor, our failure to provide the necessary financial and other resources required to develop the products, or our failure to cure within 90 days any breach of any provision of the agreement. We may also terminate the agreement at any time upon 90 days' written notice so long as we make all payments due through the effective date of termination.

Competition

We believe that our human pluripotent stem cell (hPSC) technology platform, Human Clinical Trials in a Test Tube, the hPSC-derived human cells we produce, and the human cell-based assay systems we have developed are capable of being competitive in the diverse and rapidly growing stem cell and regenerative medicine markets, including markets involving the sale of hPSC-derived cells to third-parties for their in vitro drug discovery and safety testing, contract predictive toxicology drug screening services for third parties, internal drug discovery, development and rescue of new molecular entities (NMEs), and regenerative medicine, including in vivo cell therapy research and development. A representative list of such biopharmaceutical companies pursuing one or more of these potential applications of adult and/or pluripotent stem cell technology includes the following: Acea Biosciences, Advanced Cell Technology, Athersys, BioTime, Cellectis Bioresearch, Cellular Dynamics, Cellerant Therapeutics, Cytori Therapeutics, HemoGenix, International Stem Cell, NeoStem, Neuralstem, Organovo Holdings, PluriStem Therapeutics, Stem Cells, and Stemina BioMarker Discovery. Pharmaceutical companies and other established corporations such as Bristol-Myers Squibb, GE Healthcare Life Sciences, GlaxoSmithKline, Life Technologies, Novartis, Pfizer, Roche Holdings and others have been and are expected to continue pursuing internally various stem cell-related research and development programs. We anticipate that acceptance and use of hPSC technology for drug development and regenerative medicine will continue to occur and increase at pharmaceutical and biotechnology companies in the future.

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We believe the best and most valuable near term commercial application of our Human Clinical Trials in a Test Tube platform is internal production of NMEs, which we refer to as Drug Rescue Variants, through small molecule drug rescue. We believe that the stem cell technologies underlying our Human Clinical Trials in a Test Tube platform and our primary focus on opportunities to produce small molecule NMEs through drug rescue provide us substantial competitive advantages associated with application of human biology at the front end of the drug development process, before animal and human testing. Although we believe that our model for the application of human pluripotent stem cell technology for drug rescue is novel, significant competition may arise or otherwise increase considerably as the acceptance and use of hPSC technology, the sale of hPSC-derived human heart and liver cells, and the availability of hPSC-related contract predictive toxicology screening services, for drug discovery, development and rescue, as well as cell therapy and regenerative medicine, continue to become more widespread throughout the academic research community and the pharmaceutical and biotechnology industries. In addition, significant competition may arise from those academic research institutions, contract research organizations, and biopharmaceutical companies currently producing or capable of producing, currently using or capable of using, hPSC-derived heart cells and liver cells for third-party sales, contract screening or cell therapy research and development, that elect or their customers elect to transform their current business operations to include internal drug rescue and development of small molecule NMEs in a manner similar to our drug rescue model.

With respect to AV-101, we believe that a range of pharmaceutical and biotechnology companies have programs to develop small molecule drug candidates for the treatment of neuropathic pain, epilepsy, depression, Parkinson's disease and other neurological conditions and diseases, including Abbott Laboratories, GlaxoSmithKline, Johnson & Johnson, Novartis, and Pfizer. We expect that AV-101 will have to compete with a variety of therapeutic products and procedures. With respect to each Drug Rescue Variant we are able to produce, we anticipate that a range of pharmaceutical and biotechnology companies will have programs to develop small molecule drug candidates or biologics for the treatment of the diseases or conditions targeted by each such Drug Rescue Variant.

Government Regulation

United States

With respect to our stem cell research and development in the U.S., the U.S. government has established requirements and procedures relating to the isolation and derivation of certain stem cell lines and the availability of federal funds for research and development programs involving those lines. All of the stem cell lines that we are using were either isolated under procedures that meet U.S. government requirements and are approved for funding from the U.S. government, or were isolated under procedures that meet U.S. government requirements.

With respect to drug development, government authorities at the federal, state and local levels in the U.S. and other countries extensively regulate, among other things, the research, development, testing, manufacture, labeling, promotion, advertising, distribution, marketing, pricing and export and import of pharmaceutical products such as those we are developing. In the U.S., pharmaceuticals, biologics and medical devices are subject to rigorous FDA regulation. Federal and state statutes and regulations in the United States govern, among other things, the testing, manufacture, safety, efficacy, labeling, storage, export, record keeping, approval, marketing, advertising and promotion of our potential drug rescue variants. The information that must be submitted to the FDA in order to obtain approval to market a new drug varies depending on whether the drug is a new product whose safety and effectiveness has not previously been demonstrated in humans, or a drug whose active ingredient(s) and certain other properties are the same as those of a previously approved drug. Product development and approval within this regulatory framework takes a number of years and involves significant uncertainty combined with the expenditure of substantial resources.

All procedures we use to obtain clinical samples, and the procedures we use to isolate hESCs, are consistent with the informed consent and ethical guidelines promulgated by either the U.S. National Academy of Science, the

International Society of Stem Cell Research (ISSCR), or the NIH. These procedures and documentation have been reviewed by an external Stem Cell Research Oversight Committee, and all cell lines we use have been approved under one or more of these guidelines.

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The U.S. government and its agencies on July 7, 2009 published guidelines for the ethical derivation of hESCs required for receiving federal funding for hESC research. Should we seek NIH funding for our stem cell research and development, our request would involve the use of hESC lines that meet the NIH guidelines for NIH funding. In the U.S., the President's Council on Bioethics monitors stem cell research, and may make recommendations from time to time that could place restrictions on the scope of research using human embryonic or fetal tissue. Although numerous states in the U.S. are considering, or have in place, legislation relating to stem cell research, including California whose voters approved Proposition 71 to provide up to $3 billion of state funding for stem cell research in California, it is not yet clear what affect, if any, state actions may have on our ability to commercialize stem cell technologies.

Canada

In Canada, stem cell research and development is governed by two policy documents and by one legislative statute: the Guidelines for Human Pluripotent Stem Cell Research (the Guidelines) issued by the Canadian Institutes of Health Research; the Tri-Council Statement: Ethical Conduct for Research Involving Humans (the TCPS); and the Assisted Human Reproduction Act (the Act). The Guidelines and the TCPS govern stem cell research conducted by, or under the auspices of, institutions funded by the federal government. Should we seek funding from Canadian government agencies or should we conduct research under the auspices of an institution so funded, we may have to ensure the compliance of such research with the ethical rules prescribed by the Guidelines and the TCPS.

The Act subjects all research conducted in Canada involving the human embryo, including hESC derivation (but not the stem cells once derived), to a licensing process overseen by a federal licensing agency. However, as of the date of this report, the provisions of the Act regarding the licensing of hESC derivation were not in force

We are not currently conducting stem cell research in Canada. We are, however, sponsoring pluripotent stem cell research by Dr. Gordon Keller at UHN's McEwen Centre. We anticipate conducting pluripotent stem cell research (with both hESCs and hiPSCs), in collaboration with Dr. Keller and his research team, at UHN during 2014 and beyond pursuant to our long term sponsored research collaboration with Dr. Keller and UHN. Should the provisions of the Act come into force, we may have to apply for a license for all hESC research we may sponsor or conduct in Canada and ensure compliance of such research with the provisions of the Act.

Foreign

In addition to regulations in the U.S., we may be subject to a variety of foreign regulations governing clinical trials and commercial sales and distribution of our products outside of the U.S. Whether or not we obtain FDA approval for a product, we must obtain approval of a product by the comparable regulatory authorities of foreign countries before we can commence clinical trials or marketing of the product in those countries. The approval process varies from country to country, and the time may be longer or shorter than that required for FDA approval. The requirements governing the conduct of clinical trials, product licensing, pricing and reimbursement vary greatly from country to country.

Subsidiaries and Inter-Corporate Relationships

VistaGen Therapeutics. Inc., a California corporation, is our wholly-owned subsidiary and has the following two wholly-owned subsidiaries: VistaStem Canada Inc., a corporation incorporated pursuant to the laws of the Province of Ontario, intended to facilitate our stem cell-based research and development and drug rescue activities in Ontario, Canada including our collaboration with Dr. Keller and UHN should we elect to expand our U.S. operations into Canada; and Artemis Neuroscience, Inc., a corporation incorporated pursuant to the laws of the State of Maryland and focused on development of AV-101. The operations of VistaGen Therapeutics, Inc., a California corporation, and each of its two wholly-owned subsidiaries are managed by our senior management team based in South San Francisco,

California.

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Employees

We have ten full-time employees, four of whom have doctorate degrees. We anticipate adding up to ten additional employees, including at least two of whom will have a doctorate degree, within the twelve months following completion of the Offering. Currently, seven full-time employees work in research and development and laboratory support services and three full-time employees work in general and administrative roles. Staffing for all other functional areas is achieved through strategic relationships with service providers and consultants, each of whom provides services on an as-needed basis, including human resources and payroll, accounting and public company reporting, information technology, facilities, legal, stock plan administration, investor relations and web site maintenance, regulatory affairs, and FDA program management. In addition, we currently conduct some of our research and development efforts through sponsored research relationships with stem cell scientists at academic research institutions in the U.S. and Canada, including Dr. Keller's laboratories at UHN. See "Business – Strategic Transactions and Relationships."

None of our employees is represented by a labor union or is subject to a collective bargaining agreement. We believe that our current relationship with all of our employees is good.

Facilities

Our principal executive offices and laboratories are located in South San Francisco, California, where we occupy approximately 10,000 square feet of office and laboratory space under a lease that expires in July 2017. Upon completion of this Offering, we anticipate leasing approximately 10,000 square feet of additional office and laboratory space to facilitate our growth plans.

Legal Proceedings

From time to time, we may be a party to litigation and subject to claims incident to the ordinary course of business. We are not currently a party to any legal proceedings.

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MANAGEMENT

Directors and Executive Officers

Our directors and executive officers as of April 30, 2014 are as follows:

Name	Age	Position
Shawn K. Singh, J.D.	51	Chief Executive Officer and Director
H. Ralph Snodgrass, Ph.D.	64	Founder, President, Chief Scientific Officer and Director
Jerrold D. Dotson	60	Vice President, Chief Financial Officer and Secretary
Jon S. Saxe (1)	77	Director
Brian J. Underdown, PhD. (2)	73	Director

(1) Chairman of the audit committee and member of the compensation committee and corporate governance and nominating committee
(2) Member of the audit committee and chairman of the compensation committee and corporate governance and nominating committee

Executive Officers

Shawn K. Singh, J.D. has served as our Chief Executive Officer since August 2009; he joined our Board of Directors in 2000 and served on our management team (part-time) from late-2003, following our acquisition of Artemis Neuroscience, of which he was President, to August 2009. Mr. Singh has over 20 years of experience working with biotechnology, medical device and pharmaceutical companies, both private and public. From February 2001 to August 2009, Mr. Singh served as Managing Principal of Cato BioVentures, a life science venture capital firm, and as Chief Business Officer and General Counsel of Cato Research, a profitable global contract research organization (CRO) affiliated with Cato BioVentures. Mr. Singh served as President (part-time) of Echo Therapeutics (NASDAQ: ECTE), a medical device company, from September 2007 to June 2009, and as a member of its Board of Directors from September 2007 through December 2011. He also served as Chief Executive Officer (part-time) of Hemodynamic Therapeutics, a private biopharmaceutical company affiliated with Cato BioVentures, from November 2004 to August 2009. From late-2000 to February 2001, Mr. Singh served as Managing Director of Start-Up Law, a management consulting firm serving biotechnology companies. Mr. Singh also served as Chief Business Officer of SciClone Pharmaceuticals (NASDAQ: SCLN), a US-based, China-focused specialty pharmaceutical company with a substantial revenue-generating and profitable commercial business and a marketed product portfolio of differentiated therapies for oncology, infectious diseases and cardiovascular disorders, from late-1993 to late-2000, and as a corporate finance associate of Morrison & Foerster LLP, an international law firm, from 1991 to late-1993. Mr. Singh currently serves as a member of the Board of Directors of Armour Therapeutics, a private biotechnology company focused on prostate cancer. Mr. Singh earned a B.A. degree, with honors, from the University of California, Berkeley, and a J.D. degree from the University of Maryland School of Law. Mr. Singh is a member of the State Bar of California.

We selected Mr. Singh to serve on our Board of Directors due to his substantial practical experience and expertise in senior leadership roles with multiple private and public biotechnology, pharmaceutical and medical device companies, and his extensive experience in corporate finance, venture capital, corporate governance and strategic partnering.

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H. Ralph Snodgrass, Ph.D. co-founded VistaGen with Dr. Gordon Keller in 1998 and served as our Chief Executive Officer until August 2009. Dr. Snodgrass has served as our President and Chief Scientific Officer since August 2009. He has served as a member of our Board of Directors since 1998. Prior to founding VistaGen, Dr. Snodgrass served as a key member of the executive management team which lead Progenitor, Inc., a biotechnology company focused on developmental biology, through its initial public offering, and was its Chief Scientific Officer from June 1994 to May 1998, and its Executive Director from July 1993 to May 1994. He received his Ph.D. in immunology from the University of Pennsylvania, and has 20 years of experience in senior biotechnology management and over 10 years research experience as a professor at the Lineberger Comprehensive Cancer Center, University of North Carolina Chapel Hill School of Medicine, and as a member of the Institute for Immunology, Basel, Switzerland. Dr. Snodgrass is a past Board Member of the Emerging Company Section of the Biotechnology Industry Organization (BIO), and past member of the International Society Stem Cell Research Industry Committee. Dr. Snodgrass has published more than 50 scientific papers, is the inventor on more than 17 patents and a number of patent applications, is, or has been, the principal investigator on U.S. federal and private foundation sponsored research grants with budgets totaling more than $14.5 million and is recognized as an expert in stem cell biology with more than 28 years' experience in the uses of stem cells as biological tools for research, drug discovery and development.

We selected Dr. Snodgrass to serve on our board of directors due to his expertise in biotechnology focused on developmental biology, including stem cell biology, his extensive senior management experience leading biotechnology companies at all stages of development, as well as his reputation and standing in the fields of biotechnology and stem cell research, allow him to bring to us and the Board of Directors a unique understanding of the challenges and opportunities associated with pluripotent stem cell biology, as well as credibility in the markets in which we operate.

Jerrold D. Dotson, CPA has served as our Chief Financial Officer since September 2011, as our Corporate Secretary since October 2013 and as a Vice President since February 2014. Mr. Dotson served as Corporate Controller for Discovery Foods Company, a privately held Asian frozen foods company from January 2009 to September 2011. From February 2007 through September 2008, Mr. Dotson served as Vice President, Finance and Administration (principal financial and accounting officer) for Calypte Biomedical Corporation (OTCBB: CBMC), a publicly held biotechnology company. Mr. Dotson served as Calypte's Corporate Secretary from 2001 through September 2008. He also served as Calypte's Director of Finance from January 2000 through July 2005 and was a financial consultant to Calypte from August 2005 through January 2007. Prior to joining Calypte, from 1988 through 1999, Mr. Dotson worked in various financial management positions, including Chief Financial Officer, for California & Hawaiian Sugar Company, a privately held company. Mr. Dotson is licensed as a CPA in California and received his BS degree in Business Administration with a concentration in accounting from Abilene Christian College.

Directors

Jon S. Saxe, J.D. has served as Chairman of our Board of Directors since 2000. He also serves as the Chairman of our Audit Committee. Mr. Saxe is the retired President and was a director of PDL BioPharma. From 1989 to 1993, he was President, Chief Executive Officer and a director of Synergen, Inc. (acquired by Amgen). Mr. Saxe served as Vice President, Licensing & Corporate Development for Hoffmann-Roche from 1984 through 1989, and Head of Patent Law for Hoffmann-Roche from 1978 through 1989. Mr. Saxe currently is a director of SciClone Pharmaceuticals, Inc. (Nasdaq: SCLN) and Durect Corporation (Nasdaq: DRRX), and six private life science companies, including Arbor Vita Corporation and Arcuo Medical, LLC. Mr. Saxe also has served as a director of other biotechnology and pharmaceutical companies, including ID Biomedical (acquired by GlaxoSmithKline), Sciele Pharmaceuticals, Inc. (acquired by Shionogi), Amalyte (acquired by Kemin Industries), Cell Pathways (acquired by OSI Pharmaceuticals), and other companies, both public and private. Mr. Saxe has a B.S.Ch.E. from Carnegie-Mellon University, a J.D. degree from George Washington University and an LL.M. degree from New York University.

We selected Mr. Saxe to serve as Chairman of our Board of Directors due to numerous years of experience as a senior executive with major biopharmaceutical and biotechnology companies, including Protein Design Labs, Inc., Synergen, Inc. and Hoffmann-Roche, Inc., as well as his extensive experience serving as a director of numerous private and public biotechnology and pharmaceutical companies, serving as Chairman, and Chair and member of audit, compensation and governance committees of both private and public companies. Mr. Saxe provides us and our Board of Directors with highly valuable insight and perspective into the biotechnology and pharmaceutical industries, as well as the strategic opportunities and challenges that we face.

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Brian J. Underdown, Ph.D. has served as a member of our Board of Directors since November 2009. Dr. Underdown has served as Managing Director of Lumira Capital Corp. since September 1997, having started in the venture capital industry in 1997 with MDS Capital Corporation (MDSCC). His investment focus has been on therapeutics in both new and established companies in both Canada and the United States. Prior to joining MDSCC, Dr. Underdown held a number of senior management positions in the biopharmaceutical industry and at universities. Dr. Underdown's past and current board positions include: ID Biomedical, Trillium Therapeutics, Cytochroma Inc., Argos Therapeutics, Nysa Membrane Technologies, Ception Therapeutics and Transmolecular Therapeutics. He has served on a number of Boards and advisory bodies of government sponsored research organizations including CANVAC, the Canadian National Centre of Excellence in Vaccines, Ontario Genomics Institute, Allergen, the Canadian National Centre of Excellence in Allergy and Asthma. Dr. Underdown obtained his Ph.D. in immunology from McGill University and undertook post-doctoral studies at Washington University School of Medicine.

We selected Dr. Underdown to serve on our Board of Directors due to his extensive background working in the biotechnology and pharmaceutical industries, as a director of numerous private and public companies, as well as his venture capital experience funding and advising start-up and established companies focused on therapeutics.

Election of Executive Officers

Our executive officers are elected by, and serve at the discretion of, our board of directors. Each of our executive officers devotes his full time to our affairs. There are no family relationships among any of our directors or executive officers.

Board Composition

Our amended and restated bylaws provide that the authorized number of directors of the Company shall be not less than one nor more than seven, with the exact number of directors currently fixed at seven. The exact number may be amended only by the vote or written consent of a majority of the outstanding shares of our voting stock. Our board of directors currently consists of four members. Accordingly, there are currently three vacancies on our board of directors. Our board of directors anticipates filling each of such vacancies as soon as practicable following the completion of this Offering. All actions of the board of directors require the approval of a majority of the directors in attendance at a meeting at which a quorum is present.

Director Independence

Our securities are not currently listed on a national securities exchange or on any inter-dealer quotation system which has a requirement that directors be independent, or that a majority of our directors be independent. However, we evaluate independence by the standards for director independence established by applicable laws, rules, and listing standards, including, without limitation, the standards for independent directors established by the SEC, the New York Stock Exchange, Inc. and the Nasdaq National Market.

Subject to some exceptions, these standards generally provide that a director will not be independent if (a) the director is, or in the past three years has been, an employee of ours; (b) a member of the director's immediate family is, or in the past three years has been, an executive officer of ours; (c) the director or a member of the director's immediate family has received more than $120,000 per year in direct compensation from us other than for service as a director (or for a family member, as a non-executive employee); (d) the director or a member of the director's immediate family is, or in the past three years has been, employed in a professional capacity by our independent public accountants, or has worked for such firm in any capacity on our audit; (e) the director or a member of the director's immediate family is, or in the past three years has been, employed as an executive officer of a company where one of our executive officers serves on the compensation committee; or (f) the director or a member of the director's immediate family is an

executive officer of a company that makes payments to, or receives payments from, us in an amount which, in any twelve-month period during the past three years, exceeds the greater of $1,000,000 or two percent of that other company's consolidated gross revenues.

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Our board of directors has undertaken a review of its composition, the composition of its committees and the independence of each director. Based upon information requested from and provided by each director concerning his background, employment and affiliations, including family relationships, our board of directors has determined that Mr. Saxe and Dr. Underdown are "independent" as that term is defined under the applicable rules and regulations of the SEC. Our board of directors has also determined that Mr. Saxe and Dr. Underdown, who comprise our audit committee, compensation committee, corporate governance and nominating committee, satisfy the independence standards for those committees established by applicable SEC rules. In making these determinations, our board of directors considered the current and prior relationships that each non-employee director has with the Company and all other facts and circumstances that our board of directors deemed relevant.

Board Committees

Our board of directors has established an audit committee, a compensation committee and a corporate governance and nominating committee. The composition and responsibilities of each committee are described below. Members serve on these committees until their resignation or until otherwise determined by our board of directors. Our independent directors, Mr. Saxe and Dr. Underdown, are each members of the audit committee. Mr. Saxe and Dr. Underdown also currently serve as members of the compensation committee and the corporate governance and nominating committee.

Audit Committee

Our audit committee is comprised of Mr. Saxe and Dr. Underdown. Mr. Saxe is the chairman of our audit committee and is our audit committee financial expert, as that term is defined under SEC rules implementing Section 407 of the Sarbanes Oxley Act of 2002, and possesses the requisite financial sophistication, as defined under applicable rules. The audit committee operates under a written charter. Our audit committee charter is available on our website. Under its charter, our audit committee is primarily responsible for, among other things,

- overseeing our accounting and financial reporting process;
- selecting, retaining and replacing our independent auditors and evaluating their qualifications, independence and performance;
- reviewing and approving scope of the annual audit and audit fees;
- monitoring rotation of partners of independent auditors on engagement team as required by law;
- discussing with management and independent auditors the results of annual audit and review of quarterly financial statements;
- reviewing adequacy and effectiveness of internal control policies and procedures;
- approving retention of independent auditors to perform any proposed permissible non-audit services;
- overseeing internal audit functions and annually reviewing audit committee charter and committee performance; and
- preparing the audit committee report that the SEC requires in our annual proxy statement.

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Compensation Committee

Our compensation committee is comprised of Mr. Saxe and Dr. Underdown, who serves as the committee chairman. Our compensation committee charter is available on our website. Under its charter, the compensation committee is primarily responsible for, among other things,

- Reviewing and approving our compensation programs and arrangements applicable to our executive officers (as defined in Rule I 6a-I (f) of the Exchange Act), including all employment-related agreements or arrangements under which compensatory benefits are awarded or paid to, or earned or received by, our executive officers, including, without limitation, employment, severance, change of control and similar agreements or arrangements;

- Determining the objectives of our executive officer compensation programs;

- Ensuring corporate performance measures and goals regarding executive officer compensation are set and determining the extent to which they are achieved and any related compensation earned;

- Establishing goals and objectives relevant to CEO compensation, evaluating CEO performance in light of such goals and objectives, and determining CEO compensation based on the evaluation;

- Endeavoring to ensure that our executive compensation programs are effective in attracting and retaining key employees and reinforcing business strategies and objectives for enhancing stockholder value;

- Monitoring the administration of incentive-compensation plans and equity-based incentive plans as in effect and as adopted from time to time by the board;

- Reviewing and approving any new equity compensation plan or any material change to an existing plan; and

- Reviewing and approving any stock option award or any other type of award as may be required for complying with any tax, securities, or other regulatory requirement, or otherwise determined to be appropriate or desirable by the committee or board.

Corporate Governance and Nominating Committee

Our corporate governance and nominating committee is comprised of Mr. Saxe and Dr. Underdown, who serves as the committee chairman. Our corporate governance and nominating committee charter is available on our website. Under its charter, the corporate governance and nominating committee is primarily responsible for, among other things:

- Monitoring the size and composition of the board;

- Making recommendations to the board with respect to the nominations or elections of our directors;

- Reviewing the adequacy of our corporate governance policies and procedures and our Code of Business Conduct and Ethics, and recommending any proposed changes to the board for approval; and

- Considering any requests for waivers from our Code of Business Conduct and Ethics and ensure that we disclose such waivers as may be required by the exchange on which we are listed, if any, and rules and regulations of the SEC.

Code of Business Conduct and Ethics

We have adopted a Code of Business Conduct and Ethics applicable to our employees, officers and directors. Our Code of Business Conduct and Ethics is available on our website. We intend to disclose any future amendments to certain provisions of our Code of Business Conduct and Ethics, or waivers of these provisions, on our website or in filings with the SEC under the Exchange Act.

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EXECUTIVE COMPENSATION

Summary Compensation Table for Fiscal Years 2014 and 2013

This section provides compensation information about the following individuals:

- Shawn K. Singh, our Chief Executive Officer (CEO) and director;
- H. Ralph Snodgrass, our President, Chief Scientific Officer (CSO) and director; and
- Jerrold D. Dotson, our Vice President, Chief Financial Officer (CFO) and Secretary

In the discussion below, we refer to this group of executives as the named executive officers ("NEOs"). This group includes the executive officers for whom disclosure is required under the applicable rules of the SEC.

The following table shows information regarding the compensation of our named executive officers for services performed in the fiscal years ended March 31, 2014 and 2013:

Name and Principal Position	Fiscal Year	Salary ($)	Bonus ($)	Option and Warrant Awards (7) ($)	All Other Compensation ($)	Total ($)
Shawn K. Singh, J.D. (1)	2014	250,000(4)	-	159,802(8)	-	409,802
Chief Executive Officer	2013	201,646	-	802,411(9) (10)	-	1,004,057
H. Ralph Snodgrass, Ph.D. (2)	2014	(5) 250,000	-	(8) 102,353	-	352.353
President, Chief Scientific Officer	2013	203,086	-	(10) 534,941	-	738,027
Jerrold D. Dotson (3)	2014	200,000(6)	-	36,846(8)	-	236,846
Vice President, Chief Financial Officer, Secretary	2013	97,269	-	134,316(11)	62,333(12)	293,918

(1) Mr. Singh became VistaGen California's Chief Executive Officer on August 20, 2009 and our Chief Executive Officer in May 2011, in connection with the Merger. In our fiscal years ended March 31, 2014 and 2013, Mr. Singh's annual base cash salary, excluding potential cash bonus amounts, pursuant to his January 2010 employment agreement was contractually set at $347,500. However, to conserve cash for our operations during our fiscal years ended March 31, 2014 and 2013, Mr. Singh voluntarily reduced his base cash salary in each of such fiscal years to the amounts indicated. In addition, pursuant to his employment agreement, Mr. Singh is eligible to receive an annual incentive bonus of up to fifty percent (50%) of his base cash salary. However to conserve cash for our operations during our fiscal years ended March 31, 2014 and 2013, Mr. Singh voluntarily refrained from receiving any cash bonus from us.

(2) Through August 20, 2009, Dr. Snodgrass served as VistaGen California's President and Chief Executive Officer, at which time he became its President and Chief Scientific Officer. He became our President and Chief Scientific Officer in May 2011, in connection with the Merger. In our fiscal years ended March 31, 2014 and 2013, Dr. Snodgrass' annual base cash salary, excluding potential cash bonus amounts, pursuant to his January 2010 employment

agreement was contractually set at $305,000. However, to conserve cash for our operations during our fiscal years ended March 31, 2014 and 2013, Dr. Snodgrass voluntarily reduced his base cash salary in each of such fiscal years to the amounts indicated. In addition, pursuant to his employment agreement, Dr. Snodgrass is eligible to receive an annual incentive bonus of up to fifty percent (50%) of his base cash salary. However to conserve cash for our operations during our fiscal years ended March 31, 2014 and 2012, Dr. Snodgrass voluntarily refrained from receiving any cash bonus from us.

(3) Mr. Dotson served as Chief Financial Officer on a part-time contract basis from September 19, 2011 through August 2012, at which time he became a full-time employee of the Company.

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(4) Of this amount, Mr. Singh received only $125,000 in cash; the remaining balance has been accrued for future payment.

(5) Of this amount, Dr. Snodgrass received only $149,606 in cash; the remaining balance has been accrued for future payment.

(6) Of this amount, Mr. Dotson received only $143,333 in cash; the remaining balance has been accrued for future payment.

(7) The amounts in Option and Warrant Awards column do not represent any cash payments actually received by Mr. Singh, Dr. Snodgrass or Mr. Dotson with respect to any of the options or warrants to purchase restricted shares of our common stock awarded to them or modified during the periods presented. Rather, the amounts in the Option and Warrant Awards column represent the deemed aggregate grant date fair value of options or warrants to purchase restricted shares of our common stock awarded to Mr. Singh, Dr. Snodgrass and Mr. Dotson or the effect of modifications to prior grants of options or warrants occurring during the fiscal year presented, computed in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718, Compensation – Stock Compensation ("ASC 718"). Except as indicated in note (9) below, to date, Mr. Singh, Dr. Snodgrass and Mr. Dotson have not exercised such options or warrants to purchase common stock, and there can be no assurance that any of them will ever realize any of the ASC 718 grant date fair value amounts presented in the Option and Warrant Awards column.

The table below provides information regarding the option and warrant awards and modifications we granted to Mr. Singh, Dr. Snodgrass and Mr. Dotson during fiscal 2014 and the assumptions used in the Black Scholes Option Pricing Model to determine the grant date fair values of the respective awards and modifications:

	Option Grant	Warrant Grant	Option Modification		Warrant Modification		Option/Warrant Exchange (a)	
	10/27/2013	3/19/2014	12/20/2013		12/20/2013		3/19/2014	
Singh	$ -	$ -	$ 134,436		$ 25,366			$
Snodgrass	-	14,560	56,835		-			30,
Dotson	6,380	29,120	1,346		-			
	$ 6,380	$ 43,680	$ 192,617		$ 25,366			$ 30,
			Before	After	Before	After	Before	Afte
Market price per share	$ 0.40	$ 0.46	$ 0.40	$ 0.40	$ 0.40	$ 0.40	$ 0.46	$ 0
Exercise price per share	$ 0.40	$ 0.50	$ 0.75 to $2.10	$ 0.50	$ 0.50 to $1.75	$ 0.50	$ 0.50	$ 0
	1.675%	1.750%	0.7% to	0.12% to	0.07% to	0.75% to	0.106%	1.750%

Risk-free interest rate			2.68%	2.68%	1.18%	1.18%						
Volatility	99.53%	80.57%	68.8% to 97.6%	68.8% to 97.6%	68.76% to 78.21%	76.51% to 78.21%	68.96%	80.57%				
Expected term (years)	6.25	5.00	0.25 to 8.86	0.87 to 8.86	0.03 to 3.96	3.03 to 3.96	0.63	5				
Dividend rate	0%	0%	0%	0%	0%	0%	0%	0%				
Fair value per share	$ 0.32	$ 0.29	$ 0.00 to $0.32	$ 0.07 to $0.34	$ 0.00 to $0.11	$0.18 to $0.21	$ 0.08	$ 0				
Aggregate shares	20,000	150,000	2,322,500	2,322,500	166,052	166,052	150,000	150,				

(a) On March 19, 2014, the Board and Dr. Snodgrass agreed to cancel a fully-vested option to purchase 150,000 shares of our restricted common stock at a price of $0.50 per share and expiring on November 4, 2014 in exchange for the grant of a five-year warrant to purchase 150,000 shares of our restricted common stock at a price of $0.50 per share. Shares subject to the cancelled option grant were returned to the 2008 Stock Incentive Plan for potential future grants. The cancellation of the option and grant of the warrant was accounted for as a modification of an award under ASC 718 and, accordingly, the difference in the fair value of the two instruments at the modification date was recorded in stock compensation expense and is the amount reported in the table above.

(9) In June and October 2013, Mr. Singh exercised warrants granted to him in March 2013, described in Note 10, below, to purchase an aggregate of 60,000 shares of our restricted common stock at $0.64 per share. Mr. Singh continues to hold the shares of our restricted common stock issued upon his exercise of the warrants.

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(10) We used the Black Scholes Option Pricing Model and the following assumptions for determining the grant date fair value of the warrants to purchase shares of our common stock granted in March 2013.

Market price per share	$0.64	
Exercise price per share	$0.64	
Risk-free interest rate	1.86	%
Expected Term (years)	10.0	
Volatility	84.73	%
Dividend rate	0.0	%
Grant date fair value per share	$0.53	

Mr. Singh, Dr. Snodgrass and Mr. Dotson were granted warrants to purchase 1,500,000, 1,000,000 and 200,000 restricted shares of our common stock, respectively.

(11) In October 2012, we modified the stock option award granted to Mr. Dotson in September 2011 to reduce the exercise price of the option from $2.58 per share to $0.75 per share and granted him a new stock option to purchase an additional 50,000 restricted shares of our common stock. We used the Black Scholes Option Pricing Model and the following assumptions to determine incremental fair value of the modified option and the grant date fair value of $0.51 per share for the new option: market price per share: $0.71; exercise price per share: $0.75; risk-free interest rate: 1.00%; expected term: 6.25 years; volatility 85.35%; dividend rate: 0%. The figure reported includes (i) the grant date fair value of the warrant granted to Mr. Dotson, determined in accordance with the assumptions described in note 5 above, $106,988; (ii) the fair value of the new option, $25,385; and (iii) the incremental fair value resulting from the modification of the September 2011 stock option grant, $1,943.

(12) Amount shown represent cash compensation paid to Mr. Dotson under the terms of the consulting agreement between us and Mr. Dotson for the period April 2012 through August 2012.

None of the NEOs is entitled to perquisites or other personal benefits which, in the aggregate, are worth over $50,000 or over 10% of their base salary.

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Options and Warrants Granted to Named Executive Officers

The following table provides information regarding each unexercised stock option and warrant to purchase restricted shares of our common stock held by each of the named executive officers as of March 31, 2014:

	Stock Options			
Name	Number of Securities Underlying Unexercised Options (#) Exercisable	Number of Securities Underlying Unexercised Options (#) Unexercisable	Option Exercise Price ($)	Option Expiration Date
Shawn K. Singh, J.D.	20,000	-	0.80	12/21/2016
	40,000	-	0.72	5/17/2017
	20,000	-	0.50	1/17/2018
	20,000	-	0.50	1/17/2018
	60,000	-	0.50	3/24/2019
	22,500	-	0.50	6/17/2019
	1,000,000	-	0.50	11/4/2019
	425,000	-	0.50	12/30/2019
	72,916	27,084	0.50	4/25/2021
	80,338	-	.0.50	12/31/2016
	35,714	-	0.50	12/31/2016
	50,000	-	0.50	12/6/2017
	100,000	-	1.00	7/30/2016
	690,000	750,000 (1)	0.64	3/3/2023
Total:	2,636,468	777,084		
H. Ralph Snodgrass, Ph.D.	50,000	-	0.50	3/24/2019
	25,000	-	0.50	6/17/2014
	6,362	-	0.88	12/20/2016
	250,000	-	0.50	12/30/2019
	72,916	27,084	0.50	4/25/2021
	500,000	500,000(1)	0.64	3/3/2023
	-	50,000(2)	0.50	3/19/2024
	-	150,000(2)	0.50	3/19/2024
Total:	904,278	727,084		
Jerrold D. Dotson	74,782	25,218	0.50	10/30/2022
	4,166	15,834	0.40	10/27/2023
	100,000	100,000 (1)	0.64	3/3/2023
	-	100,000 (2)	0.50	3/19/2024
Total:	178,948	241,052		

(1) Represents warrant to purchase restricted shares of our common stock granted on March 3, 2013 at the market price of our common stock on the grant date. At March 31, 2014, the warrant is exercisable for 50% of the shares and becomes exercisable for 25% of the shares on April 1, 2014 and will become fully vested on April 1, 2015 or upon a change in control of the Company, as defined, or upon the consummation by the Company and a third

party of a license or sale transaction involving at least one new Drug Rescue Variant.

(2) Represents warrant to purchase restricted shares of our common stock granted on March 19, 2014 when the market price of our common stock was $0.46 per share. The warrant becomes exercisable for 50% of the shares on April 1, 2014, 25% of the shares on April 1, 2015 and 25% of the shares on April 1, 2016, provided that the warrant will become fully vested upon a change in control of the Company, as defined, or upon the consummation by the Company and a third party of a license or sale transaction involving at least one new Drug Rescue Variant.

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Employment or Severance Agreements

We have employment agreements with Mr. Singh and Dr. Snodgrass.

Singh Agreement

We entered into an employment agreement with Mr. Singh on April 28, 2010. Under the agreement, as amended on May 9, 2011, Mr. Singh's base salary is $347,500 per year. However, Mr. Singh has not received his full base salary in any fiscal year since he entered into his agreement in 2010. In each of our fiscal years ended March 31, 2014, 2013, 2012 and 2011, Mr. Singh voluntarily reduced his base salary to $250,000, $201,646, 292,268 and $168,274, respectively, to conserve cash for our operations. Although, under his agreement, Mr. Singh is eligible to receive an annual incentive cash bonus of up to 50% of his base salary, he has voluntarily foregone any such cash bonus payment to conserve cash for our operations. Payment of his annual incentive bonus is at the discretion of our board of directors. In the event we terminate Mr. Singh's employment without cause, he is entitled to receive severance in an amount equal to:

- twelve months of his then-current base salary payable in the form of salary continuation;
- a pro-rated portion of the incentive cash bonus that the board of directors determines in good faith that Mr. Singh earned prior to his termination; and
- such amounts required to reimburse him for Consolidated Omnibus Budget Reconciliation Act ("COBRA") payments for continuation of his medical health benefits for such twelve-month period.

In addition, in the event Mr. Singh terminates his employment with good reason following a change of control, he is entitled to twelve months of his then-current base salary payable in the form of salary continuation.

In December 2006, we accepted a full-recourse promissory note in the amount of $103,411 from Mr. Singh in payment of the exercise price for options and warrants to purchase an aggregate of 126,389 shares of our common stock. On May 11, 2011, in connection with the Merger, the $128,168 outstanding balance of the principal and accrued interest on this note was cancelled in accordance with Mr. Singh's employment agreement and was treated as additional compensation. In accordance with his employment agreement, Mr. Singh is entitled to an income tax gross-up payment on the compensation related to the note cancellation. At March 31, 2014 and 2013, we had accrued $101,936 as an estimate of the gross-up amount. However, at Mr. Singh's suggestion, we have not yet paid such amount to Mr. Singh to conserve capital for our operations. See Notes 9 and 14 to our audited consolidated financial statements which are included elsewhere in this prospectus.

Snodgrass Agreement

We entered into an employment agreement with Dr. Snodgrass on April 28, 2010. As amended on May 9, 2011, under the agreement, Dr. Snodgrass's base salary is $305,000 per year. However, Dr. Snodgrass has not received his full base salary in any fiscal year since he entered into his agreement in 2010. In each of our fiscal years ended March 31, 2014, 2013, 2012 and 2011, Dr. Snodgrass voluntarily reduced his annual salary to $250,000, $203,086, $249,266 and $141,486, respectively, to conserve cash for our operations. Dr. Snodgrass is eligible to receive an annual incentive cash bonus of up to 50% of his base salary. Payment of his annual incentive bonus is at the discretion of the board of directors. In the event we terminate Dr. Snodgrass's employment without cause, he is entitled to receive severance in an amount equal to:

twelve months of his then-current base salary payable in the form of salary continuation;

a pro-rated portion of the incentive bonus that the board of directors determines in good faith that Dr. Snodgrass earned prior to his termination; and

such amounts required to reimburse him for COBRA payments for continuation of his medical health benefits for such twelve-month period.

In addition, in the event Dr. Snodgrass terminates his employment with good reason, he is entitled to twelve months of his then-current base salary payable in the form of salary continuation.

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Change of Control Provisions

Pursuant to each of their respective employment agreements, Dr. Snodgrass is entitled to severance if he terminates his employment at any time for "good reason" (as defined below), while Mr. Singh is entitled to severance if he terminates his employment for good reason after a change of control. Under their respective agreements, "good reason" means any of the following events, if the event is effected by us without the executive's consent (subject to our right to cure):

a material reduction in the executive's responsibility; or

a material reduction in the executive's base salary following the Merger except for reductions that are comparable to reductions generally applicable to similarly situated executives of the Company.

Furthermore, pursuant to their respective employment agreements and their stock option award agreements as amended, in the event we terminate the executive without cause within twelve months of a change of control, the executive's remaining unvested shares become fully vested and exercisable. Upon a change of control in which the successor corporation does not assume the executive's stock options, the stock options granted to the executive become fully vested and exercisable.

Pursuant to their respective employment agreements, a change of control occurs when: (i) any "person" as such term is used in Sections 13(d) and 14(d) of the Securities Exchange Act of 1934, as amended (other than the Company, a subsidiary, an affiliate, or the Company employee benefit plan, including any trustee of such plan acting as trustee), becoming the "beneficial owner" (as defined in Rule 13d-3 under the Exchange Act), directly or indirectly, of securities of the Company representing 50% or more of the combined voting power of the Company's then outstanding securities; (ii) a sale of substantially all of the Company's assets; or (iii) any merger or reorganization of the Company whether or not another entity is the survivor, pursuant to which the holders of all the shares of capital stock of the Company outstanding prior to the transaction hold, as a group, fewer than 50% of the shares of capital stock of the Company outstanding after the transaction.

In the event that following termination of employment amounts are payable to an executive pursuant to his employment agreement, the executive's eligibility for severance is conditioned on executive having first signed a release agreement.

Pursuant to their respective employment agreements, the estimated amount that could be paid by us assuming that a change of control occurred on the last business day of our current fiscal year, is $347,500 for Mr. Singh and $305,000 for Dr. Snodgrass, excluding the imputed value of accelerated vesting of incentive stock options, if any.

Employee Benefit Plans

Securities Authorized for Issuance Under Equity Compensation Plans

Equity Grants

As of March 31, 2014, options to purchase a total of 4,249,271 shares of common stock are outstanding at a weighted average exercise price of $0.50 per share, of which 3,655,061 options are vested and exercisable at a weighted average exercise price of $0.50 per share and 593,867 are unvested and unexercisable at a weighted average exercise price of $0.51 per share. These options were issued under our 2008 Plan and our 1999 Plan, each as more particularly described below. At March 31, 2014, an additional 735,200 shares remain available for future equity grants under our

2008 Plan.

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Plan category	Number of securities to be issued upon exercise of outstanding options, warrants and rights (a)	Weighted-average exercise price of outstanding options, warrants and rights (b)	Number of securities remaining available for future issuance under equity compensation plans (excluding securities reflected in column (a)) (c)
Equity compensation plans approved by security holders	3,964,800	$ 0.50	735,200
Equity compensation plans not approved by security holders	284,471	0.59	--
Total	4,249,271	$ 0.50	735,200

2008 Stock Incentive Plan

Our stockholders adopted our 2008 Stock Incentive Plan (“2008 Plan”) on December 19, 2008. The maximum number of shares of our common stock that may be granted pursuant to the 2008 Plan is currently 5,000,000. In all cases, the maximum number of shares of common stock under the 2008 Plan will be subject to adjustments for stock splits, stock dividends or other similar changes in our common stock or our capital structure. Notwithstanding the foregoing, the maximum number of shares of common stock available for grant of options intended to qualify as “incentive stock options” under the provisions of Section 422 of the Internal Revenue Code of 1986 (the “Code”), is 5,000,000.

Our 2008 Plan provides for the grant of stock options, restricted shares of common stock, stock appreciation rights and dividend equivalent rights, collectively referred to as “awards”. Stock options granted under the 2008 Plan may be either incentive stock options under the provisions of Section 422 of the Code, or non-qualified stock options. We may grant incentive stock options only to our employees. Awards other than incentive stock options may be granted to employees, directors and consultants.

Our board of directors or the compensation committee of the board of directors, referred to as the “Administrator”, administers our 2008 Plan, including selecting the award recipients, determining the number of shares to be subject to each award, determining the exercise or purchase price of each award and determining the vesting and exercise periods of each award.

The exercise price of all incentive stock options granted under our 2008 Plan must be at least equal to 100% of the fair market value of the shares on the date of grant. However, incentive stock options granted to an employee who owns stock possessing more than 10% of the voting power of all classes of our stock or the stock of any parent or subsidiary of us, must have an exercise price of not less than 110% of the fair market value on the grant date. The maximum term of these incentive stock options granted to employees who own stock possessing more than 10% of the voting power of all classes of our stock or the stock of any parent or subsidiary of us must not exceed five years. The maximum term of an incentive stock option granted to any other participant must not exceed ten years. The Administrator will determine the term and exercise or purchase price of all other awards granted under our 2008 Plan.

Under the 2008 Plan, incentive stock options may not be sold, pledged, assigned, hypothecated, transferred or disposed of in any manner other than by will or by the laws of descent or distribution and may be exercised, during the lifetime of the participant, only by the participant. Other awards shall be transferable:

by will and by the laws of descent and distribution; and

during the lifetime of the participant, to the extent and in the manner authorized by the Administrator by gift or pursuant to a domestic relations order to members of the participant's immediate family.

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The 2008 Plan permits the designation of beneficiaries by holders of awards, including incentive stock options. In the event of termination of a participant's service for any reason other than disability or death, such participant may, but only during the period specified in the award agreement of not less than 30 days commencing on the date of termination (but in no event later than the expiration date of the term of such award as set forth in the award agreement), exercise the portion of the participant's award that was vested at the date of such termination or such other portion of the participant's award as may be determined by the Administrator. The participant's award agreement may provide that upon the termination of the participant's service for cause, the participant's right to exercise the award shall terminate concurrently with the termination of the participant's service. In the event of a participant's change of status from employee to consultant, an employee's incentive stock option shall convert automatically into a non-qualified stock option on the day three months and one day following such change in status. To the extent that the participant's award was unvested at the date of termination, or if the participant does not exercise the vested portion of the participant's award within the period specified in the award agreement of not less than 30 days commencing on the date of termination, the award shall terminate. If termination was caused by death or disability, any options which have become exercisable prior to the time of termination, will remain exercisable for twelve months from the date of termination (unless a shorter or longer period of time is determined by the Administrator).

Following the date that the exemption from application of Section 162(m) of the Code ceases to apply to awards, the maximum number of shares with respect to which options and stock appreciation rights may be granted to any participant in any calendar year will be 2,500,000 shares of Common Stock. In connection with a participant's commencement of service with us, a participant may be granted options and stock appreciation rights for up to an additional 500,000 shares that will not count against the foregoing limitation. In addition, following the date that the exemption from application of Section 162(m) of the Code ceases to apply to awards, for awards of restricted stock and restricted shares of Common Stock that are intended to be "performance-based compensation" (within the meaning of Section 162(m)), the maximum number of shares with respect to which such awards may be granted to any participant in any calendar year will be 2,500,000 shares of common stock. The limits described in this paragraph are subject to adjustment in the event of any change in our capital structure as described below.

The terms and conditions of awards shall be determined by the Administrator, including the vesting schedule and any forfeiture provisions. Awards under the plan may vest upon the passage of time or upon the attainment of certain performance criteria. The performance criteria established by the Administrator may be based on any one of, or combination of, the following:

increase in share price;

earnings per share;

total shareholder return;

operating margin;

gross margin;

return on equity;

return on assets;

return on investment;

operating income;

net operating income;

pre-tax profit;

cash flow;

revenue;

expenses;

earnings before interest, taxes and depreciation;

economic value added; and

market share.

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Subject to any required action by our stockholders, the number of shares of common stock covered by outstanding awards, the number of shares of common stock that have been authorized for issuance under the 2008 Plan, the exercise or purchase price of each outstanding award, the maximum number of shares of common stock that may be granted subject to awards to any participant in a calendar year, and the like, shall be proportionally adjusted by the Administrator in the event of any increase or decrease in the number of issued shares of common stock resulting from certain changes in our capital structure as described in the 2008 Plan.

Effective upon the consummation of a Corporate Transaction (as defined below), all outstanding awards under the 2008 Plan will terminate unless the acquirer assumes or replaces such awards. The Administrator has the authority, exercisable either in advance of any actual or anticipated Corporate Transaction or Change in Control (as defined below) or at the time of an actual Corporate Transaction or Change in Control and exercisable at the time of the grant of an award under the 2008 Plan or any time while an award remains outstanding, to provide for the full or partial automatic vesting and exercisability of one or more outstanding unvested awards under the 2008 Plan and the release from restrictions on transfer and repurchase or forfeiture rights of such awards in connection with a Corporate Transaction or Change in Control, on such terms and conditions as the Administrator may specify. The Administrator also shall have the authority to condition any such award vesting and exercisability or release from such limitations upon the subsequent termination of the service of the grantee within a specified period following the effective date of the Corporate Transaction or Change in Control. The Administrator may provide that any awards so vested or released from such limitations in connection with a Change in Control, shall remain fully exercisable until the expiration or sooner termination of the award.

Under our 2008 Plan, a Corporate Transaction is generally defined as:

an acquisition of securities possessing more than fifty percent (50%) of the total combined voting power of our outstanding securities but excluding any such transaction or series of related transactions that the Administrator determines shall not be a Corporate Transaction;

a reverse merger in which we remain the surviving entity but: (i) the shares of common stock outstanding immediately prior to such merger are converted or exchanged by virtue of the merger into other property, whether in the form of securities, cash or otherwise; or (ii) in which securities possessing more than fifty percent (50%) of the total combined voting power of our outstanding securities are transferred to a person or persons different from those who held such securities immediately prior to such merger;

a sale, transfer or other disposition of all or substantially all of the assets of our corporation;

a merger or consolidation in which our corporation is not the surviving entity; or

a complete liquidation or dissolution.

Under our 2008 Plan, a Change in Control is generally defined as: (i) the acquisition of more than 50% of the total combined voting power of our stock by any individual or entity which a majority of our Board of Directors (who have served on our board for at least 12 months) do not recommend our stockholders accept; (ii) or a change in the composition of our board of directors over a period of 12 months or less.

Unless terminated sooner, our 2008 Plan will automatically terminate in 2017. Our board of directors may at any time amend, suspend or terminate our 2008 Plan. To the extent necessary to comply with applicable provisions of U.S. federal securities laws, state corporate and securities laws, the Code, the rules of any applicable stock exchange or national market system, and the rules of any non-U.S. jurisdiction applicable to awards granted to residents therein, we shall obtain shareholder approval of any such amendment to the 2008 Stock Plan in such a manner and to such a

degree as required.

As of March 31, 2014, we had options to purchase an aggregate of 3,964,800 shares of common stock outstanding under our 2008 Plan.

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1999 Stock Incentive Plan

Our Board of Directors adopted our 1999 Plan on December 6, 1999. The 1999 Plan has terminated under its own terms, and as a result, no awards may currently be granted under the 1999 Plan. However, most of the options and awards that have already been granted pursuant to the 1999 Plan remain outstanding.

The 1999 Plan permitted us to make grants of incentive stock options, non-qualified stock options and restricted stock awards. We initially reserved 450,000 shares of our common stock for the issuance of awards under the 1999 Plan, which number was subject to adjustment in the event of a stock split, stock dividend or other change in our capitalization. Generally, shares that were forfeited or cancelled from awards under the 1999 Plan also were available for future awards until the date the 1999 Plan terminated under its own terms.

The 1999 Plan could be administered by either our board of directors or a committee designated by our board of directors. Our board of directors designated our compensation committee as the committee with full power and authority to select the participants to whom awards were granted, to make any combination of awards to participants, to accelerate the exercisability or vesting of any award and to determine the specific terms and conditions of each award, subject to the provisions of the 1999 Plan. All of our directors, executive officers, employees, and certain other key persons (including consultants and advisors) were eligible to participate in the 1999 Plan.

The exercise price of incentive stock options awarded under the 1999 Plan could not be less than the fair market value of the common stock on the date of the option grant and could not be less than 110% of the fair market value of our common stock to persons owning stock representing more than 10% of the voting power of all classes of our stock. The exercise price of non-qualified stock options could not be less than 85% of the fair market value of our common stock. It is expected that the term of each option granted under the 1999 Plan will not exceed ten years (or five years, in the case of an incentive stock option granted to a 10% shareholder) from the date of grant. Our compensation committee determined at what time or times each option may be exercised (provided that in no event may it exceed ten years from the date of grant) and, subject to the provisions of the 1999 Plan, the period of time, if any, after retirement, death, disability or other termination of employment during which options could be exercised.

Restricted stock could also be granted under our 1999 Plan. Restricted stock awards issued by us were shares of common stock that vest in accordance with terms and conditions established by our compensation committee, which could impose conditions to vesting it determined to be appropriate. Shares of restricted stock that do not vest are subject to our right of repurchase or forfeiture. Our compensation committee determined the number of shares of restricted stock granted to any employee. Our 1999 Plan also gave our compensation committee discretion to grant stock awards free of any restrictions.

Unless the compensation committee provided otherwise, our 1999 Plan did not generally allow for the transfer of incentive stock options and other awards and only the recipient of an award could exercise an award during his or her lifetime. Non-qualified stock options shall be transferable only to the extent provided in the award agreement, in a manner consistent with the applicable law, and by will and by the laws of descent and distribution. In the event of a change in control, any unvested outstanding options will automatically vest unless our board of directors and the board of directors of the surviving or acquiring entity shall, as to outstanding awards under the 1999 Plan, make appropriate provisions for the continuation or assumption of such awards.

As of March 31, 2014, we had options to purchase an aggregate of 284,471 shares of our common stock outstanding under our 1999 Plan.

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401(k) Plan

We sponsor a defined contribution plan intended to qualify under Section 401 of the Code, or a 401(k) plan. Employees who are at least 21 years of age are generally eligible to participate and may enter the plan on the first day of any month. Participants may make pre-tax contributions up to the maximum limit established by the Code. Each participant is fully vested in his or her contributions and the investment earnings on those contributions. Participant contributions are held in trust as required by law. Individual participants may direct the trustee to invest their accounts in authorized investment alternatives. The plan allows for Company matching contributions, but does not require them. We have not yet made any contributions to the plan. Pre-tax contributions to the plan, and the income earned on these contributions, are generally not taxable to the participants until withdrawn.

2014 Director Compensation Table

We do not have a formal compensation plan for our non-employee directors. Our informal plan prescribes that the chairman of our board of directors, who is an independent director, has, since October 1, 2011, earned $2,500 per quarter. Our other independent directors have earned $2,000 per quarter since that date. Beginning in July 2011, the chairman of our audit committee and each independent director who serves as a member of our audit committee have also earned $1,000 quarterly. In addition, from time to time, our independent directors may receive non-qualified stock option, warrants or other equity-based awards. We did not pay our independent directors cash compensation during our fiscal year ended March 31, 2014.

The following table sets forth a summary of the compensation earned by our non-employee directors in our fiscal year ended March 31, 2014.

Name	Fees Earned or Paid in Cash (1) ($)	Option and Warrant Awards (2) ($)	Other Compensation ($)	Total ($)
Jon S. Saxe (3)	14,000	40,683(5)	-	54,683
Brian J. Underdown, Ph.D. (4)	12,000	32,267(5)	-	44,267

(1) The amounts shown represent fees earned for service on our board of directors and audit committee during the fiscal year which we have accrued but have not paid to the director at March 31, 2014.

(2) The amounts in this column represent the aggregate grant date fair value of warrants to purchase restricted shares of our common stock awarded to Mr. Saxe and Dr. Underdown or the effect of modifications to prior grants of options or warrants occurring during the fiscal year ended March 31, 2014, computed in accordance with the Financial Accounting Standards Board's Accounting Standards Codification Topic 718, Compensation – Stock Compensation ("ASC 718"). The amounts in this column do not represent any cash payment actually received by Mr. Saxe or Dr. Underdown with respect to any of such options or warrants to purchase restricted shares of our common stock awarded to them or modified during the fiscal year ended March 31, 2014. To date, Mr. Saxe and Dr. Underdown have not exercised such options or warrants to purchase common stock, and there can be no assurance that either of them will ever realize any of the ASC 718 grant date

fair value amounts presented in the Option and Warrant Awards column.

(3) Mr. Saxe has served as the chairman of our board of directors and the chairman of our audit committee throughout our fiscal year ended March 31, 2014. At March 31, 2014, Mr. Saxe holds: (i) 37,492 restricted shares of our common stock; (ii) options to purchase 264,750 restricted shares of our common stock, of which options to purchase 251,208 restricted shares are vested; and (iii) warrants to purchase 265,000 restricted shares of our common stock, of which 125,000 are exercisable.

(4) Dr. Underdown has served as a member of our board of directors and a member of our audit committee throughout our fiscal year ended March 31, 2014. At March 31, 2014, Dr. Underdown holds: (i) options to purchase 185,000 restricted shares of our common stock, of which options to purchase 171,458 restricted shares are vested; and (ii) warrants to purchase 250,000 restricted shares of our common stock, of which 125,000 are exercisable.

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The table below provides information regarding the warrant awards and option and warrant modifications we granted to Mr. Saxe and Dr. Underdown during fiscal 2014 and the assumptions used in the Black Scholes Option Pricing Model to determine the grant date fair values of the respective awards and modifications:

	Warrant Grant 3/19/2014	Option Modification 12/20/2013		Warrant Modification 12/20/2013		Total
Saxe	$ 18,928		$ 15,291		$ 6,464	$ 40,683
Underdown	14,560		11,243		6,464	32,267
	$ 33,488		$ 26,534		$ 12,928	$ 72,950
		Before	After	Before	After	
Market price per share	$ 0.46	$ 0.40	$ 0.40	$ 0.40	$ 0.40	
Exercise price per share	$ 0.50	$1.13 to $2.10	$ 0.50	$ 3.00	$ 0.50	
Risk-free interest rate	1.750%	1.24% to 2.40%	1.24% to 2.40%	4.25%	4.25%	
Volatility	80.57%	78.9% to 97.62%	78.9% to 97.62%	76.10%	76.10%	
Expected term (years)	5.00	4.08 to 7.35	4.08 to 7.35	2.15	2.15	
Dividend rate	0%	0%	0%	0%	0%	
Fair value per share	$ 0.29	$0.10 to $0.27	$0.21 to $0.32	$ 0.02	$ 0.14	
Aggregate shares	115,000	422,500	422,500	100,000	100,000	

Changes to Director Compensation for Fiscal Year Ending March 31, 2015

We have adopted a new director compensation policy for our independent directors, as independence is defined by the Nasdaq Stock Market, effective for our fiscal year beginning April 1, 2014. Under the new independent director compensation policy, our independent directors will receive a $25,000 annual cash retainer. For service on a committee of the board, an independent director will receive an additional annual cash retainer as follows: $7,500 for audit and compensation committee members and $5,000 for nominating and governance committee members. In lieu of the annual cash retainer for committee participation, each independent director serving as a chair of a board committee shall receive the following annual cash retainer: $15,000 for audit and compensation committee chairs and $10,000 for the nominating and governance committee chairs. Each independent director will also receive an annual grant of an option to purchase 25,000 shares, which will vest monthly over a one-year period from the date of grant. The first grant of options under this policy will be made effective as soon as practicable following April 1, 2014. Future grants are expected to be made on the same date as our annual meeting. Prorated option grants will be made for partial years of service.

Limitations of Liability and Indemnification

Our amended and restated bylaws provide that we will indemnify our directors, officers and employees to the fullest extent permitted by the Nevada Revised Statutes ("NRS").

If the NRS are amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the NRS, as so amended. Our articles of incorporation do not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, will remain available under the NRS. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our bylaws, we are empowered to enter into indemnification agreements with our directors, officers and employees to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our bylaws, we have entered into indemnification agreements with each of the individuals serving on our board of directors. These agreements provide for the indemnification of our directors to the fullest extent permitted by law. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors, officers and employees. We also maintain directors' and officers' liability insurance.

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The limitation of liability and indemnification provisions in our bylaws may discourage shareholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and certain employees pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification by any director or officer.

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RELATED PARTY TRANSACTIONS

Transactions and Relationships with Certain Individuals

Sales of Securities to Cato Holding Company

Cato Holding Company (“CHC”), doing business as Cato BioVentures ("CBV"), the parent of Cato Research Ltd. (“CRL”), is one of our largest institutional stockholders at March 31, 2014, holding common stock and warrants to purchase common stock. Prior to the May 11, 2011 conversion of certain of VistaGen California’s outstanding promissory notes and the exchange of its preferred stock into shares of common stock in connection with the Merger, CBV held various promissory notes and a majority of VistaGen California’s Series B-1 Preferred Stock. Shawn Singh, our Chief Executive Officer and member of our board of directors, served as Managing Principal of CBV and as an officer of CRL until August 2009. In April 2011, CBV loaned us $352,300 under the terms of a Promissory Note (the “2011 CHC Note”). On October 10, 2012, we agreed with CHC to cancel the 2011 CHC Note and exchange it for a new unsecured promissory note in the principal amount of $310,400 (the “2012 CHC Note”) and a five-year warrant to purchase 250,000 restricted shares of our common stock at a price of $1.50 per share (the “CHC Warrant”). Additionally, on October 10, 2012, we issued to CRL: (i) an unsecured promissory note in the initial principal amount of $1,009,000, which is payable solely in restricted shares of our common stock and which accrues interest at the rate of 7.5% per annum, compounded monthly (the “CRL Note”), as payment in full for all contract research and development services and regulatory advice rendered by CRL to us through December 31, 2012 with respect to the preclinical and clinical development of AV-101, and (ii) a five-year warrant to purchase, at a price of $1.00 per share, 1,009,000 restricted shares of our common stock. Total interest expense on notes payable to CHC and CRL was $167,900 and $101,700 for the fiscal years ended March 31, 2014 and 2013.

Contract Research and Development Agreement with Cato Research Ltd.

During fiscal year 2007, we entered into a contract research organization arrangement with CRL related to the development of AV-101, under which we incurred expenses of $52,500 and $703,800 for the fiscal years ended March 31, 2014 and 2013, respectively, with a substantial portion of the fiscal year 2013 expense reimbursed under the NIH grant.

Note Receivable from Shawn K. Singh, JD and Advances to us by Mr. Singh

Upon the approval of the board of directors, in December 2006, VistaGen California accepted a full-recourse promissory note in the amount of $103,400 from Mr. Singh in payment of the exercise price for options and warrants to purchase an aggregate of 126,389 restricted shares of VistaGen California’s common stock. The note accrued interest at a rate of 4.90% per annum and was due and payable no later than the earlier of (i) December 1, 2016 or (ii) ten days prior to our becoming subject to the requirements of the Securities Exchange Act of 1934, as amended (“Exchange Act”). On May 11, 2011, in connection with the Merger, the $128,200 outstanding balance of principal and accrued interest on this note was cancelled in accordance with Mr. Singh's employment agreement and recorded as additional compensation. In accordance with his employment agreement, Mr. Singh is also entitled to receive an income tax gross-up on the compensation related to the note cancellation. At March 31, 2014 and 2013, we had accrued $101,900 as an estimate of the gross-up amount payable to Mr. Singh, but we had not yet paid it to Mr. Singh.

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Between September and December 2013, Mr. Singh provided short-term cash advances aggregating $64,000 to meet our short-term working capital requirements. In lieu of cash repayment of the advances, in December 2013, Mr. Singh elected to invest $50,000 of the balance due him in the 2013 Unit Private Placement. At March 31, 2014 we have partially repaid Mr. Singh the remaining balance of the advances.

Indemnification Agreements with Directors and Executive Officers

We have entered into indemnification agreements with each of our directors and executive officers. The indemnification agreements and our amended and restated bylaws provide that we shall indemnify our directors to the fullest extent permitted by the Nevada Revised Statutes. For more information regarding these agreements, see "Executive compensation—Limitations of Liability and Indemnification."

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PRINCIPAL STOCKHOLDERS

The following table sets forth certain information with respect to the beneficial ownership of our common stock as of April 30, 2014 and as adjusted to reflect the sale of common stock offered by us in this Offering for:

- each stockholder known by us to be the beneficial owner of more than 5% of our common stock;
- each of our directors;
- each of our named executive officers; and
- all of our directors and executive officers as a group.

We have determined beneficial ownership in accordance with the rules of the SEC. Except as indicated by the footnotes below, we believe, based on the information furnished to us, that the persons and entities named in the table below have sole voting and investment power with respect to all of the capital stock that they beneficially own, subject to applicable community property laws.

Applicable percentage ownership is based on 24,236,877 shares of capital stock outstanding at April 30, 2014. In computing the number of shares of common stock beneficially owned by a person, we deemed to be outstanding all shares of common stock subject to options or warrants held by that person or entity that are currently exercisable or that will become exercisable within 60 days of April 30, 2014 and all shares of common stock issuable pursuant to promissory notes and related accrued interest convertible into shares of common stock at April 30, 2014. In computing the percentage of shares beneficially owned before this Offering, we deemed to be outstanding all shares of common stock subject to options or warrants held by that person or entity that are currently exercisable or that will become exercisable within 60 days of April 30, 2014 and all shares of common stock issuable pursuant to promissory notes and related accrued interest convertible into shares of common stock at April 30, 2014. Unless otherwise noted below, the address of each beneficial owner listed in the table is c/o VistaGen Therapeutics, Inc., 343 Allerton Avenue, South San Francisco, California 94080.

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Name and address of beneficial owner	Number of shares beneficially owned	Percent of shares beneficially owned before Offering	Percent of shares beneficially owned after Offering
Executive officers and directors			
Shawn K. Singh, JD (1)	3,509,892	12.84%	_____%
H. Ralph Snodgrass, PhD (2)	2,464,996	9.67%	_____%
Jerrold D. Dotson (3)	304,714	1.24%	_____
Jon S. Saxe (4)	472,075	1.91%	_____%
Brian J. Underdown, PhD (5)	362,083	1.47%	_____%
5% Stockholders			
Cato BioVentures (6)	4,687,165	18.30%	_____%
Platinum Long Term Growth Fund VII (7)	1,040,000	4.29%	_____%
Morrison & Foerster LLP (8)	2,199,567	8.38%	_____%
David Young (9)	2,096,192	8.24%	_____%
University Health Network (10)	1,748,188	7.04%	_____%
All executive officers and directors as a group (5 persons) (11)	7,113,760	24.02%	_____%

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* Represents beneficial ownership of less than one percent (1%) of the outstanding shares of our common stock.

(1) Includes options to purchase 1,686,666 restricted shares of common stock exercisable within 60 days of April 30, 2014; warrants to purchase 1,331,052 restricted shares of common stock exercisable within 60 days of April 30, 2014, and 80,000 restricted shares of common stock upon conversion of a currently convertible promissory note and accrued interest.

(2) Includes options to purchase 410,528 restricted shares of common stock exercisable within 60 days of April 30, 2014 and warrants to purchase 850,000 restricted shares of common stock exercisable within 60 days of April 30, 2014.

(3) Includes options to purchase 104,714 restricted shares of common stock exercisable within 60 days of April 30, 2014, including options to purchase 12,458 shares of common stock held by Mr. Dotson’s wife, and warrants to purchase 200,000 restricted shares of common stock exercisable within 60 days of April 30, 2014.

(4) Includes options to purchase 239,583 restricted shares of common stock exercisable within 60 days of April 30, 2014 and warrants to purchase 195,000 restricted shares of common stock exercisable within 60 days of April 30, 2014.

(5) Includes options to purchase 174,583 restricted shares of common stock exercisable within 60 days of April 30, 2014 and warrants to purchase 187,500 restricted shares of common stock exercisable within 60 days of April 30, 2014.

(6) Based upon information contained in Form 4 filed on January 9, 2012. Includes currently exercisable warrants to purchase 1,376,329 shares of restricted common stock. Dr. Allen E. Cato, Ph.D., M.D. is deemed to have voting and investment authority over the shares held by Cato Holding Company. The primary business address of Cato

BioVentures is 4364 South Alston Avenue, Durham, North Carolina 27713.

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(7) Based upon information contained in Schedule 13G/A filed on February 14, 2014, we believe that Platinum has transferred or assigned 15% of its holdings of our common stock and other securities as of December 31, 2013 to another party. The figures reported in the table above and in this note reflect the impact of Platinum's transfer or assignment and are adjusted for securities sold to Platinum in a transaction on April 1, 2014, including 250,000 restricted shares of our common stock, a currently exercisable warrant to purchase 250,000 shares of our restricted common stock (subject to beneficial ownership restrictions noted below); and a currently convertible promissory note (subject to beneficial ownership restrictions noted below). The number of beneficially owned shares reported at April 30, 2014 includes 1,040,000 restricted shares of common stock owned by Platinum.

The reported number of shares beneficially owned excludes 12,750,000 restricted shares of common stock and a warrant to purchase 6,375,000 restricted shares of common stock that may currently be acquired by Platinum upon exchange of 425,000 restricted shares of our Series A Preferred Stock. Pursuant to the October 11, 2012 Note Exchange and Purchase Agreement by and between us and Platinum, there is a limitation on exchange such that the number of shares of our common stock that may be acquired by Platinum upon exchange of the Series A Preferred Stock is limited to the extent necessary to ensure that, following such exchange, the total number of shares of our common stock then beneficially owned by Platinum does not exceed 9.99% of the total number of our issued and outstanding shares of common stock without providing us with 61 days' prior notice thereof.

Further, the reported number of shares beneficially owned also excludes an aggregate of 10,631,851 restricted shares of our Common Stock that may be acquired by Platinum upon (i) conversion of various Senior Secured Convertible Promissory Notes in the aggregate face amount of $3,522,577 and a Subordinate Convertible Promissory Note in the face amount of $250,000 (together, the "Convertible Notes") plus accrued but unpaid interest or (ii) exercise of various common stock purchase warrants to purchase an aggregate of 3,244,190 restricted shares of our common stock. Pursuant to the terms of the respective Convertible Notes and common stock purchase warrant agreements, there is a limitation on conversion of the Convertible Notes and exercise of the warrants such that the number of shares of common stock that Platinum may acquire upon such conversion or exercise is limited to the extent necessary to ensure that, following such conversion or exercise, the total number of shares of common stock then beneficially owned by Platinum does not exceed 4.99% or 9.99% of the total number of issued and outstanding shares of our common stock without providing us with 61 days' prior notice thereof.

Including the shares otherwise excluded due to the beneficial ownership restrictions noted above, Platinum beneficially owns 30,796,852 shares or 57.04% of our common stock prior to the Offering. The primary business address of Platinum Long Term Growth Fund VII is 152 West 57th Street, 54th Floor, New York, New York 10019. Mark Nordlicht has voting and investment control over the shares held by Platinum.

(8) Includes currently exercisable warrants to purchase 1,999,567 restricted shares of common stock. The primary business address of Morrison & Foerster is 555 Market Street, San Francisco, California 94105.

(9) Includes currently exercisable warrants to purchase 658,728 restricted shares of common stock and 533,250 restricted shares of common stock upon conversion of currently convertible promissory notes and accrued interest. Mr. Young's primary business address is c/o Coldwell Banker Residential Brokerage, 580 El Camino Real, San Carlos, California 94070.

(10) Includes currently exercisable warrants to purchase 610,133 restricted shares of common stock. The primary business address of University Health Network is 101 College Street, Suite 150, Toronto, Ontario Canada M5G 1L7.

(11) Includes options to purchase an aggregate of 2,763,552 restricted shares of common stock exercisable within 60 days of April 30, 2014, warrants to purchase an aggregate of 2,616,074 restricted shares of common stock exercisable within 60 days of April 30, 2014 and 80,000 restricted shares of common stock upon conversion of a currently convertible promissory note and accrued interest.

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DESCRIPTION OF CAPITAL STOCK

General

Our authorized capital stock consists of 200 million shares of our common stock, $0.001 par value per share, and 10.0 million shares of preferred stock, $0.001 par value per share. The following is a description of our capital stock and certain provisions of our articles of incorporation, as amended, and our amended and restated bylaws, and certain provisions of Nevada law. This summary does not purport to be complete and is qualified in its entirety by the provisions of our articles of incorporation, as amended, and our amended and restated bylaws, copies of which have been filed with the SEC as exhibits to our periodic filings under the Exchange Act.

As of April 30, 2014, there were outstanding:

- 24,236,877 shares of our common stock held by approximately 300 stockholders of record;
- 15,000,000 shares of our common stock issuable upon exchange of our Series A Preferred;
- 4,227,357 shares of our common stock issuable upon exercise of outstanding stock options; and
- 25,345,633 shares of our common stock issuable upon exercise of outstanding warrants, including warrants to purchase 7,500,000 issuable upon exchange of our Series A Preferred for common stock.

Common Stock

Except as otherwise expressly provided in our articles of incorporation, as amended, or as required by applicable law, all shares of our common stock have the same rights and privileges and rank equally, share ratably and are identical in all respects as to all matters, including, without limitation, those described below. All outstanding shares of common stock are fully paid and nonassessable.

Voting rights

Each holder of our common stock is entitled to cast one vote for each share of common stock held on all matters submitted to a vote of stockholders. Cumulative voting for election of directors is not allowed under our articles of incorporation, as amended, which means that a plurality of the shares voted can elect all of the directors then outstanding for election. Except as otherwise provided under Nevada law or our articles of incorporation, as amended, and amended and restated bylaws, on matters other than election of directors, action on a matter is approved if the votes cast favoring the action exceed the votes cast opposing the action

Dividend rights

The holders of outstanding shares of our common stock are entitled to receive dividends out of funds legally available, if our board of directors, in its discretion, determines to issue dividend, and only at the times and in the amounts that our board of directors may determine. Our board of directors is not obligated to declare a dividend. We have not paid any dividends in the past and we do not intend to pay dividends in the foreseeable future. See “Dividend Policy” for more information.

Liquidation rights

Upon our liquidation, dissolution or winding-up, the holders of our common stock will be entitled to share equally, identically and ratably in all assets remaining, subject to the prior satisfaction of all outstanding debt and liabilities and the preferential rights and payment of liquidation preferences, if any, on any outstanding shares of preferred stock.

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No preemptive or similar rights

Our common stock is not entitled to is not subject to conversion, redemption, sinking fund or similar provisions regarding the common stock.

Market for our common stock and related stockholder matters

On June 21, 2011 our common stock began trading on the OTC Markets (OTCQB) under the symbol “VSTA.” There was no established trading market for our common stock prior to that date.

Shown below is the range of high and low closing prices for our common stock for the periods indicated as reported by the OTCQB. The market quotations reflect inter-dealer prices, without retail mark-up, mark-down or commissions and may not necessarily represent actual transactions.

	High	Low
Year Ending March 31, 2014		
First quarter ending June 30, 2013	$0.61	$0.26
Second quarter ending September 30, 2013	$0.89	$0.55
Third quarter ending December 31, 2013	$0.90	$0.60
Fourth quarter ending March 31, 2014	$0.50	$0.28
Year Ending March 31, 2013		
First quarter ending June 30, 2012	$2.80	$0.50
Second quarter ending September 30, 2012	$1.50	$0.51
Third quarter ending December 31, 2012	$0.95	$0.55
Fourth quarter ending March 31, 2013	$0.90	$0.60

On April 30, 2014 the closing price of our common stock on the OTCQB was $0.48 per share.

Preferred Stock

We are authorized, subject to limitations prescribed by Nevada law, to issue up to 10.0 million shares of preferred stock in one or more series, to establish from time to time the number of shares to be included in each series and to fix the designation, powers, preferences and rights of the shares of each series and any of its qualifications, limitations or restrictions. Our board of directors can increase or decrease the number of shares of any series, but not below the number of shares of that series then outstanding, without any further vote or action by our stockholders. Our board of directors may authorize the issuance of preferred stock with voting or conversion rights that could adversely affect the voting power or other rights of the holders of the common stock. The issuance of preferred stock, while providing flexibility in connection with possible acquisitions and other corporate purposes, could, among other things, have the effect of delaying, deferring or preventing a change in control of the Company and may adversely affect the market price of our common stock and the voting and other rights of the holders of our common stock.

Series A Preferred

General

In December 2011, our board of directors authorized the creation of a series of up to 500,000 shares of Series A Preferred. At April 30, 2014, there were 500,000 shares of Series A Preferred outstanding. By agreement with the sole holder thereof, each share of Series A Preferred is exchangeable at the option of the holder into thirty (30) shares

of our common stock. The Series A Preferred ranks prior to our common stock for purposes of liquidation preference.

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Dividend rights

The Series A Preferred has no separate dividend rights. However, whenever the board of directors declares a dividend on the common stock, each holder of record of a share of Series A Preferred, or any fraction of a share of Series A Preferred, on the date set by the board of directors to determine the owners of the common stock of record entitled to receive such dividend (Record Date) shall be entitled to receive out of any assets at the time legally available therefor, an amount equal to such dividend declared on one share of common stock multiplied by the number of shares of common stock into which such share, or such fraction of a share, of Series A Preferred could be exchanged on the Record Date.

Voting rights

Except with respect to transactions upon which the Series A Preferred shall be entitled to vote separately as a class, the Series A Preferred has no voting rights. The common stock into which the Series A Preferred is exchangeable shall, upon issuance, have all of the same voting rights as other issued and outstanding shares of our common stock.

Liquidation rights

In the event of the liquidation, dissolution or winding up of our affairs, after payment or provision for payment of our debts and other liabilities, the holders of Series A Preferred then outstanding shall be entitled to receive, out of our assets, if any, an amount per share of Series A Preferred calculated by taking the total amount available for distribution to holders of all of our outstanding common stock before deduction of any preference payments for the Series A Preferred, divided by the total of (x), all of the then outstanding shares of our common stock, plus (y) all of the shares of our common stock into which all of the outstanding shares of the Series A Preferred can be exchanged before any payment shall be made or any assets distributed to the holders of the common stock or any other junior stock.

Options

As of April 30, 2014, we had options to purchase 4,227,357 shares of our common stock outstanding pursuant to our 1999 Plan and our 2008 Plan.

Warrants

As of April 30, 2014, warrants to purchase 17,845,633 shares of our common stock were outstanding, excluding warrants to purchase 7,500,000 shares of common stock issuable in connection with the exchange of our Series A Preferred for common stock.

Transfer Agent and Registrar

The transfer agent and registrar for our common stock is Registrar and Transfer Company. The transfer agent’s address is 10 Commerce Drive, Cranford, NJ 07016.

Material United States Federal Income and Estate Tax Consequences to Non-United States Holders of our Common Stock

The following discussion describes the material U.S. federal income and estate tax consequences to non- U.S. holders (as defined below) of the acquisition, ownership and disposition of our common stock issued pursuant to this Offering. This discussion is not a complete analysis of all the potential U.S. federal income tax consequences relating thereto,

nor does it address any estate or gift tax consequences (except to the limited extent provided below under “U.S. federal estate tax”) or any tax consequences arising under any state, local or foreign tax laws or any other U.S. federal tax laws. This discussion is for general information only and does not constitute tax advice. This discussion is based on the Internal Revenue Code, Treasury Regulations promulgated thereunder, judicial decisions and published rulings and administrative pronouncements of the Internal Revenue Service ("IRS") all as in effect as of the date of this Offering. These authorities may change, possibly with retroactive effect, resulting in U.S. federal income and estate tax consequences different from those discussed below. We have not sought, nor do we plan to seek a ruling from the IRS with respect to the matters discussed below, and there can be no assurance that the IRS will not take a contrary position regarding the tax consequences of the acquisition, ownership or disposition of our common stock, or that any such contrary position would not be sustained by a court.

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This discussion is limited to non-U.S. holders who purchase our common stock issued pursuant to this Offering and who hold our common stock as a capital asset within the meaning of Section 1221 of the Internal Revenue Code (generally, property held for investment). This discussion does not address all U.S. federal income and estate tax considerations that may be relevant to a particular non-U.S. holder in light of that holder's particular circumstances. This discussion also does not consider any specific facts or circumstances that may be relevant to holders subject to special rules under the U.S. federal income tax laws, including, without limitation, U.S. expatriates, partnerships and other pass-through entities, "controlled foreign corporations," "passive foreign investment companies," corporations that accumulate earnings to avoid U.S. federal income tax, financial institutions, insurance companies, brokers, dealers or traders in securities, commodities or currencies, tax-exempt organizations, tax-qualified retirement plans, persons subject to the alternative minimum tax and persons holding our common stock as part of a hedging or conversion transaction or straddle, or a constructive sale, or other risk reduction strategy.

Prospective investors are urged to consult their tax advisors regarding the particular U.S. federal income tax consequences to them of acquiring, owning and disposing of our common stock, as well as any tax consequences arising under U.S. federal estate and gift tax laws, any state, local or foreign tax laws and any other U.S. federal tax laws.

Definition of Non-U.S. Holder

For purposes of this discussion (except as otherwise provided in the estate tax discussion), a non-U.S. holder is any beneficial owner of our common stock that is an individual, corporation, estate or trust and is not a "United States Person." A United States Person is any of the following:

- an individual who is a citizen or resident of the United States for U.S. federal income tax purposes, including an alien individual who is a lawful permanent resident of the United States or who meets the substantial presence test under Section 7701(b) of the Internal Revenue Code;
- a corporation (or other entity treated as a corporation for U.S. federal income tax purposes) created or organized under the laws of the United States, any state thereof or the District of Columbia;
- an estate the income of which is subject to U.S. federal income tax regardless of its source; or
- a trust that (1) is subject to the primary supervision of a U.S. court and the control of one or more U.S. persons or (2) has validly elected to be treated as a U.S. person for U.S. federal income tax purposes.

If a partnership (or other entity taxed as a partnership for U.S. federal income tax purposes) holds our common stock, the tax treatment of a partner in the partnership generally will depend on the status of the partner and upon the activities of the partnership. Accordingly, partnerships that hold our common stock and partners in such partnerships are urged to consult their tax advisors regarding the specific U.S. federal income tax consequences to them.

Distributions on our Common Stock

We do not expect to declare or pay any dividends on our common stock in the foreseeable future. However, if we do pay dividends on our common stock, such distributions will constitute dividends for U.S. federal income tax purposes to the extent paid from our current or accumulated earnings and profits, as determined under U.S. federal income tax principles. Amounts not treated as dividends for U.S. federal income tax purposes will constitute a tax-free return of capital and will first be applied against and reduce a holder's adjusted tax basis in the common stock but not below zero. Any distribution in excess of a holder's adjusted basis will be treated as capital gain.

Dividends paid to a non-U.S. holder of our common stock that are not effectively connected with a United States trade or business conducted by such holder generally will be subject to U.S. federal withholding tax at a rate of 30% of the gross amount of the dividends or such lower rate specified by an applicable tax treaty. To receive the benefit of a

reduced treaty rate, a non-U.S. holder must furnish to us or our paying agent a valid IRS Form W-8BEN (or applicable successor form) certifying such holder's qualification for the reduced rate. This certification must be provided to us or our paying agent prior to the payment of dividends and must be updated periodically. Non-U.S. holders that do not timely provide us or our paying agent with the required certification, but which qualify for a reduced treaty rate, may obtain a refund of any excess amounts withheld by timely filing an appropriate claim for refund with the IRS.

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If a non-U.S. holder holds our common stock in connection with the conduct of a trade or business in the United States and dividends paid on our common stock are effectively connected with such holder's United States trade or business, the non-U.S. holder will generally be exempt from U.S. federal withholding tax. To claim the exemption, the non-U.S. holder must furnish to us or our paying agent a properly executed IRS Form W-8ECI (or other applicable form).

Any dividends paid on our common stock that are effectively connected with a non-U.S. holder's U.S. trade or business generally will be subject to U.S. federal income tax on a net income basis in the same manner as if such holder were a United States Person unless an applicable tax treaty provides otherwise. A non-U.S. holder that is a foreign corporation also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable tax treaty) of its effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult any applicable tax treaties that may provide for different rules.

A non-U.S. holder who claims the benefit of an applicable income tax treaty generally will be required to satisfy applicable certification and other requirements prior to the distribution date. Non-U.S. holders should consult their tax advisors regarding their entitlement to benefits under a relevant income tax treaty.

Gain on Disposition of our Common Stock

A non-U.S. holder generally will not be subject to U.S. federal income tax on any gain realized upon the sale, exchange, redemption or other taxable disposition of our common stock unless:

- the gain is effectively connected with the non-U.S. holder's conduct of a trade or business in the United States, and if required by an applicable tax treaty, attributable to a permanent establishment maintained by the non-U.S. holder in the United States;

- the non-U.S. holder is a nonresident alien individual present in the United States for 183 days or more during the taxable year of the disposition and certain other requirements are met; or

- our common stock constitutes a "United States real property interest" by reason of our status as a "United States real property holding corporation," or USRPHC, for U.S. federal income tax purposes at any time within the shorter of the five-year period preceding the disposition or the non-U.S. holder's holding period for our common stock (the applicable period).

Generally, a corporation is a USRPHC if the fair market value of its United States real property interests equals or exceeds 50% of the sum of the fair market value of its worldwide real property interests plus its other assets used or held for use in a trade or business. We believe that we currently are not and will not become a USRPHC. However, because the determination of whether we are a USRPHC depends on the fair market value of our United States real property interests relative to the fair market value of our other business assets, there can be no assurance that we will not become a USRPHC in the future. In the event we do become a USRPHC, as long as our common stock is regularly traded on an established securities market, our common stock will be treated as United States real property interests only with respect to a non-U.S. holder that actually or constructively holds more than 5% of our common stock at some time during the applicable period.

Unless an applicable tax treaty provides otherwise, gain described in the first bullet point above in this subsection will generally be subject to U.S. federal income tax on a net income basis in the same manner as if such holder were a United States Person. Non-U.S. holders that are foreign corporations also may be subject to a branch profits tax equal to 30% (or such lower rate specified by an applicable tax treaty) of their effectively connected earnings and profits for the taxable year. Non-U.S. holders are urged to consult any applicable tax treaties that may provide for different rules.

Gain described in the second bullet point above in this subsection will be subject to U.S. federal income tax at a flat 30% rate, but may be offset by U.S. source capital losses.

Gain described in the third bullet point above in this subsection generally will be taxed in the same manner as gain described in the first bullet point above, except that the branch profits tax will not apply.

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U.S. Federal Estate Tax

Any of our common stock that is owned or treated as owned by an individual who is a non-U.S. holder (as defined for estate tax purposes) at the time of death will be included in the individual's gross estate for U.S. federal estate tax purposes and may be subject to U.S. federal estate tax, unless an applicable estate tax treaty provides otherwise.

Information Reporting and Backup Withholding

Generally, we must report annually to the IRS and to each non-U.S. holder the amount of dividends paid to such holder and the amount of tax, if any, withheld with respect to such dividends. The IRS may make the information returns reporting such dividends and withholding available to the tax authorities in the country in which the non-U.S. holder is resident.

In addition, a non-U.S. holder may be subject to information reporting requirements and backup withholding tax with respect to dividends paid on, and the proceeds of disposition of (including a redemption), shares of our common stock, unless, generally, such holder certifies under penalties of perjury (usually on IRS Form W-8BEN) that such holder is not a United States person or such holder otherwise establishes an exemption from such reporting and withholding. Additional rules relating to information reporting requirements and backup withholding tax with respect to payments of the proceeds from the disposition of shares (including a redemption) of our common stock are as follows:

- If the proceeds are paid to or through the United States office of a broker, they generally will be subject to information reporting requirements and backup withholding tax, unless the non-U.S. holder certifies under penalties of perjury (usually on IRS Form W-8BEN) that such holder is not a United States person or such holder otherwise establishes an exemption from such reporting and withholding.

- If the proceeds are paid to or through a non-United States office of a broker that is not a United States person and is not a foreign person with certain specified United States connections (a United States related person), information reporting and backup withholding tax will not apply.

- If the proceeds are paid to or through a non-United States office of a broker that is a United States person or a United States related person, they generally will be subject to information reporting (but not to backup withholding tax), unless the broker has documentary evidence in its records that such holder is not a United States person or such holder otherwise establishes an exemption from such reporting.

Backup withholding is not an additional tax. Any amounts withheld under the backup withholding tax rules may be allowed as a refund or a credit against a non-U.S. holder's United States federal income tax liability, provided the required information is timely furnished by such holder to the IRS.

Withholding under the Foreign Account Tax Compliance Act

Under the Foreign Account Tax Compliance Act ("FATCA") and administrative guidance, we or another withholding agent may be required to withhold a generally nonrefundable 30% tax on dividends paid after December 31, 2013 or the gross proceeds of a sale, exchange, redemption or other disposition of our common stock paid after December 31, 2016 to (i) certain "foreign financial institutions" unless such foreign financial institution agrees to verify, monitor and report to the IRS the identity of certain of its accountholders, among other things, and (ii) certain "non-financial foreign entities" unless such entity certifies to us that it does not have any substantial U.S. owners or provides the name, address and taxpayer identification number of each substantial U.S. owner, among other things. Non-U.S. holders are urged to consult their tax advisors regarding the application of this FATCA withholding tax to their investment in our common stock and the potential certification, compliance, due diligence, reporting and withholding obligations to

which they may become subject in order to avoid this withholding tax.

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SHARES ELIGIBLE FOR FUTURE SALE

Prior to this Offering, there has a limited public market for shares of our common stock. Future sales of substantial amounts of shares of our common stock, including shares issued upon the exercise of outstanding options and warrants, in the public market after this Offering or the possibility of these sales occurring, could cause the prevailing market price for our common stock to fall or impair our ability to raise equity capital in the future.

Upon the completion of this Offering, based on the number of shares outstanding as of April 30, 2014, we will have _____ shares of common stock outstanding, assuming no exercise of outstanding options or warrants and no conversion of our preferred stock or convertible promissory notes. Of these outstanding shares, all _____ shares of common stock sold by us in this Offering will be freely tradable in the public market without restriction or further registration under the Securities Act, and 6,103,025 shares of common stock held by our affiliates, as that term is defined in Rule 144 under the Securities Act, and any shares purchased in this Offering by our existing shareholders and certain affiliates of us, certain existing stockholders and our directors, may only be sold in compliance with the limitations described below. The remaining _____ shares of common stock outstanding after this Offering will be deemed restricted because of securities laws.

In addition, 22,072,990 shares of common stock that are subject to outstanding options and warrants as of April 30, 2014 will become eligible for sale in the public market to the extent permitted by the provisions of Rules 144 and 701 under the Securities Act and the vesting provisions of the options or warrants. “Restricted securities” as defined under Rule 144 were issued and sold by us in reliance on exemptions from registration requirements of the Securities Act. These shares may be sold in the public market only if registered or pursuant to an exemption from registration.

Rule 144

In general, under Rule 144 as currently in effect, a person who is not deemed to have been one of our affiliates for purposes of the Securities Act at any time during the 90 days preceding a sale and who has beneficially owned the shares proposed to be sold for at least six months, including the holding period of any prior owner other than our affiliates, is entitled to sell those shares without complying with the manner of sale, volume limitation or notice provisions of Rule 144, subject to compliance with the public information requirements of Rule 144. If such person has beneficially owned the shares proposed to be sold for at least one year, including the holding period of any prior owner other than our affiliates, then that person is entitled to sell those shares without complying with the requirements of Rule 144, subject to the availability of current public information about us.

In general, under Rule 144 as currently in effect, our affiliates or persons selling shares on behalf of our affiliates are entitled to sell upon the expiration of the lock-up agreements described above, within any three month period, a number of shares that does not exceed the greater of:

- 1% of the number of shares of common stock then outstanding, which will equal approximately 342,369 shares immediately after this Offering; or

- the average weekly trading volume of the common stock during the four calendar weeks preceding the filing of a notice on Form 144 with respect to such sale.

Sales under Rule 144 by our affiliates or persons selling shares on behalf of our affiliates are also subject to certain manner of sale provisions and notice requirements and to the availability of current public information about us.

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Stock Options

As of April 30, 2014, options to purchase 4,227,357 shares of our common stock were outstanding.

We intend to file a registration statement on Form S-8 under the Securities Act following this Offering, to register all of the shares of common stock subject to options outstanding or issued or reserved for issuance under our 1999 Plan and 2008 Plan. We expect to file this registration statement as soon as practicable after the effective date of this Offering. Shares covered by this registration statement will be eligible for sale in the public market, subject to any lock-up agreements we may enter into with option holders.

Warrants

As of April 30, 2014, warrants to purchase 17,845,633 shares of our common stock were outstanding.

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PLAN OF DISTRIBUTION

The Offering

We are offering up to _____ shares of our common stock on a self-underwritten basis. The maximum Offering price is $____ per share. Funds from this Offering will not be placed in a separate bank account. We will have immediate use of the net proceeds. As a result, if we are sued for any reason and a judgment is rendered against us, your subscription could be seized in a garnishment proceeding and you could lose your investment. There are no finders involved in our distribution.

You will not have the right to withdraw your funds during the Offering.

We will sell the shares in this Offering through our officers and directors. They will receive no commission from the sale of any shares. They will not register as a broker-dealer under Section 15 of the Exchange Act in reliance upon Rule 3a4-1. Rule 3a4-1 sets forth those conditions under which a person associated with an issuer may participate in the offering of the issuer's securities and not be deemed to be a broker/dealer. The conditions are that:

1. The person is not statutorily disqualified, as that term is defined in Section 3(a)(39) of the Securities Act, at the time of her participation;

2. The person is not compensated in connection with her participation by the payment of commissions or other remuneration based either directly or indirectly on transactions in securities;

3. The person is not at the time of their participation, an associated person of a broker/dealer; and

4. The person meets the conditions of Paragraph (a)(4)(ii) of Rule 3a4-1 of the Exchange Act, in that he (A) primarily performs, or is intended primarily to perform at the end of the Offering, substantial duties for or on behalf of the Issuer otherwise than in connection with transactions in securities; and (B) is not a broker or dealer, or an associated person of a broker or dealer, within the preceding twelve months; and (C) does not participate in selling and offering of securities for any Issuer more than once every twelve months other than in reliance on Paragraphs (a)(4)(i) or (a)(4)(iii).

We hereby confirm that our directors and officers are not statutorily disqualified, are not being compensated, and are not associated with a broker/dealer. They will continue to be our officers and directors at the end of the Offering and have not been, during the last twelve months a broker/dealer or associated with a broker/dealer. They will not participate in selling and offering securities for any issuer more than once every twelve months.

Only after our registration statement is declared effective by the SEC do we intend to advertise and hold investment meetings in various states where the Offering will be registered. Our officers and directors will also distribute the prospectus to potential investors at meetings, to business associates, and to friends and relatives who are interested in a possible investment in the Offering. No shares purchased in this Offering will be subject to a lock-up agreement.

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We reserve the right to sell the securities in this Offering though a placement agent, broker, dealer, finder, underwriter and/or wholesaler. We will provide an applicable prospectus supplement reflecting (i) the identity of any underwriter, dealer or agent, (ii) any compensation we will pay to underwriters, dealers or agents in connection with this Offering, (iii) any discounts, concessions or commissions allowed by underwriters to participating dealers, (iv) the amounts underwritten; and (v) the nature of the underwriter's or underwriters' obligation to take the securities. Underwriters, dealers and agents participating in the distribution of the securities may be deemed to be underwriters within the meaning of the Securities Act, and any discounts and commissions received by them and any profit realized by them on resale of the securities may be deemed to be underwriting discounts and commissions. We may enter into agreements to indemnify underwriters, dealers and agents against civil liabilities, including liabilities under the Securities Act, or to contribute to payments they may be required to make in respect thereof.

Regulation M

Each of our officers and directors, who will promote the shares, is aware that he is required to comply with the provisions of Regulation M, promulgated under the Exchange Act. With certain exceptions, Regulation M precludes officers and/or directors, sales agents, any broker-dealers or other person who participate in the distribution of shares in this Offering from bidding for or purchasing, or attempting to induce any person to bid for or purchase any security which is the subject of the distribution until the entire distribution is complete.

Offering Period and Expiration Date

This Offering will start on the date that this Registration Statement of which this prospectus is a part is declared effective by the SEC and continue for a period of 365 days, or sooner, if the Offering is completed or otherwise terminated by us.

We will not offer to sell through the use or medium of any prospectus or otherwise any security until the Registration Statement, of which this prospectus is a part, is declared effective by the SEC.

Right to Reject Subscriptions

We have the right to accept or reject subscriptions in whole or in part, for any reason or for no reason. All monies from rejected subscriptions will be returned immediately to the subscriber, without interest or deductions. Subscriptions for securities will be accepted or rejected within 48 hours after we receive them.

We estimate that the total expenses of this Offering, including registration, filing and listing fees, printing fees and legal and accounting expenses will be approximately $90,800.

A prospectus in electronic format may be made available on our website at www.vistagen.com.

Prior to this Offering, there has been a limited public market for our common stock. We cannot assure investors that an active trading market will develop for our common stock, or that the shares will trade in the public market at or above the public offering price of the common stock in this Offering.

Other than in the United States, no action has been taken by us that would permit a public offering of the securities offered by this prospectus in any jurisdiction where action for that purpose is required. The securities offered by this prospectus may not be offered or sold, directly or indirectly, nor may this prospectus or any other Offering material or advertisements in connection with the offer and sale of any such securities be distributed or published in any jurisdiction, except under circumstances that will result in compliance with the applicable rules and regulations of that jurisdiction. Persons into whose possession this prospectus comes are advised to inform themselves about and to

observe any restrictions relating to the Offering and the distribution of this prospectus.

This prospectus does not constitute an offer to sell or a solicitation of an offer to buy any securities offered by this prospectus in any jurisdiction in which such an offer or a solicitation is unlawful.

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LEGAL MATTERS

The Disclosure Law Group, San Diego, California, will pass upon the validity of the shares of common stock offered hereby. A partner of the Disclosure Law Group holds warrants to purchase 58,334 shares of our common stock.

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EXPERTS

The financial statements as of March 31, 2012 and 2013, and for the years then ended, included in this prospectus, have been audited by Odenberg, Ullakko, Muranishi & Co. LLP, an independent registered public accounting firm, as stated in their report appearing herein. Such financial statements have been so included in reliance upon the report of such firm given upon their authority as experts in accounting and auditing.

INTEREST OF NAMED EXPERTS AND COUNSEL

No expert or counsel named in this prospectus as having prepared or certified any part of this prospectus or having given an opinion upon the validity of the securities being registered or upon other legal matters in connection with this Offering was employed on a contingency basis or had, or is to receive, in connection with the Offering, a substantial interest, directly or indirectly, in the Registrant or any of its parents or subsidiaries. Nor was any such person connected with the Registrant or any of its parents, subsidiaries as a promoter, managing or principal underwriter, voting trustee, director, officer, or employee.

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WHERE YOU CAN FIND MORE INFORMATION

We are a public company and file annual, quarterly and special reports, proxy statements and other information with the SEC. You may read and copy any document we file at the SEC's public reference room at 100 F Street, NE, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference room. Our SEC filings are also available, at no charge, to the public at the SEC's website at http://www.sec.gov.

We have filed with the SEC a Registration Statement on Form S-1 under the Securities Act with respect to the shares of common stock being offered by us under this prospectus. This prospectus is part of that registration statement. This prospectus does not contain all of the information set forth in the registration statement or the exhibits to the registration statement. For further information with respect to us and the shares we are offering pursuant to this prospectus, you should refer to the registration statement and its exhibits. Statements contained in this prospectus as to the contents of any contract, agreement or other document referred to are not necessarily complete, and you should refer to the copy of that contract or other documents filed as an exhibit to the registration statement. You may read or obtain a copy of the registration statement at the SEC's public reference facilities and Internet site referred to above.

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PART II

Information Not Required in Prospectus

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all expenses to be paid by the Registrant in connection with this registration statement. All amounts shown are estimates except for the SEC registration fee.

SEC Filing fees	$1,300
FINRA fees	2,000
Printing and filing expenses	15,000
Transfer agent fees and expenses	5,000
Legal fees and expenses	50,000
Accounting fees and expenses	7,500
Miscellaneous expenses	10,000
Total	$90,800

Item 14. Indemnification of Officers and Directors

Limitations of liability and indemnification

Our amended and restated bylaws provide that we will indemnify our directors, officers and employees to the fullest extent permitted by the Nevada Revised Statutes (NRS).

If the NRS are amended to authorize corporate action further eliminating or limiting the personal liability of a director, then the liability of our directors will be eliminated or limited to the fullest extent permitted by the NRS, as so amended. Our articles of incorporation do not eliminate a director's duty of care and, in appropriate circumstances, equitable remedies, such as injunctive or other forms of non-monetary relief, will remain available under the NRS. This provision also does not affect a director's responsibilities under any other laws, such as the federal securities laws or other state or federal laws. Under our bylaws, we are empowered to enter into indemnification agreements with our directors, officers and employees to purchase insurance on behalf of any person whom we are required or permitted to indemnify.

In addition to the indemnification required in our bylaws, we have entered into indemnification agreements with each of the individuals serving on our board of directors. These agreements provide for the indemnification of our directors to the fullest extent permitted by law. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors, officers and employees. We also maintain directors' and officers' liability insurance.

The limitation of liability and indemnification provisions in our bylaws may discourage shareholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against directors and officers, even though an action, if successful, might benefit us and our stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers pursuant to these indemnification provisions.

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Insofar as indemnification for liabilities arising under the Securities Act may be permitted to our directors, officers and certain employees pursuant to the foregoing provisions, or otherwise, we have been advised that, in the opinion of the SEC, such indemnification is against public policy as expressed in the Securities Act, and is, therefore, unenforceable.

There is no pending litigation or proceeding naming any of our directors or officers as to which indemnification is being sought, nor are we aware of any pending or threatened litigation that may result in claims for indemnification

Item 15. Recent Sales of Unregistered Securities.

Since May 2011, we have made the following sales of unregistered securities:

Spring 2014 Unit Private Placement

Through April 30, 2014, we entered into securities purchase agreements with accredited investors pursuant to which we sold to such accredited investors units ("Units") consisting, in aggregate, of: (i) 10% convertible notes maturing on March 31, 2015 in the aggregate face amount of $500,000; (ii) an aggregate of 500,000 shares of our restricted common stock; and (iii) warrants exercisable through December 31, 2016 to purchase an aggregate of 500,000 restricted shares of our common stock at an exercise price of $0.50 per share. We received cash proceeds of $500,000 from the sale of the Units.

Technology License Settlement

In April 2014, we issued to Icahn School of Medicine at Mount Sinai, the licensor of one of our technology licenses, (i) a 10% promissory note maturing on December 31, 2014 in the face amount of $300,000; (ii) 300,000 shares of our restricted common stock; and (iii) a warrant exercisable through March 31, 2019 to purchase an aggregate of 300,000 restricted shares of our common stock at an exercise price of $0.50 per share, in settlement of $288,400 of outstanding license fees and expenses.

Winter 2013/2014 Unit Private Placement: August 2013 – March 2014

Between August 2013 and March 14, 2014, we entered into strategic securities purchase agreements with accredited investors pursuant to which we sold to such accredited investors Units consisting, in aggregate, of: (i) 10% convertible notes maturing on July 30, 2014 in the aggregate face amount of $1,007,500; (ii) an aggregate of 2,015,000 shares of our restricted common stock; and (iii) warrants exercisable through July 30, 2016 to purchase an aggregate of 2,015,000 restricted shares of our common stock at an exercise price of $1.00 per share. We received cash proceeds of $1,007,500 from the sale of the Units, including $50,000 in lieu of repayment of previous advances made to us by one of our executive officers.

Exercise of Warrants: June and October 2013

In June 2013 and October 2013, our Chief Executive Officer partially exercised a previously-outstanding warrant to purchase an aggregate of 60,000 shares of our restricted common stock at an exercise price of $0.64 per share and we received proceeds of $38,400 from his exercise.

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Modification and Exercise of Warrants: June – July 2013

During June 2013, we offered certain accredited long-term warrant holders the opportunity to exercise outstanding warrants having an exercise price of $1.50 per share to purchase shares of our restricted common stock at a reduced exercise price of $0.50 per share. Through the closing of the offering in mid-July 2013, warrant holders exercised modified warrants to purchase an aggregate of 528,370 restricted shares of our common stock and we received cash proceeds of $264,185. In addition, certain accredited long-term warrant holders exercised modified warrants to purchase 16,646 shares of our restricted common stock in lieu of payment by us in satisfaction of amounts due for professional services in the aggregate amount of $8,323.

Autilion Financing: June 2013

In April 2013, we entered into a Securities Purchase Agreement (the "Autilion Agreement") pursuant to which, as amended, we have agreed to sell, and Autilion AG, a company organized and existing under the laws of Switzerland ("Autilion"), has agreed to purchase, 72.0 million restricted shares of our common stock for $0.50 per share resulting in aggregate gross proceeds to us of $36.0 million (the "Autilion Financing"). Through the date of this prospectus, we have completed only a nominal initial closing of the Autilion Financing in which we have issued 50,000 restricted shares of our common stock and received $25,000 in cash proceeds.

Senior Secured Convertible Promissory Notes Issued to Platinum: July 2012 – July 2013

On July 2, 2012 and on August 31, 2012, we issued to Platinum Long Term Growth Fund VII ("Platinum") senior secured convertible promissory notes in the principal amount of $500,000 (the "July 2012 Platinum Note") and $750,000 (the "August 2012 Platinum Note"), respectively. The July 2012 Platinum Note and the August 2012 Platinum Note each accrued interest at the rate of 10% per annum and were due and payable on July 2, 2015.

On October 11, 2012, we entered into a Note Exchange and Purchase Agreement with Platinum (the "October 2012 Agreement") in which the July 2012 Platinum Note and the August 2012 Platinum Note (together, the "Existing Notes"), as well as the related accrued interest, were consolidated into and exchanged for a single senior secured convertible note in the amount of $1,272,600 (the "Exchange Note") and Platinum agreed to purchase four additional 10% senior secured convertible promissory notes in the aggregate principal amount of $2.0 million (the "Investment Notes"), issuable over four separate $500,000 tranches between October 2012 and December 2012. The first and second $500,000 Investment Notes, in the aggregate principal amount of $1.0 million, were purchased by Platinum on October 11, 2012 and October 19, 2012, respectively.

On November 14, 2012 and January 31, 2013, we entered into amendments to the October 2012 Agreement (the "NEPA Amendments") with Platinum, pursuant to which the final two $500,000 tranches contemplated by the October 2012 Agreement were combined into a single Investment Note in the aggregate principal amount of $1.0 million (the "$1.0 Million Note"). Under the terms of the NEPA Amendment, Platinum agreed to purchase the $1.0 Million Note within five business days of our notice to Platinum of the consummation of a debt or equity financing, or combination of financings, prior to February 15, 2013, resulting in gross proceeds to us of at least $1.0 million (the "Additional Financing Requirement"). We satisfied the Additional Financing Requirement on February 12, 2013 (see 2012 Private Placement of Units, below). Effective February 22, 2013, we entered into an additional amendment to the October 2012 Agreement with Platinum pursuant to which Platinum agreed to purchase an Investment Note in the face amount of $250,000 on February 22, 2013, and an additional Investment Note in the face amount of $750,000 on or before March 12, 2013, which Investment Note we issued and Platinum purchased on March 12, 2013.

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The Exchange Note and each Investment Note (together, the "Notes") accrue interest at a rate of 10% per annum and, subject to certain limitations and exceptions set forth in the Notes, unless converted earlier and voluntarily by Platinum, will be due and payable in restricted shares of our common stock on October 11, 2015, or three years from the date of issuance, as determined by the terms of the respective Investment Notes. At maturity, we will pay all principal and accrued interest under the Notes through the issuance of restricted shares of our common stock to Platinum. Subject to certain potential adjustments set forth in the Notes, the number of restricted shares of common stock issuable as payment in full for each of the Notes at maturity will be calculated by dividing the outstanding Note balance plus accrued interest by $0.50 per share. Prior to maturity, the outstanding principal and any accrued interest on the Exchange Note and each of the Investment Notes is convertible, in whole or in part, at Platinum's option into shares of our common stock at a conversion price of $0.50 per share, subject to certain adjustments.

As additional consideration for the purchase of the Investment Notes, we issued to Platinum warrants to purchase an aggregate of 2,000,000 shares of our common stock, issuable in separate tranches together with each Investment Note, of which a warrant to purchase 500,000 shares was issued to Platinum on October 11, 2012 and on October 19, 2012, a warrant to purchase 250,000 shares was issued to Platinum on February 22, 2013 and a warrant to purchase 750,000 shares was issued to Platinum on March 12, 2013 (each an "Investment Warrant"). In addition, we issued Platinum a warrant to purchase 1,272,577 shares of our common stock in connection with the issuance of the Exchange Note (the "Exchange Warrant"). At issuance, the Platinum Exchange Warrant and each Investment Warrant had a term of five years and an exercise price of $1.50 per share, subject to certain adjustments. We have subsequently reduced the exercise price of the Exchange and Investment Warrants to $0.50 per share.

On July 26, 2013, we issued an additional senior secured convertible promissory note in the principal amount of $250,000 to Platinum (the "July 2013 Note"). The July 2013 Note matures on July 26, 2016 and accrues interest at a rate of 10% per annum. Subject to certain terms and conditions, all principal and accrued interest under the July 2013 Note will be payable by the Company through the issuance of restricted shares of common stock to Platinum. Subject to certain potential adjustments set forth in the July 2013 Note, the number of restricted shares of common stock issuable as payment in full for the July 2013 Note at maturity will be calculated by dividing the outstanding balance plus accrued interest of the July 2013 Note by $0.50 per share. Prior to maturity, the outstanding principal and any accrued interest on the July 2013 Note is convertible, in whole or in part, at Platinum's option into shares of the Company's restricted common stock at a conversion price of $0.50 per share, subject to certain adjustments. As additional consideration for the purchase of the July 2013 Note, we issued to Platinum a five-year warrant to purchase 250,000 restricted shares of our common stock at an exercise price of $0.50 per share (the "July 2013 Warrant").

2012 Private Placement of Units: September 2012 – March 2013

Between September 2012 and March 2013, we sold 2,366,330 Units in a private placement to accredited investors and received cash proceeds of $1,133,200 and settled outstanding amounts payable for legal fees in lieu of cash payment for services in the amount of $50,000. The Units were sold for $0.50 per Unit and each Unit consisted of one restricted share of our common stock and a five year warrant to purchase one half of one restricted share of our common stock at an exercise price of $1.50 per share. In addition, in November 2012, pursuant to an Exchange Agreement, the holders of the February 2012 Notes exchanged the aggregate amount of $678,600 due under the terms of such notes for a total of 678,641 Units, consisting of 1,357,281 restricted shares of the Company's common stock and five-year warrants to purchase 678,641 restricted shares of the Company's common stock at an exercise price of $1.50 per share. The gross cash proceeds from this private placement of Units satisfied the Additional Financing Requirement under the October 2012 Agreement with Platinum, as amended, described above, entitling us to sell and requiring Platinum to purchase senior secured convertible promissory notes in the aggregate face amount of $1.0 million in February and March 2013.

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12% Convertible Notes and Warrants: February 2012

On February 28, 2012, we consummated a private placement of convertible promissory notes to accredited investors in the aggregate principal amount of $500,000 (the “Notes”). Each Note accrued interest at the rate of 12% per annum to be paid in kind quarterly, and was scheduled to mature on the earlier to occur of twenty-four months from the date of issuance or consummation of an equity, equity-based or series of equity-based financings resulting in gross proceeds to us of at least $4.0 million (a “Qualified Financing”). The holder of each Note could voluntarily convert the outstanding principal amount of the Notes, together with all accrued and unpaid interest thereon (“Outstanding Balance”) into that number of shares of our common stock equal to the Outstanding Balance, divided by $3.00 (the "Conversion Shares"). In addition, in the event we consummated a Qualified Financing in which the price per unit of the securities sold, or share of common stock issuable in connection with such Qualified Financing, was at least $2.00, the Outstanding Balance would automatically convert into such securities.

We also issued to the purchaser of each Note a warrant to purchase, for $2.75 per share, that number of shares of our common stock equal to 150% of the total principal amount of the Notes purchased by such purchaser, divided by $2.75, resulting in the potential issuance of an aggregate of 272,724 shares of our common stock upon exercise of the warrants. The warrants terminate, if not exercised, five years from the date of issuance.

Noble Financial Capital Markets served as the lead placement agent for us in connection with the Note Offering and received cash fees totaling $21,000.

On November 15, 2012, the holders of the February 2012 Notes entered into an Exchange Agreement with us ("Exchange Agreement”). Under the terms of the Exchange Agreement, the current amount due under the terms of the February 2012 Notes, $678,600, which amount included all accrued interest as well as additional consideration for the conversion, was exchanged for a total of 1,357,281 restricted shares of our common stock and five-year warrants to purchase 678,641 restricted shares of our common stock at an exercise price of $1.50 per share (the “Note Exchange Securities”). Additionally, we issued a five-year warrant to purchase 72,000 restricted shares of our common stock at an exercise price of $1.50 per share as partial compensation to Noble Financial Capital Markets, the investment bank that had placed certain of the Notes.

October 2011 Private Placement

During October 2011, we completed an additional private placement of Units to accredited investors. Each Unit was priced at $1.75 and consisted of one share of our common stock and a three-year warrant to purchase one-fourth of one share of our common stock at an exercise price of $2.50 per share. We sold a total of 63,570 Units and received aggregate cash proceeds of $111,248.

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Discounted Warrant Exercise Program: October – December 2011

During the quarter ended December 31, 2011, certain accredited investors who were holders of outstanding warrants exercised such warrants to purchase an aggregate of 3,121,259 shares of our common stock at reduced exercise prices, including warrants to purchase 1,599,858 shares of common stock exercised by Platinum under the terms of the Note and Warrant Exchange Agreement, as described in Note 8 to our audited Financial Statements presented elsewhere in this prospectus. Platinum exercised warrants at reduced prices ranging from $0.75 per share to $1.25 per share, compared to original exercise prices ranging from $1.50 per share to $2.50 per share, resulting in proceeds to us of $1,719,823 which we applied to reduce the outstanding balance of the Platinum Note and accrued interest under the terms of the Note and Exchange Agreement.

Other investors and service providers exercised warrants to purchase an aggregate of 1,028,860 shares of our common stock at reduced exercise prices ranging from $0.75 per share to $1.31 per share, compared to original exercise prices ranging from $1.50 per share to $2.625 per share. In conjunction with these exercises, we:

- issued 965,734 shares of our common stock and received cash proceeds of $1,106,129;
- issued 29,426 shares of our common stock to warrant holders who elected to exercise their warrants in lieu of payment by us in satisfaction of outstanding indebtedness to such holders totaling an aggregate of $30,128; and
- issued 33,700 shares of our common stock to warrant holders who elected to exercise their warrants in lieu of payment by us in satisfaction of payment for services in the aggregate amount of $41,343 to be performed in the future by such holders.

Additionally, in December 2011, we entered into an Agreement Regarding Payment of Invoices and Warrant Exercises with Cato Holding Company (“CHC”), Cato Research Ltd. (“CRL”), and certain individual warrant holders affiliated with CHC and CRL (collectively, “CHC Affiliates”) under the terms of which CHC and the CHC Affiliates exercised warrants to purchase an aggregate of 492,541 shares of our common stock at reduced exercise prices ranging from $0.88 per share to $1.25 per share, compared to original exercise prices ranging from $1.75 per share to $2.50 per share. As a result of these warrant exercises, we received cash proceeds of $60,207 in connection with the exercise of warrants to purchase 68,417 shares and, in lieu of cash payments for the remainder of the warrants to purchase 424,124 shares, CHC and CRL agreed to the satisfaction of outstanding indebtedness to CRL in the amount of $245,278 and pre-payment for future services in the amount of $226,449.

December 2011 Common Stock Exchange Agreement with Platinum

On December 22, 2011, we entered into a Common Stock Exchange Agreement (“Exchange Agreement”) with Platinum, pursuant to which Platinum converted 484,000 restricted shares of our common stock into 45,980 restricted shares of our then newly created Series A Preferred (the “Exchange”). Each restricted share of Series A Preferred issued to Platinum was then convertible into ten restricted shares of our common stock, subsequently modified to be convertible into thirty (30) shares of our common stock. In consideration for the Exchange, the Series A Preferred received by Platinum in connection with the Exchange was convertible into the equivalent of 0.95 restricted shares of common stock surrendered in connection with the Exchange.

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December 2011 Note and Warrant Exchange Agreement with Platinum

On December 29, 2011, we entered into a Note and Warrant Exchange Agreement with Platinum pursuant to which the May 2011 Platinum Note and all outstanding warrants issued to Platinum to purchase an aggregate of 1,599,858 restricted shares of our common stock were cancelled in exchange for 391,075 restricted shares of our newly-created Series A Preferred . Each share of Series A Preferred was initially convertible into ten shares of our common stock. We issued 231,090 restricted shares of Series A Preferred to Platinum in connection with the note cancellation based on the sum of the $4,000,000 principal balance of the Platinum Note plus accrued but unpaid interest through May 11, 2011 adjusted for a 125% conversion premium, net of the $1,719,800 aggregate exercise price of the outstanding 1,599,858 warrants held by Platinum, and a contractual conversion basis of $1.75 per common share, all adjusted for the stated 1:10 Series A Preferred to common exchange ratio. We issued an additional 159,985 restricted shares of Series A Preferred to Platinum in connection with the warrant exercise and exchange to acquire the common shares issued upon the warrant exercise.

2012 Exchange Agreement with Platinum

On June 29, 2012, we entered into an Exchange Agreement with Platinum (the "2012 Platinum Exchange Agreement") pursuant to which we agreed to issue Platinum 62,945 restricted shares of Series A Preferred in exchange for 629,450 restricted shares of common stock then owned by Platinum, in consideration for Platinum's agreement to purchase from us the July 2012 Platinum Note, as described above in the section entitled "Senior Secured Convertible Promissory Notes Issued to Platinum: July 2012 – July 2013. Under the terms of the 2012 Platinum Exchange Agreement, Platinum, at its option, could have exchanged all or a portion of its Series A Preferred for the securities issued in connection with a qualified financing, an equity or equity-based financing, or series of financing transactions resulting in gross proceeds to the Company of at least $3.0 million, based on the stated value of $15.00 per share of Series A Preferred.

Note Payable to Morrison & Foerster: May 2011, restructured August 2012

On May 5, 2011, we amended a previously-outstanding note ("Original Note") issued to Morrison & Foerster LLP ("Morrison & Foerster"), our intellectual property counsel, that we had issued in payment of legal services (the "Amended Note")). Under the Amended Note, the principal balance of the Original Note was increased to $2,200,000, interest accrued at the rate of 7.5% per annum, and we were required to make an additional payment of $100,000 within three business days of the date of the Amended Note, which we made in a timely manner.

On August 31, 2012, we restructured the Amended Note ("Restructuring Agreement"). Pursuant to the Restructuring Agreement, we issued to Morrison & Foerster two new unsecured promissory notes to replace the Amended Note, one in the principal amount of $1,000,000 ("Replacement Note A") and the other in the principal amount of $1,379,400 ("Replacement Note B") (together, the "Replacement Notes"); amended an outstanding warrant to purchase 425,000 restricted shares of our common stock (the "Amended M&F Warrant"); and issued a new warrant to purchase 1,379,376 restricted shares of our common stock ("New M&F Warrant"). Under the terms of the Restructuring Agreement, the Amended Note was cancelled and all of our past due payment obligations under the Amended Note were satisfied. We made a payment of $155,000 to Morrison & Foerster on August 31, 2012 pursuant to the terms of the Amended Note, and issued the Replacement Notes, each dated as of August 31, 2012. Both Replacement Notes accrue interest at the rate of 7.5% per annum and are due and payable on March 31, 2016. Replacement Note A required monthly payments of $15,000 per month through March 31, 2013, and $25,000 per month thereafter until maturity. For strategic purposes, we have not made the payments required on Replacement Note A since April 2013 and accordingly, the interest rate on the Replacement Notes has increased to 10.0 % per annum from May 2013 until payments resume. Payment of the principal and interest on Replacement Note B will be made solely in restricted shares of our common stock pursuant to Morrison & Foerster's surrender from time to time of all or a portion of the

principal and interest balance due on Replacement Note B in connection with its exercise of the New M&F Warrant, at an exercise price of $1.00 per share, and concurrent cancellation of indebtedness and surrender of Replacement Note B; provided, however, that Morrison & Foerster will have the option to require payment of Replacement Note B in cash upon the occurrence of a change in control of the Company or an event of default, and only in such circumstances. As of the date of this prospectus, the aggregate principal and accrued interest of Replacement Note A and Replacement Note B is approximately $2.5 million.

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Note Payable to University Health Network (UHN): October 2012

On October 10, 2012, we issued to UHN: (i) an unsecured promissory note in the principal amount of $549,500, which is payable solely in restricted shares of our common stock and which accrues interest at the rate of 7.5% per annum, as payment in full for all sponsored stem cell research and development activities by UHN and Gordon Keller, Ph.D. under our Sponsored Research Collaboration Agreement through September 30, 2012 (the "UHN Note"), and (ii) a five-year warrant to purchase, at a price of $1.00 per share, 549,500 restricted shares of our common stock, the amount equal to the sum of the principal amount of the UHN Note, plus all accrued interest thereon, divided by $1.00 per share (the "UHN Warrant"). The UHN Note is due and payable on March 31, 2016 and is payable solely by UHN's surrender from time to time of all or a portion of the principal and interest balance due on the UHN Note in connection with its concurrent exercise of the UHN Warrant, provided, however, that UHN will have the option to require payment of the UHN Note in cash upon the occurrence of a change in control of the Company or an event of default, and only in such circumstances. As of the date of this prospectus, the aggregate principal and accrued interest of the UHN Note is approximately $0.6 million.

Note Payable to Cato Holding Company: April 2011, Restructured October 2012

In April 2011, all amounts we owed to CHC, a related party, and its affiliates, were consolidated into a single note, in the principal amount of $352,300 (the "2011 CHC Note"). Concurrently, CHC released all of its security interests in certain of our personal property. The 2011 CHC note was to bear interest at 7% per annum, compounded monthly. Under the terms of the note, we were to make six monthly payments of $10,000 each beginning June 1, 2011, and thereafter to make payments of $12,500 monthly until the 2011 CHC Note was repaid in full. We had the option to prepay the outstanding balance in full or in part at any time during its term without penalty.

On October 10, 2012, we agreed with CHC to cancel the 2011 CHC Note in exchange for a new unsecured promissory note in the principal amount of $310,400 (the "2012 CHC Note") and a five-year warrant to purchase 250,000 shares of our common stock at a price of $1.50 per share (the "CHC Warrant"). The 2012 CHC Note accrues interest at a rate of 7.5% per annum and is due and payable in monthly installments of $10,000, beginning November 1, 2012 and continuing until the outstanding balance is paid in full. As of the date of this prospectus, the aggregate principal and accrued interest of the 2012 CHC Note is approximately $0.3 million.

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Note Payable to Cato Research Ltd: October 2012

On October 10, 2012, we issued to CLR, a related party: (i) an unsecured promissory note in the initial principal amount of $1,009,000, which is payable solely in restricted shares of our common stock and which accrues interest at the rate of 7.5% per annum, compounded monthly (the "CRL Note"), as payment in full for all contract research and development services and regulatory advice ("CRO Services") rendered by CRL to us and our affiliates through December 31, 2012 with respect to the preclinical and clinical development of AV-101, and (ii) a five-year warrant to purchase, at a price of $1.00 per share, 1,009,000 restricted shares of our common stock, the amount equal to the sum of the principal amount of the CRL Note, plus all accrued interest thereon, divided by $1.00 per share (the "CRL Warrant"). The principal amount of the CRL Note may, at our option, be automatically increased as a result of future CRO Services rendered by CRL to us and our affiliates from January 1, 2013 to June 30, 2013. The CRL Note is due and payable on March 31, 2016 and is payable solely by CRL's surrender from time to time of all or a portion of the principal and interest balance due on the CRL Note in connection with its concurrent exercise of the CRL Warrant, provided, however, that CRL will have the option to require payment of the CRL Note in cash upon the occurrence of a change in control of the Company or an event of default, and only in such circumstances. As of the date of this prospectus, the aggregate principal and accrued interest of the CRL Note is approximately $1.1 million.

Proceeds from each of the offerings were used for general corporate purposes. All of the above sales were made in reliance on Section 4(2) of the Securities Act as transactions by and issuer not involving any public offering, Regulation D of the Securities Act, and/or Section 3(a)(9) under the Securities Act. In all such transactions, certain inquiries were made by the Company to establish that such sales qualified for such exemption from the registration requirements. In particular, the Company confirmed that, with respect to the exemption claimed under Section 4(2) of the Securities Act, that (i) all offers of sales and sales were made by personal contact from officers and directors of the Company or other persons closely associated with the Company, (ii) each investor made representations that he, she or it was an accredited investor as defined in Rule 501 of Regulation D under the Securities Act (and the Company had no reason to believe that such representations were incorrect), (iii) each purchaser gave assurance of investment intent, and (iv) offers and sales within any offering were made only to a limited number of persons.

Item 16. Exhibits and Financial Statement Schedules

(a) Exhibits

Exhibit Number	Description of Exhibit
2.1 *	Agreement and Plan of Merger by and among Excaliber Enterprises, Ltd., VistaGen Therapeutics, Inc. and Excaliber Merger Subsidiary, Inc.
3. 1 *	Articles of Incorporation
3. 2 *	Amended and Restated Bylaws as of February 5, 2014, incorporated by reference from the Company's Report on Form 8-K filed on February 7, 2014.
3.3	Certificate of Designations Series A Preferred, incorporated by reference from the Company's Current Report on Form 8-K/A filed on December 22, 2011.
4.1 *	Fourth Amended and Restated Investors' Rights Agreement, dated August 1, 2005, by and among VistaGen and certain (former) holders of Preferred Stock of VistaGen, as amended by that certain Amendment No. 1 to Fourth Amended and Restated Investors' Rights Agreement, dated July 10, 2010.
5.1	Opinion of the Disclosure Law Group (to be filed by amendment).
10.1 *	VistaGen's 1999 Stock Incentive Plan.
10.2 *	Form of Option Agreement under VistaGen's 1999 Stock Incentive Plan.
10.3 *	VistaGen's Scientific Advisory Board 1998 Stock Incentive Plan.

10.4 *	Form of Option Agreement under VistaGen's Scientific Advisory Board 1998 Stock Incentive Plan.
10.5 *	VistaGen's 2008 Stock Incentive Plan.
10.6 *	Form of Option Agreement under VistaGen's 2008 Stock Incentive Plan.
10.7 *	Securities Purchase Agreement, dated October 30, 2009, by and between VistaGen and Cato BioVentures.
10.8 *	Securities Purchase Agreement, dated April 27, 2011, by and between VistaGen and Cato BioVentures.
10.9 *	Securities Purchase Agreement, dated November 5, 2009, by and between VistaGen and Platinum Long Term Growth Fund.
10.10 *	Securities Purchase Agreement, dated December 2, 2009, by and between VistaGen and University Health Network.
10.11 *	Securities Purchase Agreement, dated April 25, 2011, by and between VistaGen and University Health Network.

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10.12 *	Form of Subscription Agreement, dated May 11, 2011, by and between VistaGen and certain investors.
10.18 *	Industrial Lease, dated March 5, 2007, by and between Oyster Point LLC and VistaGen, as amended by that certain First Amendment to Lease, dated as of April 24, 2009, and as further amended by that certain Second Amendment o Lease, dated as of October 19, 2010, and that certain Third Amendment to Lease, dated as of April 1, 2011.
10.19 *	Clinical Study Agreement, dated April 15, 2010, by and between VistaGen and Progressive Medical Concepts, LLC
10.20 *	Strategic Development Services Agreement, dated February 26, 2007, by and between VistaGen and Cato Research Ltd.
10.21 *	License Agreement by and between National Jewish Medical and Research Center and VistaGen, dated July 12, 1999, as amended by that certain Amendment to License Agreement dated January 25, 2001, as amended by that certain Second Amendment to License Agreement dated November 6, 2002, as amended by that certain Third Amendment to License Agreement dated March 1, 2003, and as amended by that certain Fourth Amendment to License Agreement dated April 15, 2010.
10.22 *	License Agreement by and between Mount Sinai School of Medicine of New York University and the Company, dated October 1, 2004.
10.23 *	Non-Exclusive License Agreement, dated December 5, 2008, by and between VistaGen and Wisconsin Alumni Research Foundation, as amended by that certain Wisconsin Materials Addendum, dated February 2, 2009.
10.24 *	Sponsored Research Collaboration Agreement, dated September 18, 2007, between VistaGen and University Health Network, as amended by that certain Amendment No. 1, Amendment No. 2 and Amendment No. 3 dated April 19, 2010, December 15, 2010 and April, 25, 2011, respectively.
10.25 *	Letter Agreement, dated Feb 12, 2010, by and between VistaGen and The Regents of the University of California.
10.26 *	License Agreement, dated October 24, 2001, by and between the University of Maryland, Baltimore, Cornell Research Foundation and Artemis Neuroscience, Inc.
10.27 *	Non-exclusive License Agreement, dated September 1, 2010, by and between VistaGen and TET Systems GmbH & Co. KG.
10.28 *	Amended and Restated Senior Convertible Promissory Bridge Note dated June 19, 2007 issued by VistaGen to Platinum Long Term Growth VII, LLC.
10.29 *	Second Amended and Restated Letter Loan Agreement dated May 16, 2008, by and between VistaGen and Platinum Long Term Growth VII, LLC, as amended by that certain Amendment No. 1 to Second Amended and Restated Letter Loan Agreement dated October 16 2009, as further amended by that certain Amendment to Letter Loan Agreement dated May 5, 2011.
10.30 *	Promissory Note dated April 29, 2011 issued by VistaGen to Cato Holding Company.
10.31 *	Unsecured Promissory Note dated April 28, 2011 issued by VistaGen to Desjardins Securities.
10.32 *	Unsecured Promissory Note dated April 28, 2011 issued by VistaGen to McCarthy Tetrault LLP.
10.33 *	Unsecured Promissory Note dated April 28, 2011 issued by VistaGen to Morrison & Foerster LLP

10.34 *	Promissory Note dated February 25, 2010 issued by VistaGen to The Regents of the University of California.
10.35 *	Note and Warrant Purchase Agreement dated August 4, 2010, by and between VistaGen and certain investors, as amended by that certain Amendment No. 1 to Note and Warrant Purchase Agreement, dated November 10, 2010.
10.36 *	Conversion Agreement, dated April 29, 2011, by and among VistaGen and certain holders of unsecured promissory notes issued pursuant to that certain Note and Warrant Purchase Agreement, dated August 4, 2010, by and between VistaGen and such note holders. .
10.37 *	Agreement regarding Conversion of Unsecured Promissory Note, dated April 29, 2011, by and between VistaGen and The Dillon Family Trust. Item 601(a)(4) of Reg S-K would seem to indicate we need to file Letter Agreement of Sept 7, 2011 and subsequent agreement regarding extension of term.

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10.38 *	Senior Note and Warrant Purchase Agreement dated August 13, 2006, by and between VistaGen and certain investors, as amended by that certain Amendment No. 1 to Senior Convertible Bridge Note and Warrant Purchase Agreement dated January 31, 2007, as further amended by that certain Amendment No. 2 to Senior Convertible Bridge Note and Warrant Purchase Agreement dated June 11, 2007, as further amended by that certain Omnibus Amendment dated April 28, 2011 .
10.39 *	Senior Note and Warrant Purchase Agreement dated May 16, 2008, by and between VistaGen and certain investors, as amended by that certain Amendment No. 1 to Senior Convertible Bridge Note and Warrant Purchase Agreement dated November 2, 2009, as further amended by that certain Omnibus Amendment dated April 28, 2011.
10.40 *	Employment Agreement, by and between, VistaGen and Shawn K. Singh, dated April 28, 2010, as amended May 9, 2011.
10.41 *	Employment Agreement, by and between, VistaGen and H. Ralph Snodgrass, PhD, dated April 28, 2010, as amended May 9, 2011.
10.43 *	Agreement Regarding Sale of Shares of Common Stock dated May 9, 2011 by and between Excaliber and Stephanie Y. Jones, whereby Excaliber purchased from Mrs. Jones 4,982,103 shares of Excaliber common stock for $10.
10.44 *	Agreement Regarding Sale of Shares of Common Stock dated May 9, 2011 by and between Excaliber and Nicole Jones, whereby Excaliber purchased from Nicole Jones 82,104 shares of Excaliber common stock for $10.
10.45 *	Joinder Agreement dated May 11, 2011 by and between Excaliber, Platinum Long Term Growth VII, LLC and VistaGen
10.46	Notice of Award by National Institutes of Health, Small Business Innovation Research Program, to VistaGen Therapeutics, Inc. for project, Clinical Development of 4-CI-KYN to Treat Pain dated June 22, 2009, with revisions dated July 19, 2010 and August 9, 2011, incorporated by reference from the Company's Current Report on Form 8-K/A filed on December 20, 2011.
10.47	Notice of Grant Award by California Institute of Regenerative Medicine and VistaGen Therapeutics, Inc. for Project: Development of an hES Cell-Based Assay System for Hepatocyte Differentiation Studies and Predictive Toxicology Drug Screening, dated April 1, 2009, incorporated by reference from the Company's Current Report on Form 8-K/A filed on December 20, 2011.
10.48	Amendment No. 4, dated October 24, 2011, to Sponsored Research Collaboration Agreement between VistaGen and University Health Network, incorporated by reference from the Company's Current Report on Form 8-K/A filed on November 30, 2011
10.49	License Agreement No. 1, dated as of October 24, 2011 between University Health Network and VistaGen Therapeutics, Inc., incorporated by reference from the Company's Current Report on Form 8-K/A filed on November 30, 2011.
10.50	Strategic Medicinal Chemistry Services Agreement, dated as of December 6, 2011, between Synterys, Inc. and VistaGen Therapeutics, Inc., incorporated by reference from the Company's Current Report on Form 8-K/A filed on December 7, 2011.
10.51	Common Stock Exchange Agreement, dated as of December 22, 2011 between Platinum Long Term Growth VII, LLC and VistaGen Therapeutics, Inc., incorporated by reference from the Company's Current Report on Form 8-K/A filed on December 23, 2011.
10.52	

	Note and Warrant Exchange Agreement, dated as of December 28, 2011 between Platinum Long Term Growth VII, LLC and VistaGen Therapeutics, Inc., incorporated by reference from the Current Report on Form 8-K/A filed on January 4, 2012.
10.53	Form of Convertible Note and Warrant Purchase Agreement, dated as of February 28, 2012, by and between VistaGen and certain investors, incorporated by reference from the Current Report on Form 8-K/A filed on March 2, 2012.
10.54	Form of Convertible Promissory Note, dated as of February 28, 2012, incorporated by reference from the Company's Current Report on Form 8-K/A filed on March 2, 2012.
10.55	Form of Warrant to Purchase Common Stock, dated as of February 28, 2012, incorporated by reference from the Company's Current Report on Form 8-K/A filed on March 2, 2012.
10.56	Form of Registration Rights Agreement, dated as of February 28, 2012, by and between VistaGen and certain investors, incorporated by reference from the Company's Current Report on Form 8-K/A filed on March 2, 2012.
10.57	License Agreement No. 2, dated as of March 19, 2012 between University Health Network and VistaGen Therapeutics, Inc., incorporated by reference from the Company's Annual Report on Form 10-K filed on July 2, 2012.

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10.58	Exchange Agreement dated as of June 29, 2012 between Platinum Long Term Growth VII, LLC and VistaGen Therapeutics. Inc., incorporated by reference from the Company's Annual Report on Form 10-K filed on July 2, 2012.
10.59	Secured Convertible Promissory Note, Dated as of July 2, 2012, issued to Platinum Long Term Growth VII, LLC., incorporated by reference from the Company's Annual Report on Form 10-K filed on July 2, 2012.
10.60	Security Agreement between Platinum Long Term Growth VII, LLC and VistaGen Therapeutics. Inc., dated as of July 2, 2012, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 2, 2012.
10.61	Secured Convertible Promissory Note, Dated as of August 30, 2012, issued to Platinum Long Term Growth VII, LLC., incorporated by reference from the Company's Current Report on Form 8-K filed on September 6, 2012.
10.62	Amendment to Security Agreement between Platinum Long Term Growth VII, LLC and VistaGen Therapeutics. Inc.as of August 30, 2012, incorporated by reference from the Company's Current Report on Form 8-K filed on September 6, 2012.
10.63	Unsecured Promissory Note in the face amount of $1,000,000 issued to Morrison & Foerster LLP on August 31, 2012 (Replacement Note A), incorporated by reference from the Company's Current Report on Form 8-K filed on September 6, 2012.
10.64	Unsecured Promissory Note in the face amount of $1,379,376 issued to Morrison & Foerster LLP on August 31, 2012 (Replacement Note B), incorporated by reference from the Company's Current Report on Form 8-K filed on September 6, 2012.
10.65	Stock Purchase Warrant issued to Morrison & Foerster LLP on August 31, 2012 to purchase 1,379,376 shares of the Company's common stock (New Morrison & Foerster Warrant), incorporated by reference from the Company's Current Report on Form 8-K filed on September 6, 2012.
10.66	Warrant to Purchase Common Stock issued to Morrison & Foerster LLP on August 31, 2012 to purchase 425,000 shares of the Company's common stock (Amended Morrison & Foerster Warrant), incorporated by reference from the Company's Current Report on Form 8-K filed on September 6, 2012.
10.67	Note Exchange and Purchase Agreement dated as of October 11, 2012 by and between VistaGen Therapeutics, Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on October 16, 2012.
10.68	Form of Senior Secured Convertible Promissory Note issued to Platinum Long Term Growth VII, LLP under the Note Exchange and Purchase Agreement, incorporated by reference from the Company's Current Report on Form 8-K filed on October 16, 2012.
10.69	Form of Warrant to Purchase Shares of Common Stock issued to Platinum Long Term Growth VII, LLP under the Note Exchange and Purchase Agreement, incorporated by reference from the Company's Current Report on Form 8-K filed on October 16, 2012.
10.70	Amended and Restated Security Agreement as of October 11, 2012 between VistaGen Therapeutics, Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on October 16, 2012.
10.71	

	Intellectual Property Security and Stock Pledge Agreement as of October 11, 2012 between VistaGen California and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on October 16, 2012.
10.72	Negative Covenant Agreement dated October 11, 2012 between VistaGen California, Artemis Neuroscience, Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on October 16, 2012.
10.73	Amendment to Note Exchange and Purchase Agreement as of November 14, 2012 between VistaGen Therapeutics Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on November 20, 2012.
10.74	Form of Note Exchange Agreement between VistaGen Therapeutics, Inc. and Holders of the Company's Promissory Notes dated February 28, 2012, incorporated by reference from the Company's Current Report on Form 8-K filed on November 20, 2012.
10.75	Amendment No. 2 to Note Exchange and Purchase Agreement as of January 31, 2013 between VistaGen Therapeutics Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Quarterly Report on Form 10-Q filed on February 14, 2013.

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10.76	Amendment No. 3 to Note Exchange and Purchase Agreement as of February 22, 2013 between VistaGen Therapeutics Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on February 28, 2013.
10.77	Form of Warrant to Purchase Common Stock issued to independent members of the Company's Board of Directors and its executive officers on March 3, 2013, incorporated by reference from the Company's Current Report on Form 8-K filed on March 6, 2013.
10.78	Securities Purchase Agreement between VistaGen Therapeutics, Inc., and Autilion AG dated April 8, 2013, incorporated by reference from the Company's Current Report on Form 8-K filed on April 10, 2013.
10.79	Voting Agreement between VistaGen Therapeutics, Inc., and Autilion AG dated April 8, 2013, incorporated by reference from the Company's Current Report on Form 8-K filed on April 10, 2013.
10.80	Note Conversion Agreement as of April 4, 2013 between VistaGen Therapeutics Inc. and Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on April 10, 2013, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.81	Assignment and Assumption Agreement between Autilion AG and Bergamo Acquisition Corp. PTE LTD dated April 12, 2013, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.82	Amendment No. 1 to Securities Purchase Agreement dated April 30, 2013 between VistaGen Therapeutics, Inc. and Bergamo Acquisition Corp. PTE LTD, incorporated by reference from the Company's Current Report on Form 8-K filed on May 1, 2013, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.83	Lease between Bayside Area Development, LLC and VistaGen Therapeutics, Inc. (California) dated April 24, 2013, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.84	Indemnification Agreement effective May 20, 2013 between the Company and Jon S. Saxe, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.85	Indemnification Agreement effective May 20, 2013 between the Company and Shawn K. Singh, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013
10.86	Indemnification Agreement effective May 20, 2013 between the Company and H. Ralph Snodgrass, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.87	Indemnification Agreement effective May 20, 2013 between the Company and Brian J. Underdown, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.88	Indemnification Agreement effective May 20, 2013 between the Company and Jerrold D. Dotson, incorporated by reference from the Company's Annual Report on Form 10-K filed on July 18, 2013.
10.89	Amendment and Waiver effective May 24, 2013 between the Company and Platinum Long Term Growth VII, LLC, incorporated by reference from the Company's Current Report on Form 8-K filed on June 3, 2013.
10.90	

	Amendment No 2 to Securities Purchase Agreement dated June 27, 2013 between the Company, Autilion AG and Bergamo Acquisition Corp. PTE LTD, incorporated by reference from the Company's Current Report on Form 8-K filed on June 28, 2013.
10.91	Senior Secured Convertible Promissory Note, dated July 26, 2013 issued to Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on August 2, 2013.
10.92	Common Stock Warrant, dated July 26, 2013 issued to Platinum Long Term Growth VII, LLP, incorporated by reference from the Company's Current Report on Form 8-K filed on August 2, 2013
10.93	Form of Unit Subscription Agreement between the Company and investors in the Spring 2014 Unit Private Placement dated April 1, 2014, incorporated by reference from the Company's Current Report on Form 8-K filed on April 8, 2014.
10.94	Form of Subordinate Convertible Promissory Note between the Company and investors in the Spring 2014 Unit Private Placement dated April 1, 2014, incorporated by reference from the Company's Current Report on Form 8-K filed on April 8, 2014.

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10.95	Form of Common Stock Purchase Warrant between the Company and investors in the Spring 2014 Unit Private Placement dated April 1, 2014, incorporated by reference from the Company's Current Report on Form 8-K filed on April 8, 2014.
16.1*	Letter regarding change in certifying accountant.
21.1*	List of Subsidiaries.
23.1	Consent of OUM, LLP, independent registered public accounting firm (filed herewith)
24.1	Power of Attorney (included on signature page to this registration statement)

* Incorporated by reference from the like-numbered exhibit filed with our Current Report on Form 8-K on May 16, 2011.

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(b) Financial Statement Schedules

All financial schedules have been omitted because they are not applicable or the information is included in the Registrant's financial statements or related notes.

Item 17. Undertakings

The undersigned Registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section l0 (a)(3) of the Securities Act:

(ii) To reflect in the prospectus any facts or events which, individually or together, represent a fundamental change in the information in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities that remain unsold at the termination of the offering.

Insofar as indemnification for liabilities arising under the Securities Act of l933 (the "Act") may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question of whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

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(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(i) If the Registrant is relying on Rule 430B:

(A) Each prospectus filed by the Registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date; or

(ii) If the Registrant is subject to Rule 430C, each prospectus filed pursuant to Rule 424(b) as part of a registration statement relating to an offering, other than registration statements relying on Rule 430B or other than prospectuses filed in reliance on Rule 430A, shall be deemed to be part of and included in the registration statement as of the date it is first used after effectiveness. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such first use, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such date of first use.

(5) That, for the purpose of determining liability of the Registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned Registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.

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SIGNATURES

Pursuant to the requirements of the Securities Act of l933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of South San Francisco, California on the 12th day of May 2014.

VISTAGEN THERAPEUTICS, INC.

By: /s/ Shawn K. Singh, JD

Shawn K. Singh, JD
Chief Executive Officer

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Shawn K. Singh his true and lawful attorney-in-fact and agent, with full power of substitution and re-substitution, for him and in his name, place and stead, in any and all capacities, to sign any and all amendments to this Registration Statement, and any additional related registration statement filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended (including post-effective amendments to the registration statement and any such related registration statements), and to file the same, with all exhibits thereto, and any other documents in connection therewith, granting unto said attorneys-in-fact and agents full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully to all intents and purposes as he might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of l933, this Registration Statement has been signed by the following persons in the capacities and on the dates indicated:

Signature	Title	Date
/s/ Shawn K. Singh, JD Shawn K. Singh, JD	Chief Executive Officer (Principal Executive Officer) and Director	May 12, 2014
/s/ Jerrold D. Dotson Jerrold D. Dotson	Vice President and Chief Financial Officer (Principal Financial and Accounting Officer)	May 12, 2014
/s/ H. Ralph Snodgrass, Ph.D. H. Ralph Snodgrass, Ph.D.	President and Chief Scientific Officer and Director	May 12, 2014
/s/ Jon S. Saxe Jon S. Saxe	Director	May 12, 2014
/s/ Brian J. Underdown, Ph.D. Brian J. Underdown	Director	May 12, 2014

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VISTAGEN THERAPEUTICS INC.
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REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Board of Directors and Stockholders
VistaGen Therapeutics, Inc.
(a development stage company)

We have audited the accompanying consolidated balance sheets of VistaGen Therapeutics, Inc. (a development stage company) as of March 31, 2013 and 2012 and the related consolidated statements of operations and comprehensive loss, cash flows, preferred stock, and stockholders' deficit for the years then ended, and for the period from May 26, 1998 (inception) through March 31, 2013. These financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with the standards of the Public Company Accounting Oversight Board (United States). Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. We were not engaged to perform an audit of the Company's internal control over financial reporting. Our audits included consideration of internal control over financial reporting as a basis for designing audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Company's internal control over financial reporting. Accordingly, we express no such opinion. An audit also includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the consolidated financial position of VistaGen Therapeutics, Inc. (a development stage company) at March 31, 2013 and 2012, and the consolidated results of its operations and its cash flows for the years then ended, and for the period from May 26, 1998 (inception) through March 31, 2013, in conformity with U.S. generally accepted accounting principles.

The accompanying consolidated financial statements have been prepared assuming that the Company will continue as a going concern. As discussed in Note 2 to the consolidated financial statements, the Company is a development stage company, has not yet generated sustainable revenues, has suffered recurring losses from operations and has a stockholders' deficit, all of which raise substantial doubt about its ability to continue as a going concern. The consolidated financial statements do not include any adjustments that might result from the outcome of this uncertainty.

/s/ OUM & CO. LLP

San Francisco, California
July 17, 2013

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED BALANCE SHEETS
(Amounts in dollars, except share amounts)

	March 31, 2013	March 31, 2012
ASSETS		
Current assets:		
Cash and cash equivalents	$638,100	$81,000
Unbilled contract payments receivable	-	106,200
Prepaid expenses	33,700	50,900
Total current assets	671,800	238,100
Property and equipment, net	180,700	74,500
Security deposits and other assets	29,000	29,000
Total assets	$881,500	$341,600
LIABILITIES AND STOCKHOLDERS' DEFICIT		
Current liabilities:		
Accounts payable	$1,353,700	$1,750,800
Accrued expenses	342,900	657,300
Notes payable and accrued interest	617,100	582,500
Notes payable and accrued interest to related parties	93,000	168,200
Capital lease obligations	7,600	10,500
Deferred revenue	-	13,200
Total current liabilities	2,414,300	3,182,500
Non-current liabilities:		
Senior secured convertible promissory notes, net of discount of $1,963,100 at March 31, 2013 and accrued interest	1,425,700	-
Convertible promissory notes, net of discount of $499,300 at March 31, 2012 and accrued interest	-	6,000
Notes payable, net of discount of $1,142,600 at March 31, 2013 and $228,900 at March 31, 2012	2,091,800	2,684,300
Notes payable to related parties, net of discount of $147,200 at March 31, 2013 and $24,300 at March 31, 2012 and accrued interest	1,106,000	107,700
Warrant liability	6,394,000	-
Accrued officers' compensation	-	57,000
Capital lease obligations	6,100	9,700
Total non-current liabilities	11,023,600	2,864,700
Total liabilities	13,437,900	6,047,200
Commitments and contingencies		
Stockholders' deficit:		
Preferred stock, $0.001 par value; 10,000,000 shares, including 500,000 Series A shares, authorized at March 31, 2013 and 2012; 500,000 and 437,055 Series A shares issued and outstanding at March 31, 2013 and 2012, respectively	500	400
Common stock, $0.001 par value; 200,000,000 shares authorized at March 31, 2013 and 2012; 23,480,169 and 18,704,267 shares issued at March 31, 2013 and March 31, 2012, respectively	23,500	18,700
Additional paid-in capital	59,266,000	52,539,500
Treasury stock, at cost, 2,713,308 and 2,083,858 shares of common stock held at March 31, 2013 and March 31, 2012, respectively	(3,968,100)	(3,231,700)

Notes receivable from sale of common stock	(209,100)	(250,000)
Deficit accumulated during development stage	(67,669,200)	(54,782,500)
Total stockholders' deficit	(12,556,400)	(5,705,600)
Total liabilities and stockholders' deficit	$881,500	$341,600

See accompanying notes to consolidated financial statements.

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS
(Amounts in dollars, except share and per share amounts)

	Fiscal Years Ended March 31,		May 26, 1998 (Inception) Through March 31,
	2013	2012	2013
Revenues:			
Grant revenue	$200,400	$1,342,200	$12,963,100
Collaboration revenue	-	-	2,283,600
Other	-	-	1,123,500
Total revenues	200,400	1,342,200	16,370,200
Operating expenses:			
Research and development	3,430,800	5,388,600	29,555,700
Acquired in-process research and development	-	-	7,523,200
General and administrative	3,562,700	4,997,000	30,681,100
Total operating expenses	6,993,500	10,385,600	67,760,000
Loss from operations	(6,793,100)	(9,043,400)	(51,389,800)
Other expenses, net:			
Interest expense, net	(920,700)	(1,893,200)	(10,362,200)
Change in warrant and put and note extension option liabilities	(1,635,800)	(78,000)	(1,217,300)
Loss on early extinguishment of debt	(3,567,800)	(1,193,500)	(4,761,300)
Other income	34,400	200	81,900
Loss before income taxes	(12,883,000)	(12,207,900)	(67,648,700)
Income taxes	(3,700)	(1,600)	(20,500)
Net loss	(12,886,700)	(12,209,500)	(67,669,200)
Deemed dividend on Series A Preferred stock	(10,193,200)	-	(10,193,200)
Net loss attributable to common stockholders	$(23,079,900)	$(12,209,500)	$(77,862,400)
Basic and diluted net loss attributable to common stockholders per common share	$(1.27)	$(0.83)	
Weighted average shares used in computing basic and diluted net loss attributable to common stockholders per common share	18,108,444	14,736,651	
Comprehensive loss	$(12,886,700)	$(12,209,500)	$(67,669,200)

See accompanying notes to consolidated financial statements.

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF CASH FLOWS
(Amounts in dollars)

	Fiscal Years Ended March 31,		Period From May 26, 1998 (Inception) Through March 31,
	2013	2012	2013
Cash flows from operating activities:			
Net loss	$ (12,886,700)	$ (12,209,500)	$ (67,669,200)
Adjustments to reconcile net loss to net cash used in operating activities:			
Depreciation and amortization	33,800	45,600	777,500
Acquired in-process research and development	-	-	7,523,200
Amortization of imputed discount on non-interest bearing notes	-	-	45,000
Amortization of discounts on 7%, 7.5% and 10% notes	214,500	57,200	473,700
Amortization of discounts on Platinum notes	13,400	909,000	3,562,100
Amortization of discounts on August 2010 short-term notes	-	14,300	572,000
Amortization of discounts on February 2012 12% convertible notes	26,900	(4,200)	22,700
Loss on early extinguishment of debt	3,567,800	1,193,500	4,761,300
Loss on settlements of accounts payable	78,300		78,300
Change in warrant and put and note term extension option liabilities	1,635,800	77,900	1,217,200
Stock-based compensation	1,241,300	1,591,300	5,595,600
Expense related to modification of warrants	508,200	741,700	1,249,900
Fair value of Series C preferred stock, common stock, and warrants granted for services	-	-	925,400
Fair value of common stock granted for services prior to the Merger	-	2,225,500	2,225,500
Fair value of common stock granted for services following the Merger	340,000	452,000	792,000
Fair value of warrants granted for services and interest following the Merger	183,800	564,500	748,300
Fair value of additional warrants granted pursuant to exercises of modified warrants (fiscal year 2013) and under Discounted Warrant Exercise Program (fiscal year 2012)	35,900	138,100	174,000
Fair value of common stock issued for note term modification	-	22,400	22,400
Interest income on note receivable for stock purchase	(27,600)	-	(27,600)
Consulting services by related parties settled by issuing promissory notes	-	-	44,600
Gain on sale of assets	-	-	(16,800)

Changes in operating assets and liabilities:			
Unbilled contract payments receivable	106,200	(64,000)	-
Prepaid expenses and other current assets	46,200	(1,900)	41,700
Security deposits and other assets	-	2,100	(29,000)
Accounts payable and accrued expenses	1,432,200	744,300	15,918,500
Deferred revenues	(13,200)	(65,600)	-
Net cash used in operating activities	(3,463,200)	(3,565,800)	(20,971,700)
Cash flows from investing activities:			
Purchases of equipment, net	(135,400)	(32,400)	(816,200)
Net cash used in investing activities	(135,400)	(32,400)	(816,200)
Cash flows from financing activities:			
Net proceeds from issuance of common stock and warrants, including units	1,185,100	2,679,200	3,985,100
Net proceeds from issuance of preferred stock and warrants	-	-	4,198,600
Proceeds from exercise of modified warrants (fiscal 2013) and under Discounted Warrant Exercise Program (fiscal 2012)	262,100	1,166,300	1,428,400
Proceeds from issuance of notes under line of credit	-	-	200,000
Proceeds from issuance of 7% note payable to founding stockholder	-	-	90,000
Net proceeds from issuance of 7% convertible notes	-	-	575,000
Net proceeds from issuance of 10% convertible notes and warrants	-	-	1,655,000
Net proceeds from issuance of Platinum notes and warrants	3,222,100	-	6,922,100
Net proceeds from issuance of 2008/2010 notes and warrants	-	-	2,971,800
Net proceeds from issuance of 2006/2007 notes and warrants	-	-	1,025,000
Net proceeds from issuance of 7% notes payable	-	-	55,000
Net proceeds from issuance of August 2010 short-term notes and warrants	-	-	800,000
Net proceeds from issuance of February 2012 12% convertible notes and warrants	-	466,500	466,500
Repayment of capital lease obligations	(16,900)	(14,500)	(117,400)
Repayment of notes	(496,700)	(757,600)	(1,829,100)
Net cash provided by financing activities	4,155,700	3,539,900	22,426,000
Net increase (decrease) in cash and cash equivalents	557,100	(58,300)	638,100
Cash and cash equivalents at beginning of period	81,000	139,300	-
Cash and cash equivalents at end of period	$ 638,100	$ 81,000	$ 638,100
Supplemental disclosure of cash flow activities:			
Cash paid for interest	$ 225,900	$ 265,400	$ 665,600
Cash paid for income taxes	$ 3,681	$ 1,600	$ 20,481

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF CASH FLOWS (continued)
(Amounts in dollars, except share amounts)

	Fiscal Years Ended March 31,		Period From May 26, 1998 (Inception) Through March 31,
	2013	2012	2013
Supplemental disclosure of noncash activities:			
Forgiveness of accrued compensation and accrued interest payable to officers transferred to equity	$-	$-	$800,000
Exercise of warrants and options in exchange for debt cancellation	$-	$-	$112,800
Settlement of accrued and prepaid interest by issuance of Series C Preferred Stock	$-	$-	$35,300
Conversion of 10% notes payable, net of discount, and related accrued interest of $408,600 into Series C Preferred stock	$-	$-	$2,050,300
Issuance of Series B-1 Preferred stock for acquired in-process research and development	$-	$-	$7,523,200
Conversion of 7% notes payable, net of discount, and related accrued interest of $3,800 into Series B Preferred stock	$-	$-	$508,000
Conversion of accounts payable into convertible promissory notes	$-	$-	$893,700
Conversion of accounts payable into note payable	$1,558,500	$-	$4,368,800
Conversion of accounts payable into common stock	$103,200	$275,400	$1,927,300
Conversion of accrued interest on convertible promissory notes into common stock	$-	$-	$921,400
Notes receivable from sale of common stock to related parties upon exercise of options and warrants	$-	$-	$149,800
Capital lease obligations	$-	$19,000	$139,700
Recognition of put option and note term extension option liabilities upon issuance of Original Platinum Notes	$-	$-	$- $141,200
Incremental fair value of put option and note term extension option liabilities from debt modifications	$-	$-	$479,400
Incremental fair value of note conversion option from debt modification	$-	$-	$1,891,200
Incremental fair value of warrant from debt modifications	$-	$-	$276,700
Recognition of warrant liability upon adoption of new accounting standard	$-	$-	$151,300
Fair value of warrants issued with August 2010 short term notes	$-	$-	$130,900
Note discount upon issuance of August 2010 short term notes	$-	$-	$320,000
Fair value of warrants issued with February 2012 12 % convertible notes	$-	$542,000	$542,000
Note discount upon issuance of February 2012 12% convertible notes	$-	$495,200	$495,200
Conversion of 2006/2007 and 2008/2010 Notes into Units, including accrued interest of $1,365,600	$-	$6,174,800	$6,174,800
Conversion of all series of pre-Merger preferred stock into Units	$-	$14,534,800	$14,534,800
Conversion of 2011 Platinum Note into Series A Preferred stock, including accrued interest of $611,100 and conversion premium	$-	$5,763,900	$5,763,900
Conversion of 7% note payable and accrued interest of $11,500 into common stock and warrants		$19,500	$19,500

Conversion of accounts payable to Morrison & Foerster, McCarthy Tetrault and Desjardins into notes payable	$-	$1,603,400	$1,603,400
Accounts payable and cancellation premium converted into 2011 Private Placement Units	$-	$169,000	$169,000
Accrued interest on Cato Holding Company note converted to note payable	$-	$90,800	$90,800
Accounts payable settled in December 2011 and May/June 2012 warrant exercises	$12,500	$267,600	$280,100
Insurance premiums settled by issuing note payable	$110,100	$88,500	$198,600
Conversion of accrued interest and fees on February 2012 Notes into 2012 Private Placement Units	$92,900	$-	$92,900
Accrued interest on July and August 2012 Notes to Platinum converted into Exchange Note	$22,600	$-	$22,600
Accounts payable settled by issuance of stock or notes payable and stock	$104,900	$-	$104,900
Accounts payable converted into 2012 Private Placement Units	$50,000	$-	$50,000
Recognition of warrant liability upon issuance to Platinum of October 2012 Exchange Note and October 2012, February 2013 and March 2013 Investment Notes	$1,690,000	$-	$1,690,000
Recognition of warrant liability for potential issuance to Platinum of Series A Exchange Warrant under the terms of the October 2012 Agreement	$3,068,200	$-	$3,068,200

See accompanying notes to consolidated financial statements.

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF PREFERRED STOCK
Period from May 26, 1998 (inception) through March 31, 2013
(Amounts in dollars, except share and per share amounts)

	Preferred Stock (Shares)	Series A Preferred Stock	Series B Preferred Stock	Series B-1 Preferred Stock	Series C Preferred Stock	Total Preferred Stock
Balances at May 26, 1998 (inception)	-	$-	$-	$-	$-	$-
Issuance of Series A preferred stock at $2.302 per share for cash, net of issuance costs of $24,000	429,350	964,200	-	-	-	964,200
Balances at March 31, 2000	429,350	964,200	-	-	-	964,200
Issuance of Series A preferred stock at $2.302 per share for cash, net of issuance costs of $5,500	2,580	500	-	-	-	500
Issuance of Series B preferred stock at $5.545 per share for cash, including conversion of $575,000 face value of 7% convertible notes plus accrued interest of $3,800, net of unamortized discount of $70,800 and issuance costs of $39,800	316,282	-	1,643,300	-	-	1,643,300
Balances at March 31, 2001	748,212	964,700	1,643,300	-	-	2,608,000
Issuance of Series B preferred stock at $5.545 per share for cash, net of issuance costs of $97,200	199,286	-	1,007,800	-	-	1,007,800
Balances at March 31, 2002 and 2003	947,498	964,700	2,651,100	-	-	3,615,800

Issuance of Series B-1 preferred stock at $5.545 for acquired in-process research and development	1,356,750	-	-	7,523,200	-	7,523,200
Balances at March 31, 2004	2,304,248	964,700	2,651,100	7,523,200	-	11,139,000
Issuance of Series C preferred stock at $6.00 per share for cash, including conversion of $1,655,000 face value of 10% convertible notes plus accrued interest of $408,600, net of unamortized note discount of $13,200 and issuance costs of $27,200	390,327	-	-	-	2,301,500	2,301,500
Proceeds allocated to warrants issued in connection with Series C preferred stock	-	-	-	-	(25,500)	(25,500)
Balances at March 31, 2005	2,694,575	964,700	2,651,100	7,523,200	2,276,000	13,415,000
Issuance of Series C preferred stock at $6.00 per share for cash, net of issuance costs of $20,700	143,331	-	-	-	839,300	839,300
Issuance of Series C preferred stock at $6.00 per share for services and in payment of interest on line of credit	46,749	-	-	-	280,500	280,500
Balances at March 31, 2006 through March 31, 2011	2,884,655	964,700	2,651,100	7,523,200	3,395,800	14,534,800
Conversion of all series of preferred stock into VistaGen common stock in connection with the Merger	(2,884,655)	(964,700)	(2,651,100)	(7,523,200)	(3,395,800)	(14,534,800)
Balances at March 31, 2012 and 2013	-	$-	$-	$-	$-	$-

See accompanying notes to consolidated financial statements.

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT
Period from May 26, 1998 (inception) through March 31, 2013
(Amounts in dollars, except share and per share amounts)

	Series A Preferred Stock		Common Stock		Additional Paid-in	Treasury	Notes Receivable from Sale of	Deficit Accumulated During the Development	Total Stockholders'
	Shares	Amount	Shares	Amount	Capital	Stock	Stock	Stage	Deficit
Balances at May 26, 1998 (inception)			-	$-	$-	$-	$ -	$ -	$-
Initial sale of common stock for cash to Founder	-	-	1,000,000	1,000	4,000	-	-	-	5,000
Fair value of common stock issued for services	-	-	4,000	-	400	-	-	-	400
Effect of the Merger			1,569,000	1,600	(1,600)	-	-	-	-
Net loss for fiscal year 1999	-	-	-	-	-	-	-	(230,900)	(230,900)
Balances at March 31, 1999	-	-	2,573,000	2,600	2,800	-	-	(230,900)	(225,500)
Sale of common stock for cash	-	-	200,000	200	19,800	-	-	-	20,000
Fair value of common stock issued for services	-	-	104,375	100	21,800	-	-	-	21,900
Fair value of warrants issued for services	-	-	-	-	39,500	-	-	-	39,500
Net loss for fiscal	-	-	-	-	-	-	-	(700,000)	(700,000)

year 2000									
Balances at March 31, 2000	-	-	2,877,375	2,900	83,900	-	-	(930,900)	(844,100)
Common stock issued upon exercise of options from 1999 Stock Incentive Plan	-	-	14,000	-	4,600	-	-	-	4,600
Fair value of common stock issued for services	-	-	100,000	100	32,900	-	-	-	33,000
Fair value of warrants issued for services	-	-	-	-	13,100	-	-	-	13,100
Proceeds allocated to warrants issued in connection with 7% convertible notes	-	-	-	-	91,200	-	-	-	91,200
Net loss for fiscal year 2001	-	-	-	-	-	-	-	(1,809,000)	(1,809,000)
Balances at March 31, 2001	-	-	2,991,375	3,000	225,700	-	-	(2,739,900)	(2,511,200)
Common stock issued upon exercise of options from 1999 Stock Incentive Plan	-	-	1,511	-	500	-	-	-	500
Fair value of warrants issued for services	-	-	-	-	33,100	-	-	-	33,100
Proceeds allocated to warrants issued in connection with 10% convertible notes	-	-	-	-	7,300	-	-	-	7,300
Net loss for fiscal year 2002	-	-	-	-	-	-	-	(2,113,000)	(2,113,000)
Balances at March 31,	-	-	2,992,886	3,000	266,600	-	-	(4,852,900)	(4,583,300)

2002									
Common stock issued upon exercise of options from 1999 Stock Incentive Plan	-	-	15,000	-	5,000	-	-	-	5,000
Fair value of warrants issued for services	-	-	-	-	46,500	-	-	-	46,500
Proceeds allocated to warrants issued in connection with 10% convertible notes	-	-	-	-	86,800	-	-	-	86,800
Net loss for fiscal year 2003	-	-	-	-	-	-	-	(502,600)	(502,600)
Balances at March 31, 2003	-	-	3,007,886	3,000	404,900	-	-	(5,355,500)	(4,947,600)
Common stock issued upon exercise of options from 1999 Stock Incentive Plan	-	-	2,925	-	600	-	-	-	600
Fair value of warrants issued for services	-	-	-	-	2,200	-	-	-	2,200
Proceeds allocated to warrants issued in connection with 10% convertible notes	-	-	-	-	11,400	-	-	-	11,400
Net loss for fiscal year 2004	-	-	-	-	-	-	-	(8,755,500)	(8,755,500)
Balances at March 31, 2004	-	-	3,010,811	3,000	419,100	-	-	(14,111,000)	(13,688,900)
Common stock issued upon exercise of options from 1999 Stock Incentive Plan	-	-	10,708	-	4,800	-	-	-	4,800
Proceeds allocated to warrants issued in connection with Series C preferred stock	-	-	-	-	25,500	-	-	-	25,500

Fair value of warrants issued for services	-	-	-	-	1,500	-	-	-	1,500
Net loss for fiscal year 2005	-	-	-	-	-	-	-	(1,082,800)	(1,082,800)
Balances at March 31, 2005	-	-	3,021,519	3,000	450,900	-	-	(15,193,800)	(14,739,900)
Common stock issued upon exercise of options from 1999 Stock Incentive Plan	-	-	14,604	-	6,600	-	-	-	6,600
Fair value of warrants issued for services	-	-	-	-	3,300	-	-	-	3,300
Net loss for fiscal year 2006	-	-	-	-	-	-	-	(1,772,100)	(1,772,100)
Balances at March 31, 2006 (continued)	-	$-	3,036,123	$3,000	$460,800	$-	$ -	$(16,965,900)	$(16,502,100)

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT (continued)
Period from May 26, 1998 (inception) through March 31, 2013
(Amounts in dollars, except share and per share amounts)

	Series A Preferred Stock		Common Stock		Additional Paid-in Capital	Treasury Stock	Notes Receivable from Sale of Stock	Deficit Accumulated During the Development Stage	Total Stockholders' Deficit
	Shares	Amount	Shares	Amount					
Balances at March 31, 2006	-	$-	3,036,123	$3,000	$460,800	$-	$-	$(16,965,900)	$(16,502,100)
Common stock issued upon exercise of options from 1999 Stock Incentive Plan and warrants for:									
Cash	-	-	33,465	100	27,600	-	-	-	27,700
Debt cancellation	-	-	108,418	100	112,700	-	-	-	112,800
Notes receivable	-	-	204,498	200	149,600	-	(149,800)	-	-
Sale of common stock for cash	-	-	10,000	-	1,000	-	-	-	1,000
Share-based compensation expense	-	-	-	-	109,800	-	-	-	109,800
Fair value of warrants issued for services	-	-	-	-	3,100	-	-	-	3,100
Forgiveness of accrued compensation and accrued interest payable to officers	-	-	-	-	799,900	-	-	-	799,900
Net loss for fiscal year 2007	-	-	-	-	-	-	-	(1,999,800)	(1,999,800)
Balances at March 31, 2007	-	-	3,392,504	3,400	1,664,500	-	(149,800)	(18,965,700)	(17,447,600)
Common stock issued upon									

exercise of options from 1999 Stock Incentive Plan	-	-	2,234	-	1,900	-	-	-	1,900
Common stock issued upon settlement of employment contract	-	-	20,000	-	42,000	-	-	-	42,000
Share-based compensation expense	-	-	-	-	247,600	-	-	-	247,600
Proceeds allocated to warrants issued in connection with Original Platinum Notes	-	-	-	-	221,000	-	-	-	221,000
Fair value of warrants issued for services	-	-	-	-	224,000	-	-	-	224,000
Accrued interest on notes receivable	-	-	-	-	-	-	(9,200)	-	(9,200)
Net loss for fiscal year 2008	-	-	-	-	-	-	-	(5,446,700)	(5,446,700)
Balances at March 31, 2008	-	-	3,414,738	3,400	2,401,000	-	(159,000)	(24,412,400)	(22,167,000)
Common stock issued upon exercise of options from 2008 Stock Incentive Plan and Scientific Advisory Plan	-	-	3,500	-	1,000	-	-	-	1,000
Share-based compensation expense	-	-	-	-	108,200	-	-	-	108,200
Proceeds allocated to warrants issued in connection with Platinum Notes and incremental fair value of warrant modification	-	-	-	-	72,700	-	-	-	72,700
Fair value of warrants	-	-	-	-	5,300	-	-	-	5,300

issued for services									
Accrued interest on notes receivable	-	-	-	-	-	-	(7,900)	-	(7,900)
Effect of reverse stock split	-	-	(6)	-	-	-	-	-	-
Net loss for fiscal year 2009	-	-	-	-	-	-	-	(4,696,200)	(4,696,200)
Balances at March 31, 2009	-	-	3,418,232	3,400	2,588,200	-	(166,900)	(29,108,600)	(26,683,900)
Cumulative effect of adopting new accounting standard	-	-	-	-	(293,700)	-	-	142,300	(151,400)
Common stock issued upon exercise of warrant	-	-	1,086	-	100	-	-	-	100
Common stock issued for cancellation of accounts payable and accrued interest	-	-	1,646,792	1,600	2,468,600	-	-	-	2,470,200
Incremental fair value of note conversion options from debt modification	-	-	-	-	828,500	-	-	-	828,500
Common stock issued for services	-	-	175,000	200	262,300	-	-	-	262,500
Share-based compensation expense	-	-	-	-	668,500	-	-	-	668,500
Fair value of warrants issued for services and incremental fair value of warrant modification	-	-	-	-	110,100	-	-	-	110,100
Fair value of warrants issued in connection with 7.5% Notes	-	-	-	-	291,200	-	-	-	291,200

Accrued interest on notes receivable	-	-	-	-	-	-	(8,400)	-	(8,400)
Net loss for fiscal year 2010	-	-	-	-	-	-	-	(4,124,500)	(4,124,500)
Balances at March 31, 2010	-	$-	5,241,110	$5,200	$6,923,800	$-	$(175,300)	$(33,090,800)	$(26,337,100)

(continued)

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT (continued)
Period from May 26, 1998 (inception) through March 31, 2013
(Amounts in dollars, except share and per share amounts)

	Series A Preferred Stock		Common Stock		Additional Paid-in	Treasury	Notes Receivable from	Deficit Accumulated During the	Total
	Shares	Amount	Shares	Amount	Capital	Stock	Sale of Stock	Development Stage	Stockhold Deficit
Balances at March 31, 2010	-	$-	5,241,110	$5,200	$6,923,800	$-	$(175,300)	$(33,090,800)	$(26,337,1
Share-based compensation expense	-	-	-	-	1,628,800	-	-	-	1,628,80
Accrued interest on notes receivable	-	-	-	-	-	-	(8,800)	-	(8,800
Fair value of warrants issued in connection with the August 2010 Short-Term Notes	-	-	-	-	252,000	-	-	-	252,000
Incremental fair value of note conversion options from debt modification	-	-	-	-	1,062,800	-	-	-	1,062,80
Net loss for fiscal year 2011	-	-	-	-	-	-	-	(9,482,200)	(9,482,20
Balances at March 31, 2011	-	-	5,241,110	5,200	9,867,400	-	(184,100)	(42,573,000)	(32,884,5
Share-based compensation expense	-	-	-	-	1,591,300	-	-	-	1,591,30
Accrued interest on notes receivable	-	-	-	-		-	(1,000)	-	(1,000
Reclassification of warrant liability to equity	-	-	-	-	424,100	-	-	-	424,100
Incremental value of Platinum note modification	-	-	-	-	1,070,600	-	-	-	1,070,60
Incremental value of Morrison & Foerster	-	-	-	-	58,700	-	-	-	58,700

warrant modification									
Stock issued in May 2011 Private Placement, net of $202,000 placement fees	-	-	2,216,106	2,200	3,674,000	-	(500,000)	-	3,176,20
Payments on note receivable for sale of stock	-	-					250,000		250,000
Stock issued upon conversion of convertible promissory notes	-	-	3,528,290	3,500	6,171,300	-	-	-	6,174,80
Stock issued upon conversion of all series of preferred stock	-	-	2,884,655	2,900	14,531,900	-	-	-	14,534,8
Fair value of stock issued for services prior to the Merger	-	-	1,371,743	1,400	2,224,100	-	-	-	2,225,50
Forgiveness of notes at the Merger	-	-	-	-	-	-	185,100	-	185,100
Stock issued upon exercise of modified warrants (includes Platinum exercises)	-	-	3,121,259	3,100	3,426,200	-	-	-	3,429,30
Incremental value of warrant modifications (including modification of Platinum warrants)	-	-	-	-	1,028,900	-	-	-	1,028,90
Fair value of bonus warrants under Discounted Warrant Exercise Program	-	-	-	-	138,100	-	-	-	138,100
Stock issued in Fall 2011 Follow-on Offering	-	-	63,570	100	111,200	-	-	-	111,300
Stock issued upon exercise of options from the 1999 Stock Incentive Plan	-	-	113,979	100	102,100	-	-	-	102,200
Fair value of stock issued for services	-	-	155,555	200	451,800	-	-	-	452,000

following the Merger									
Fair value of warrants issued for services	-	-	-	-	564,500	-	-	-	564,500
Proceeds allocated to warrants issued and beneficial conversion feature in connection with 12% convertible notes	-	-	-	-	461,700	-	-	-	461,700
Stock issued in connection with note term extension	-	-	8,000	-	22,400	-	-	-	22,400
Stock issued upon conversion of Platinum Note to equity (net of Platinum warrant exercise reflected above)	231,090	200	-	-	3,387,700	-	-	-	3,387,900
Common stock exchanged for Series A Preferred under agreements with Platinum:									
Common Stock Exchange Agreement	45,980	-	-	-	750,600	(750,600)	-	-	-
Note and Warrant Exchange Agreement	159,985	200	-		2,480,900	(2,481,100)			-
Net loss for fiscal year 2012	-	-	-	-	-	-	-	(12,209,500)	(12,209,5
Balances at March 31, 2012 (continued)	437,055	$400	18,704,267	$18,700	$52,539,500	$(3,231,700)	$(250,000)	$(54,782,500)	$(5,705,60

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' DEFICIT (continued)
Period from May 26, 1998 (inception) through March 31, 2013
(Amounts in dollars, except share and per share amounts)

	Series A Preferred Stock		Common Stock		Additional Paid-in		Notes Receivable from	Deficit Accumulated During the	Total
	Shares	Amount	Shares	Amount	Capital	Treasury Stock	Sale of Stock	Development Stage	Stockholde Deficit
Balances at March 31, 2012	437,055	$400	18,704,267	$18,700	$52,539,500	$(3,231,700)	$(250,000)	$(54,782,500)	$(5,705,600
Share-based compensation expense	-	-	-	-	1,241,300	-	-	-	1,241,300
Fair value of common stock issued for services	-	-	400,000	400	339,600	-	-	-	340,000
Fair value of warrants issued for services	-	-	-	-	106,200	-	-	-	106,200
Shares issued upon exercise of modified warrants	-	-	549,056	500	274,000	-	-	-	274,500
Incremental fair value of modified warrants	-	-	-	-	440,700	-	-	-	440,700
Fair value of warrants issued upon exercise of modified warrants	-	-	-	-	35,900	-	-	-	35,900
Fair value of shares issued in settlement of accounts payable	-	-	103,235	100	103,100	-	-	-	103,200
Common stock exchanged for Series A Preferred under 2012 Exchange Agreement with Platinum	62,945	100	-	-	736,300	(736,400)	-	-	-
Payment on note receivable	-	-	-	-	-	-	66,900	-	66,900

from sale of stock									
Modification of note receivable from sale of stock	-	-	-	-	-	-	(26,000)	-	(26,000
Incremental fair value of modified warrant and fair value of warrant issued in connection with Morrison & Foerster note payable restructuring	-	-	-	-	998,500	-	-	-	998,500
Fair value of warrant issued to Cato Holding Company in connection with note payable restructure	-	-	-	-	120,500	-	-	-	120,500
Fair value of warrant issued to Cato Research, Ltd. in connection with accounts payable restructure	-	-	-	-	486,200	-	-	-	486,200
Fair value of warrant issued to University Health Network in connection with accounts payable restructure	-	-	-	-	264,800	-	-	-	264,800
Fair value of warrants issued to Morrison & Foerster, Cato Research Ltd. and University Health Network in connection with accrued interest on underlying notes	-	-	-	-	49,400	-	-	-	49,400
Sale of Units in Winter 2012 Private Placement, net	-	-	2,366,330	2,400	1,246,600	-	-	-	1,249,000
Exchange of February 2012 convertible notes for Units	-	-	1,357,281	1,400	1,214,200	-	-	-	1,215,600
Fair value of warrants issued									

to banker in connection with exchange of February 2012 convertible notes	-	-	-	-	28,200	-	-	-	28,200
Premium of fair value over face value of Exchange Note issued to Platinum	-	-	-	-	1,083,200	-	-	-	1,083,200
Fair value of Series A Exchange Warrant issuable to Platinum recorded as a Warrant Liability	-	-	-	-	(3,068,200)	-	-	-	(3,068,200
Proceeds allocated to beneficial conversion feature of Investment Notes issued to Platinum in October 2012, February 2013 and March 2013	-	-	-	-	958,500	-	-	-	958,500
Incremental fair value of warrant modifications in February 2013	-	-	-	-	67,500	-	-	-	67,500
Net loss for fiscal year 2013	-	-	-	-	-	-	-	(12,886,700)	(12,886,70
Balances at March 31, 2013	500,000	$500	23,480,169	$23,500	$59,266,000	$(3,968,100)	$(209,100)	$(67,669,200)	$(12,556,40

See accompanying notes to consolidated financial statements.

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VISTAGEN THERAPEUTICS, INC.
(a development stage company)
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. Description of Business

VistaGen Therapeutics, Inc., a Nevada corporation ("VistaGen" or the "Company"), is a biotechnology company with expertise in human pluripotent stem cell technology ("hPSC technology"). The Company is currently applying its hPSC technology for drug rescue, predictive toxicology and drug metabolism screening. The Company's primary goal is to use its hPSC technology platform, which it also refers to as Human Clinical Trials in a Test Tube™, and the novel pharmaceutical assay systems developed using its hPSC technology expertise and network of strategic relationships, to generate novel, proprietary, safer variants (Drug Rescue Variants) of once-promising small molecule drug candidates originally discovered, developed and ultimately discontinued by large pharmaceutical or biotechnology companies prior to market approval due to unexpected safety concerns relating to heart toxicity, liver toxicity or adverse drug-drug interactions. The Company's strategy is to leverage substantial prior third-party investment in drug discovery and drug development and to generate early indications, or predictions, of how humans will ultimately respond to new drug candidates, including Drug Rescue Variants, before they are ever tested in humans, bringing human biology to the front end of the drug development process..

VistaGen's orally-available, small molecule drug candidate, AV-101, has successfully completed Phase 1 development in the Unites States for treatment of neuropathic pain. Neuropathic pain, a serious and chronic condition causing pain after an injury or disease of the peripheral or central nervous system, affects millions of people worldwide. The NIH awarded VistaGen approximately $8.8 million for preclinical and clinical development of AV-101.

VistaGen is in the development stage and, since inception, has devoted substantially all of its time and efforts to hPSC research and bioassay development, small molecule drug development, creating, protecting and patenting intellectual property, recruiting personnel and raising working capital.

The Merger

VistaGen Therapeutics, Inc., a California corporation ("VistaGen California") is a wholly-owned subsidiary of the Company. VistaGen California was incorporated in California on May 26, 1998. Excaliber Enterprises, Ltd. ("Excaliber"), a publicly-held company (formerly OTCBB: EXCA) was incorporated under the laws of the State of Nevada on October 6, 2005. After being unable to generate material revenues based on its original business plan, Excaliber became inactive in 2007. In May 2011, after assessing the prospects associated with its original business plan and the business opportunities associated with a strategic merger with an established, privately-held, biotechnology company seeking the potential advantages of being a publicly-held company, Excaliber's Board of Directors agreed to pursue a strategic merger with VistaGen California, as described below.

On May 11, 2011, pursuant to a strategic merger transaction with VistaGen California, Excaliber acquired all outstanding shares of VistaGen California in exchange for 6,836,452 shares of Excaliber common stock (the "Merger"), and Excaliber assumed all of VistaGen California's pre-Merger obligations to contingently issue shares of common stock in accordance with VistaGen California's stock option agreements, warrant agreements, and a convertible promissory note. In connection with the Merger, Excaliber repurchased 5,064,207 shares of its common stock from two of its stockholders for a nominal amount, resulting in a total of 784,500 shares of Excaliber common stock outstanding at the date of the Merger. The 6,836,452 shares issued to VistaGen California stockholders in connection with the Merger represented approximately ninety percent (90%) of the outstanding shares of Excaliber's common stock after the closing of the Merger. As a result of the Merger, the business of VistaGen California became the operating business of Excaliber.

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Immediately preceding and concurrent with the Merger:

VistaGen California sold 2,216,106 Units, consisting of one share of VistaGen California restricted common stock and a three-year warrant to purchase one-fourth (1/4) of one share of VistaGen California restricted common stock at an exercise price of $2.50 per share, at a price of $1.75 per Unit in a private placement for aggregate gross offering proceeds of $3,878,200, including $2,369,200 in cash (the “2011 Private Placement”). See Note 9, Capital Stock, for a further description;

Holders of certain promissory notes issued by VistaGen California from 2006 through 2010 converted notes totaling $6,174,793, including principal and accrued but unpaid interest, into 3,528,290 Units at $1.75 per Unit. These Units were the same Units issued in connection with the 2011 Private Placement. See Note 8, Convertible Promissory Notes and Other Notes Payable; and

All holders of VistaGen California's then-outstanding 2,884,655 shares of restricted preferred stock converted all of their preferred shares into 2,884,655 shares of VistaGen California restricted common stock. See Note 9, Capital Stock.

Shortly after the Merger:

Each of VistaGen California's pre-Merger directors was appointed as a director of Excaliber;
The pre-Merger directors and officers of Excaliber resigned as officers and directors of Excaliber;
Each of VistaGen California’s pre-Merger officers was appointed an officer of like tenor of Excalber;
The post-Merger directors of Excaliber (consisting of the pre-Merger directors of VistaGen California) approved a two-for-one (2:1) forward stock split of Excaliber’s common stock;
The post-Merger directors of Excaliber approved an increase in the number of shares of common stock Excaliber was authorized to issue from 200 million to 400 million shares (see Note 9, Capital Stock);
Excaliber’s name was changed to “VistaGen Therapeutics, Inc.”;
VistaGen’s common stock began trading on the OTC Bulletin Board under the symbol “VSTA” effective on June 21, 2011; and
VistaGen adopted VistaGen California's fiscal year-end of March 31st.

VistaGen California, as the accounting acquirer in the Merger, recorded the Merger as the issuance of common stock for the net monetary assets of Excaliber, accompanied by a recapitalization. This accounting for the Merger was identical to that resulting from a reverse acquisition, except that no goodwill or other intangible assets were recorded. A total of 1,569,000 shares of common stock, representing the shares held by stockholders of Excaliber immediately prior to the Merger and effected for the post-Merger two-for-one (2:1) stock split noted above, have been retroactively reflected as outstanding for all periods presented in the accompanying Consolidated Financial Statements of the Company. Additionally, the accompanying Consolidated Balance Sheets of the Company retroactively reflect the $0.001 par value of Excaliber’s common stock and the two-for one (2:1) stock split after the Merger.

In October 2011, the Company’s stockholders amended the Company’s Articles of Incorporation to (1) reduce the number of shares of common stock the Company is authorized to issue from 400 million shares to 200 million shares; (2) authorize the Company to issue up to 10 million shares of preferred stock; and (3) authorize the Company’s Board of Directors to prescribe the classes, series and the number of each class or series of preferred stock and the voting powers, designations, preferences, limitations, restrictions and relative rights of each class or series of preferred stock. In December 2011, the Company’s Board of Directors authorized the creation of a series of up to 500,000 shares of Series A Preferred Stock, par value $0.001 (“Series A Preferred”). Pursuant to the Note Exchange and Purchase Agreement of October 11, 2012 (the “October 2012 Agreement”), as amended, between the Company and Platinum Long Term Growth VII, LLC (“Platinum”), currently the Company’s largest institutional security holder, Platinum has the right and option to exchange 500,000 shares of the Company’s Series A Preferred held by Platinum for (i) a total of

15,000,000 restricted shares of the Company's common stock, and (ii) a five-year warrant to purchase 7,500,000 restricted shares of the Company's common stock at an exercise price of $1.50 per share (see Note 9, Capital Stock).

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The Consolidated Financial Statements of the Company in this Report represent the activity of VistaGen California from May 26, 1998, and the consolidated activity of VistaGen California and Excaliber (now VistaGen Therapeutics, Inc., a Nevada corporation) from May 11, 2011 (the date of the Merger). The Consolidated Financial Statements of the Company also include the accounts of VistaGen California's two wholly-owned subsidiaries, Artemis Neuroscience, Inc., a Maryland corporation ("Artemis"), and VistaStem Canada, Inc., an Ontario corporation ("VistaStem Canada").

2. Basis of Presentation and Going Concern

The accompanying Consolidated Financial Statements of the Company have been prepared assuming the Company will continue as a going concern. As a development stage company without sustainable revenues, VistaGen has experienced recurring losses and negative cash flows from operations. From inception through March 31, 2013, VistaGen has a deficit accumulated during its development stage of $67.7 million. The Company expects these conditions to continue for the foreseeable future as it expands its Human Clinical Trials in a Test Tube™ platform and executes its drug rescue and regenerative cell therapy business programs.

At March 31, 2013, the Company had approximately $638,100 in cash and cash equivalents. Such cash and cash equivalents are not sufficient to enable the Company to fund its operations, including expected cash expenditures of approximately $5 million, through the next twelve months. However, in April 2013, the Company entered into a securities purchase agreement, as amended, with an institutional investor involving the Company's private issuance and sale of its restricted common stock in a transaction involving a series of closings scheduled to occur between June 27, 2013 and September 30, 2013, which financing transaction is expected to generate aggregate cash proceeds to the Company of $36.0 million (see Note 16, Subsequent Events, for a further description of this private placement). Additionally, the Company expects that its participation in strategic collaborations, including licensing transactions, may provide additional cash in support of its future working capital requirements.

3. Summary of Significant Accounting Policies

Use of Estimates

The preparation of financial statements in conformity with U.S. generally accepted accounting principles ("U.S. GAAP") requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities, the disclosure of contingent assets and liabilities at the date of the financial statements, and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates. Significant estimates include those relating to revenue recognition, share-based compensation, and the assumptions used to value warrants, warrant modifications and put option, note term extension, and warrant liabilities.

Principles of Consolidation

The accompanying consolidated financial statements include the Company's accounts, and the accounts of VistaGen California's wholly-owned inactive subsidiaries, Artemis, and VistaStem Canada.

Change in Authorized Number of Shares

Effective with the Merger, the Company was authorized to issue up to 400,000,000 shares of common stock, $0.001 par value and no shares of preferred stock. On October 28, 2011, the Company held a special meeting of its stockholders at which the stockholders approved a proposal to amend the Company's Articles of Incorporation to (1) reduce the number of authorized shares of the Company's common stock from 400,000,000 shares to 200,000,000 shares; (2) authorize the Company to issue up to 10,000,000 shares of preferred stock; and (3) authorize the Company's Board of Directors to prescribe the classes, series and the number of each class or series of preferred stock

and the voting powers, designations, preferences, limitations, restrictions and relative rights of each class or series of preferred stock. In December 2011, the Company's Board of Directors authorized the creation of a series of up to 500,000 shares of Series A Preferred Stock. See Note 9, Capital Stock.

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Cash and Cash Equivalents

Cash and cash equivalents are considered to be highly liquid investments with maturities of three months or less at the date of purchase.

Property and Equipment

Property and equipment is stated at cost. Repairs and maintenance costs are expensed in the period incurred. Depreciation is calculated using the straight-line method over the estimated useful lives of the assets. The estimated useful lives of property and equipment range from five to seven years.

Impairment or Disposal of Long-Lived Assets

The Company evaluates its long-lived assets, primarily property and equipment, for impairment whenever events or changes in circumstances indicate that their carrying value may not be recoverable from the estimated future cash flows expected to result from their use or eventual disposition. If the estimates of future undiscounted net cash flows are insufficient to recover the carrying value of the assets, the Company records an impairment loss in the amount by which the carrying value of the assets exceeds their fair value. If the assets are determined to be recoverable, but the useful lives are shorter than originally estimated, the Company depreciates or amortizes the net book value of the assets over the newly determined remaining useful lives. The Company has not recorded any impairment charges to date.

Revenue Recognition

The Company generates revenue principally from collaborative research and development arrangements, technology transfer agreements, including strategic licenses, and government grants. Revenue arrangements with multiple components are divided into separate units of accounting if certain criteria are met, including whether the delivered component has stand-alone value to the customer. Consideration received is allocated among the separate units of accounting based on their respective selling prices. The selling price for each unit is based on vendor-specific objective evidence, or VSOE, if available, third party evidence if VSOE is not available, or estimated selling price if neither VSOE nor third party evidence is available. The applicable revenue recognition criteria are then applied to each of the units.

The Company recognizes revenue when the four basic criteria of revenue recognition are met: (1) a contractual agreement exists; (2) the transfer of technology has been completed or services have been rendered; (3) the fee is fixed or determinable; and (4) collectability is reasonably assured. For each source of revenue, the Company complies with the above revenue recognition criteria in the following manner:

- Collaborative arrangements typically consist of non-refundable and/or exclusive up front technology access fees, cost reimbursements for specific research and development spending, and various milestone and future product royalty payments. If the delivered technology does not have stand-alone value, the amount of revenue allocable to the delivered technology is deferred. Non-refundable upfront fees with stand-alone value that are not dependent on future performance under these agreements are recognized as revenue when received, and are deferred if the Company has continuing performance obligations and has no objective and reliable evidence of the fair value of those obligations. The Company recognizes non-refundable upfront technology access fees under agreements in which it has a continuing performance obligation ratably, on a straight-line basis, over the period in which the Company is obligated to provide services. Cost reimbursements for research and development spending are recognized when the related costs are incurred and when collectability is reasonably assured. Payments received related to substantive, performance-based “at-risk” milestones are recognized as revenue upon achievement of the milestone event specified in the underlying contracts, which represent the

culmination of the earnings process. Amounts received in advance are recorded as deferred revenue until the technology is transferred, costs are incurred, or a milestone is reached.

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- Technology license agreements typically consist of non-refundable upfront license fees, annual minimum access fees, development and/or regulatory milestone payments and/or royalty payments. Non-refundable upfront license fees and annual minimum payments received with separable stand-alone values are recognized when the technology is transferred or accessed, provided that the technology transferred or accessed is not dependent on the outcome of the continuing research and development efforts. Otherwise, revenue is recognized over the period of the Company's continuing involvement, and, in the case of development and/or regulatory milestone payments, when the applicable event triggering such a payment has occurred.

- Government grants, which support the Company's research efforts on specific projects, generally provide for reimbursement of approved costs as defined in the terms of grant awards. Grant revenue is recognized when associated project costs are incurred.

Research and Development Expenses

Research and development expenses include internal and external costs. Internal costs include salaries and employment related expenses of the Company's internal scientific personnel and direct project costs. External research and development expenses consist of sponsored stem cell research and development costs, costs associated with non-clinical and clinical drug rescue and development activities, including development of AV-101, the Company's drug development candidate which has successfully completed Phase 1 development, and costs related to protection of the Company's intellectual property, including, but not limited to, application and prosecution of patents related to the Company's stem cell technology platform, Human Clinical Trials in a Test Tube™, and AV-101. All such research and development costs are charged to expense as incurred.

Share-Based Compensation

The Company recognizes compensation cost for all share-based awards to employees in its financial statements based on their grant date fair value. Share-based compensation expense is recognized over the period during which the employee is required to perform service in exchange for the award, which generally represents the scheduled vesting period of options and warrants to purchase common stock of the Company. The Company has no awards with market or performance conditions. For share-based awards to non-employees, the Company re-measures the fair value of such awards as they vest and the resulting value is recognized as an expense during the period over which applicable services are performed by the recipient.

Income Taxes

The Company accounts for income taxes using the asset and liability approach for financial reporting purposes. Deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established, when necessary, to reduce the deferred tax assets to an amount expected to be realized.

Concentrations of Credit Risk

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents. The Company's investment policies limit any such investments to short-term, low-risk investments. The Company deposits cash and cash equivalents with quality financial institutions and is insured to the maximum of federal limitations. Balances in these accounts may exceed federally insured limits at times.

Comprehensive Loss

The Company has no components of other comprehensive loss other than net loss, and accordingly the Company's comprehensive loss is equivalent to its net loss for the periods presented.

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Loss per Common Share

Basic loss per share of common stock excludes dilution and is computed by dividing the net loss by the weighted-average number of shares of common stock outstanding for the period. Diluted loss per share of common stock reflects the potential dilution that could occur if securities or other contracts to issue shares of common stock were exercised or converted into shares of common stock. For all periods presented, potentially dilutive securities are excluded from the computation in loss periods, as their effect would be antidilutive. A total of 1,569,000 shares of common stock, representing the 784,500 shares held by stockholders of Excaliber immediately prior to the Merger and effected for the post-Merger two-for-one (2:1) stock split described in Note 1, Description of Business, have been retroactively reflected as outstanding for the period prior to the Merger in the fiscal year ended March 31, 2012 for purposes of determining basic and diluted loss per common share in the accompanying Consolidated Statements of Operations.

Potentially dilutive securities excluded in determining diluted net loss per common share are as follows:

	March 31,	
	2013	2012
Series A preferred stock issued and outstanding (1)	15,000,000	4,370,550
Common stock warants issuable to Platinum upon exchange of Series A preferred stock under the terms of the October 11, 2012 Note Purchase and Exchange Agreement	7,500,000	-
Outstanding options under the 2008 and 1999 Stock Incentive Plans	4,912,604	4,805,771
Outstanding warrants to purchase common stock	14,660,335	4,126,589
10% convertible Exchange Note and Investment Notes issued to Platinum in October 2012, February 2013 and March 2013, including accrued interest through March 31, 2013 (2)	6,775,682	-
Total	48,848,621	13,302,910

(1) at March 31, 2013, assumes exchange under the terms of the October 11, 2012 Note Exchange and Purchase Agreement with Platinum

(2) assumes conversion under the terms of the October 11, 2012 Note Exchange and Purchase Agreement with Platinum and the terms of the individual notes

Recently Adopted Accounting Standards

In June 2011, the FASB issued ASU No. 2011-05, Presentation of Comprehensive Income, which was issued to enhance comparability between entities that report under U.S. GAAP and International Financial Reporting Standards (“IFRS”), and to provide a more consistent method of presenting non-owner transactions that affect an entity’s equity. ASU 2011-05 eliminates the option to report other comprehensive income and its components in the statement of changes in stockholders’ equity and requires an entity to present the total of comprehensive income, the components of net income and the components of other comprehensive income either in a single continuous statement or in two separate but consecutive statements. This pronouncement became effective for fiscal years beginning after December 15, 2011. The Company’s adoption of this ASU effective April 1, 2012 did not have any impact on its consolidated results of operations or financial position; however it required modification of the format of the former “Consolidated Statements of Operations” to include total comprehensive loss and changing the title of the statements to “Consolidated Statements of Operations and Comprehensive Loss.”

In May 2011, the FASB issued ASU No. 2011-04, Amendments to Achieve Common Fair Value Measurement and Disclosure Requirements in U.S. GAAP and International Financial Reporting Standards (“IFRS”). This pronouncement was issued to provide a consistent definition of fair value and ensure that the fair value measurement and disclosure requirements are similar between U.S. GAAP and IFRS. ASU 2011-04 changes certain fair value measurement

principles and enhances the disclosure requirements particularly for Level 3 fair value measurements. The Company's adoption of ASU No. 2011-04 effective April 1, 2012 did not have a material impact on its consolidated results of operations or financial condition.

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Recent Accounting Pronouncements

There have been no recent accounting pronouncements or changes in accounting pronouncements during the fiscal year ended March 31, 2013 that are of significance, or of potential significance, to the Company.

4. Fair Value Measurements

The Company follows the principles of fair value accounting as they relate to its financial assets and financial liabilities. Fair value is defined as the estimated exit price received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date, rather than an entry price that represents the purchase price of an asset or liability. Where available, fair value is based on observable market prices or parameters, or derived from such prices or parameters. Where observable prices or inputs are not available, valuation models are applied. These valuation techniques involve some level of management estimation and judgment, the degree of which is dependent on several factors, including the instrument's complexity. The required fair value hierarchy that prioritizes observable and unobservable inputs used to measure fair value into three broad levels is described as follows:

- Level 1 — Quoted prices (unadjusted) in active markets that are accessible at the measurement date for assets or liabilities. The fair value hierarchy gives the highest priority to Level 1 inputs.

- Level 2 — Inputs other than Level 1 that are observable, either directly or indirectly, such as quoted prices for similar assets or liabilities; quoted prices in markets that are not active; or other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities.

- Level 3 — Unobservable inputs (i.e., inputs that reflect the reporting entity's own assumptions about the assumptions that market participants would use in estimating the fair value of an asset or liability) are used when little or no market data is available. The fair value hierarchy gives the lowest priority to Level 3 inputs.

A financial instrument's categorization within the valuation hierarchy is based upon the lowest level of input that is significant to the fair value measurement. Where quoted prices are available in an active market, securities are classified as Level 1 of the valuation hierarchy. If quoted market prices are not available for the specific financial instrument, then the Company estimates fair value by using pricing models, quoted prices of financial instruments with similar characteristics or discounted cash flows. In certain cases where there is limited activity or less transparency around inputs to valuation, financial assets or liabilities are classified as Level 3 within the valuation hierarchy.

The Company does not use derivative instruments for hedging of market risks or for trading or speculative purposes. In conjunction with the issuance of the Senior Secured Convertible Promissory Notes and related Exchange Warrant and Investment Warrants to Platinum in October 2012, February 2013 and March 2013 (see Note 8, Convertible Promissory Notes and Other Notes Payable), and the potential issuance of the Series A Exchange Warrant (see Note 9, Capital Stock), all pursuant to the October 2012 Agreement, the Company determined that the warrants included certain exercise price adjustment features requiring the warrants to be treated as liabilities, which were recorded at their estimated fair value. The Company determined the fair value of the warrant liability using a Monte Carlo simulation model with Level 3 inputs. Inputs used to determine fair value include the remaining contractual term of the warrants, risk-free interest rates, expected volatility of the price of the underlying common stock, and the probability of a financing transaction that would trigger a reset in the warrant exercise price, and, in the case of the Series A Exchange Warrant, the probability of Platinum's exchange of the shares of Series A Preferred it holds into shares of common stock. Changes in the fair value of these warrant liabilities have been recognized as non-cash expense in other income (expense) in the Consolidated Statements of Operations and Comprehensive Loss for the year ended March 31, 2013.

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During 2007 and 2008, the Company issued three convertible promissory notes with an aggregate principal balance of $4.0 million (the "Original Platinum Notes") to Platinum Long Term Growth VII, LLC ("Platinum"). On May 5, 2011, the Original Platinum Notes were amended, restated and consolidated into a single note (the "May 2011 Platinum Note") with a principal balance of $4.0 million ("May 2011 Amendment"). In conjunction with the issuance of the Original Platinum Notes, the Company determined that (i) the cash payment option or put option, which provided Platinum with the right to require the Company to repay part of the debt in cash at a 25% premium, and (ii) the note term extension option, which provided Platinum with the right to extend the maturity date by one year, were embedded derivatives that should be bifurcated and accounted for separately as liabilities. In conjunction with the issuance of the Original Platinum Notes, the Company also issued warrants to purchase 560,000 shares of its common stock. These warrants included certain exercise price adjustment features and, as a result, the Company determined that the warrants were liabilities, which were recorded at their estimated fair value. The Company determined the fair value of the (i) put option and note term extension option using an internal valuation model with Level 3 inputs and (ii) the warrant liability using a lattice model with Level 3 inputs. Inputs used to determine fair value included estimated value of the underlying common stock at the valuation measurement date, the remaining contractual term of the notes, risk-free interest rates, expected volatility of the price of the underlying common stock, and the probability of a qualified financing. Changes in the fair value of these liabilities prior to the May 2011 Amendment were recognized as a non-cash charge or income in other income (expense) in the Consolidated Statements of Operations and Comprehensive Loss for the year ended March 31, 2012.

As a result of the May 2011 Amendment, Platinum's cash payment or put option was eliminated. Further, concurrent with the Merger transaction described in Note 1 above, the warrants were determined not to be liabilities, since the exercise price adjustment feature terminated upon the Company becoming a public company as a result of the Merger. The increase in fair value of the warrant liability of $7,000 and the increase in the put option and note term extension option liabilities of $71,000 were recognized in other expense, net in the statement of operations for the first quarter of the fiscal year ended March 31, 2012. The remaining put option and note term extension option liabilities, in the amount of $161,800, were reclassified to note discount in connection with the May 2011 Amendment. The aggregate fair value of the warrants at May 11, 2011, $424,100, was reclassified from a liability to additional paid-in capital, a component of stockholders' deficit.

In December 2011, the Company and Platinum entered into a Note and Warrant Exchange Agreement pursuant to which the May 2011 Platinum Note and the warrants issued to Platinum were cancelled in exchange for shares of the Company's Series A Preferred.

The fair value hierarchy for liabilities measured at fair value on a recurring basis is as follows:

		Fair Value Measurements at Reporting Date Using		
	Total Carrying Value	Quoted Prices in Active Markets for Identical Assets (Level 1)	Significant Other Observable Inputs (Level 2)	Significant Unobservable Inputs (Level 3)
March 31, 2013:				
Warrant liability	$6,394,000	$-	$-	$ 6,394,000
March 31, 2012:				
Put option and note term extension option liabilities	$-	$-	$-	$ -
Warrant liability	$-	$-	$-	$ -

During the fiscal years ended March 31, 2013 and 2012, there were no significant changes to the valuation models used for purposes of determining the fair value of the Level 3 warrant liability or the put option and note term extension liabilities.

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The changes in Level 3 liabilities measured at fair value on a recurring basis are as follows:

	Fair Value Measurements Using Significant Unobservable Inputs (Level 3)		
	Put Option and Note Term Extension Liabilities	Warrant Liability	Total
Balance at March 31, 2011	$90,800	$417,100	$507,900
Mark to market loss included in net loss	71,000	7,000	78,000
Reclassification of liability to note discount on Original Platinum Notes upon Merger	(161,800)	-	(161,800)
Reclassification of remaining warrant liability to equity upon Merger	-	(424,100)	(424,100)
Balance at March 31, 2012	$-	$-	$-
Recognition of warrant liability upon issuance of Exchange and Investment Warrants to Platinum under October 2012 Agreement	-	1,690,000	1,690,000
Recognition of warrant liability in connection with Series A Exchange Warrant potentially issuable to Platinum under October 2012 Agreement	-	3,068,200	3,068,200
Mark to market loss included in net loss	-	1,635,800	1,635,800
Balance at March 31, 2013	$-	$6,394,000	$6,394,000

No assets or other liabilities were measured on a recurring basis at fair value at March 31, 2013 or 2012.

5. Property and Equipment

Property and equipment consists of the following:

	March 31,	
	2013	2012
Laboratory equipment	$649,500	$515,800
Computers and network equipment	12,900	12,900
Office furniture and equipment	69,600	75,600
	732,000	604,300
Accumulated depreciation and amortization	(551,300)	(529,800)
Property and equipment, net	$180,700	$74,500

In connection with the issuance of Senior Secured Convertible Promissory Notes to Platinum in July and August 2012 and with the October 2012 Agreement with Platinum, the Company entered into a Security Agreement with Platinum under which the repayment of all amounts due under the terms of the various notes issued to Platinum are secured by the Company’s assets, including its tangible and intangible personal property, licenses, patent licenses, trademarks and

trademark licenses (see Note 8, Convertible Promissory Notes and Other Notes Payable). In February 2004, the Company granted a security interest covering its laboratory and computer equipment in conjunction with notes payable under a line of credit agreement. The security interest was released in April 2011 in connection with the consolidation of certain notes payable.

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6. AV-101 Acquisition

In November 2003, pursuant to an Agreement and Plan of Merger (the “Artemis Agreement”), the Company acquired Artemis, a private company also in the development stage, for the purpose of acquiring exclusive licenses to patents and other intellectual property related to the use and function of AV-101, a new drug candidate then in nonclinical development, with the potential to treat neuropathic pain, depression, and other neurological diseases and disorders, epilepsy, Huntington’s disease and Parkinson’s disease. Pursuant to the Artemis Agreement, each share of common stock of Artemis was converted into the right to receive 0.9045 shares of VistaGen California’s Series B-1 Preferred Stock, resulting in VistaGen California’s pre-Merger issuance of 1,356,750 shares of its Series B-1 Preferred Stock. The shares of Series B-1 Preferred Stock were valued, pre-Merger, at $5.545 per share, and accordingly the pre-Merger purchase price of all outstanding shares of Artemis in 2003 was $7,523,200. The total purchase price was allocated to AV-101 acquired in-process research and development and was expensed subsequent to the acquisition, since AV-101 required further research and development before the Company could commence clinical trials and did not have any proven alternative future uses.

The NIH awarded the Company an aggregate of $4.2 million to support nonclinical development of AV-101 during fiscal years 2006 through 2008, culminating in the submission in November 2008 of its Investigational New Drug ("IND") application to conduct Phase 1 human clinical testing of AV-101 for neuropathic pain. In April 2009, the NIH awarded the Company an aggregate of $4.2 million grant to support the Phase 1 clinical development of AV-101, and subsequently increased the grant to an aggregate of $4.6 million in July 2010. The Company completed the Phase 1a clinical trial of AV-101 during the third calendar quarter of 2011 and completed the Phase 1b clinical testing in the last half of calendar 2012. To date, VistaGen has received an aggregate of $8.8 million from the NIH for non-clinical and clinical development of AV-101.

7. Accrued Expenses

Accrued expenses consist of:

	March 31, 2013	March 31, 2012
Accrued professional services	$67,800	$107,400
Accrued research and development expenses	-	237,500
Accrued vacation pay and other compensation	219,300	229,900
Accrued placement agent fees	-	50,000
Accrued royalties and license fees	25,000	5,000
All other	30,800	27,500
	$342,900	$657,300

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8. Convertible Promissory Notes and Other Notes Payable

The following table summarizes the components of the Company's convertible promissory notes and other notes payable:

	March 31, 2013			March 31, 2012		
	Principal Balance	Accrued Interest	Total	Principal Balance	Accrued Interest	Total
Senior Secured 10% Convertible Promissory Notes issued to Platinum:						
Exchange Note issued on October 11, 2012	$ 1,272,600	$61,700	$1,334,300	$-	$-	$-
Investment Note issued on October 11, 2012	500,000	24,200	524,200	-	-	-
Investment Note issued on October 19, 2012	500,000	23,000	523,000	-	-	-
Investment Note issued on February 22, 2013	250,000	2,600	252,600	-	-	-
Investment Note issued on March 12, 2013	750,000	4,700	754,700	-	-	-
	3,272,600	116,200	3,388,800	-	-	-
Aggregate note discount	(1,963,100)	-	(1,963,100)	-	-	-
Total Senior notes (non-current)	$ 1,309,500	$116,200	$1,425,700	$-	$-	$-
Convertible Promissory Notes:						
February 2012 12% convertible promissory notes	$ -	$-	$-	$500,000	$5,300	$505,300
Note discount	-	-	-	(499,300)	-	(499,300)
Total 12% convertible notes, net (non-current)	$ -	$-	$-	$700	$5,300	$6,000
Notes Payable to unrelated parties:						
7.0% Notes payable (April 2011)	$ -	$-	$-	$63,800	$400	$64,200
7.0% Notes payable (August 2012)	59,400	-	59,400	-	-	-
	59,400	$-	$59,400	63,800	$400	$64,200
less: current portion	(8,100)	-	(8,100)	(63,800)	(400)	(64,200)
7.0% Notes payable - non-current portion	$ 51,300	$-	$51,300	$-	$-	$-
7.5% Notes payable to service providers for						

accounts payable converted to notes payable:						
Burr, Pilger, Mayer	$ 90,400	$-	$90,400	$93,400	$1,100	$94,500
Desjardins	194,100	800	194,900	224,300	2,800	227,100
McCarthy Tetrault	403,100	1,700	404,800	459,400	5,700	465,100
May 2011 Morrison Foerster	-	-	-	2,420,100	37,900	2,458,000
August 2012 Morrison & Foerster Note A	937,400	-	937,400	-	-	-
August 2012 Morrison & Foerster Note B, payable solely in restricted shares of the Company's common stock (1)	1,379,400	60,100	1,439,500	-	-	-
University Health Network, payable solely in restricted shares of the Company's common stock (1)	549,500	19,400	568,900	-	-	-
	3,553,900	82,000	3,635,900	3,197,200	47,500	3,244,700
Note discount	(1,142,600)	-	(1,142,600)	(228,900)	-	(228,900)
	2,411,300	82,000	2,493,300	2,968,300	47,500	3,015,800
less: current portion	(450,300)	(2,500)	(452,800)	(367,700)	-	(367,700)
non-current portion and discount	$ 1,961,000	$79,500	$2,040,500	$2,600,600	$47,500	$2,648,100
5.8% and 8% Notes payable to insurance premium financing company (current)	$ 4,200	$-	$4,200	$4,600	$-	$4,600
10% Notes payable to vendors for accounts payable converted to notes payable	$ 128,800	$23,300	$152,100	$165,400	$16,800	$182,200
less: current portion	(128,800)	(23,300)	(152,100)	(146,000)	-	(146,000)
non-current portion	$ -	$-	$-	$19,400	$16,800	$36,200
Total notes payable to unrelated parties	$ 2,603,700	$105,300	$2,709,000	$3,202,100	$64,700	$3,266,800
less: current portion	(591,400)	(25,800)	(617,200)	(582,100)	(400)	(582,500)
non-current portion and discount	$ 2,012,300	$79,500	$2,091,800	$2,620,000	$64,300	$2,684,300
Notes payable to related parties:						
April 2011 7 % Note to Cato Holding Co.	$ -	$-	$-	$293,300	$6,900	$300,200
October 2012 7.5% Note to Cato Holding Co.	293,600	7,400	301,000	-	-	-
	1,009,000	36,200	1,045,200	-	-	-

October 2012 7.5% Note to Cato Research Ltd., payable solely in restricted shares of the Company's common stock (1)							
		1,302,600	43,600	1,346,200	293,300	6,900	300,200
Note discount		(147,200)	-	(147,200)	(24,300)	-	(24,300)
Total notes payable to related parties		1,155,400	43,600	1,199,000	269,000	6,900	275,900
less: current portion		(85,600)	(7,400)	(93,000)	(168,200)	-	(168,200)
non-current portion and discount	$	1,069,800	$36,200	$1,106,000	$100,800	$6,900	$107,700

(1) See description of debt restructuring in Note 8.

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Senior Secured Convertible Promissory Notes issued to Platinum

On July 2, 2012 and on August 31, 2012, the Company issued to Platinum senior secured convertible promissory notes in the principal amount of $500,000 (the “July 2012 Platinum Note”) and $750,000 (the "August 2012 Platinum Note"), respectively. The July 2012 Platinum Note and the August 2012 Platinum Note each accrued interest at the rate of 10% per annum and were due and payable on July 2, 2015. The July 2012 Platinum Note and the August 2012 Platinum Note were each mandatorily convertible into securities that may be issued by the Company in an equity, equity-based, or debt financing, or series of financings, subsequent to the issuance of the note resulting in gross proceeds to the Company of at least $3,000,000, excluding any additional investment by Platinum.

On October 11, 2012, the Company and Platinum entered into a Note Exchange and Purchase Agreement (the “October 2012 Agreement”) in which the July 2012 Platinum Note and the August 2012 Platinum Note (together, the “Existing Notes”), as well as the related accrued interest, were consolidated into and exchanged for a single senior secured convertible note in the amount of $1,272,577 (the “Exchange Note”) and Platinum agreed to purchase four additional 10% senior secured convertible promissory notes in the aggregate principal amount of $2.0 million (the “Investment Notes”), issuable over four separate $500,000 tranches between October 2012 and December 2012. The first and second $500,000 Investment Notes, in the aggregate principal amount of $1.0 million, were purchased by Platinum on October 11, 2012 and October 19, 2012, respectively. The Company and Platinum also entered into an amended and restated Security Agreement to secure repayment of all obligations due and payable under the terms of the Investment Notes and Exchange Note.

On November 14, 2012 and January 31, 2013, the Company and Platinum entered into amendments to the October 2012 Agreement (the “NEPA Amendments”), pursuant to which the final two $500,000 tranches contemplated by the October 2012 Agreement were combined into a single Investment Note in the aggregate principal amount of $1.0 million (the “$1.0 Million Note”). Under the terms and conditions of the NEPA Amendment, Platinum agreed to purchase the $1.0 Million Note within five business days of the Company's notice to Platinum of the consummation of a debt or equity financing, or combination of financings, prior to February 15, 2013, resulting in gross proceeds to the Company of at least $1.0 million (the “Additional Financing Requirement”). The Company satisfied the Additional Financing Requirement on February 12, 2013 (See Note 9, Capital Stock). Effective February 22, 2013, the Company and Platinum entered into an additional amendment to the October 2012 Agreement pursuant to which Platinum agreed to purchase an Investment Note in the face amount of $250,000 on February 22, 2013 and an additional Investment Note in the face amount of $750,000 on or before March 12, 2013, which Investment Note was issued by the Company and purchased by Platinum on March 12, 2013.

The Exchange Note and each Investment Note (together, the “Notes”) accrue interest at a rate of 10% per annum and, subject to certain limitations and exceptions set forth in the Notes, unless converted earlier and voluntarily by Platinum, will be due and payable in restricted shares of the Company’s common stock on October 11, 2015, or three years from the date of issuance, as determined by the terms of the Investment Notes. At maturity, all principal and accrued interest under the Notes shall be payable by the Company through the issuance of restricted shares of common stock to Platinum. Subject to certain potential adjustments set forth in the Notes, the number of restricted shares of common stock issuable as payment in full for each of the Notes at maturity will be calculated by dividing the outstanding Note balance plus accrued interest by $0.50 per share. Prior to maturity, the outstanding principal and any accrued interest on the Exchange Note and each of the Investment Notes is convertible, in whole or in part, at Platinum’s option into shares of the Company’s common stock at a conversion price of $0.50 per share, subject to certain adjustments. The conversion feature in each of the Notes constituted a beneficial conversion feature at the date of issuance.

As additional consideration for the purchase of the Investment Notes, the Company agreed to issue to Platinum warrants to purchase an aggregate of 2,000,000 shares of the Company’s common stock, issuable in separate tranches

together with each Investment Note, of which a warrant to purchase 500,000 shares was issued to Platinum on October 11, 2012 and on October 19, 2012, a warrant to purchase 250,000 shares was issued to Platinum on February 22, 2013 and a warrant to purchase 750,000 shares was issued to Platinum on March 12, 2013 (each an "Investment Warrant"). In addition, the Company issued Platinum a warrant to purchase 1,272,577 shares of the Company's common stock in connection with the issuance of the Exchange Note (the "Exchange Warrant"). At issuance, the Platinum Exchange Warrant and each Investment Warrant has a term of 5 years and an exercise price of $1.50 per share, subject to certain adjustments. See Note 16, Subsequent Events, regarding a modification of the exercise price of the Exchange Warrant and the Investment Warrants. The Company and Platinum also executed and subsequently amended a security agreement to secure repayment of all obligations due and payable under the terms of the Exchange Note and all of the Investment Notes.

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As a result of the beneficial conversion feature in the Exchange Note and the issuance of the Exchange Warrant, the Company determined that the cancellation of the Existing Notes and the issuance of the Exchange Note should be accounted for as an extinguishment of debt. The Company determined that the fair value of the Exchange Note, including the beneficial conversion feature, was $2,355,800 using a Monte Carlo simulation model and inception-date assumptions including market price of common stock of $0.75 per share; stock price volatility of 85%; risk-free interest rate of 0.67%; conversion price of $0.50 per share; note term of 3 years; 75% probability that conversion would occur at or immediately prior to maturity; and 25% probability that an event requiring either the repayment of the Exchange Note or its conversion into common stock would occur prior to maturity. The fair value of the Exchange Note at inception represented a substantial premium over its face value. In accordance with the provisions of ASC 470-20, Debt with Conversion and Other Options, the Company recognized the premium in excess of the face value, $1,083,200, as a non-cash charge to loss on early extinguishment of debt in the accompanying Consolidated Statement of Operations and Comprehensive Income for the year ended March 31, 2013 and as a credit to additional paid-in capital and recorded the liability for the Exchange Note at its face value.

Subject to limited exceptions, which include issuances of common stock pursuant to the 2012 Private Placement of Units (see Note 9, Capital Stock), the Exchange Warrant and each of the Investment Warrants include certain exercise price reset and anti-dilution protection features in the event that the Company issues other shares of common stock during the five-year term of the warrants at a price less than their initial $1.50 per share exercise price. As a result of these provisions, the Exchange Warrant and the Investment Warrants do not meet the criteria set forth in ASC 815, Derivatives and Hedging, to be considered indexed to the Company's own stock and treated as equity instruments. Consequently, the Company recorded the Exchange Warrant and each of the Investment Warrants as liabilities at their fair value, which was estimated at the issuance date using a Monte Carlo simulation model and the following assumptions:

	Exchange Warrant	Investment Warrants Issued on: 10/11/2012	10/19/2012	2/22/2013	3/12/2013
Market price of common stock	$0.75	$0.75	$0.75	$0.60	$0.80
Exercise price	$1.50	$1.50	$1.50	$1.50	$1.50
Risk-free interest rate	0.67 %	0.67 %	0.67 %	0.84 %	0.88 %
Volatility	85.0 %	85.0 %	85.0 %	85.0 %	85.0 %
Term (years)	5.0	5.0	5.0	5.0	5.0
Dividend rate	0 %	0 %	0 %	0 %	0 %
Fair value per share	$0.53	$0.53	$0.53	$0.39	$0.52
Number of shares	1,272,577	500,000	500,000	250,000	750,000
Fair value at date of issuance	$672,000	$264,000	$264,000	$97,000	$393,000

The fair value of the Exchange Warrant at the date of issuance was recorded as a liability and as a corresponding charge to loss on early extinguishment of debt in the accompanying Consolidated Statement of Operations and Comprehensive Income for the year ended March 31, 2013. The fair value of each Investment Warrant at the date of issuance was recorded as a liability and as a corresponding discount to the related Investment Note. Subject to limitations of the absolute amount of discount attributable to each Investment Note, the Company treated the issuance-date intrinsic value of the beneficial conversion feature embedded in each Investment Note as an additional component of the discount attributable to each Investment Note and recorded a discount attributable to the beneficial conversion feature for each Investment Note. The Company amortizes the aggregate discount attributable to each of the Investment Notes using the interest method over the respective term of each note. The table below summarizes the components of the discount and the effective interest rate at inception for the Exchange Note and each of the Investment Notes.

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	Exchange Note	Inception Date Carrying Value of Investment Notes Issued on: 10/11/2012	10/19/2012	2/22/2013	3/12/2013
Face value	$1,272,600	$500,000	$500,000	$250,000	$750,000
Discount attributable to:					
Fair value of warrant	-	(264,000)	(264,000)	(97,000)	(393,000)
Beneficial conversion feature	-	(231,000)	(231,000)	(147,000)	(349,500)
Inception date carrying value	$1,272,600	$5,000	$5,000	$6,000	$7,500
Effective Interest Rate	10.00%	159.05%	159.05%	127.27%	159.05%

The fair value of the Exchange Warrant and Investment Warrants was re-measured as of March 31, 2013 at an aggregate of $1,988,000 and the $298,000 increase in fair value since inception was reflected in the accompanying Consolidated Statement of Operations and Comprehensive Income for the year ended March 31, 2013.

May 2011 Platinum Note

During 2007 and 2008, the Company issued three convertible promissory notes with an aggregate principal balance of $4.0 million to Platinum (the “Original Platinum Notes”). In conjunction with the issuance of the Original Platinum Notes, the Company also issued warrants to Platinum to purchase an aggregate of 560,000 shares of the Company’s common stock. On May 5, 2011, the Original Platinum Notes were amended, restated and consolidated into a single note (the “May 2011Platinum Note”) with a principal balance of $4.0 million and an extended maturity date of June 30, 2012, a one year extension from the June 30, 2011 maturity date of the Original Platinum Notes (the “May 2011 Amendment”). The May 2011 Platinum Note continued to bear interest at an annual rate of 10%. Platinum retained the right, in its sole discretion, to extend the maturity date of the May 2011 Platinum Note by one year to June 30, 2013. The May 2011 Platinum Note would have been automatically converted, subject to certain conditions, upon the last to occur of (i) the closing of an equity or equity-based financing or series of equity or equity-based financings after May 1, 2011 resulting in gross proceeds to the Company totaling at least $5.0 million, including the 2011 Private Placement (see Note 9, Capital Stock) and cancellation of debt not otherwise convertible; and (ii) the Company becoming a publicly traded company ("Amended Qualified Financing"). The number of shares issuable to Platinum upon the automatic conversion of the May 2011 Platinum Note would have been determined in accordance with one of the following three formulas, as selected by Platinum in its sole discretion: (i) the outstanding principal plus accrued but unpaid interest ("Outstanding Balance") as of the closing of the Amended Qualified Financing multiplied by 1.25 and divided by $1.75 per share; (ii) the Outstanding Balance as of the closing of the Amended Qualified Financing multiplied by 1.25 and divided by the per share price of shares sold in the Amended Qualified Financing; or (iii) the Outstanding Balance as of the closing of the Amended Qualified Financing divided by the Company's per share price assuming a pre-Amended Qualified Financing valuation of the Company of $30 million on a fully-diluted basis, subject to certain exclusions. Under the May 2011 Platinum Note, the cash payment option previously included in the Original Platinum Notes was eliminated. In the event the Company had completed an Amended Qualified Financing prior to December 31, 2011, interest accrued on the May 2011 Platinum Note from May 5, 2011 through the date of the closing of the Amended Qualified Financing would have been forgiven.

The May 2011 Platinum Note would have been voluntarily convertible, at the option of Platinum, at any time prior to an Amended Qualified Financing or its maturity date into restricted shares of common stock determined by multiplying the Outstanding Balance being converted by 1.25 and dividing by the lesser of (i) $1.75 per share; (ii) the per share price in any subsequent equity financing; or (iii) the per share price assuming a $30 million valuation of the Company on a fully diluted basis (subject to certain exclusions). Platinum could have elected to convert the May 2011 Platinum Note at any time, but was not obligated to convert the May 2011 Platinum Note until the restricted shares

issuable upon conversion of the note were freely tradable pursuant to an effective registration statement or could have been sold in any ninety day period without registration under the Securities Act of 1933, as amended (“Securities Act”), in compliance with Rule 144. Additionally, Platinum could not have converted the May 2011 Platinum Note if the shares issuable upon conversion would result in it beneficially owning in excess of 9.99% of the then outstanding shares of the Company's common stock. However, Platinum could have waived this condition upon giving 61 days’ notice to the Company.

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In connection with the issuance of the May 2011 Platinum Note, the Company issued to Platinum a three-year warrant to purchase 825,574 restricted shares of the Company's common stock at an exercise price of $2.50 per share. The warrant would have expired on May 5, 2014, and become exercisable upon Platinum's conversion of the May 2011 Platinum Note and would have been exercisable for one-fourth (1/4) of the number of shares issued in the conversion.

In December 2011, the Company and Platinum entered into a Note and Warrant Exchange Agreement pursuant to which the May 2011 Platinum Note was cancelled and all warrants issued to Platinum were exercised in exchange for restricted shares of the Company's new Series A Preferred stock. See Note and Warrant Exchange Agreement below.

The Company evaluated the extension of the maturity date of the Original Platinum Notes along with the issuance of the new three-year warrant and determined that the modifications were to be accounted for as a troubled debt restructuring on a prospective basis. The Company recorded a discount to the May 2011 Platinum Note of $908,900, which amount was equal to the incremental fair value of the note conversion feature and the cash payment or put option liability, and the fair value of the new warrant. The note discount was to be amortized as non-cash interest expense over the remaining term of the May 2011 Platinum Note using the effective interest method. The effective annual interest rate of the May 2011 Platinum Note was determined to be 17.3%, based on the amount of the note discount, the stated interest rate, and the note term.

Warrant Liability related to Original Platinum Notes

The warrants issued with the Original Platinum Notes included certain exercise price adjustment features and accordingly were not deemed to be indexed to the Company's common stock. At issuance, the Company recorded the estimated fair value of the warrant liability of $151,300 as a non-current liability in the consolidated balance sheet. Changes in the estimated fair value of the warrant liability were recorded in other income (expense) in the Consolidated Statement of Operations and Comprehensive Loss until the closing of the Merger on May 11, 2011, when the amended warrants no longer contained the exercise price adjustment features, at which time the warrants were deemed to be indexed to the Company's common stock and therefore no longer treated as a liability. The warrant liability was recorded at its fair value of $424,100 at May 11, 2011, which resulted in non-cash expense of $7,000 that was charged to other income (expense) in the first quarter of the fiscal year ended March 31, 2012. As of May 11, 2011, $424,100, the then-current aggregate fair value of these warrants, was reclassified from warrant liability to additional paid-in capital, a component of stockholders' deficit.

December 2011 Note and Warrant Exchange Agreement with Platinum

On December 29, 2011, the Company and Platinum entered into a Note and Warrant Exchange Agreement pursuant to which the May 2011 Platinum Note and all outstanding warrants issued to Platinum to purchase an aggregate of 1,599,858 restricted shares of the Company's common stock were cancelled in exchange for 391,075 restricted shares of the Company's newly-created Series A Preferred Stock ("Series A Preferred"). Each share of Series A Preferred was initially convertible into ten shares of the Company's common stock (see Note 9, Capital Stock). The Company issued 231,090 restricted shares of Series A Preferred to Platinum in connection with the note cancellation based on the sum of the $4,000,000 principal balance of the Platinum Note plus accrued but unpaid interest through May 11, 2011 adjusted for a 125% conversion premium, net of the $1,719,800 aggregate exercise price of the outstanding 1,599,858 warrants held by Platinum, and a contractual conversion basis of $1.75 per common share, all adjusted for the stated 1:10 Series A Preferred to common exchange ratio. An additional 159,985 restricted shares of Series A Preferred were issued to Platinum in connection with the warrant exercise and exchange to acquire the common shares issued upon the warrant exercise.

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The Company determined that the cancellation of the Platinum Note and exercise of the warrants pursuant to the Note and Warrant Exchange Agreement should be accounted for as a debt extinguishment. The Company estimated the fair value of the restricted shares of Series A Preferred tendered to Platinum for the cancellation of the Platinum Note under the terms of the agreement at $15.51 per share ($1.55 on a per common share equivalent basis). The Company recorded a loss of $1,193,500 attributable to the early debt extinguishment, reported in Other expenses, net in the accompanying Consolidated Statements of Operations and Comprehensive Loss for the year ended March 31, 2012. The loss includes $287,278, calculated using the Black-Scholes Option Pricing Model, representing the incremental fair value of the warrants exercised by Platinum as modified to reduce their exercise price. (See Discounted Warrant Exercise Program in Note 9, Capital Stock, for a description of the modification of warrant exercise prices and the resulting valuation that occurred during the quarter ended December 31, 2011.) The restricted common shares issued in connection with the warrant exercise that were exchanged for shares of Series A Preferred Stock are treated as Treasury Stock in the accompanying Consolidated Balance Sheets at March 31, 2013 and 2012.

February 2012 Convertible Promissory Notes

On February 28, 2012, the Company completed a private placement of convertible promissory notes to certain accredited investors in the aggregate principal amount of $500,000 (the "Notes"). Each Note accrued interest at the rate of 12% per annum and was to mature on the earlier of (i) twenty-four months from the date of issuance, or (ii) the consummation of an equity, equity-based, or series of equity-based financings resulting in gross proceeds to the Company of at least $4.0 million (the “Qualified Financing Threshold”). The holders of the Notes had the right to voluntarily convert the outstanding principal amount of the Notes and all accrued and unpaid interest (the “Outstanding Balance”) at any time prior to maturity into that number of restricted shares of the Company’s common stock equal to the Outstanding Balance, divided by $3.00 (the "Conversion Shares"). In addition, in the event the Company consummated a financing equal to or exceeding the Qualified Financing Threshold, and the price per unit of the securities sold, or price per share of common stock issuable in connection with such financing, was at least $2.00 (a “Qualified Financing”), the Outstanding Balance would have automatically converted into such securities, including warrants, that were issued in the Qualified Financing, the amount of which would have been determined according to the following formula: (Outstanding Balance at the closing date of the Qualified Financing) x (1.25) / (the per security price of the securities sold in the Qualified Financing). The purchaser of each Note was issued a five-year warrant to purchase, for $2.75 per share, the number of restricted shares of the Company’s common stock equal to 150% of the total principal amount of the Notes purchased by such purchaser, divided by $2.75, resulting in the potential issuance of an aggregate of 272,724 restricted shares of the Company’s common stock upon exercise of the warrants (the “Warrant Shares”). The warrants terminate, if not exercised, five years from the date of issuance. The Company valued the warrants at a fair value of $1.99 per share on the date of issuance using the Black-Scholes option pricing model and the following assumptions: fair value of common stock - $2.85; risk-free interest rate – 0.84%; volatility – 89.9%; contractual term – 5.00 years; dividend rate – 0%.

The Company allocated the proceeds from the Notes and associated warrants based on their relative fair values. The relative fair value attributable to the warrants was $260,076, which the Company recorded as a discount to the Notes and a corresponding credit to additional paid-in capital. The Company recorded an additional note discount of $235,084 for the fair value of the non-contingent beneficial conversion feature of the Notes. The note discounts totaling $495,160 were to be amortized to interest expense using the effective interest method over the term of the Notes. The effective interest rate on the Notes at the date of issuance was 268.9% based on the stated interest rate, the amount of discount, and the term of the Notes.

The Company entered into a Registration Rights Agreement with the purchasers of the February 2012 Notes pursuant to which the Company agreed to register for resale the Conversion Shares and the Warrant Shares. The Company agreed to file a registration statement no later than ninety days from the February 28, 2012 closing date, or by May 28, 2012 (the “Filing Deadline”). Should the Company not have filed the registration statement by the Filing Deadline or if the registration statement had not been declared effective by the agreed upon effectiveness deadline, the Company was

required to make aggregate payments to the purchasers in an amount equal to 1% of the $500,000 aggregate face amount of the February 2012 Notes for each 30-day period following the Filing Deadline, or pro-rata portion thereof, with an aggregate limitation of $50,000.

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On November 15, 2012, the holders of the February 2012 Notes entered into an Exchange Agreement with the Company (the "Exchange Agreement"). Under the terms of the Exchange Agreement, (i) the current amount due under the terms of the February 2012 Notes, $678,600, which amount included all accrued interest as well as additional consideration for the conversion, was exchanged for a total of 1,357,281 restricted shares of the Company's common stock and five-year warrants to purchase 678,641 restricted shares of the Company's common stock at an exercise price of $1.50 per share (the "Note Exchange Securities"); and (ii) the Registration Rights Agreement was terminated. Additionally, the Company issued a five-year warrant to purchase 72,000 restricted shares of the Company's common stock at an exercise price of $1.50 per share as partial compensation to an investment bank that had placed certain of the Notes. The Company recorded the issuance of the warrants with a charge to interest expense of $28,200 and a corresponding credit to additional paid-in capital.

The Company determined that the exchange of the Notes into restricted shares of its common stock should be accounted for as an extinguishment of debt. The Company recognized as consideration in the exchange the sum of (i) the fair value of the restricted common stock issued in the exchange at the quoted market price of $0.70 per share on the date of the exchange, or $950,100, and (ii) the fair value of the warrants, which was determined to be $0.39 per share, or $265,500, using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.70; exercise price per share: $1.50; risk-free interest rate: 0.62%; contractual term: 5 years; volatility: 89.5%; expected dividend rate: 0%. The aggregate consideration less the net carrying value of the Notes, including accrued interest, resulted in the recognition of $1,145,100 as a non-cash loss on early extinguishment of debt in the accompanying Consolidated Statements of Operations and Comprehensive Income for the year ended March 31, 2013. The warrants issued to the investment bank were valued using the same assumptions as used for the warrants issued to the exchanging note holders.

Restructuring of Note Payable to Morrison & Foerster

On May 5, 2011, the Company and Morrison & Foerster LLP (“Morrison & Foerster”), then the Company’s general corporate and and intellectual property counsel, amended a previously outstanding note (the “Original Note”) issued by the Company in payment of legal services (the “Amended Note”). Under the Amended Note, the principal balance of the Original Note was increased to $2,200,000, interest accrued at the rate of 7.5% per annum, and the Company was required to make an additional payment of $100,000 within three business days of the date of the Amended Note. The Company made the required $100,000 payment in a timely manner.

On August 31, 2012, the Company restructured the Amended Note (the “Restructuring Agreement”). Pursuant to the Restructuring Agreement, the Company issued to Morrison & Foerster two new unsecured promissory notes to replace the Amended Note, one in the principal amount of $1,000,000 ("Replacement Note A") and the other in the principal amount of $1,379,400 ("Replacement Note B") (together, the "Replacement Notes"); amended an outstanding warrant to purchase restricted shares of the Company’s common stock (the “Amended M&F Warrant”); and issued a new warrant to purchase restricted shares of the Company’s common stock (the “New M&F Warrant”). Under the terms of the Restructuring Agreement, the Amended Note was cancelled and all of the Company's past due payment obligations under the Amended Note were satisfied. The Company made a payment of $155,000 to Morrison & Foerster on August 31, 2012 pursuant to the terms of the Amended Note, and issued the Replacement Notes, each dated as of August 31, 2012. Both Replacement Notes accrue interest at the rate of 7.5% per annum and are due and payable on March 31, 2016. Replacement Note A requires monthly payments of $15,000 per month through March 31, 2013, and $25,000 per month thereafter until maturity. Payment of the principal and interest on Replacement Note B will be made solely in restricted shares of the Company’s common stock pursuant to Morrison & Foerster’s surrender from time to time of all or a portion of the principal and interest balance due on Replacement Note B in connection with its exercise of the New M&F Warrant, at an exercise price of $1.00 per share, and concurrent cancellation of indebtedness and surrender of Replacement Note B; provided, however, that Morrison & Foerster shall have the option to require payment of Replacement Note B in cash upon the occurrence of a change in control of the Company or an event of default, and only in such circumstances.

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The Company treated the aggregate of the incremental value of the Amended M&F Warrant and the fair value of the New M&F Warrant as a discount to the Replacement Notes. Under the terms of the Amended M&F Warrant, the Company amended the warrant to purchase 425,000 restricted shares of its common stock originally issued to Morrison & Foerster on March 15, 2010 to extend the expiration date of the warrant from December 31, 2014 to September 15, 2017 and to provide for exercise by paying cash or by the cancellation in whole or in part of the Company's indebtedness under either of the Replacement Notes. The Company determined that the incremental value of the Amended M&F Warrant was $121,650 at the modification date using the Black-Scholes Option Pricing Model and the following assumptions:

Assumption:	Pre-modification	Post-modification
Market price per share	$ 0.94	$ 0.94
Exercise price per share	$ 2.00	$ 2.00
Risk-free interest rate	0.25%	0.60%
Expected term in years	2.33	5.04
Volatility	77.9%	88.8%
Dividend rate	0.0%	0.0%
Weighted Average Fair Value per share	$ 0.24	$ 0.52

The New M&F Warrant is exercisable for the number of restricted shares of the Company's common stock equal to the principal and accrued interest due under the terms of Replacement Note B divided by the warrant exercise price of $1.00 per share. At the August 31, 2012 date of grant, the New M&F Warrant was exercisable to purchase 1,379,376 restricted shares of the Company's common stock. The New M&F Warrant effectively permits exercise only by the cancellation in whole or in part of the Company's indebtedness under either of the Replacement Notes. The New M&F Warrant expires on September 15, 2017. The Company determined the fair value of the New M&F Warrant to be $0.64 per share, or $876,800, at the date of grant using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.94; exercise price per share: $1.00; risk-free interest rate: 0.61%; contractual term: 5.04 years; volatility: 88.8%; expected dividend rate: 0%. The note discounts totaling $1,197,900, including the $199,500 remaining unamortized discount recorded prior to the modification, will be amortized to interest expense using the effective interest method over the term of the Replacement Notes. The aggregate amount of the incremental fair value of the Amended M&F Warrant and the fair value of the New M&F Warrant, $998,450, was recognized as equity and was credited to additional paid-in capital in the accompanying Consolidated Balance Sheets. The effective interest rate on the Replacement Notes at the date of issuance was 32.3%, based on the stated interest rate, the amount of discount, and the term of the Replacement Notes. Through March 31, 2013, the Company has adjusted the New M&F Warrant to increase the number of restricted shares available for purchase by 60,088 shares, based on interest accrued on Replacement Note B through that date. The Company has recorded the fair value of the additional shares as a charge to interest expense and a corresponding credit to additional paid-in capital.

Restructuring of Accounts Payable to Cato Research Ltd. ("CRL")

On October 10, 2012, the Company issued to CRL, a contract research and development partner and a related party: (i) an unsecured promissory note in the initial principal amount of $1,009,000, which is payable solely in restricted shares of the Company's common stock and which accrues interest at the rate of 7.5% per annum, compounded monthly (the "CRL Note"), as payment in full for all contract research and development services and regulatory advice ("CRO Services") rendered by CRL to the Company and its affiliates through December 31, 2012 with respect to the non-clinical and clinical development of AV-101, and (ii) a five-year warrant to purchase, at a price of $1.00 per share, 1,009,000 restricted shares of the Company's common stock, the amount equal to the sum of the principal amount of the CRL Note, plus all accrued interest thereon, divided by $1.00 per share (the "CRL Warrant"). The principal amount of the CRL Note may, at the Company's option, be automatically increased as a result of future CRO

Services rendered by CRL to the Company and its affiliates from January 1, 2013 to June 30, 2013. The CRL Note is due and payable on March 31, 2016 and is payable solely by CRL's surrender from time to time of all or a portion of the principal and interest balance due on the CRL Note in connection with its concurrent exercise of the CRL Warrant, provided, however, that CRL will have the option to require payment of the CRL Note in cash upon the occurrence of a change in control of the Company or an event of default, and only in such circumstances.

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The Company determined that the cancellation of the accounts payable to CRL for CRO Services and the related issuance of the CRL Note should be accounted for as an extinguishment of debt. Accordingly, the Company recorded the CRL Note at its fair value of $857,900 based on the present value of its scheduled cash flows and assumptions regarding market interest rates for unsecured debt of similar quality. The Company determined the fair value of the CRL Warrant to be $0.48 per share, or $486,164, using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.75; exercise price per share: $1.00; risk-free interest rate: 0.66%; contractual term: 5 years; volatility: 89.9%; expected dividend rate: 0%. The Company recognized the difference between the sum of the fair values of the CRL Note and the CRL Warrant less the accounts payable balance due to CRL, $335,100, as a non-cash loss on early extinguishment of debt in the accompanying Consolidated Statements of Operations and Comprehensive Income for the year ended March 31, 2013. The fair value of the warrant, $486,164, which is treated as an equity instrument, was credited to additional paid in capital at the issuance date. The difference between the face value of the CRL Note and its fair value, $151,100, has been treated as a discount to the note and is being amortized over the term of the note using the interest method, resulting in an effective interest rate of 12.1% on the CRL Note. Through March 31, 2013, the Company has adjusted the CRL Warrant to increase the number of restricted shares available for purchase by 36,188 shares, based on interest accrued on the CRL Note through that date. The Company has recorded the fair value of the additional shares as a charge to interest expense and a corresponding credit to additional paid-in capital.

Issuance and Restructuring of Long-Term Promissory Note to Cato Holding Company

In April 2011, all amounts owed by the Company to Cato Holding Company ("CHC") and its affiliates, which included the $105,000 balance of an August 2010 Short-Term Note issued to Cato BioVentures, were consolidated into a single note, in the principal amount of $352,273 (the “2011 CHC Note”). Concurrently, CHC released all of its security interests in certain of the Company’s personal property. The 2011 CHC note accrued interest at 7% per annum, compounded monthly. Under the terms of the note, the Company was to make six monthly payments of $10,000 each beginning June 1, 2011, and thereafter to make payments of $12,500 monthly until the note was repaid in full. The Company had the option to prepay the outstanding balance under this note in full or in part at any time during its term without penalty.

On October 10, 2012, the Company and CHC restructured the 2011 CHC Note. The 2011 CHC Note was cancelled and exchanged for a new unsecured promissory note in the principal amount of $310,443 (the “2012 CHC Note”) and a five-year warrant to purchase 250,000 restricted shares of the Company’s common stock at a price of $1.50 per share (the “CHC Warrant”). The 2012 CHC Note accrues interest at a rate of 7.5% per annum and is due and payable in monthly installments of $10,000, beginning November 1, 2012 and continuing until the outstanding balance is paid in full.

The Company determined that the cancellation of the 2011 CHC Note and the issuance of the 2012 CHC Note should be accounted for as an extinguishment of debt. Accordingly, the Company recorded the 2012 CHC Note at its fair value of $291,100 based on the present value of its scheduled cash flows and assumptions regarding market interest rates for unsecured debt of similar quality. The Company determined the fair value of the CHC Warrant to be $0.48 per share, or $120,462, using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.75; exercise price per share: $1.50; risk-free interest rate: 0.66%; contractual term: 5 years; volatility: 89.9%; expected dividend rate: 0%. The Company recognized the difference between the sum of the fair values of the 2012 CHC Note and the CHC Warrant less the carrying value of the 2011 CHC Note, $119,100, as a non-cash loss on early extinguishment of debt in the accompanying Consolidated Statements of Operations and Comprehensive Income for the year ended March 31, 2013. The fair value of the warrant, $120,462, which is treated as an equity instrument, was credited to additional paid in capital at the issuance date. The difference between the face value of the 2012 CHC Note and its fair value, $19,343, has been treated as a discount to the note and is being amortized over the term of the note using the interest method, resulting in an effective interest rate of 11.9% on the CHC 2012 Note.

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Restructuring of Accounts Payable to University Health Network ("UHN")

On October 10, 2012, the Company issued to UHN: (i) an unsecured promissory note in the principal amount of $549,500, which is payable solely in restricted shares of the Company's common stock and which accrues interest at the rate of 7.5% per annum, as payment in full for all sponsored stem cell research and development activities by UHN and Gordon Keller, Ph.D. under the SCRA through September 30, 2012 (the "UHN Note"), and (ii) a five-year warrant to purchase, at a price of $1.00 per share, 549,500 restricted shares of the Company's common stock, the amount equal to the sum of the principal amount of the UHN Note, plus all accrued interest thereon, divided by $1.00 per share (the "UHN Warrant"). The UHN Note is due and payable on March 31, 2016 and is payable solely by UHN's surrender from time to time of all or a portion of the principal and interest balance due on the UHN Note in connection with its concurrent exercise of the UHN Warrant, provided, however, that UHN will have the option to require payment of the UHN Note in cash upon the occurrence of a change in control of the Company or an event of default, and only in such circumstances.

The Company determined that the restructuring of the accounts payable to UHN under the SRCA, defined below, and the related issuance of the UHN Note should be accounted for as an extinguishment of debt. Accordingly, the Company recorded the UHN Note at its fair value of $467,211 based on the present value of its scheduled cash flows and assumptions regarding market interest rates for unsecured debt of similar quality. The Company determined the fair value of the UHN Warrant to be $0.48 per share, or $264,775, using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.75; exercise price per share: $1.00; risk-free interest rate: 0.66%; contractual term: 5 years; volatility: 89.9%; expected dividend rate: 0%. The Company recognized the difference between the sum of the fair values of the UHN Note and the UHN Warrant less the accounts payable balance due to UHN, $182,500, as a non-cash loss on early extinguishment of debt in the accompanying Consolidated Statements of Operations and Comprehensive Income for the year ended March 31, 2013. The fair value of the warrant, $264,775, which is treated as an equity instrument, was credited to additional paid in capital at the issuance date. The difference between the face value of the UHN Note and its fair value has been treated as a discount to the note and is being amortized over the term of the note using the interest method, resulting in an effective interest rate of 11.3% on the UHN Note. Through March 31, 2013, the Company has adjusted the UHN Warrant to increase the number of restricted shares available for purchase by 19,421 shares, based on interest accrued on the UHN Note through that date. The Company has recorded the fair value of the additional shares as a charge to interest expense and a corresponding credit to additional paid-in capital.

Issuance of Long-Term Notes and Cancellation of Amounts Payable

On February 25, 2011, the Company issued to Burr, Pilger, and Mayer, LLC ("BPM") an unsecured promissory note in the principal amount of $98,674 for amounts payable in connection with valuation services provided to the Company by BPM. The BPM note bears interest at the rate of 7.5% per annum and has payment terms of $1,000 per month, beginning March 1, 2011 and continuing until all principal and interest are paid in full. In addition, a payment of $25,000 shall be due upon the sale of the Company or upon the Company completing a financing transaction of at least $5.0 million during any three-month period, with the payment increasing to $50,000 (or the amount then owed under the note, if less) upon the Company completing a financing of over $10.0 million.

On April 29, 2011, the Company issued to Desjardins Securities, Inc. ("Desjardins") an unsecured promissory note in the principal amount of CDN $236,000 for amounts payable for legal fees incurred by Desjardins in connection with investment banking services provided to the Company by Desjardins. The Desjardins note bears interest at 7.5% and will be due, along with all accrued but unpaid interest on the earliest of (i) June 30, 2014, (ii) the consummation of a Change of Control, as defined in the Desjardins note, and (iii) any failure to pay principal or interest when due. The Company was required to make payments of CDN $4,000 per month beginning May 31, 2011, increasing to CDN $6,000 per month on January 31, 2012. Beginning on January 1, 2012, the Company is also required to make payments equal to one-half of one percent (0.5%) of the net proceeds of all private or public equity financings closed

during the term of the note.

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On May 5, 2011, the Company issued to McCarthy Tetrault LLP ("McCarthy") an unsecured promissory note in the principal amount of CDN $502,797 for the amounts payable in connection with Canadian legal services provided to the Company. The McCarthy note bears interest at 7.5% and will be due, along with all accrued but unpaid interest on the earliest of (i) June 30, 2014, (ii) the consummation of a Change of Control, as defined in the McCarthy note, and (iii) any failure to pay principal or interest when due. The Company was required to make payments of CDN $10,000 per month beginning May 31, 2011, which payment amounts increased to CDN $15,000 per month on January 31, 2012. Beginning on January 1, 2012, the Company is also required to make payments equal to one percent (1%) of the net proceeds of all private or public equity financings closed during the term of the note.

On August 30, 2012, the Company issued a promissory note in the principal amount of $60,000 and 15,000 restricted shares of its common stock valued at a market price of $0.94 per share to Progressive Medical Research in settlement of past due obligations for clinical research services in the amount of $79,900. Under the terms of the settlement, the Company also agreed to make monthly cash payments of $5,000 in August 2012 through December 2012. The promissory note bears interest at 7% per annum and requires payments of $1,000 per month beginning January 15, 2013 until all principal and interest is paid in full. The note requires payment in full upon the sale of all or substantially all of the Company's assets or upon the Company completing a financing transaction, or series of transactions, resulting in gross proceeds to the Company of at least $4.0 million in any three-month period, excluding proceeds from stock option or warrant exercises. The Company charged the loss on the settlement to interest expense.

August 2010 Short-Term Note Converted to 7% Note Payable

In August 2010, the Company issued short-term, (the "August 2010 Short-Term Notes") having an aggregate principal amount, as adjusted, of $1,120,000. In May 2011, a total of $840,000 of the aggregate principal amount of the August 2010 Short-Term Notes were converted into Units consisting of restricted shares of the Company's common stock and three-year warrants to purchase restricted shares of the Company's common stock at an exercise price of $2.50 per share. Of the remaining balance of the August 2010 Short Term Notes; $105,000 of such amount was converted into a long-term note issued to Cato Holding Company, doing business as Cato BioVentures; and $175,000 of such amount was amended into a note bearing interest at 7% per annum, as described below.

In April 2011, the Company and the holder of a non-interest bearing, unsecured promissory note issued in August 2010 in the face amount of $175,000 amended the note, whereby the Company paid $50,000 of the note balance in May 2011 and was to make four monthly payments of $5,000 between May 2011 and August 2011, an additional nine monthly payments of $11,125 per month for the period from September 1, 2011 through May 1, 2012, plus a final payment on May 2, 2012 equal to any remaining balance. In September 2011, the Company and the holder agreed to modify the payment schedule to require payments of $5,000 per month through November 1, 2011, six monthly payments of $11,125 for the period from December 1, 2011 through May 1, 2012, an additional payment of $11,125 on May 2, 2012, plus a final payment on June 30, 2012 equal to any remaining balance. For strategic purposes, the Company did not make the February 2012 and March 2012 payments as scheduled. In March 2012, the Company and the note holder again agreed to modify the payment schedule to require seven monthly payments of $9,171 beginning June 1, 2012 with the final payment due on December 1, 2012 to include interest accrued after March 2012. The Company repaid the note and accrued interest in installments through March 2013.

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Notes Payable Issued for the Cancellation of Accounts Payable

On October 12, 2009, the Company issued a promissory note payable to the Regents of the University of California ("UC") with a principal balance of $90,000 in exchange for the cancellation of certain amounts payable under a research collaboration agreement (the "UC Note 1"). UC Note 1 was payable in monthly principal installments of $15,000 through May 30, 2010. Interest on UC Note 1 at 10% per annum was payable on May 30, 2010. If the Company had completed an initial public offering of its stock prior to May 30, 2010, the remaining balance of UC Note 1 would have been payable within 10 business days after the initial public offering was consummated. The Company made the first two monthly installments totaling an aggregate of $30,000. On February 25, 2010, the Company issued a promissory note payable to UC having a principal balance of $170,000 in exchange for the cancellation of the remaining $60,000 principal balance of UC Note 1 and certain amounts payable under a research collaboration agreement ("UC Note 2"). UC Note 2 was payable in monthly principal installments of $15,000 through May 31, 2010, with the remaining $125,000 plus all accrued and unpaid interest due on or before June 30, 2010. If the Company had completed an initial public offering of its stock prior to June 30, 2010, the remaining balance of the Note would have been payable within 10 business days after the initial public offering was consummated. On June 28, 2010, the Company amended UC Note 2 to extend the payment terms as follows: monthly installments of $15,000 payable through May 31, 2010, $10,000 due on June 30, 2010 and $115,000 plus all accrued and unpaid interest due and payable on or before August 30, 2010. On August 25, 2010 and again on October 30, 2010, the Company amended UC Note 2 to extend the date of the final installment payment to be made under UC Note 2 to December 31, 2010 while adding a strategic premium to preserve license rights under the research collaboration agreement in exchange for an increase in the then-outstanding principal amount of UC Note 2 by $15,000 to $125,000. On December 22, 2010, the Company amended UC Note 2 a fourth time and decreased the monthly payment amount to $5,000 with payments continuing until the outstanding balance of principal and interest is paid in full. The provision requiring the payment of the outstanding balance within 10 business days following the closing of an initial public offering remains unchanged.

On March 1, 2010, the Company issued a 10% promissory note with a principal balance of $75,000 to National Jewish Health in exchange for the cancellation of certain amounts payable for accrued royalties. The principal balance plus all accrued and unpaid interest was initially due on or before December 31, 2010 ("March 2010 Note"). If the Company had completed an initial public offering of its stock prior to any installment dates, $25,000 of the remaining balance of the March 2010 Note would have been due on June 30, 2010, and any remaining principal balance and all accrued and unpaid interest would have been payable within 90 business days after the initial public offering was consummated. On December 28, 2010, the Company amended the March 2010 Note and extended its maturity date to the first to occur of April 30, 2011 or 30 days following the closing of a financing with gross proceeds of $5,000,000 or more. The Company has been in extended discussions with the holder of the March 2010 Note and expects the Note will be cancelled in favor of certain amounts payable to the Company equal to or greater than the outstanding balance of the Note. At March 31, 2013, the Company has made no payments on the March 2010 Note.

On August 13, 2010, the Company issued a 10% promissory note with a principal balance of $40,962 to MicroConstants, Inc. in exchange for the cancellation of certain amounts payable for services rendered. Under the terms of this note, the Company is to make payments of $1,000 per month with any unpaid principal or accrued interest due and payable upon the first to occur of (i) August 1, 2013, (ii) the issuance and sale of equity securities whereby the Company raises at least $5,000,000 or (iii) the sale or acquisition of all or substantially all of the Company's stock or assets.

9. Capital Stock

Changes in Amounts of Capital Stock Authorized

At March 31, 2011 and prior to the Merger, Excaliber was authorized to issue up to 200,000,000 shares of common stock, $0.001 par value, and no shares of preferred stock. Effective with the Merger, the Company was authorized to issue up to 400,000,000 shares of common stock, $0.001 par value and no shares of preferred stock. On October 28, 2011, the Company held a special meeting of its stockholders at which the stockholders approved a proposal to amend its Articles of Incorporation to (1) reduce the number of shares of common stock the Company is authorized to issue from 400,000,000 shares to 200,000,000 shares; (2) authorize the Company to issue up to 10,000,000 shares of preferred stock; and (3) authorize the Company's Board of Directors to prescribe the classes, series and the number of each class or series of preferred stock and the voting powers, designations, preferences, limitations, restrictions and relative rights of each class or series of preferred stock.

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Series A Preferred Stock

In December 2011, the Company's Board of Directors authorized the creation of a series of up to 500,000 shares of Series A Preferred Stock, par value $0.001 ("Series A Preferred"). Each restricted share of Series A Preferred is convertible at the option of the holder into ten restricted shares of the Company's common stock. The Series A Preferred ranks prior to the common stock for purposes of liquidation preference.

The Series A Preferred has no separate dividend rights, however, whenever the Board of Directors declares a dividend on the common stock, each holder of record of a share of Series A Preferred shall be entitled to receive an amount equal to such dividend declared on one share of common stock multiplied by the number of shares of common stock into which such share of Series A Preferred could be converted on the Record Date.

Except with respect to transactions upon which the Series A Preferred shall be entitled to vote separately as a class, the Series A Preferred has no voting rights. The restricted common stock into which the Series A Preferred is convertible shall, upon issuance, have all of the same voting rights as other issued and outstanding shares of the Company's common stock.

In the event of the liquidation, dissolution or winding up of the affairs of the Company, after payment or provision for payment of the debts and other liabilities of the Company, the holders of Series A Preferred then outstanding shall be entitled to receive an amount per share of Series A Preferred calculated by taking the total amount available for distribution to holders of all the Company's outstanding common stock before deduction of any preference payments for the Series A Preferred, divided by the total of (x), all of the then outstanding shares of the Company's common stock, plus (y) all of the shares of the Company's common stock into which all of the outstanding shares of the Series A Preferred can be converted before any payment shall be made or any assets distributed to the holders of the common stock or any other junior stock.

At March 31, 2013, there were 500,000 restricted shares of Series A Preferred outstanding, all issued to Platinum under the terms of the Note and Warrant Exchange Agreement described in Note 8, Convertible Promissory Notes and Other Notes Payable, and the December 2011 Common Stock Exchange Agreement, described below. Platinum's exchange rights with respect to the Series A Preferred have been modified as described in the section entitled 2012 Exchange Agreement with Platinum and Deemed Dividend, below.

2011 Private Placement of Units

On May 11, 2011, and immediately preceding the closing of the Merger, VistaGen California sold 2,216,106 Units in a private placement for aggregate gross proceeds of $3,878,200, including $2,369,200 in cash, a $500,000 short-term note receivable due on September 6, 2011, cancellation of $840,000 of short-term notes maturing on April 30, 2011, a note cancellation premium of $94,500, and cancellation of $74,500 of accounts payable (the "2011 Private Placement"). The Units were sold for $1.75 per Unit and consisted of one restricted share of common stock and a three-year warrant to purchase one-fourth (1/4) of one restricted share of common stock at an exercise price of $2.50 per share. Warrants to purchase a total of 554,013 restricted shares of common stock were issued to the purchasers of the Units. Concurrently, VistaGen California issued to its placement agent three-year warrants to purchase 114,284 restricted shares of its common stock at $2.50 per share, and agreed to pay $200,000 in placement agent fees, $150,000 of which amount was paid on May 11, 2011.

In October 2011, VistaGen restructured the terms of a $500,000 short term promissory note received from an investor in conjunction with the 2011 Private Placement. The Company modified the note to extend the repayment term through September 1, 2012 and to increase the interest rate to 5% per annum. On November 8, 2012 the Company and the investor again amended the note to require payment of the outstanding balance of $256,000, reflecting unpaid principal and accrued interest, in twenty-four monthly payments of $11,000 beginning in December 2012 and

continuing through November 2014, with a final payment of the remaining unpaid principal and interest due in December 2014. The outstanding principal balance of the note receivable at March 31, 2013 is $209,100.

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Conversion of Convertible Promissory Notes

On May 11, 2011, concurrent with the Merger, holders of certain promissory notes issued by VistaGen California from 2006 through 2010 converted their notes totaling aggregate principal and interest of $6,174,793 into 3,528,290 Units, at a price of $1.75 per Unit. These Units were the same Units issued in connection with the 2011 Private Placement.

Conversion of Pre-Merger Preferred Stock

On May 11, 2011, concurrent with the Merger, all holders of VistaGen California's then-outstanding preferred stock converted all of their preferred shares into 2,884,655 restricted shares of VistaGen California common stock so that, at the completion of the Merger, VistaGen California had no shares of preferred stock outstanding.

Fall 2011 Follow-On Unit Offering

Beginning in October 2011, the Company initiated a follow-on private placement of Units. These Units were essentially the same as the Units issued in connection with the 2011 Private Placement, namely, each Unit was priced at $1.75 and consisted of one restricted share of the Company’s common stock and a three-year warrant to purchase one-fourth (1/4) of one restricted share of the Company’s common stock at an exercise price of $2.50 per share. The Company sold a total of 63,570 Units and received aggregate cash proceeds of $111,300.

Discounted Warrant Exercise Program

During the quarter ended December 31, 2011, certain warrant holders exercised warrants to purchase an aggregate of 3,121,259 restricted shares of the Company’s common stock at reduced exercise prices, including warrants to purchase 1,599,858 restricted shares of common stock exercised by Platinum under the terms of the Note and Warrant Exchange Agreement, as described in Note 8, Convertible Promissory Notes and Other Notes Payable. The warrants exercised by Platinum were exercised at reduced prices ranging from $0.75 per share to $1.25 per share, resulting in proceeds of $1,719,800 which was applied to reduce the outstanding balance of the Platinum Note and accrued interest under the terms of the Note and Exchange Agreement.

Other investors and service providers exercised warrants to purchase an aggregate of 1,028,860 restricted shares of the Company’s common stock at reduced exercise prices ranging from $0.75 per share to $1.31 per share. In conjunction with these exercises, the Company:

- issued 965,734 restricted shares of its common stock and received cash proceeds of $1,106,100;
- issued 29,426 restricted shares of its common stock to warrant holders who elected to exercise their warrants in lieu of payment by the Company in satisfaction of outstanding indebtedness to such holders totaling an aggregate of $30,100; and
- issued 33,700 restricted shares of its common stock to warrant holders who elected to exercise their warrants in lieu of payment by the Company in satisfaction of payment for services in the aggregate amount of $41,400 to be performed in the future by such holders.

Additionally, in December 2011, the Company entered into an Agreement Regarding Payment of Invoices and Warrant Exercises with Cato Holding Company (“CHC”), CRL, and certain individual warrant holders affiliated with CHC and CRL (collectively, the “CHC Affiliates”) under the terms of which CHC and the CHC Affiliates exercised warrants to purchase an aggregate of 492,541 restricted shares of the Company’s common stock at reduced exercise prices ranging from $0.88 per share to $1.25 per share. As a result of these warrant exercises, the Company received cash payments of $60,200 in connection with the exercise of warrants to purchase 68,417 restricted shares and, in lieu of cash payments for the remainder of the warrants to purchase 424,124 restricted shares, CHC and CRL agreed to the

satisfaction of outstanding indebtedness to CRL in the amount of $245,300 and pre-payment for future services in the amount of $226,400.

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The Company determined that the increase in the fair value of the warrants exercised as a result of the Discounted Warrant Exercise Program was $618,400, of which $287,300 is a component of the loss on debt extinguishment related to the conversion of the Platinum Note, as described in Note 8, Convertible Promissory Notes and Other Notes Payable, $101,200 is attributable to the modifications of the CHC and CHC Affiliates warrants and reflected in research and development expense, and $229,800 is reflected in general and administrative expense for the fiscal year ended March 31, 2012 in the accompanying Consolidated Statements of Operations and Comprehensive Loss. The warrants subject to the exercise price modifications were valued at the inception of the Discounted Warrant Exercise Program using the Black-Scholes Option Pricing Model and using the following assumptions:

Assumption:	Pre-modification	Post-modification
Market price per share	$ 2.60	$ 2.60
Exercise price per share	$ 1.50 - $2.625	$ 0.75 - $1.31
Risk-free interest rate	0.18% - 0.45%	0.02%
Expected term in years	0.90 – 3.25	0.25
Volatility	65.7% - 82.8%	41.1%
Dividend rate	0.0%	0.0%
Weighted Average Fair Value per share	$ 1.30	$ 1.50

With respect to use of the Black-Scholes Option Pricing Model for determining the fair value of warrants issued or modified, the Company employs the following in determining its valuation input assumptions. The market price per share is based on the quoted market price of the Company’s common stock on the Over-the-Counter Bulletin Board on the date of the issuance or modification. Because of its short history as a public company, the Company estimates volatility based on the historical volatilities of a peer group of public companies over the expected term of the warrants. The risk-free rate of interest is based on the quoted constant maturity rate for U.S Treasury Bills on the date of issuance or modification for the term corresponding with the expected term of the warrant. The expected dividend rate is zero as the Company has not paid and does not expect to pay dividends in the near future.

December 2011 Common Stock Exchange Agreement with Platinum

On December 22, 2011, the Company entered into a Common Stock Exchange Agreement (the "Exchange Agreement") with Platinum, pursuant to which Platinum converted 484,000 restricted shares of the Company’s common stock into 45,980 restricted shares of the then newly created Series A Preferred (the "Exchange"). Each restricted share of Series A Preferred issued to Platinum is convertible into ten restricted shares of the Company’s common stock. In consideration for the Exchange, the Series A Preferred received by Platinum in connection with the Exchange is convertible into the equivalent of 0.95 restricted shares of common stock surrendered in connection with the Exchange. The Company determined the fair value of the common stock subject to the Exchange to be $1.55 per share and has reflected the 484,000 restricted common shares as treasury stock on that basis in the accompanying Consolidated Balance Sheet at March 31, 2012 and 2013.

2012 Exchange Agreement with Platinum and Deemed Dividend

On June 29, 2012, the Company and Platinum entered into an Exchange Agreement (the “2012 Platinum Exchange Agreement”) pursuant to which the Company agreed to issue Platinum 62,945 restricted shares of Series A Preferred in exchange for 629,450 restricted shares of common stock then owned by Platinum, in consideration for Platinum’s agreement to purchase from the Company the July 2012 Platinum Note, as described in Note 8, Convertible Promissory Notes and Other Notes Payable. Under the terms of the 2012 Platinum Exchange Agreement, Platinum, at its option, could have exchanged all or a portion of its Series A Preferred for the securities issued in connection with a qualified financing, an equity or equity-based financing, or series of financing transactions resulting in gross proceeds

to the Company of at least $3.0 million, based on the stated value of $15.00 per share of Series A Preferred. The Company estimated the fair value of the Series A Preferred shares tendered to Platinum under the terms of the 2012 Platinum Exchange Agreement at $736,400 ($1.17 per share on a common share equivalent basis). Following the issuance of the Series A Preferred pursuant to the 2012 Platinum Exchange Agreement, Platinum owns all 500,000 authorized and outstanding restricted shares of the Company's Series A Preferred, each share of which, in accordance with the certificate of designations, is convertible into ten shares of the Company's common stock. The common shares exchanged for shares of Series A Preferred are treated as treasury stock in the accompanying Consolidated Balance Sheet at March 31, 2013.

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Pursuant to the October 2012 Agreement described in Note 8, Convertible Promissory Notes and Other Notes Payable, Platinum's exchange rights in the Series A Preferred were modified such that Platinum now has the right and option to exchange 500,000 restricted shares of the Company's Series A Preferred that it holds for (i) a total of 15,000,000 restricted shares of the Company's common stock, and (ii) a five-year warrant to purchase 7,500,000 restricted shares of the Company's common stock at an initial exercise price of $1.50 per share (the "Series A Exchange Warrant"). The modification of the exchange ratio resulted in a deemed dividend of $7,125,000 to Platinum for accounting purposes, which has been reflected in the accompanying Consolidated Statement of Operations and Comprehensive Loss for the fiscal year ended March 31, 2013. The amount of the deemed dividend was determined based on the value of the 10 million incremental shares to which Platinum is entitled pursuant to the October 2012 Agreement valued at the $0.75 per share quoted market price for the Company's common stock on the date of the agreement, an aggregate of $7.5 million, adjusted for an expected 95% probability of exercise of the exchange rights by Platinum. The fair value of the Series A Exchange Warrant, determined to be $0.43 per share, or $3,228,700, on the date of the agreement using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.75; exercise price per share: $1.50; risk-free interest rate: 0.67%; contractual term: 5 years; volatility: 89.9%; expected dividend rate: 0%; and adjusted for an expected 95% probability of exercise of the exchange rights by Platinum, was recognized as a liability in the amount of $3,068,200 at the date of the October 2012 Agreement, with a corresponding charge to Additional paid-in capital in the accompanying Consolidated Balance Sheet. The fair value of the Series A Exchange Warrant was treated as an additional component of the deemed dividend in the accompanying Consolidated Statement of Operations and Comprehensive Loss for the fiscal year ended March 31, 2013.

The fair value of the Series A Exchange Warrant was re-measured as of March 31, 2013 at $4,406,000 and the $1,337,800 increase in fair value since the date of the October 2012 Agreement was reflected in the accompanying Consolidated Statement of Operations and Comprehensive Loss for the year ended March 31, 2013.

2012 Private Placement of Units

Between September 2012 and March 2013, the Company sold 2,366,330 Units in a private placement to accredited investors and received cash proceeds of $1,133,200 and settled outstanding amounts payable for legal fees in lieu of cash payment for services in the amount of $50,000. The Units were sold for $0.50 per Unit and each Unit consisted of one restricted share of the Company's common stock and a five year warrant to purchase one half (1/2) of one restricted share of the Company's common stock at an exercise price of $1.50 per share. In addition, in November 2012, pursuant to an Exchange Agreement, the holders of the February 2012 Notes exchanged the aggregate amount of $678,600 due under the terms of such notes for a total of 678,641 Units, consisting of 1,357,281 restricted shares of the Company's common stock and five-year warrants to purchase 678,641 restricted shares of the Company's common stock at an exercise price of $1.50 per share. The gross cash proceeds from this private placement of Units satisfied the Additional Financing Requirement under the October 2012 Agreement with Platinum, as amended, described in Note 8, Convertible Promissory Notes and Other Notes Payable, entitling the Company to sell and requiring Platinum to purchase senior secured convertible promissory notes in the aggregate face amount of $1.0 million in February and March 2013. In connection with the settlement of legal fees payable by issuing Units, the Company recorded a loss on extinguishment of debt of $30,800 based on the fair market value of the common shares and the warrant comprising the Unit on the effective date of the settlement.

Common Stock and Warrant Grants

On April 29, 2011, VistaGen California issued 157,143 restricted shares of its common stock at a per share price of $1.75 as a prepayment for CRO services to be performed by Cato Research Ltd., a related party, during 2011. The prepayment of $275,000 was recognized in research and development expense in the Consolidated Statement of Operations and Comprehensive Loss as the services were performed by Cato Research, Ltd. during the fiscal year ended March 31, 2012.

In December 2010, VistaGen California agreed to issue 700,000 restricted shares of its common stock, valued at $1.50 per share, related to its execution of the second amendment to its Sponsored Research Collaboration Agreement (“SRCA”) with UHN as described in Note 12, Licensing and Collaborative Agreements, and recorded $1,050,000 of research and development expense in the Consolidated Statements of Operations for the fiscal year ended March 31, 2011. Such shares were issued in May 2011. In April 2011, VistaGen California agreed to issue to UHN an additional 100,000 restricted shares of its common stock valued at $1.75 per share in conjunction with its execution of the third amendment to the SRCA, as also described in Note 12, and recorded $175,000 of research and development expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012. Such shares were issued in May 2011.

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On May 10, 2011, VistaGen California issued 75,000 restricted shares of common stock, valued at $1.75 per share, to a strategic consultant for services rendered and recorded $131,250 in general and administrative expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012.

In January 2012, the Company issued an aggregate of 50,000 restricted shares of its common stock, valued at $3.15 per share, and three-year warrants to purchase an aggregate of 50,000 restricted shares of its common stock at an exercise price of $3.00 per share to two service providers as compensation for services. The Company recorded $157,500 in general and administrative expense in the Consolidated Statements of Operations for the fiscal year ended March 31, 2012 related to the restricted stock grants. The Company valued the warrants at a fair value of $1.73 per share on the date of issuance using the Black-Scholes option pricing model and the following assumptions: fair value of common stock - $3.15; risk-free interest rate – 0.40%; volatility – 84.6%; contractual term – 3.00 years; dividend rate – 0%, and recorded $86,700 in general and administrative expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012 related to the warrant grants.

In February 2012, the Company granted four-year warrants to non-employee members of its Board of Directors and Scientific Advisory Board and to certain strategic consultants to purchase an aggregate of 280,000 restricted shares of its common stock at an exercise price of $3.00 per share. The Company valued the warrants at a fair value of $1.71 per share on the date of issuance using the Black-Scholes option pricing model and the following assumptions: fair value of common stock - $2.75; risk-free interest rate – 0.63%; volatility – 90.0%; contractual term – 4.00 years; dividend rate – 0%, and recorded $179,200 in research and development expense and $298,600 in general and administrative expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012.

In March 2012, the Company granted three-year warrants to purchase an aggregate of 100,000 restricted shares of its common stock at an exercise price of $3.00 per share to investors who had exercised warrants generating more than $100,000 in cash proceeds to the Company during the Discounted Warrant Exercise Program. The Company valued the warrants at a fair value of $1.38 per share on the date of issuance using the Black-Scholes option pricing model and the following assumptions: fair value of common stock - $2.79; risk-free interest rate – 0.54%; volatility – 79.5%; contractual term – 3.00 years; dividend rate – 0%, and recorded $138,100 in interest expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012.

During March 2012, the Company issued 50,000 restricted shares of its common stock, valued at $2.79 per share, to a strategic consultant for services rendered and recorded $139,500 in general and administrative expense in expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012. The Company also issued 55,555 restricted shares of its common stock, valued at $2.79 per share, to University Health Network, a related party, in connection with the execution of License Agreement No. 2, and recorded $155,000 in research and development expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012. The Company also issued 8,000 restricted shares of its common stock, valued at $2.80 per share, in connection with the extension of the term of a promissory note, and recorded $22,400 in interest expense in the Consolidated Statements of Operations and Comprehensive Loss for the fiscal year ended March 31, 2012.

In April 2012, the Company entered into a contract for investor relations consulting services pursuant to which it granted three-year warrants to purchase 50,000 restricted shares of the Company’s common stock at an exercise price of $2.80 per share. The Company valued the warrant at $69,200 using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $2.74; exercise price per share: $2.80; risk-free interest rate: 0.50%; contractual term: 3 years; volatility: 79.09%; expected dividend rate: 0%. The fair value of the warrant was initially recorded as a prepaid expense and was to be expensed over one year in accordance with the terms of the contract. The contract and related warrant were cancelled in October 2012 and the remaining amount attributable to the fair value of the warrant was expensed.

In June 2012, the Company entered into a contract for investor relations and public company support services through December 31, 2012 pursuant to which it granted 280,000 restricted shares of its common stock valued at $238,000 based on the grant date quoted market price of $0.85 per share and warrants to purchase 100,000 restricted shares of its common stock at an exercise price of $3.00 per share through December 31, 2015. The Company valued the warrant at $25,800 using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.85; exercise price per share: $3.00; risk-free interest rate: 0.46%; contractual term: 3.53 years; volatility: 84.279%; expected dividend rate: 0%. The fair value of the stock and the warrant was recorded as a prepaid expense and is being expensed over the approximately six-month term of the contract.

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In June 2012, the Company entered into a contract for investor relations consulting services pursuant to which it granted 120,000 restricted shares of its common stock valued at $102,000 based on the grant date quoted market price of $0.85 per share. The fair value of the stock was recorded as a prepaid expense and is being expensed over the approximately six-month term of the contract.

In August 2012, the Company modified an existing warrant and issued a new warrant to Morrison & Foerster as additional consideration for the Restructuring Agreement, as disclosed in Note 8, Convertible Promissory Notes and Other Notes Payable. As described in Note 8, the Company has treated the aggregate of the incremental value of the Amended M&F Warrant and the fair value of the New M&F Warrant as a discount to the Replacement Notes, which discount is being amortized to interest expense using the effective interest rate method over the term of the Replacement Notes.

During August 2012, the Company issued 88,235 restricted shares of its common stock valued at a market price of $1.01 per share in settlement of a past-due obligation for business development consulting services in the amount of $25,000. The Company charged the loss on the settlement to interest expense. As disclosed in Note 8, Convertible Promissory Notes and Other Notes Payable, in August 2012, the Company issued a promissory note in the principal amount of $60,000 and 15,000 restricted shares of its common stock valued at $0.94 per share in settlement of its past due obligation for AV-101 clinical development services.

In February 2013, the Company entered into a contract for various strategic consulting services pursuant to which it granted a five-year warrant to purchase 25,000 shares of the Company’s common stock at an exercise price of $1.50 per share. The Company valued the warrant at $11,200 using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.79; exercise price per share: $1.50; risk-free interest rate: 0.84%; contractual term: 5 years; volatility: 87.14%; expected dividend rate: 0%, and expensed the fair value of the warrant during the fourth quarter of the fiscal year ended March 31, 2013.

On March 3, 2013, the Company granted ten-year warrants to purchase an aggregate of 3,000,000 restricted shares of the Company’s unregistered common stock at an exercise price of $0.64 per share to the independent members of its Board of Directors and certain of its officers. The warrants become exercisable for 50% of the shares on April 1, 2013, 25% of the shares on April 1, 2014 and 25% of the shares on April 1, 2015, provided that the warrant will become fully vested upon a change in control of the Company, as defined, or the consummation by the Company and a third party of a license or sale transaction involving at least one new drug rescue variant. The Company valued the warrants at $1,604,800 using the Black Scholes Option Pricing Model and the following assumptions: market price per share: $0.64; exercise price per share: $0.64; risk-free interest rate: 1.86%; contractual term: 10 years; volatility: 84.73%; expected dividend rate: 0%. The Company recognized stock compensation expense of $802,400 related to the grants in the fourth quarter of the fiscal year ended March 31, 2013.

Warrant Modifications

Between May and June 30, 2012, the Company offered certain warrant holders the opportunity to exercise their warrants to purchase restricted shares of the Company’s common stock at reduced exercise prices. The Company subsequently extended the offer through August 2012. Warrant holders exercised warrants to purchase an aggregate of 524,056 restricted shares of the Company’s common stock and the Company received cash proceeds of $262,000. In addition, certain warrant holders exercised warrants to purchase 25,000 restricted shares of the Company’s common stock in lieu of payment by the Company in satisfaction of amounts due for services in the aggregate amount of $12,500. For every three discounted warrant shares exercised by the warrant holders, the Company granted a three-year warrant to purchase one share of its common stock at an exercise price of $3.00 per share.

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The Company calculated the fair value of the warrants exercised immediately before and after the May 18, 2012 approval of the modification offer, and on the exercise date for the exercises occurring after June 30, 2012, and determined that the increase in the fair value of the warrants exercised was $440,700, which is reflected in general and administrative expense in the accompanying Consolidated Statements of Operations and Comprehensive Loss for the year ended March 31, 2013. The warrants subject to the exercise price modifications were valued using the Black-Scholes Option Pricing Model and the following assumptions:

Assumption:	Pre-modification	Post-modification
Market price per share (weighted average)	$ 1.95	$ 1.95
Exercise price per share (weighted average)	$ 2.75	$ 0.50
Risk-free interest rate (weighted average)	0.29%	0.06%
Expected term in years (weighted average)	1.93	0.12
Volatility (weighted average)	78.0%	85.7%
Dividend rate	0.0%	0.0%
Weighted Average Fair Value per share	$ 0.64	$ 1.45

In connection with the foregoing exercises, the Company issued three-year warrants to purchase 183,025 restricted shares of the Company's common stock at an exercise price of $3.00 per share. The Company valued these warrants at $35,900 using the Black Scholes Option Pricing Model and the following assumptions: weighted average market price per share: $0.89; exercise price per share: $3.00; risk-free interest rate: 0.42%; contractual term: 3.0 years; volatility: 78.04%; expected dividend rate: 0%. The fair value of the warrants was charged to interest expense.

In February 2013, the Company modified certain outstanding warrants to purchase an aggregate of 1,706,709 restricted shares of the Company's common stock at exercise prices in excess of $1.50 per share to reduce the exercise price to $1.50 per share. The Company determined that the increase in the fair value of the warrants exercised was $67,500, which is reflected in general and administrative expense in the accompanying Consolidated Statements of Operations and Comprehensive Loss for the year ended March 31, 2013. The warrants subject to the exercise price modification were valued using the Black-Scholes Option Pricing Model and the following assumptions:

Assumption:	Pre-modification	Post-modification
Market price per share (weighted average)	$ 0.60	$ 0.60
Exercise price per share (weighted average)	$ 2.51	$ 1.50
Risk-free interest rate (weighted average)	0.21%	0.21%
Expected term in years (weighted average)	1.38	1.38
Volatility (weighted average)	80.8%	80.8%
Dividend rate	0.0%	0.0%
Weighted Average Fair Value per share	$ 0.03	$ 0.07

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Other Warrant Modifications

In December 2011, the Company entered into a consulting agreement with a strategic consultant for general and capital markets advisory services. As consideration for the services to be provided under this agreement, the Company modified the term and exercise price of certain previously-issued warrants to purchase an aggregate of 384,184 restricted shares of its common stock. The Company determined that the increase in the fair value of the modified warrants was $397,500, which is reflected in general and administrative expense for the fiscal year ended March 31, 2012 in the accompanying Consolidated Statements of Operations and Comprehensive Loss. The warrants modified were valued using the Black-Scholes Option Pricing Model and using the following assumptions:

Assumption:	Pre-modification	Post-modification
Market price per share	$ 2.99	$ 2.99
Exercise price per share	$ 2.25 - $3.00	$ 1.125 - $1.50
Risk-free interest rate	0.02% - 0.29%	0.29%
Expected term in years	0.53 – 2.39	2.39
Volatility	69.4% – 81.0%	81.0%
Dividend rate	0.0%	0.0%
Weighted Average Fair Value per share	$ 1.00	$ 2.03

In December 2011, the Company also entered into a consulting agreement with an individual for strategic consulting services. As consideration for the services to be provided under this agreement, the Company modified the term and exercise price of certain previously-issued warrants to purchase an aggregate of 23,138 restricted shares of its common stock and will pay the consultant $1,000 per month for the period June 2012 through December 2012. The Company determined that the increase in the fair value of the modified warrants was $13,100, which is reflected in general and administrative expense for the fiscal year ended March 31, 2012 in the accompanying Consolidated Statements of Operations and Comprehensive Loss. The warrants modified were valued using the Black-Scholes Option Pricing Model and using the following assumptions:

Assumption:	Pre-modification	Post-modification
Market price per share	$ 3.05	$ $3.05
Exercise price per share	$ 1.75 - $2.50	$ $0.88 - $1.25
Risk-free interest rate	0.25% - 0.29%	0.29%
Expected term in years	2.00 – 2.36	2.36
Volatility	74.8% – 78.3%	78.3%
Dividend rate	0.0%	0.0%
Weighted Average Fair Value per share	$ 1.69	$ 2.25

Warrants Outstanding

The following table summarizes outstanding warrants to purchase restricted shares of the Company’s common stock as of March 31, 2013 and 2012. The weighted average exercise price of outstanding warrants at March 31, 2013 and 2012 was $1.26 and $2.16 per share, respectively.

Exercise Price	Expiration Date	Shares Subject to Purchase March 31, 2013	Shares Subject to Purchase March 31, 2012
$0.64	3/3/2023	3,000,000	-
$0.88	5/11/2014	15,428	314,328

$1.00	9/15/2017 to 9/30/2017	3,053,573	1,500
$1.125	12/28/2012	-	97,679
$1.25	5/11/2014 to 12/31/2014	120,280	120,280
$1.50	12/31/2012 to 3/14/2018	7,460,816	375,000
$1.75	12/31/2013	349,235	643,184
$2.00	8/3/2013 to 9/15/2017	425,000	609,000
$2.50	5/11/2014	42,443	617,394
$2.625	12/31/2013	68,560	588,200
$2.75	2/28/2017	-	272,724
$3.00	5/11/2015 to 2/13/2016	125,000	430,000
$6.00	6/28/2012 to 12/31/2013	-	57,300
		14,660,335	4,126,589

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Reserved Shares

At March 31, 2013, the Company has reserved shares of its common stock for future issuance as follows:

Upon exchange of all shares of Series A Preferred Stock currently issued and outstanding (1)	15,000,000
Warrant shares issuable to Platinum upon exercise of common stock warrant upon exchange of Series A preferred stock under the terms of the October 11, 2012 Note Purchase and Exchange Agreement	7,500,000
110% of shares issuable upon conversion of 10% convertible Exchange Note and Investment Notes issued to Platinum in October 2012, February 2013 and March 2013, including interest accrued through maturity (2)	9,747,422
Pursuant to warrants to purchase common stock:	
Subject to outstanding warrants	14,660,335
Issuable pursuant to accrued interest through maturity on outstanding promissory notes issued to Morrison & Foerster, Cato Research Ltd., and University Health Network	1,196,427
	15,856,762
Pursuant to stock incentive plans:	
Subject to outstanding options under the 2008 and 1999 Stock Incentive Plans	4,912,604
Available for future grants	257,867
	5,170,471
Upon sales of additional Units pursuant to the 2012 Private Placement of Units	15,414,583
Total	68,689,238

(1) assumes exchange under the terms of the October 11, 2012 Note Exchange and Purchase Agreement with Platinum

(2) assumes conversion under the terms of the October 11, 2012 Note Exchange and Purchase Agreement with Platinum and the terms of the individual notes

10. Research and Development Expenses

The Company recorded research and development expenses of approximately $3.4 million and $5.4 million in the fiscal years ended March 31, 2013 and 2012, respectively. Research and development expense is composed primarily of employee compensation expenses, including stock–based compensation, and direct project expenses, including costs incurred by third-party research collaborators, some of which may be reimbursed under the terms of grant or collaboration agreements.

11. Income Taxes

The provision for income taxes for the periods presented in the consolidated statements of operations represents minimum California franchise taxes. Income tax expense differed from the amounts computed by applying the U.S. federal income tax rate of 34% to pretax losses as a result of the following:

	Fiscal Years Ended March 31,	
	2013	2012
Computed expected tax benefit	(34.0)%	(34.0)%
Losses not benefitted	34.0 %	34.0 %

Other	0.1	%	0.1	%
Income tax expense	0.1	%	0.1	%

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Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. Significant components of the Company's deferred tax assets are as follows (in thousands):

	March 31,	
	2013	2012
Deferred tax assets:		
Net operating loss carryovers	$19,010	$16,191
Basis differences in fixed assets	9	13
Accruals and reserves	8	9
Total deferred tax assets	19,027	16,213
Valuation allowance	(19,027)	(16,213)
Net deferred tax assets	$-	$-

Realization of deferred tax assets is dependent upon future earnings, if any, the timing and amount of which are uncertain. Accordingly, the deferred tax assets have been fully offset by a valuation allowance. The valuation allowance increased by $2,814,000 and $2,991,000 during the fiscal years ended March 31, 2013 and 2012, respectively. When realized, deferred tax assets related to employee stock options will be credited to additional paid-in capital.

As of March 31, 2013, the Company had U.S. federal net operating loss carryforwards of $47.9 million, which will expire in fiscal years 2019 through 2033. As of March 31, 2013, the Company had state net operating loss carryforwards of $34.8 million, which will expire in fiscal years 2013 through 2033.

U.S. federal and state tax laws include substantial restrictions on the utilization of net operating loss carryforwards in the event of an ownership change of a corporation. The Company has not performed a change in ownership analysis since its inception in 1998 and accordingly some or all of its net operating loss carryforwards may not be available to offset future taxable income, if any. Even if the loss carryforwards are available they may be subject to substantial annual limitations resulting from past ownership changes, and ownership changes occurring after March 31, 2013, that could result in the expiration of the loss carryforwards before they are utilized.

The Company files income tax returns in the U.S. federal and Canadian jurisdictions and California and Maryland state jurisdictions. The Company is subject to U.S. federal and state income tax examinations by tax authorities for tax years 1999 through 2013 due to net operating losses that are being carried forward for tax purposes.

The Company does not have any uncertain tax positions or unrecognized tax benefits at March 31, 2013 and 2012. The Company's policy is to recognize interest and penalties related to income taxes as components of interest expense and other expense, respectively.

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12. Licensing and Collaborative Agreements

University Health Network

On September 17, 2007, the Company and UHN entered into a Sponsored Research Collaboration Agreement ("SRCA") to develop certain stem cell technologies for drug discovery and drug rescue technologies. The SRCA was amended on April 19, 2010 to extend the term to five years and give the Company various options to extend the term for an additional three years. On December 15, 2010, the Company and UHN entered into a second amendment to expand the scope of work to include induced pluripotent stem cell technology and to further expand the scope of research and term extension options. On April 25, 2011, the Company and UHN amended the SRCA a third time to expand the scope to include therapeutic and stem cell therapy applications of induced pluripotent cells and to extend the date during which the Company elected to fund additional projects through April 30, 2012. On October 24, 2011, the Company and UHN amended the SRCA a fourth time to identify five key programs that will further support the Company's core drug rescue initiatives and potential cell therapy applications. Under the terms of the fourth amendment, the Company committed to making monthly payments of $50,000 per month from October 2011 through September 2012 to fund these programs. As disclosed in Note 8, Convertible Notes and Other Notes Payable, in October 2012, the Company issued to UHN a promissory note in the principal amount of $549,500 and a warrant to purchase 549,500 restricted shares of the Company's common stock as payment in full for services rendered under the fourth amendment. Additionally, the Company and UHN entered into Amendment No. 5 to the SRCA establishing the sponsored research projects and the sponsored research budgets under the SRCA from October 1, 2012 to September 30, 2013, as well as a schedule of the Company's sponsored research payments for such period totaling $309,000, including payments aggregating $150,000 applicable to services for the period from October 1, 2012 through March 31, 2013.

Concurrent with the execution of the fourth amendment to the SRCA, the Company and UHN entered into a License Agreement under the terms of which UHN granted the Company exclusive rights to the use of a novel molecule that can be employed in the identification and isolation of mature and immature human cardiomyocytes from pluripotent stem cells, as well as methods for the production of cardiomyocytes from pluripotent stem cells that express this marker. In consideration for the grant of the license, the Company has agreed to make payments to UHN totaling $3.9 million, if, and when, it achieves certain commercial milestones set forth in the License Agreement, and to pay UHN royalties based on the receipt of revenue, if any, by the Company attributable to the licensed patents.

In March 2012, the Company and UHN entered into License Agreement No. 2 under the terms of which UHN granted the Company exclusive rights to the use of technology included in a new U.S. patent application to develop hematopoietic precursor stem cells from human pluripotent stem cells. Hematopoietic precursor stem cells give rise to all red and white blood cells and platelets in the body. The Company plans to use the UHN invention to improve the cell culture methods utilized to efficiently produce hematopoietic stem cell populations. In consideration for the grant of the license, the Company issued to UHN 55,555 restricted shares of its common stock, valued at $155,000 in March 2012 and was obligated to make a cash payment of $25,000 in July 2012. Under the terms of License Agreement No. 2, the Company has also agreed to make payments to UHN totaling $3.9 million, if, and when, it achieves certain milestones designated in License Agreement No. 2, and to pay UHN royalties based on the receipt of revenue, if any, by the Company attributable to the licensed patents.

U.S. National Institutes of Health

From 1998 through 2008, the U.S. National Institutes of Health ("NIH") awarded VistaGen California a total of $11.3 million in non-dilutive research and development grants, including $2.3 million to support research and development of its stem cell technology-based Human Clinical Trials in a Test Tube™ platform and, as described below, a total of $8.8 million for nonclinical and Phase 1 clinical development of AV-101 (also referred to in scientific literature as "4-Cl-KYN"). AV-101, the Company's small molecule drug candidate, has successfully completed Phase 1 clinical

development.

During fiscal years 2006 through 2008, the NIH awarded VistaGen California a $4.2 million grant to support preclinical development of AV-101 for treatment of neuropathic pain and other neurodegenerative diseases such as Huntington's and Parkinson's diseases. In April 2009, the NIH awarded VistaGen California a $4.2 million grant to support the Phase I clinical development of AV-101, which amount was subsequently increased to a total of $4.6 million in July 2010. The Company recognized $0.2 million and $1.2 million of grant revenue related to AV-101 in the fiscal years ended March 31, 2013 and 2012, respectively.

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Cato Research Ltd.

The Company has built a strategic development relationship with Cato Research Ltd. (“CRL”), a global contract research and development organization, or CRO, and an affiliate of one of the Company’s largest stockholders. See Note 14, Related Party Transactions. CRL has provided the Company with access to essential CRO services supporting its nonclinical and Phase 1 clinical development programs. The Company recorded research and development expenses of $703,800 and $1,461,300 in the fiscal years ended March 31, 2013 and 2012, respectively, for services provided by CRL. As disclosed in Note 8, Convertible Notes and Other Notes Payable, in October 2012, the Company issued to CRL a promissory note in the initial principal amount of $1,009,000, which is payable solely in restricted shares of the Company’s common stock as payment in full for all contract research and development services and regulatory advice rendered by CRL to the Company and its affiliates through December 31, 2012 with respect to the preclinical and clinical development of AV-101, and a five-year warrant to purchase 1,009,000 restricted shares of the Company’s common stock.

13. Stock Option Plans and 401(k) Plan

The Company has the following share-based compensation plans.

2008 Stock Incentive Plan

The Company’s 2008 Stock Incentive Plan (the “2008 Plan”) was adopted by the shareholders of VistaGen California on December 19, 2008 and assumed by the Company in connection with the Merger. The maximum number of shares of the Company’s common stock that may be granted pursuant to the 2008 Plan is 5,000,000 shares. The maximum number of shares that may be granted under the 2008 Plan is subject to adjustments for stock splits, stock dividends or other similar changes in the common stock or capital structure.

1999 Stock Incentive Plan

The Company’s 1999 Stock Incentive Plan (the “1999 Plan”) was adopted by the shareholders of VistaGen California on December 6, 1999 and assumed by the Company in connection with the Merger. The Company initially reserved 900,000 shares for the issuance of awards under the 1999 Plan. The 1999 Plan has terminated under its own terms and, as a result, no awards may currently be granted under the 1999 Plan. However, the unexpired options and awards that have already been granted pursuant to the 1999 Plan remain operative.

Scientific Advisory Board 1998 Stock Incentive Plan

The Company’s Scientific Advisory Board 1998 Stock Incentive Plan (the “SAB Plan”) was adopted by VistaGen California’s Board of Directors in July 1998. The VistaGen California Board of Directors authorized 25,000 shares of common stock for awards from the SAB Plan. No awards have been granted from the SAB Plan since August 2001. The SAB Plan expired in July 2008 and all of the options granted from the SAB Plan have either been exercised or expired during fiscal 2012.

Description of the 2008 Plan

Under the terms of the 2008 Plan, the Compensation Committee of the Company’s Board of Directors may grant shares, options or similar rights having either a fixed or variable price related to the fair market value of the shares and with an exercise or conversion privilege related to the passage of time, the occurrence of one or more events, or the satisfaction of performance criteria or other conditions, or any other security with the value derived from the value of the shares. Such awards include stock options, restricted stock, restricted stock units, stock appreciation rights and dividend equivalent rights.

The Compensation Committee may grant nonstatutory stock options under the 2008 Plan at a price of not less than 100% of the fair market value of the Company's common stock on the date the option is granted. Incentive stock options under the 2008 Plan may be granted at a price of not less than 100% of the fair market value of the Company's common stock on the date the option is granted. Incentive stock options granted to employees who, on the date of grant, own stock representing more than 10% of the voting power of all of the Company's classes of stock are granted at an exercise price of not less than 110% of the fair market value of the Company's common stock. The maximum term of these incentive stock options granted to employees who own stock possessing more than 10% of the voting power of all classes of the Company's stock may not exceed five years. The maximum term of an incentive stock option granted to any other participant may not exceed ten years. The Compensation Committee determines the term and exercise or purchase price of all other awards granted under the 2008 Plan. The Compensation Committee also determines the terms and conditions of awards, including the vesting schedule and any forfeiture provisions. Awards under the 2008 Plan may vest upon the passage of time or upon the attainment of certain performance criteria established by the Compensation Committee.

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Unless terminated sooner, the 2008 Plan will automatically terminate in 2017. The Board of Directors may at any time amend, suspend or terminate the Company's 2008 Plan.

During the first quarter of fiscal 2013, when the quoted market price of the Company's common stock was $0.51, the Company granted options to purchase an aggregate of 155,000 shares of its common stock at an exercise price of $0.51 per share to certain of its employees, excluding the Company's Chief Executive Officer and President and Chief Scientific Officer, and to certain scientific consultants. Options granted during the first quarter of fiscal 2013 have a contractual term of 10 years and vest over a period of 4 years. During the third quarter of fiscal 2013, when the quoted market price of the Company's common stock was $0.71 per share, the Company cancelled outstanding options to purchase an aggregate of 870,550 shares of its common stock at exercise prices between $1.13 per share and $2.58 per share held by certain employees, excluding the Company's Chief Executive Officer and President and Chief Scientific Officer, and by certain consultants and granted those persons new options to purchase an aggregate of 920,550 shares at an exercise price of $0.75 per share. Options granted during the third quarter of fiscal 2013 have a contractual term of 10 years and options to purchase 604,699 shares were granted as immediately vested, with the remaining option shares vesting over a period of two years. The cancellation and reissuance was accounted for as a modification of the options. During fiscal year 2012, the Company granted options to purchase an aggregate of 1,020,000 shares of its common stock at exercise prices ranging from $1.75 per share to $2.99 per share to certain of its employees and scientific and business consultants, including members of the Company's Board of Directors and Scientific Advisory Board, and one of the Company's officers exercised options to purchase 113,636 restricted shares of its common stock at an exercise price of $0.88 per share. Including the impact of the modification of the option grants during fiscal 2013 described above, the Company recorded share-based compensation costs related to 2008 Plan option grants of $438,800 for the fiscal year ended March 31, 2013 compared with $1,591,300 for the fiscal year ended March 31, 2012.

The following table summarizes share-based compensation expense, including share-based expense related to the March 2013 grant of warrants to certain of the Company's officers and to its independent directors as described in Note 9, Capital Stock, included in the accompanying Consolidated Statement of Operations and Comprehensive Loss for the years ended March 31, 2013 and 2012.

	Fiscal Years Ended March 31,	
	2013	2012
Research and development expense:		
related to stock option grants	$242,300	$477,400
related to warrant grants to officers and directors	267,500	-
	509,800	477,400
General and administrative expense:		
related to stock option grants	196,600	1,113,900
related to warrant grants to officers and directors	534,900	-
	731,500	1,113,900
Total share-based compensation expense	$1,241,300	$1,591,300

The Company used the Black-Scholes option valuation model with the following assumptions to determine share-based compensation expense related to option grants during the fiscal years ended March 31, 2013 and 2012:

	Fiscal Years Ended March 31,	
	2013	2012
Exercise price	$0.51 and $0.75	$ 1.75 to $2.99

Market price on date of grant	$0.51 and $0.71	$ 1.75 to $2.99
Risk-free interest rate	0.895% to 1.74%	1.19% to 3.39%
Expected term (years)	6.25 to 10.0	6.25 to 10.0
Volatility	82.9% to 85.4%	78.9% to 91.3%
Expected dividend yield	0%	0%
Fair value per share at grant date	$ 0.36 to $0.59	$ 1.08 to $2.48

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The expected term of options represents the period that the Company's share-based compensation awards are expected to be outstanding. The Company has calculated the weighted-average expected term of the options using the simplified method as prescribed by Securities and Exchange Commission Staff Accounting Bulletins No. 107 and No. 110 ("SAB No. 107 and 110"). The utilization of SAB No. 107 and 110 was based on the lack of relevant historical data due to the Company's limited historical experience as a publicly traded company as well as the lack of liquidity resulting from the limited number of freely-tradable shares of its common stock. Limited historical experience and lack of liquidity in its stock also resulted in the Company's decision to utilize the historical volatilities of a peer group of public companies' stock over the expected term of the option in determining its expected volatility assumptions. The risk-free interest rate for periods related to the expected life of the options is based on the U.S. Treasury yield curve in effect at the time of grant. The expected dividend yield is zero, as the Company has not paid any dividends and does not anticipate paying dividends in the near future. The Company calculated the forfeiture rate based on an analysis of historical data, as it reasonably approximates the currently anticipated rate of forfeitures for granted and outstanding options that have not vested.

The following table summarizes activity for the fiscal years ended March 31, 2013 and 2012 under the Company's stock option plans:

	Fiscal Years Ended March 31,			
	2013		2012	
	Number of Shares	Weighted Average Exercise Price	Number of Shares	Weighted Average Exercise Price
Options outstanding at beginning of period	4,805,771	$1.53	3,949,153	$1.42
Options granted	1,075,550	$0.72	1,020,000	$1.88
Options exercised	-	$-	(113,979)	$0.88
Options cancelled	(870,550)	$1.72	-	$-
Options forfeited	(29,167)	$1.75	(30,000)	$1.75
Options expired	(69,000)	$1.34	(19,403)	$0.80
Options outstanding at end of period	4,912,604	$1.32	4,805,771	$1.53
Options exercisable at end of period	4,227,436	$1.35	3,740,135	$1.45
Weighted average grant-date fair value of options granted during the period		$0.52		$1.36

The following table summarizes information on stock options outstanding and exercisable under the Company's option plans as of March 31, 2013:

	Options Outstanding			Options Exercisable	
Exercise Price	Number Outstanding	Weighted Average Remaining Years until Expiration	Weighted Average Exercise Price	Number Exercisable	Weighted Average Exercise Price
0.51 - $$0.72	267,540	7.05	$0.60	112,540	$0.72
$0.75	920,550	9.58	$0.75	670,494	$0.75
0.80 - $$1.13	455,776	3.83	$1.00	455,776	$1.00
$1.50	2,413,250	6.68	$1.50	2,413,250	$1.50

1.65 - $$1.925	695,833	5.99	$1.76	415,721	$1.74
2.10 - $$2.99	159,655	5.08	$2.16	159,655	$2.16
	4,912,604	6.83	$1.32	4,227,436	$1.35

At March 31, 2013, there were 257,867 shares of the Company's common stock remaining available for grant under the 2008 Plan. There were no option exercises during the year ended March 31, 2013. The Company received cash proceeds of $102,200 as a result of options exercised during the year ended March 31, 2012.

Aggregate intrinsic value is the sum of the amounts by which the fair value of the stock exceeded the exercise price ("in-the-money-options"). Based on the quoted market price of the Company's common stock of $0.83 per share on March 31, 2013, the aggregate intrinsic value of outstanding options at that date was $165,000, of which $87,300 related to exercisable options.

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As of March 31, 2013, there was approximately $743,000 of unrecognized compensation cost related to non-vested share-based compensation awards from the 2008 Plan, which is expected to be recognized through May 2016.

Stock Grants from 2008 Plan

As discussed in Note 8, Convertible Promissory Notes and Other Notes Payable, in April and May 2011, the Company issued an aggregate of 139,600 restricted shares of its common stock from the 2008 Plan to Desjardins and McCarthy as partial compensation for services performed by the two entities. At the date of issuance, the shares were valued at $1.75 per share and the Company recorded $244,300 in general and administrative expense in connection with the issuances.

401(k) Plan

The Company, through a third-party agent, maintains a retirement and deferred savings plan for its employees. This plan is intended to qualify as a tax-qualified plan under Section 401(k) of the Internal Revenue Code. The retirement and deferred savings plan provides that each participant may contribute a portion of his or her pre-tax compensation, subject to statutory limits. Under the plan, each employee is fully vested in his or her deferred salary contributions. Employee contributions are held and invested by the plan’s trustee. The retirement and deferred savings plan also permits the Company to make discretionary contributions, subject to established limits and a vesting schedule. To date, the Company has not made any discretionary contributions to the retirement and deferred savings plan on behalf of participating employees.

14. Related Party Transactions

Cato Holding Company (“CHC”), doing business as Cato BioVentures ("CBV"), the parent of CRL, is one of the Company’s largest institutional stockholders at March 31, 2013, holding common stock and warrants to purchase common stock. Prior to the May 11, 2011 conversion of certain of the Company’s outstanding promissory notes and the conversion of preferred stock into shares of common stock, CBV held various promissory notes and a majority of the Company's Series B-1 Preferred Stock. Shawn Singh, the Company’s Chief Executive Officer and member of its Board of Directors, served as Managing Principal of CBV and as an officer of CRL until August 2009. As described in Note 8, Convertible Promissory Notes and Other Notes Payable, in April 2011, CBV loaned the Company $352,273 under the terms of the 2011 CHC Note. On October 10, 2012, the Company and CHC cancelled the 2011 CHC Note and exchanged it for a new unsecured promissory note in the principal amount of $310,443 (the “2012 CHC Note”) and a five-year warrant to purchase 250,000 restricted shares of the Company’s common stock at a price of $1.50 per share (the “CHC Warrant”). Additionally, on October 10, 2012, the Company issued to CRL: (i) an unsecured promissory note in the initial principal amount of $1,009,000, which is payable solely in restricted shares of the Company’s common stock and which accrues interest at the rate of 7.5% per annum, compounded monthly (the “CRL Note”), as payment in full for all contract research and development services and regulatory advice rendered by CRL to the Company and its affiliates through December 31, 2012 with respect to the preclinical and clinical development of AV-101, and (ii) a five-year warrant to purchase, at a price of $1.00 per share, 1,009,000 restricted shares of the Company’s common stock.

During fiscal year 2007, the Company entered into a contract research organization arrangement with CRL related to the development of AV-101, under which the Company incurred expenses of $703,800 and $1,461,300 for the fiscal years ended March 31, 2013 and 2012, respectively, a substantial portion of which were reimbursed under the NIH grant. Total interest expense on notes payable to CHC and CRL was $101,700 and $93,100 for the fiscal years ended March 31, 2013 and 2012, respectively, with the majority of amounts reported for periods prior to May 2011 having been converted to equity. On April 29, 2011, the Company issued 157,143 restricted shares of common stock, valued at $1.75 per share, as prepayment for research and development services to be performed by CRL during 2011. As

described in Note 9, Capital Stock, in December 2011, the Company entered into an Agreement Regarding Payment of Invoices and Warrant Exercises with CHC, CRL and the CHC affiliates pursuant to which CHC and the CHC Affiliates exercised warrants at discounted exercise prices to purchase an aggregate of 492,541 restricted shares of the Company's common stock and the Company received $60,200 cash, and, in lieu of cash payment for certain of the warrant exercises, settled outstanding liabilities of $245,300 for past services received from CRL and prepaid $226,400 for future services to be received from CRL, which services had been fully received by March 31, 2012.

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Prior to his April 2003 appointment as one of the Company's officers (on a part-time basis) and as a director, the Company retained Mr. Singh as a consultant to provide legal and other consulting services. During the course of the consultancy, as payment for his services, the Company issued him warrants to purchase 55,898 restricted shares of common stock at $0.80 per share and a 7% promissory note in the principal amount of $26,400. On May 11, 2011, and concurrent with the Merger, the Company paid the outstanding balance of principal and accrued interest totaling $36,000 (see Note 8, Convertible Promissory Notes and Other Notes Payable). Upon the approval by the Board of Directors, in December 2006, VistaGen California accepted a full-recourse promissory note in the amount of $103,400 from Mr. Singh in payment of the exercise price for options and warrants to purchase an aggregate of 126,389 restricted shares of the Company's common stock. The note accrued interest at a rate of 4.90% per annum and was due and payable no later than the earlier of (i) December 1, 2016 or (ii) ten days prior to the Company becoming subject to the requirements of the Securities Exchange Act of 1934, as amended ("Exchange Act"). On May 11, 2011, in connection with the Merger, the $128,200 outstanding balance of the principal and accrued interest on this note was cancelled in accordance with Mr. Singh's employment agreement and recorded as additional compensation. In accordance with his employment agreement, Mr. Singh is also entitled to an income tax gross-up on the compensation related to the note cancellation. At March 31, 2012 and 2013, the Company had accrued $101,900 as an estimate of the gross-up amount, but had not yet paid that amount to Mr. Singh.

In March 2007, VistaGen California accepted a full recourse promissory note in the amount of $46,400 from A. Franklin Rice, its former Chief Financial Officer and a former director of the Company in exchange for his exercise of options to purchase 52,681 restricted shares of the Company's common stock. The note accrued interest at a rate of 4.90% per annum and was due and payable no later than the earlier of (i) March 1, 2017 or (ii) ten days prior to the Company becoming subject to the requirements of the Exchange Act. On May 11, 2011, in connection with the Merger, the $57,000 outstanding balance of principal and accrued interest on this note was cancelled in accordance with Mr. Rice's employment agreement and recorded as additional compensation. In accordance with his employment agreement, Mr. Rice is entitled to an income tax gross-up on the compensation related to the note cancellation. At March 31, 2012 and 2013, the Company had accrued $33,900 as an estimate of the gross-up amount, but had not paid it to Mr. Rice.

Prior to the Merger, VistaGen California engaged Jon A. Saxe, a current director, separately from his duties as a director, as a management consultant from July 1, 2000 through June 30, 2010 to provide strategic and other business advisory services. As payment for consulting services rendered through June 30, 2010, Mr. Saxe has been issued warrants and non-qualified options to purchase an aggregate of 250,815 restricted shares of the Company's common stock, of which he has exercised warrants to purchase 18,568 restricted shares. Additionally, Mr. Saxe was issued a 7% promissory note in the amount of $8,000. On May 11, 2011, the $14,400 balance of the note and related accrued interest plus a note cancellation premium of $5,100 was converted to 11,142 restricted shares of the Company's common stock and a three-year warrant to purchase 2,784 restricted shares of common stock at an exercise price of $2.50 per share. In lieu of payment from the Company, in December 2011, Mr. Saxe exercised the warrant as a part of the Discounted Warrant Exercise Program at an exercise price of $1.25 per share in satisfaction of amounts owed to him in conjunction with his service as a member of the board of directors.

15. Commitments, Contingencies, Guarantees and Indemnifications

From time to time, the Company may become involved in claims and other legal matters arising in the ordinary course of business. Management is not currently aware of any matters that will have a material adverse effect on the Company's consolidated financial position, results of operations or its cash flows.

The Company indemnifies its officers and directors for certain events or occurrences while the officer or director is or was serving at the Company's request in such capacity. The term of the indemnification period is for the officer's or director's lifetime. The Company will indemnify the officers or directors against any and all expenses incurred by the officers or directors because of their status as one of the Company's directors or executive officers to the fullest extent

permitted by California law. The Company has never incurred costs to defend lawsuits or settle claims related to these indemnification agreements. The Company has a director and officer insurance policy which limits the Company's exposure and may enable it to recover a portion of any future amounts paid. The Company believes the fair value of these indemnification agreements is minimal. Accordingly, there are no liabilities recorded for these agreements at March 31, 2013 or 2012.

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In the normal course of business, the Company provides indemnifications of varying scopes under agreements with other companies, typically clinical research organizations, investigators, clinical sites, suppliers and others. Pursuant to these agreements, the Company generally indemnifies, holds harmless, and agrees to reimburse the indemnified parties for losses suffered or incurred by the indemnified parties in connection with the use or testing of the Company's product candidates or with any U.S. patents or any copyright or other intellectual property infringement claims by any third party with respect to the Company's product candidates. The terms of these indemnification agreements are generally perpetual. The potential future payments the Company could be required to make under these indemnification agreements is unlimited. The Company maintains liability insurance coverage that limits its exposure. The Company believes the fair value of these indemnification agreements is minimal. Accordingly, the Company has not recorded any liabilities for these agreements as of March 31, 2013 or 2012.

Leases

As of March 31, 2013 and 2012, the following assets are under capital lease obligations and included in property and equipment:

	March 31,	
	2013	2012
Leased laboratory and computer equipment	$133,200	$139,700
Accumulated amortization	(114,900)	(119,200)
	$18,300	$20,500

Amortization expense for assets recorded under capital leases is included in depreciation expense. Future minimum payments, by year and in the aggregate, required under capital leases are as follows:

Fiscal Years Ending March 31,	Equipment Capital Leases
2014	$ 8,600
2015	4,300
2016	1,200
2017	1,200
2018	100
Future minimum lease payments	15,400
Less imputed interest included in minimum lease payments	(1,700)
Present value of minimum lease payments	13,700
Less current portion	(7,600)
Non-current capital lease obligation	$ 6,100

At March 31, 2013, future minimum payments under operating leases relate to the Company’s facility lease in South San Francisco, California through June 30, 2013 and total $45,000 for the fiscal year ended March 31, 2014. See Note 16, Subsequent Events. Total facility rent expense incurred by the Company for the fiscal years ended March 31, 2013 and 2012 was $179,000 and $166,000, respectively.

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Long-Term Debt Repayment

At March 31, 2013, future minimum principal payments related to long-term debt were as follows:

Fiscal Years Ending March 31,	Amount
2014	$684,200
2015	609,800
2016	541,700
2017	185,800
2018	18,000
Thereafter through October 2023	71,600
	$2,111,100

16. Subsequent Events

The Company has evaluated subsequent events through July 12, 2013 and has identified the following material events and transactions that occurred after March 31, 2013.

Autilion AG Securities Purchase Agreement

On April 8, 2013, the Company entered into a Securities Purchase Agreement (the "Purchase Agreement") with Autilion AG, a company organized and existing under the laws of Switzerland ("Autilion"). On April 12, 2013, Autilion assigned the Purchase Agreement to its affiliate, Bergamo Acquisition Corp. PTE LTD, a corporation organized and existing under the laws of Singapore ("Bergamo Singapore"). On April 30, 2013, the Company and Bergamo Singapore amended the Purchase Agreement (the "Amendment No. 1") to modify the investment dates. On June 27, 2013, the Company, Autilion and Bergamo Singapore further amended the Agreement to vacate Autilion's April 2013 assignment of the Purchase Agreement to Bergamo Singapore, provide for an initial closing under the Purchase Agreement, and amend certain of the investment dates under the Purchase Agreement ("Amendment No. 2", and together with the Agreement and Amendment No. 1, the "Amended Agreement"). Under the terms of the Amended Agreement, Autilion is contractually obligated to purchase an aggregate of 72.0 million restricted shares of the Company's common stock at a purchase price of $0.50 per share for aggregate cash consideration of $36.0 million, in a series of tranches between June 27, 2013 and September 30, 2013 (cumulatively, the "Autilion Financing"). The Amended Agreement also provides for the election to the Company's Board of Directors of a designee of Autilion upon completion of the Autilion Financing. The Company has completed a nominal initial closing of the Autilion Financing.

The Company and Autilion also entered into a Voting Agreement, pursuant to which Autilion has agreed to vote all shares of capital stock of the Company held by Autilion consistent with the recommendation of a majority of the members of the Company's board of directors. In addition, in the event of a Change in Control of the Company, as defined in the Voting Agreement, or an extraordinary transaction outside of the ordinary course of the Company's business, in each case approved by a majority of the Company's board of directors, including Autilion's designee, as well as by the holders of a majority of the outstanding shares of Common Stock held by stockholders unaffiliated with Autilion (an "Approved Transaction"), Autilion is required to vote all shares of capital stock of the Company held by it for such Approved Transaction.

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Modification of Warrants held by Platinum

Effective on May 24, 2013, the Company and Platinum entered into an Amendment and Waiver pursuant to which the Company agreed to reduce the exercise price of the Exchange Warrant and the Investment Warrants issued to Platinum in October 2012 and February 2013 and March 2013 (collectively, the "Warrants") from $1.50 per share to $0.50 per share in consideration for Platinum's agreement to waive its rights for any increase in the number of shares of common stock issuable under the adjustment provisions of the Exchange Warrant and the Investment Warrants that would otherwise occur from (i) the Company's sale of shares of its common stock at a price of $0.50 per share in connection with the Bergamo Financing; (ii) the March 2013 grant of warrants to certain of the Company's officers and independent directors to purchase an aggregate of 3.0 million restricted shares of common stock at an exercise price of $0.64 per share; and (iii) the Company's issuance of restricted shares of its common stock resulting in gross proceeds not to exceed $1.5 million in connection with the exercise by warrant holders, by no later than June 30, 2013, of previously outstanding warrants for which the Company may reduce the exercise price to not less than $0.50 per share.

New Facility Lease

On April 24, 2013, the Company entered into a four-year facility lease for approximately 10,900 square feet of laboratory and headquarters office space in South San Francisco, California beginning July 1, 2013. Future minimum payments under the lease are as follows:

Fiscal Years Ending March 31,	Amount
2014	$121,000
2015	$252,000
2016	$265,1000
2017	$278,200
2018	$70,400

Warrant Modifications

During June 2013, the Company offered certain warrant holders the opportunity to exercise their warrants to purchase restricted shares of the Company's common stock at an exercise price reduced from $1.50 per share to $0.50 per share. Through the date of this report, warrant holders exercised warrants to purchase an aggregate of 399,106 restricted shares of the Company's common stock and the Company received cash proceeds of $191,200 and settled accounts payable for professional services in the amount of $8,300 in lieu of cash payment by the Company.

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17. Supplemental Financial Information

Quarterly Results of Operations (Unaudited)

The following table presents the unaudited statements of operations data for each of the eight quarters in the period ended March 31, 2013. This information represents the activity of VistaGen California for the pre-Merger portion of the first quarter of fiscal 2012 and the consolidated activity of VistaGen California and the Company from May 11, 2011 (the date of the Merger) through March 31, 2013. A total of 1,569,000 shares of common stock, representing the 784,500 shares held by stockholders of Excaliber immediately prior to the Merger and effected for the post-Merger two-for-one (2:1) stock split described in Note 1, Description of Business, have been retroactively reflected as outstanding for the entire fiscal year ended March 31, 2012 for purposes of determining basic and diluted loss per common share below.

The information has been presented on the same basis as the audited financial statements and all necessary adjustments, consisting only of normal recurring adjustments, have been included in the amounts below to present fairly the unaudited quarterly results when read in conjunction with the audited financial statements and related notes. The operating results for any quarter should not be relied upon as necessarily indicative of results for any future period.

Unaudited Quarterly Results of Operations
(in thousands, except share and per share amounts)

	Three Months Ended				Total
	June 30, 2012	September 30, 2012	December 31, 2012	March 31, 2013	Fiscal Year 2013
Revenues:					
Grant revenue					