THERMOGENESIS CORP
Form 424B5
January 31, 2006

Filed Pursuant to Rule 424(b)(5)
Registration No. 333-129845

Prospectus Supplement
(To Prospectus Dated December 14, 2005)
Dated January 30, 2006
ThermoGenesis Corp.

8,000,000 Shares
Common Stock

This is a public offering of common stock of ThermoGenesis Corp. We are offering 8,000,000 shares of our common stock. Our common stock is traded on the NASDAQ Capital Market under the symbol KOOL. On January 30, 2006, the last reported sales price of our common stock on the NASDAQ Capital Market was $4.51 per share.

Investing in our common stock involves risk. See Risk Factors beginning on page S-3 of this prospectus supplement.

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

	Per Share	Total
Public offering price	$ 4.00	$ 32,000,000
Underwriting discounts and commissions	$ 0.24	$ 1,920,000
Proceeds, before expenses, to ThermoGenesis Corp.	$ 3.76	$ 30,080,000

We granted the underwriters the right to purchase up to 800,000 additional shares of common stock to cover over-allotments. If the underwriters exercise this option in full, the total underwriting discounts and commissions will be $2,112,000, and our total proceeds, before expenses, will be $33,088,000.

Deutsche Bank Securities

Jefferies & Company, Inc.

The date of this prospectus supplement is January 30, 2006.

ABOUT THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is this prospectus supplement, which describes the terms of the offering of common stock and also adds to and updates information contained in the accompanying prospectus and the documents incorporated by reference into the accompanying prospectus. The second part is the accompanying prospectus, which provides more general information. To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus or any document incorporated by reference therein, on the other hand, you should rely on the information in this prospectus supplement.

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and the documents we incorporate by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is different. We are offering the common stock only in jurisdictions where such offers are permitted. The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement and the accompanying prospectus, or of any sale of the common stock. It is important for you to read and consider all information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference in this prospectus supplement and the accompanying prospectus in making your investment decision. You should also read and consider the information in the documents to which we have referred to you in Where You Can Find More Information below.

Thermogenesis®, Thermogenesis Logo, BioArchive®, CryoSeal®, Xpresspack™, AutoXpress™ AXP™, and TPD™ are the registered and common law trademarks of ThermoGenesis Corp.

Unless stated otherwise, references in this prospectus supplement and the accompanying prospectus to we, us, or our refer to ThermoGenesis Corp., a Delaware corporation.

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights selected information contained in greater detail elsewhere in this prospectus supplement. This summary does not contain all of the information that you should consider before investing in our common stock. You should carefully read the entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein, including Risk Factors and the financial statements, before making an investment decision.

Our Business

Overview

We are a leader in developing and manufacturing automated blood processing systems and disposables that enable the manufacture, preservation and delivery of personalized cell and tissue therapy products, or CTT products, for clinical use. Personalized CTT products are created from the blood or tissue of a single donor and administered to that donor or a matched patient. Our systems and disposables are intended for use by hospitals and blood banks in two distinct markets. In cell therapy, our products automate the isolation, capture and preservation of stem cells residing in the blood of the placenta and umbilical cord, or cord blood, after a baby is born. These cells are used to treat patients for leukemia, lymphoma and over 60 other life threatening genetic diseases. Cord blood stem cells typically result in reduced immune complications post transplant compared to adult bone marrow stem cells. In tissue therapy, our products are used for the rapid manufacture of autologous sealants or thrombin for surgical wound care. Autologous sealants have no risk of contamination by blood-borne pathogens from other donors. We believe that our significant experience and technical expertise in developing proprietary technologies for enabling personalized CTT products, coupled with our relationships with leading transplant physicians, stem cell researchers and surgeons, has enabled us to develop safer, more effective systems for these applications.

Our Solution

We believe that the use of personalized CTT products will increase due to the growing evidence and understanding of their clinical benefits in treating disease. Our proprietary systems and disposables enable the manufacture, preservation and delivery of these personalized CTT products and have substantial advantages over other products and practices available today. Our products address a broad range of CTT applications in two primary areas: cell therapy and tissue therapy, including wound care.

Our Strategy

We believe our products significantly enhance the safety and viability of CTT products and will ultimately expand the use and success of CTT products in clinical treatment. Our strategy is to expand our leadership position in the area of medical devices and disposables for the manufacture and preservation of personalized CTT products. The key elements of our strategy include:

Begin commercializing the AXP system through our strategic partner, GE Healthcare;

Complete the PMA and receive approval for our CryoSeal FS System in the United States and Japan;

Expand commercialization of the TPD through Biomet, Medtronic, Asahi Medical and potentially other distribution partners;

Expand our reach through both sales and consulting services for clinical trials;

Accelerate our research and development efforts; and

Leverage our installed base to generate additional recurring revenue.

Corporate Information

We were incorporated in Delaware on July 3, 1986. Our principal executive offices are located at 2711 Citrus Road, Rancho Cordova, California 95742. Our telephone number is (916) 858-5100. Our website is www.thermogenesis.com. The information on our website does not constitute part of this document.

The Offering

Common stock offered by ThermoGenesis Corp	8,000,000
Common stock to be outstanding after this offering	53,984,192
Use of proceeds	We expect to use the net proceeds from this offering for general working capital, and possibly for acquisition of technology, assets and companies, or accelerating certain research and development projects. See Use of Proceeds.
NASDAQ Capital Market symbol	KOOL

The number of shares of our common stock to be outstanding after this offering is based upon 45,984,192 shares outstanding as of December 31, 2005. This number does not include:

2,385,932 shares of our common stock subject to outstanding options with a weighted average exercise price of approximately $2.61 per share;

580,016 shares of our common stock reserved for future issuance under our stock option plans; and

547,749 shares of our common stock subject to outstanding warrants with a weighted average exercise price of approximately $3.01 per share.

Unless otherwise indicated, all information in this prospectus supplement assumes no exercise of the underwriter s overallotment option.

RISK FACTORS

Investing in our common stock involves a high degree of risk. You should carefully consider the following risk factors and all other information contained in this prospectus supplement, the accompanying prospectus and the documents incorporated herein by reference, before purchasing our common stock. The risks and uncertainties described below are not the only ones facing us. Additional risks and uncertainties that we are unaware of, or that we currently deem immaterial, also may become important factors that affect us.

If any of the following risks occur, our business, financial condition or results of operations could be materially and adversely affected. In that case, the trading price of our common stock could decline, and you could lose some or all of your investment.

Risks Related to Our Business

We have incurred net losses since our inception and expect losses to continue.

Except for net income of $11,246 for fiscal 1994, we have not been profitable since our inception. For the fiscal year ended June 30, 2005, we had a net loss of $8,220,000, and an accumulated deficit at June 30, 2005, of $67,710,000. We will continue to incur significant costs as we continue our efforts to develop and market our current systems and related applications. Although we are executing on our business plan to develop and market launch new products, continuing losses may impair our ability to fully meet our objectives for new product sales.

We may need to raise additional capital in the future to fund our operations.

During the year ended June 30, 2005, our operating activities used cash of $7,931,000. As of June 30, 2005, we had cash on hand of $9,568,000. Based on our cash balance, historical trends, planned cost reductions and future projections, we believe our current funds are sufficient to provide for our projected needs to maintain operations for at least the next 12 months. However, if actual sales do not meet expectations, or product development, marketing, production and clinical trial costs increase significantly, we may need to seek additional financing. Any additional equity financings may be dilutive to our existing stockholders. We may be unable to raise funds when needed or on acceptable terms.

We have limited market availability and must successfully complete further clinical trials in order to gain FDA approval required to market our CryoSeal Fibrin Sealant System for various indications in the United States.

We are completing the pivotal trial of our CryoSeal FS System in the United States for the indication of adjunct to hemostasis for Liver Resections. While these studies provide a basis to achieve regulatory permission to promote these systems for the indication listed, from which we believe can be achieved, they do not provide a basis to achieve all of the indications necessary to address the entire market opportunities. Additional clinical studies must be performed in order to market the CryoSeal system for these indications. There can be no assurance that the clinical studies can be successfully completed within our expected time frame and budget, or that our products will prove effective in the required clinical trials. If we are unable to successfully demonstrate that the clinical trials using our products meet its clinical endpoint for the indications for which the clinical is designed for our business, financial condition and results of operations could be adversely affected.

We have limited clinical data and must successfully complete further clinical trials in order to gain FDA approval required to market our Thrombin Processing Disposable in the United States.

We will need to complete a clinical trial of our CryoSeal FS System in the United States in order to receive permission to market the device for specific indications. While such a trial will provide a basis to achieve regulatory permission to promote these systems for targeted indications that we believe can be achieved, it will not provide a basis to achieve all of the indications. Additional clinical studies may be required to effectively market the devices for specific endpoints in various markets. There can be no assurance that the clinical studies can be successfully completed within our expected time frame and our budget, or that our products will prove effective in the required clinical trials. If we are unable to conclude successfully the clinical trials of its products in development, our business, financial condition and results of operations could be adversely affected.

Our business is heavily regulated, resulting in increased costs of operations and delays in product introductions and sales.

Most of our products require FDA approval to sell in the United States and will require either clearance or registration from comparable agencies to sell our products in foreign countries. These clearances may limit the United States or foreign market in which our products may be sold or delay applications for United States or foreign markets in which our products may be sold. Although the majority of our products related to freezing blood components are currently exempt from the requirement to file a 510(k) pre-market application, that situation could always change in the future as the FDA moves to regulate cell therapy products being processed by the BioArchive System and/or AXP. In anticipation of possible future regulation by the FDA, we have filed, and are maintaining, a Master File on the BioArchive System and we intend to update our existing Master file on the AXP prior to market release. However, currently the BioArchive and the ThermoLine products are being marketed and sold worldwide. Further, our products must be manufactured under the guidelines of our quality system for continued adherence to both the FDA and Notified European Body regulations, such as the CE Marking that allows our products to be marketed and sold in Europe, which are similar to the FDA quality system regulations. Failure to comply with those quality system requirements and regulations may subject us to delays in production placed upon us in order to correct any deficiencies found by either the FDA, the State of California or our Notifying European Body during any audit of our quality system. With limited working capital and resources there is no assurance that we will not be found to be out of compliance, resulting in warning letters or even temporarily shut down in manufacturing while the non-conformances are rectified.

Our failure to develop new products will adversely affect our future growth.

Historically, a significant portion of our sales have been from products related to freezing, thawing, and storing of blood or blood components. Because we expect the segment of the blood plasma market to have limited growth potential, new products for the biotechnology market will have to be successfully developed and marketed for future growth. Recently, the BioArchive product line has been a significant contributor to our revenues. We are currently focused on increasing our BioArchive product line revenues, marketing novel blood processing systems such as the AXP System for the automated processing of autologous or allogeneic blood components Although the AXP product system and the disposables use technology related to our core competencies, they also represent a departure from our former core blood plasma business. Further, although we have had discussions with experts in areas of application for these products, they are still in the development and/or initial market phase. No assurance can be given that potential products can be successfully developed, and if developed, that a market will also accept them.

Influence by the government and insurance companies may adversely impact sales of our products.

Our business may be materially affected by continuing efforts by government, third party payers such as Medicare, Medicaid, and private health insurance plans, to reduce the costs of healthcare. For example, in certain foreign markets the pricing and profit margins of certain healthcare products are subject to government controls. In addition, increasing emphasis on managed care in the United States will continue to place pressure on the pricing of healthcare products. As a result, continuing effort to contain healthcare costs may result in reduced sales or price reductions for our products. To date, we are not aware of any direct impact on our pricing or product sales due to such efforts by governments to contain healthcare costs, and we do not anticipate any immediate impact in the near future.

Competition in our industry is intense and will likely involve companies with greater resources than we have.

We hope to develop a competitive advantage in the medical applications of our products, but there are many competitors that are substantially larger and who possess greater financial resources and personnel than we have. Our current principal market includes users of ultra-rapid blood plasma freezing and thawing equipment and cord blood banks. There are companies that sell freezers to the blood plasma freezing industry that are larger and possess greater financial and other resources than we do. The CryoSeal System may face competition from major plasma fractionators that currently sell fibrin glue sourced from pooled plasma outside the United States With regard to the BioArchive System, numerous larger and better-financed medical device manufacturers may choose to enter this market as it develops.

Our new products are at initial market introduction, and we are not sure the market will accept them.

The market acceptance of our new products in development will depend upon the medical community and third-party payers accepting the products as clinically useful, reliable, accurate, and cost effective compared to existing and future products or procedures. Market acceptance will also depend on our ability to adequately train technicians on how to use the CryoSeal System and the BioArchive System. Even if our new product systems are clinically adopted, the use may not be recommended by the medical profession or hospitals unless acceptable reimbursement from health care and third party payers is available. Failure of either of these new systems to achieve significant market share could have material adverse effects on our long term business, financial condition, and results of operation.

Given our limited internal manufacturing, sales, marketing and distribution capabilities, we need to develop increased internal capability or collaborative relationships to manufacture, sell, market and distribute our products.

We have only limited internal manufacturing, sales, marketing and distribution capabilities. We currently sell our existing medical devices through a direct sales and marketing force, and our foreign distribution network. Although we have entered into exclusive distribution agreements for our two new platform products and we continue to seek strategic partners, there are no assurances that the distributors will produce significant sales of the systems. Our inability to develop and maintain those relationships would limit our ability to market, sell and distribute our products. Our inability to enter into successful, long-term relationships could require us to develop alternate arrangements at a time when we need sales, marketing or distribution capabilities to meet existing demand. We may market our products through our own sales force. Our inability to develop and retain a qualified sales force could limit our ability to market, sell and distribute our products.

As of recent, we rely exclusively on third parties for the worldwide marketing and distribution of our BioArchive System, and they may not be successful in selling our products.

We have entered into an exclusive marketing and distribution agreement with GE Healthcare whereby GE Healthcare is solely responsible for worldwide marketing and distribution of our BioArchive System. While we believe that GE Healthcare intends to aggressively market our products, we cannot assure you that GE Healthcare will succeed in marketing our products on a global basis. We may not be able to maintain satisfactory arrangements with GE Healthcare, who may not devote adequate resources to selling our BioArchive System. If this happens, we may not be able to successfully market and distribute our products, which would decrease our revenues.

Failure to keep our key personnel may adversely affect our operations.

Failure to retain skilled personnel could hinder our operations. Our future success partially depends upon the continued services of key technical and senior management personnel. Our future success also depends on our continuing ability to attract, retain and motivate highly qualified managerial and technical personnel. The inability to retain or attract qualified personnel could have a significant negative effect upon our efforts and thereby materially harm our business and financial condition. We have entered into employment agreements with each member of our senior management. Specifically, we are dependent upon the experience and services of Philip H. Coelho, Chairman and Chief Executive Officer, and Kevin Simpson, our President and Chief Operating Officer. We have obtained key man life insurance covering Mr. Coelho in the amount of $2,000,000 to provide some protection against this risk.

Our lack of production experience may delay producing our new products.

We have manufactured our Blood Plasma Thawers, Freezers and BioArchive Systems for a number of years. Although we have redesigned our manufacturing facility to accommodate the BioArchive System and the CryoSeal System, we do not have significant experience in manufacturing the CryoSeal System or in the manufacture of disposables. There can be no assurance that our current resources and manufacturing facility could handle a significant increase in orders for either the BioArchive System or the CryoSeal System. If we are unable to meet demand for sales of the new systems, we would need to contract with third-party manufacturers for the backlog, and no assurances can be made that such third-party manufacturers can be retained, or retained on terms favorable to us and our pricing of the equipment. Inability to have products manufactured by third parties at a competitive price will erode anticipated margins for such products, and negatively impact our profitability.

We are dependent on our suppliers and OEM manufacturers to meet existing regulations.

Certain of our suppliers and manufacturers are subject to heavy government regulations, including FDA approval in the operation of their facilities, products and manufacturing processes. Any adverse action by the FDA against our suppliers or manufacturers could delay supply or manufacture of component products required to be integrated or sold with our products. There are no assurances we will be successful in locating an alternative supplier or manufacturer to meet product shipment or launch deadlines. As a result, our sales, contractual commitments and financial forecasts may be significantly affected by any such delays.

If third-party suppliers of materials necessary to manufacture our products do not supply quality materials in a timely manner, it may delay or impair our ability to develop and commercialize products on a timely and competitive basis, or prevent or limit our potential future profitability.

Although most of the raw materials used in the manufacture of the CryoSeal System, BioArchive System and Thrombin Processing Disposable products are available from more than one supplier, changes in critical components could cause the FDA to require us to prove equivalency of the materials, or potentially to modify or perform additional clinical trials for such products, which could have the effect of restricting our ability to commercialize our products. Interruptions in supplies for the manufacture of our CryoSeal System, BioArchive System and Thrombin Processing Disposables products may occur and we may have to obtain substitute vendors for these materials. Any significant supply interruption would delay our marketing, product development or clinical trial programs. In addition, an uncorrected impurity or supplier s variation in a raw material, either unknown to us or incompatible with our manufacturing process, could prevent or delay our ability to manufacture products. These delays may limit our revenues.

Discovery of previously unknown problems with a product, manufacturer, or facility, could result in product recalls or withdrawals and significantly reduce our revenues.

Certain components of our systems, including the sterile disposable bag sets, must be manufactured under controlled conditions, often in regulated facilities, to meeting strict product release criteria. Any manufacturing errors or defects, or uncorrected impurity or variation in a raw material, either unknown or undetected by us, could affect the quality and safety of our products. If any of the defects were material, we could be required to undertake a market withdrawal or recall of the affected products. The cost of a market withdrawal or product recall could significantly reduce our resources.

Product liability and uninsured risks may adversely affect our continuing operations.

We manufacture medical devices that are used on patients in surgical procedures and we may be subject to product liability claims. We may be liable if any of our products cause injury, illness, or death. We also may be required to recall certain of our products should they become damaged or if they are defective. We are not aware of any material product liability claim against us. Further, we maintain a general liability policy that includes product liability coverage of $1,000,000 per occurrence and $2,000,000 per year in the aggregate. However, our product liability coverage has various exclusions, and therefore we may be subject to a product liability claim or recall for which we have no insurance coverage. In such a case, we may have to pay the entire amount of the award or costs of the recall. Product liability insurance is expensive and may not be available in the future on acceptable terms, or at all.

Dependence on suppliers for custom components may impact the production schedule.

We obtain certain custom components from a limited number of suppliers. If the supplier raises the price of the component or discontinues production, we may have to find another qualified supplier to provide the component. In the event that it becomes necessary for us to find another supplier, we would first be required to qualify the quality assurance systems and product of that alternative supplier. Any transfer between qualified suppliers may impact the production schedule, therefore delaying revenues, and may cause the price of the key components to increase.

All of our operations are conducted at a single location, and any disruption at our facility could delay revenues or increase our expenses.

All of our operations are conducted at a single location although we do contract our manufacturing of certain disposables and components. We take precautions to safeguard our facility, including insurance, health and safety protocols, and off-site storage of computer data. However, a natural disaster, such as a fire, flood or earthquake, could cause substantial delays in our operations, damage or destroy our manufacturing equipment or inventory, and cause us to incur additional expenses. The insurance we maintain against fires, floods, and other natural disasters may not be adequate to cover our losses in any particular case.

Because a significant portion of our sales is to customers in foreign countries, we may lose revenues, market share, and profits due to exchange rate fluctuations and other factors related to our foreign customers.

In the year ended June 30, 2005, sales to customers in foreign countries comprised approximately 67% of our revenues. Our foreign business is subject to economic, political and regulatory uncertainties and risks that are unique to each area of the world. Fluctuations in exchange rates may also affect the prices that our foreign customers are willing to pay, and may put us at a price disadvantage compared to other competitors. Potentially volatile shifts in exchange rates may negatively affect our financial condition and operations.

The preparation of our financial statements in accordance with United States Generally Accepted Accounting Principles requires us to make estimates, judgments, and assumptions that may ultimately prove to be incorrect.

The accounting estimates and judgments that we must make in the ordinary course of business affect the reported amounts of assets and liabilities at the date of the financial statements and the reported amounts of revenue and expenses during the periods presented. If the underlying estimates are ultimately proven to be incorrect, subsequent adjustments could have a material adverse effect on our operating results for the period or periods in which the change is identified. Additionally, subsequent adjustments could require us to restate our financial statements. Restating financial statements could result in a material decline in the price of our stock.

RISKS RELATED TO OUR INTELLECTUAL PROPERTY

Our inability to protect our patents, trademarks, and other proprietary rights could adversely impact our competitive position.

We believe that our patents, trademarks, and other proprietary rights are important to our success and our competitive position. Accordingly, we devote substantial resources to the establishment and protection of our patents, trademarks, and proprietary rights. We currently hold patents for products, and have patents pending for additional products that we market or intend to market. However, our actions to establish and protect our patents, trademarks, and other proprietary rights may be inadequate to prevent imitation of our products by others or to prevent others from claiming violations of their trademarks and proprietary rights by us. If this happens, sales of our products would suffer and our ability to generate revenues will be severely impacted. If our products are challenged as infringing upon patents of other parties, we could be required to modify the design of the product, obtain a license, or litigate the issues, all of which may have an adverse business effect on us. We may have to pay significant fees or royalties to license those patents to continue marketing our products. This will cause any future profits on sales of our products to decline.

Our dependence upon having exclusive rights to the technology covered under our owned or licensed patents and patent applications is subject to the following risks, among others:

applications may not result in issued patents;

current or future issued or licensed patents, trade secrets or know-how may not afford protection against competitors with similar technologies or processes;

any patents issued may be infringed upon or be designed around by others, or be challenged and invalidated; and

others may independently develop technologies or processes that are the same as or substantially equivalent to ours.

Failure to protect our trade secrets may assist our competitors.

We use various methods, including confidentiality agreements with employees, vendors, and customers, to protect our trade secrets and proprietary know-how for our products. However, such methods may not provide complete protection and there can be no assurance that others will not obtain our know-how, or independently develop the same or similar technology. We prepare and file for patent protection on aspects of our technology which we think will be integrated into final products early in design phases, thereby attempting to mitigate the potential risks.

RISKS RELATED TO THIS OFFERING

The sale of our common stock may significantly impact the market price of our common stock.

The sale of shares pursuant to this prospectus supplement may significantly affect the market price of our stock. We cannot predict the effect, if any, that future sales of our capital stock, warrants or debt securities, or the availability of our securities for future sale, will have on the market price of our shares, including our common stock. Additionally, if we raise additional funds through issuance of common stock or securities convertible into or exercisable for common stock, the percentage ownership of our stockholders will be reduced and the price of our common stock may fall.

We do not pay cash dividends.

We have never paid any cash dividends on our common stock and may not pay cash dividends in the future. Instead, we intend to apply earnings to the expansion and development of our business. Thus, the liquidity of your investment is dependent upon your ability to sell stock at an acceptable price. The price can go down as well as up and may limit your ability to realize any value from your investment, including the initial purchase price.

We expect our stock price to be volatile.

The trading price of our common stock is likely to be highly volatile and could be subject to wide fluctuations in price in response to various factors, many of which are beyond our control, including:

the depth and liquidity of the market for our common stock;

developments generally affecting the biotech, healthcare and pharmaceutical industry;

investor perceptions of us and our business;

changes in securities analysts expectations or our failure to meet those expectations;

actions by institutional or other large stockholders;

terrorist acts or natural disasters;

actual or anticipated fluctuations in our results of operations;

announcements of technological innovations or significant contracts by us or our competitors;

introduction of new products by us or our competitors;

our sale of common stock or other securities in the future;

conditions and trends in biotechnology industries;

changes in market valuation or earnings of our competitors;

changes in the estimation of the future size and growth rate of our markets;

our actual or projected results of operations and financial performance; and

general economic, industry and market conditions.

In addition, the stock market in general often experiences substantial volatility that is seemingly unrelated to the operating performance of particular companies. These broad market fluctuations may adversely affect the trading price of our common stock.

Any sale of a substantial amount of our stock could cause our stock price to drop.

In general, our stockholders are not obligated to retain their shares, except that subject to limited exceptions, our directors and executive officers have agreed not to sell or otherwise dispose of any shares of common stock for 90 days after the completion of this offering without the consent of Deutsche Bank Securities, Inc., subject to a potential extension of the lock-up period for up to an additional 18 days under certain circumstances. In addition, during the beginning of 2004, we sold shares of common stock in one private placement. As part of the terms of the private placement, we registered for resale 2,660,000 shares of common stock with the SEC, representing approximately 5.78% of our outstanding common stock as of December 31, 2005. Any sale by these or other holders of a substantial amount of common stock in the public market, or the perception that such a sale could occur, could have an adverse effect on the market price of our common stock. Such an effect could be magnified because these shares can be sold immediately and our stock is relatively thinly traded.

Management will have broad discretion over the use of proceeds from this offering.

We expect to use the net proceeds from this offering for general working capital and acquisition of technology, assets and companies. We have not reserved or allocated specific amounts for these purposes, and we cannot specify with certainty how we will use the net proceeds. Accordingly, our management will have considerable discretion in the application of the net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. The net proceeds may be used for corporate purposes that do not increase our operating results or market value. Until the net proceeds are used, they may be placed in investments that do not produce income or that lose value.

FORWARD-LOOKING STATEMENTS

This prospectus supplement contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933 and Section 21E of the Securities Exchange Act of 1934. Words such as expects, anticipates, intends, could, may, believes or

estimates or similar language identify forward-looking statements, as do the negative of these terms and other comparable terminology. The forward-looking statements in this prospectus supplement relate, among other things, to:

- our future business, financial condition and results of operations;
- maintaining and expanding market acceptance of our products or services;
- competitiveness of our products or services;
- customer satisfaction with our products or services;
- any statements of belief; and
- any statements of assumptions underlying any of the foregoing.

These forward-looking statements involve known and unknown risks and uncertainties. Forward-looking statements are not guarantees of our future performance or results, and our actual results could differ materially from those anticipated in these forward-looking statements as a result of certain factors, including those set forth under Risk Factors. You should consider the risk factors and uncertainties under the section titled Risk Factors, among other things, in evaluating our prospects and future financial performance. Before making a decision to invest in our common stock, you should be aware that the occurrence of the events described in the risk factors could harm our business, results of operations and financial condition. Forward-looking statements are made as of the date of this prospectus supplement or the other documents in which they are found. Except as required by securities laws, we are not required and do not intend to update or alter these forward-looking statements in this prospectus supplement or the other documents in which they are found, whether as a result of new information, future events or otherwise.

USE OF PROCEEDS

We will receive net proceeds of approximately $29.8 million ($32.8 million if the underwriters exercise their over-allotment option in full) from the sale of 8,000,000 shares of our common stock offered by us in this offering, after deducting the underwriting discounts and commissions and estimated offering expenses payable by us.

We expect to use the net proceeds from this offering for general working capital purposes and possibly the acquisition of technology, assets and companies, although we currently have no agreements or understandings relating to any such transactions. We have not reserved or allocated specific amounts for these purposes. Accordingly, our management will have broad discretion as to the application of the offering proceeds. Pending our use of the net proceeds, we may invest them in short-term, investment-grade, interest-bearing securities.

DIVIDEND POLICY

Our present policy is to retain any earnings to finance future growth. We have never declared or paid any cash dividends on our capital stock and have no present intention of paying any cash dividends for the foreseeable future.

DILUTION

Our net tangible book value as of September 30, 2005 was approximately $12.4 million, or $0.27 per share of common stock. Net tangible book value per share is equal to our total tangible assets minus total liabilities, all divided by the number of shares of common stock outstanding as of September 30, 2005. Dilution is determined by subtracting net tangible book value per share from the public offering price per share.

Without taking into account any changes in net tangible book value after September 30, 2005, other than giving effect to the sale of the 8,000,000 shares of common stock we are offering at the public offering price of $4.00 per share, and after deducting underwriting discounts and commissions and our estimated offering expenses (assuming the over-allotment option is not exercised), our as-adjusted net tangible book value would have been approximately $42.2 million, or approximately $0.78 per share of common stock. This represents an immediate increase in net tangible book value of approximately $0.51 per share to existing stockholders and an immediate dilution of approximately $3.22 per share to new investors. The following table illustrates this calculation on a per share basis:

Public offering price per share		$ 4.00
Net tangible book value per share as of September 30, 2005	$ 0.27	
Increase per share attributable to the offering	0.51	
As adjusted net tangible book value per share after this offering		0.78
Dilution per share to new investors		$ 3.22

If the underwriters exercise their over-allotment option in full, as-adjusted net tangible book value would increase to approximately $0.83 per share, representing an increase to existing stockholders of approximately $0.56 per share, and there would be an immediate dilution of approximately $3.17 per share to new investors.

The number of shares of common stock outstanding used for existing stockholders in the table and calculations above is based on 45,929,944 shares outstanding as of September 30, 2005 and excludes:

- 2,269,000 shares of our common stock subject to outstanding options with a weighted average exercise price of approximately $2.49 per share; and
- 600,749 shares of our common stock subject to outstanding warrants with a weighted average exercise price of approximately $3.00 per share.

The exercise of outstanding options and warrants having an exercise price less than the public offering price will increase dilution to new investors.

UNDERWRITING

Subject to the terms and conditions of the underwriting agreement, the underwriters named below, through their representatives Deutsche Bank Securities Inc. and Jefferies & Company, Inc., have severally agreed to purchase from us the following respective numbers of shares of common stock at a public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement:

Underwriters	Number of Shares
Deutsche Bank Securities Inc.	6,200,000
Jefferies & Company, Inc.	1,800,000
Total	8,000,000

The underwriting agreement provides that the obligations of the several underwriters to purchase the shares of common stock offered hereby are subject to certain conditions precedent and that the underwriters will purchase all of the shares of common stock offered by this prospectus supplement, other than those covered by the over-allotment option described below, if any of these shares are purchased.

We have been advised by the representatives of the underwriters that the underwriters propose to offer the shares of common stock to the public at the public offering price set forth on the cover of this prospectus supplement and to dealers at a price that represents a concession not in excess of $0.14 per share under the public offering price. The underwriters may allow, and these dealers may re-allow, a concession of not more than $0.10 per share to other dealers. After the public offering, representatives of the underwriters may change the offering price and other selling terms.

We have granted to the underwriters an option, exercisable not later than 30 days after the date of this prospectus supplement, to purchase up to 800,000 additional shares of common stock at the public offering price less the underwriting discounts and commissions set forth on the cover page of this prospectus supplement. The underwriters may exercise this option only to cover over-allotments made in connection with the sale of the common stock offered by this prospectus supplement. To the extent that the underwriters exercise this option, each of the underwriters will become obligated, subject to conditions, to purchase approximately the same percentage of these additional shares of common stock as the number of shares of common stock to be purchased by it in the above table bears to the total number of shares of common stock offered by this prospectus supplement. We will be obligated, pursuant to the option, to sell these additional shares of common stock to the underwriters to the extent the option is exercised. If any additional shares of common stock are purchased, the underwriters will offer the additional shares on the same terms as those on which the 8,000,000 shares are being offered.

The underwriting discounts and commissions per share are equal to the public offering price per share of common stock less the amount paid by the underwriters to us per share of common stock. The underwriting discounts and commissions are 6.0% of the public offering price. We have agreed to pay the underwriters the following discounts and commissions, assuming either no exercise or full exercise by the underwriters of the underwriters over-allotment option:

		Total Fees	
	Fee per Share	Without Exercise of Over-Allotment Option	With Full Exercise of Over-Allotment Option
Discounts and commissions paid by us	$ 0.24	$ 1,920,000	$ 2,112,000

In addition, we estimate that the total expenses of this offering, excluding underwriting discounts and commissions, will be approximately $291,511.

We have agreed to indemnify the underwriters against specified types of liabilities, including liabilities under the Securities Act, and to contribute to payments the underwriters may be required to make in respect of any of these liabilities.

Each of our executive officers and directors has agreed not to offer, sell, contract to sell or otherwise dispose of, or enter into any transaction that is designed to, or could be expected to, result in the disposition of any shares of our common stock or other securities convertible into or exchangeable or exercisable for shares of our common stock or derivatives of our common stock owned by these persons prior to this offering or common stock issuable upon exercise of options or warrants held by these persons for a period of at least 90 days after the date of this prospectus supplement without the prior written consent of Deutsche Bank Securities Inc., subject to a potential extension of the lock-up period for up to an additional 18 days under certain circumstances. This consent may be given at any time without public notice. We have entered into a similar agreement with the representatives of the underwriters. There are no agreements between the representatives and any of our officers, directors, stockholders or affiliates releasing them from these lock-up agreements prior to the expiration of the up to 108-day period.

In connection with the offering, the underwriters may purchase and sell shares of our common stock in the open market. These transactions may include short sales, purchases to cover positions created by short sales and stabilizing transactions.

Short sales involve the sale by the underwriters of a greater number of shares than they are required to purchase in the offering. Covered short sales are sales made in an amount not greater than the underwriters option to purchase additional shares of common stock from us in the offering. The underwriters may close out any covered short position by either exercising their option to purchase additional shares or purchasing shares in the open market. In determining the source of shares to close out the covered short position, the underwriters will consider, among other things, the price of shares available for purchase in the open market as compared to the price at which they may purchase shares through the over-allotment option.

Naked short sales are any sales in excess of the over-allotment option. The underwriters must close out any naked short position by purchasing shares in the open market. A naked short position is more likely to be created if underwriters are concerned that there may be downward pressure on the price of the shares in the open market prior to the completion of the offering.

Stabilizing transactions consist of various bids for or purchases of our common stock made by the underwriters in the open market prior to the completion of the offering.

The underwriters may impose a penalty bid. This occurs when a particular underwriter repays to the other underwriters a portion of the underwriting discount received by it because the representatives of the underwriters have repurchased shares sold by or for the account of that underwriter in stabilizing or short covering transactions.

Purchases to cover a short position and stabilizing transactions may have the effect of preventing or slowing a decline in the market price of our common stock. Additionally, these purchases, along with the imposition of a penalty bid, may stabilize, maintain or otherwise affect the market price of our common stock. As a result, the price of our common stock may be higher than the price that might otherwise exist in the open market. These transactions may be effected on the NASDAQ Capital Market, in the over-the-counter market or otherwise.

In connection with this offering, the underwriters may engage in passive market making transactions in our common stock on the NASDAQ Capital Market in accordance with Rule 103 of Regulation M under the Exchange Act during a period before the commencement of offers or sales of common stock and extending through the completion of distribution. A passive market maker must display its bid at a price not in excess of the highest independent bid of that security. However, if all independent bids are lowered below the passive market maker s bid, that bid must then be lowered when specified purchase limits are exceeded.

A prospectus supplement and the accompanying prospectus in electronic format are being made available on Internet web sites maintained by one or more of the lead underwriters of this offering and may be made available on web sites maintained by other underwriters. Other than the prospectus supplement and the accompanying prospectus in electronic format, the information on any underwriter s web site and any information contained in any other web site maintained by an underwriter is not part of the prospectus supplement and the accompanying prospectus or the registration statement of which the prospectus supplement and the accompanying prospectus form a part.

LEGAL MATTERS

The validity of the common stock offered pursuant to this prospectus supplement was passed upon by Bullivant&#124Houser&#124Bailey PC, Sacramento, California, counsel to ThermoGenesis Corp. Certain legal matters in connection with this offering will be passed upon for the underwriters by Heller Ehrman LLP, San Francisco, California.

EXPERTS

The financial statements of ThermoGenesis Corp. appearing in ThermoGenesis Corp. s Annual Report (Form 10-K) for the year ended June 30, 2005 (including the schedule appearing therein) and ThermoGenesis Corp. management s assessment of the effectiveness of internal control over financial reporting as of June 30, 2005 included therein, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such financial statements and management s assessment are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to incorporate by reference the information we file with them, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be a part of this prospectus supplement and information that we file later with the SEC will automatically update and supersede this information. We incorporate by reference herein the documents listed below and any future filings made by us with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the

Securities Exchange Act of 1934 prior to the termination of this offering. The documents we incorporate by reference into this prospectus supplement are:

our Current Report on Form 8-K, filed on January 27, 2006.

our Current Report on Form 8-K, filed on January 17, 2006.

the description of our common stock contained in our registration statement on Form 8-A.

Please note that all other documents and reports filed under Sections 13(a), 13(c), 14 or 15(d) of the Securities Exchange Act of 1934 following the date of this prospectus supplement and prior to the termination of this offering will be deemed to be incorporated by reference into this prospectus supplement and will be made a part of it from the date of filing with the Commission.

We will furnish to you without charge upon your request a copy of any of the documents incorporated in this prospectus supplement and any statement in, or incorporated in, this prospectus supplement by reference, other than the exhibits to those documents unless those exhibits are specifically incorporated herein by reference. For a copy of any of the documents you should contact ThermoGenesis Corp., 2711 Citrus Road, Rancho Cordova, California 95742 or call (916) 858-5100, Attention: Corporate Secretary.

WHERE YOU CAN FIND MORE INFORMATION

We are subject to the informational requirements of the Securities Exchange Act of 1934. We therefore file periodic reports, proxy statements and other information with the SEC. These reports may be obtained by visiting the Public Reference Room of the SEC at 100 F Street, NE, Room 1580, Washington, D.C. 20549, or by calling the SEC at 1-212-551-8090. In addition, the SEC maintains an internet site (www.sec.gov) that contains reports, proxy and information statements and other information regarding issuers that file electronically.

Our internet address is www.thermogenesis.com. We make available, free of charge, through our internet website copies of our annual report on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K and amendments to those reports, if any, filed or furnished pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934, as soon as reasonably practicable after filing such material electronically or otherwise furnishing it to the SEC.

We have filed this prospectus supplement and a registration statement on Form S-3, as amended, regarding this offering with the SEC under the Securities Act of 1933. This prospectus supplement, which constitutes a part of the registration statement, does not contain all the information contained in the registration statement, certain items of which are contained in exhibits to the registration statement as permitted by the rules and regulations of the SEC. You should refer to the registration statement and its exhibits to read that information. Statements made in this prospectus supplement as to the content of any contract, agreement or other document are not necessarily complete and you should refer to the contracts, agreements and other documents attached as exhibits to the registration statement for a more complete description of the agreements, contracts and other documents.

PROSPECTUS
THERMOGENESIS CORP.

$75,000,000
Common Stock

By this prospectus, we may offer a number of shares of our common stock up to an aggregate of $75,000,000 in one or more transactions. We will provide specific terms for any sale of common stock in supplements to this prospectus. You should read this prospectus and any prospectus supplement, as well as the documents incorporated or deemed to be incorporated by reference in this prospectus, carefully before you invest. This prospectus may not be used to offer and sell the shares of common stock unless accompanied by a prospectus supplement.

Our common stock is traded and listed on the NASDAQ Capital Market, under the symbol KOOL. On December 9, 2005, the last reported sale price for the common stock was $4.05 per share.

Investing in our common stock involves a high degree of risk. See Risk Factors at page 3.

NEITHER THE SECURITIES AND EXCHANGE COMMISSION NOR ANY STATE SECURITIES COMMISSION HAS APPROVED OR DISAPPROVED OF THESE SECURITIES OR DETERMINED IF THIS PROSPECTUS IS TRUTHFUL OR COMPLETE. ANY REPRESENTATION TO THE CONTRARY IS A CRIMINAL OFFENSE.

THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE SALES OF SECURITIES UNLESS ACCOMPANIED BY THE APPLICABLE PROSPECTUS SUPPLEMENT.

The date of this Prospectus is December 14, 2005

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PROSPECTUS SUMMARY

Forward-Looking Statements

This Prospectus contains or incorporates forward-looking statements, which include statements about our business strategy, our growth strategy, our product development and marketing efforts and anticipated trends in our business, which are not historical facts. We may also make additional forward-looking statements from time to time in filings that we make with the Commission. When we use words like believe, expect, anticipate, project, and similar expressions, this should alert you that the statement is forward-looking. Forward-looking statements speak only as of the date made, based largely on expectations. These expectations are generally subject to a number of risks and uncertainties, some of which cannot be predicted or quantified and which are beyond our control. Future events and actual results may differ materially from the anticipated results expressed in, contemplated by, or underlying our forward-looking statements. Statements in this Prospectus, and in documents incorporated by reference into this Prospectus, including those set forth in the caption Risk Factors describe factors, among others, that could contribute to or cause differences. In light of these risks and uncertainties, we cannot give any assurances that the forward-looking information will in fact transpire or prove to be accurate in the future.

Summary

This summary highlights selected information from this prospectus and does not contain all of the information that is important to you. To understand the terms of any offering you should read carefully this prospectus and the prospectus supplement, as well as our periodic reports filed with the Securities and Exchange Commission that contain more detailed disclosure about our business and financial performance.

About this Prospectus

This prospectus is part of a registration statement on Form S-3 that we filed with the Securities and Exchange Commission (SEC) utilizing a shelf registration process. Under this shelf registration process, we may sell shares of our common stock up to an aggregate of $75,000,000 in one or more offerings. This prospectus provides you with a general description of the shares of common stock we may offer. Each time we sell shares of common stock we will provide a prospectus supplement that will contain specific information about the terms of that offer and sale. The prospectus supplement may add, update or change information contained in this prospectus. This prospectus, together with applicable prospectus supplements, includes all material information relating to this offering. Please carefully read both this

prospectus and any prospectus supplement together with any additional information described below under Where You Can Find More Information. **THIS PROSPECTUS MAY NOT BE USED TO CONSUMMATE A SALE OF SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.**

Where You Can Find More Information

Government Filings. We file annual, quarterly and special reports and other information with the Commission. You may read and copy any document that we file at the Securities and Exchange Commission s Public Reference Room at 100 F. Street, N.E., Room 1580, Washington, D.C. 20549. Please call the Commission at 1-202-551-8090 for more information about the Public Reference Room. Most of our filings are also available to you free of charge at the Securities and Exchange Commission s website at http://www.sec.gov.

Information Incorporated by Reference. The Commission rules and regulations allow us to incorporate by reference the information that we file with it. This means that we can disclose additional important information to you by referring to those documents. The information incorporated by reference is an important part of this Prospectus, and information that we file in the future with the Commission will automatically update and supersede this information. We have filed the following documents with the Commission and the information contained in those documents is incorporated by reference into this Prospectus:

Our Annual Report on Form 10-K for the fiscal year ended June 30, 2005, filed on September 12, 2005;

Our Quarterly Report on Form 10-Q for the quarter ended September 30, 2005, filed on November 9, 2005;

Our Quarterly Report on Form 10-Q/ A for the quarter ended September 30, 2005, filed on December 12, 2005;

Our Current Reports on Form 8-K filed on November 10, 2005;

Our Current Report on Form 8-K filed on October 18, 2005;

Our Proxy Statement on Schedule 14A filed on September 12, 2005;

Our Proxy Statement on Schedule 14A filed on October 31, 2005.

Please note that all other documents and reports filed under Sections 13(a), 13(c), 14 or 15(d) of the Securities and Exchange Act of 1934, as amended, following the date of this Prospectus and prior to the termination of this offering will be deemed to be incorporated by reference into this Prospectus and will be made a part of it from the date of filing with the Commission.

Filings made with the Commission and other information about us can be found on our website at www.thermogenesis.com. We will provide to each person, including any beneficial owner, who is delivered a prospectus, a copy of any of the documents that are incorporated by reference free of charge. Send requests to Matthew Plavan, Assistant Corporate Secretary, ThermoGenesis Corp., 2711 Citrus Road, Rancho Cordova, CA 95742 or call (916) 858-5100.

OUR BUSINESS

We are a leader in developing and manufacturing automated blood processing systems and disposables that enable the manufacture, preservation and delivery of personalized cell and tissue therapy products, or CTT products, for clinical use. Personalized CTT products are created from the blood or tissue of a single donor and administered to that donor or a matched

patient. Our systems and disposables are intended for use by hospitals and blood banks in two distinct markets. In cell therapy, our products automate the isolation, capture and preservation of stem cells residing in the blood of the placenta and umbilical cord, or cord blood, after a baby is born. These cells are used to treat patients for leukemia, lymphoma and over 60 other life threatening genetic diseases. Cord blood stem cells typically result in reduced immune complications post transplant compared to adult bone marrow stem cells. In tissue therapy, our products are used for the rapid manufacture of autologous sealants or thrombin for surgical wound care. Autologous sealants have no risk of contamination by blood-borne pathogens from other donors. We believe that our significant experience and technical expertise in developing proprietary technologies for enabling personalized CTT products, coupled with our relationships with leading transplant physicians, stem cell researchers and surgeons, has enabled us to develop safer, more effective systems for these applications.

Our principal executive offices are located at 2711 Citrus Road, Rancho Cordova, California 95742. Our telephone number is (916) 858-5100.

RISK FACTORS

Investment in our common stock involves risk. You should carefully consider the risks we describe in our reports filed with the Securities and Exchange Commission (SEC) from time to time which are incorporated by reference herein, and those that may be set forth in any prospectus supplement, before deciding to invest.

USE OF PROCEEDS

Unless otherwise indicated in the applicable prospectus supplement, we expect to use the net proceeds from the sale of our common stock for working capital, to fund our future growth plans, and for other general corporate purposes and capital expenditures related to our growth. We may also use a portion of the net proceeds to acquire or invest in businesses, products or technologies that complement our existing business. From time to time, we engage in preliminary discussions and negotiations with various businesses in order to explore the possibility of strategic partnering or investment.

DESCRIPTION OF OUR BUSINESS

BUSINESS OVERVIEW

We are a leader in developing and manufacturing automated blood processing systems and disposables that enable the manufacture, preservation and delivery of personalized cell and tissue therapy products, or CTT products, for clinical use. Personalized CTT products are created from the blood or tissue of a single donor and administered to that donor or a matched patient. Our systems and disposables are intended for use by hospitals and blood banks in two distinct markets. In cell therapy, our products automate the isolation, capture and preservation of stem cells residing in the blood of the placenta and umbilical cord, or cord blood, after a baby is born. These cells are used to treat patients for leukemia, lymphoma and over 60 other life threatening genetic diseases. Cord blood stem cells typically result in reduced immune complications post transplant compared to adult bone marrow stem cells. In tissue therapy, our products are used for the rapid manufacture of autologous sealants or thrombin for surgical wound care. Autologous sealants have no risk of contamination by blood-borne pathogens from other donors. We believe that our significant experience and technical expertise in developing proprietary technologies for enabling personalized CTT products, coupled with our relationships with leading transplant physicians, stem cell researchers and surgeons, has enabled us to develop safer, more effective systems for these applications.

In recent years, our revenue primarily has been generated from the sale of our BioArchive System and related disposables. However, we currently are developing and commercializing new automated systems that enable the manufacture of personalized CTT products. Our products and products in development are described below.

The BioArchive System is an automated cryogenic system used in cell therapy to cryopreserve and archive cord blood stem cells for future transplant. We have sold 117 BioArchive Systems to date to major cord blood banks and stem cell research institutes in 26 countries. We have recently signed a global distribution agreement with GE Healthcare granting them exclusive rights to distribute the BioArchive System and related disposables.

The AutoXpress, or AXP, System is our newly developed automated system and disposable intended for use in cell therapy to isolate and capture stem cells from cord blood. Our agreement with GE Healthcare also grants them exclusive rights to distribute the AXP System and disposables, and we expect sales to begin in the first quarter of 2006.

The CryoSeal Fibrin Sealant, or FS, System is an automated system used in wound care to prepare an autologous hemostatic surgical sealant from a patient s own blood in approximately one hour. We have completed our pivotal 150 patient U.S. clinical trial and are preparing our PMA submission. In addition, we have received the CE Mark, and in Japan our distribution partner, Asahi Medical, filed their PMA equivalent in March 2005.

The Thrombin Processing Disposable, or TPD, is used in wound care to isolate activated thrombin from the patient s blood plasma in less than 30 minutes. Thrombin is used as a topical hemostatic agent for minor bleeding sites, to treat pseudo aneurysms and to release growth factors from platelets. We have signed non-exclusive distribution agreements with Biomet, Medtronic and Asahi Medical for sales of our TPD.

BACKGROUND

Industry

CTT is a broad and rapidly growing field of medicine that requires the collection, purification, manipulation, storage and administration of stem cells, proteins and growth factors tailored to individual patients. Personalized CTT products are created from the blood or tissue of a single donor, administered to that donor or a matched patient, and used either for the treatment of leukemia, lymphoma and over 60 other life threatening diseases, or for surgical wound care. Critical factors in providing effective personalized CTT products are that they be precisely identified and tracked from their source to the receiving patient and that every manufacturing step, such as harvesting, processing, freezing, transporting, matching and delivering, preserves the viability and sterility of the product.

Cell Therapy

The human body is comprised of cells of specific tissues, such as skin, liver or blood, and stem cells that are not fully differentiated into specific tissues. Until the middle of the 1990s, researchers were familiar with two major types of stem cells, embryonic stem cells and adult stem cells. However, researchers now know that pluripotent stem cells are found in cord blood, bone marrow and other tissues of the body. Pluripotent stem cells are capable of differentiation into multiple tissues such as bone, blood, nerve and muscle. All the cells residing in blood, which are red cells, white cells and platelets, arise from a particular pluripotent stem cell called the hematopoietic stem cell. Before the discovery that there were hematopoietic stem cells in cord blood, the placenta and umbilical cord were routinely discarded as biological waste. However, these hematopoietic stem cells are harvested at no risk or pain to the donor and can

be preserved in a cord blood bank for clinical use with a matched patient on short notice. Their use also results in a lower incidence of post-transplant immune complications than transplants with adult bone marrow stem cells.

Hematopoietic stem cell therapy is used to:

- replace diseased bone marrow with healthy, functioning bone marrow for patients with blood diseases such as aplastic anemia;
- replace bone marrow damaged by high-dose chemotherapy or radiation therapy used to treat patients with a variety of cancers such as leukemia and lymphoma; and
- provide genetically healthy and functioning bone marrow to treat patients with genetic diseases such as sickle cell anemia.

With approximately four million births per year in the United States alone, cord blood represents a large, natural resource for use in the treatment of malignant and genetic diseases. Following the first successful cord blood transplant performed in 1988, awareness of the potential therapeutic value of cord blood stem cells has increased and collection and storage has grown rapidly.

We believe the number of units stored will continue to grow, due in part to the following factors:

- increased awareness about the availability and benefits of preserving cord blood;
- improved technology to harvest the stem cells in a sterile environment and maintain their viability for many years;
- growing endorsement by the medical community;
- new applications for cell therapy; and
- new governmental legislation.

For example, in May 2005, the House of Representatives passed the National Cord Blood Stem Cell Act, which aims to store 150,000 units of cord blood in a national registry. This Act is still awaiting passage by the Senate, and there is no certainty that it ultimately will pass and be signed into law. Separately, the Health Resources and Services Administration intends to distribute funds to qualified cord blood banks to manufacture higher quality cord blood units and develop an improved system for distributing the units to matched patients. We believe that countries outside the United States are likely to follow this lead.

Wound Care

Wound care products are used in a variety of surgical procedures and applications to control bleeding, close incisions, assist in tissue fixation, create a physical barrier to prevent fluid or air passage and promote healing. With the population and number of surgeries increasing and as physicians learn about new applications and safer products, this market has potential for significant growth. Wound-healing products are evaluated by their safety, effectiveness, preparation time, ease of use and cost. In addition, the components of wound care products are very important, as different materials have different associated risks and benefits.

Current wound care products fall into the following general categories: topical hemostats, tissue sealants and platelet gels. Topical hemostats are used when bleeding is difficult to control with conventional methods, such as suturing, stapling or placement of pads or gauze at the bleeding site. The most common type of topical hemostatic agents are thrombin-based, which are used in procedures where blood clotting must be accelerated, in order to keep the

surgery site dry. In addition, thrombin can be used by itself to control minor bleeding sites but is insufficient for more persistent bleeding sites.

The only thrombin that is available in the United States as a stand-alone product is Thrombin JMI®, a thrombin derived from bovine, or cow, blood. This product is only sold in limited geographies outside of the United States. The market for thrombin is growing rapidly, with Thrombin JMI net sales totaling approximately $175 million in the full year ended December 31, 2004, and already $170 million during the nine months ended September 30, 2005.

Tissue sealants, which are more powerful hemostatic agents than thrombin alone, are made of either biologic or synthetic material and are used in a variety of surgical specialties and applications. They are used to close incisions, seal and secure skin flaps, reduce adhesions and promote hemostasis. Fibrin sealants make up the majority of this sub-segment. Conventional fibrin sealants are derived from large pools of up to 10,000 units of purchased human plasma and often contain animal proteins such as bovine aprotinin. While current processes attempt to remove all viral and bacterial pathogens from conventional sealants, there have been several recent peer-reviewed journal reports of the transmission of Parvovirus B-19 to surgical patients treated with these sealants. In addition, animal proteins are a potential source of agents of transmissible bovine spongiform encephalopathy, which are resistant to any methods of pathogen inactivation available to fractionators at this time.

Autologous platelet gels are made by isolating the platelets from a small amount of the patient s own blood and combining those platelets with thrombin. Thrombin causes the release of growth factors from the platelets, which then trigger wound-healing and tissue repair. Platelet gels increase the quantity and concentration of growth factors at the wound site.

OUR SOLUTION

We believe that the use of personalized CTT products will increase due to the growing evidence and understanding of their clinical benefits in treating disease. Our proprietary systems and disposables enable the manufacture, preservation and delivery of these personalized CTT products and have substantial advantages over other products and practices available today. Our products address a broad range of CTT applications in two primary areas: cell therapy and tissue therapy, including wound care.

Cell Therapy

Our BioArchive and AXP Systems and disposables are designed to ensure that the stem cells in the CTT products are successfully isolated, captured and preserved such that the cells are fully viable at time of transplant, which may be months or years after production. The BioArchive System, which can store up to 3,623 units of cord blood stem cells, is the only fully automated system that integrates controlled rate freezing, quarantine and long term cryogenic storage. The robotic storage and retrieval of these stem cell units improves cell viability, provides precise inventory management and minimizes the possibility of human error. To date we have sold 117 BioArchive Systems to major cord blood stem cell banks and stem cell research centers in 26 countries. Cord blood stem cell units have been used to treat leukemia, lymphoma and over 60 other life threatening genetic diseases.

More recently, we have developed the AXP System, which automates the isolation and capture of hematopoietic stem cells from cord blood into a fixed 20 ml volume. It includes a compact battery powered device and a proprietary sterile disposable bag set. The AXP replaces the current clinical process, which involves more than a dozen manual steps. The AXP System will provide cord blood banks with a reproducible and GMP-compliant solution to more successfully isolate and capture stem cells with lower labor costs and reduced contamination.

We expect sales of the AXP System and disposables to begin in the first quarter of 2006 through our distribution partner, GE Healthcare.

Wound Care

In the tissue therapy market, we have developed the CryoSeal FS System and the TPD. The CryoSeal FS System manufactures fibrin sealant in a closed and sterile disposable from a single unit of the patient s own plasma in about an hour. In contrast, conventional fibrin sealants are sourced from large pools of up to 10,000 or more units of purchased plasma and often include bovine proteins, and thus remain vulnerable to contamination by infectious pathogens residing anywhere in these sources. Our CryoSeal FS System prepares the two interactive liquid components of a fibrin sealant: (1) the wound healing proteins of fibrinogen, fibronectin, Factor VIII, von Willebrands Factor and Factor XIII and (2) the activating enzyme, thrombin. When combined at the bleeding wound site, the two components form an adhesive gel that stops bleeding and bonds tissue. Once prepared, the CryoSeal fibrin sealant may be stored frozen for up to a year or used immediately as a hemostatic agent for patients undergoing surgery.

Our pivotal trial, completed in July 2005, was a 150 patient blinded, randomized multi-center clinical trial comparing the performance of CryoSeal FS to Johnson & Johnson s Instat® collagen sponge. The study demonstrated that patients treated with CryoSeal FS showed statistically significant reduced time to hemostasis versus the Instat® control group, with p=<0.001. We are currently preparing our PMA for the CryoSeal FS System for submission in the first quarter of 2006.

We have received the CE Mark, allowing sales of the CryoSeal FS System in Europe, although sales into individual countries under cost reimbursement structures often requires the existence of supporting clinical usage within that country. We have, through our distribution partners in Europe, undertaken several clinical studies and, upon completion, will initiate more aggressive marketing. In Japan, our distributor, Asahi Medical, has completed enrollment in their pivotal clinical trial and filed their PMA equivalent in March 2005. In addition, several field trials are underway in other geographies to provide a cost justification for reimbursement for use of the product.

The TPD is incorporated in the CryoSeal FS system but can be sold as a stand alone product. It is a disposable device that isolates and captures activated autologous thrombin from approximately 11 ml of patient blood plasma. Thrombin is used as a topical hemostatic agent for minor bleeding sites, to treat pseudo aneurysms and to release growth factors from platelets. We have a received the CE Mark for TPD and began selling the product in Europe through our distributor in August 2005. The TPD standalone product would require a separate PMA before sale in the United States.

OUR STRATEGY

We believe our products significantly enhance the safety and viability of CTT products and will ultimately expand the use and success of CTT products in clinical treatment. Our strategy is to expand our leadership position in the area of medical devices and disposables for the manufacture and preservation of personalized CTT products. The key elements of our strategy include:

Begin commercializing the AXP system through our strategic partner, GE Healthcare

Complete the PMA and receive approval for our CryoSeal FS System in the United States and Japan

Expand commercialization of the TPD through Biomet, Medtronic, Asahi Medical and potentially other distribution partners

Expand our reach through both sales and consulting services for clinical trials

Accelerate our research and development efforts

Leverage our installed base to generate additional recurring revenue

CORPORATE INFORMATION

We are incorporated in Delaware. Our principal executive offices are located at 2711 Citrus Road, Rancho Cordova, California 95742. Our telephone number is (916) 858-5100. Our website is www.thermogenesis.com. Information contained on our website is not considered to be a part of this prospectus.

We are authorized by our Certificate of Incorporation, as amended and restated, to issue 80,000,000 shares of common stock, $0.001 par value and 2,000,000 shares of preferred stock, $0.001 par value. As of December 9, 2005, there were 45,984,692 shares of common stock and no shares of preferred stock outstanding. Holders of shares of common stock have full voting rights, one vote for each share held of record. Stockholders are entitled to receive dividends as may be declared by the Board out of funds legally available therefore and share pro rata in any distributions to stockholders upon liquidation. Stockholders have no conversion, preemptive or subscription rights. All outstanding shares of common stock are fully paid and nonassessable, and all the shares of common stock issued by us upon the exercise of outstanding warrants will, when issued, be fully paid and nonassessable.

PLAN OF DISTRIBUTION

We may sell all or a portion of the common stock:

Through one or more underwriters or dealers for public offering and sale;

Directly to investors;

Through agents;

Through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the common stock as agent, but may position and resell a portion of the block as principal to facilitate the transaction.

We may distribute the common stock from time to time in one or more transactions at a fixed price or prices, which may be changed from time to time:

at market prices prevailing at the time of sale, or

at negotiated prices.

We will describe the method of distribution of the common stock in the prospectus supplement. Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or the purchasers, as their agents, in connection with the sale of the common stock. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act of 1933, as amended, and, therefore, any discounts, commissions, or profits on resale received by such underwriters may be treated as underwriting discounts and commissions. In the prospectus supplement, we will identify any such underwriter, dealer or agent, and describe the compensation received by them from us. Any public offering price and any discounts or concessions allowed or reallowed or paid to dealers may be changed from time to time.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under federal securities laws. Underwriters, dealers and agents

also may be entitled to contribution with respect to payments made by other underwriters, dealers and agents under agreements between us and such underwriters, dealers and agents.

INDEMNIFICATION OF DIRECTORS AND OFFICERS

Our Amended and Restated Certificate of Incorporation provides that we will indemnify our directors and officers to the fullest extent permitted by the laws of the state of Delaware. Further, our bylaws, as amended, provide authority for us to maintain a liability insurance policy that insures our directors or officers against any liability incurred by them for service to us.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted for our directors, officers and controlling persons pursuant to the foregoing provisions, or otherwise, we have been advised that in the opinion of the Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by us of expenses incurred or paid by a director, officer, or controlling person of our company 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, unless in the opinion of our counsel, the matter has been settled by controlling precedent, we will submit to a court of appropriate jurisdiction the question of whether such indemnification is against public policy as expressed in the Securities Act and will be governed by final adjudication.

EXPERT

The financial statements of ThermoGenesis Corp. appearing in ThermoGenesis Corp. s Annual Report (Form 10-K) for the year ended June 30, 2005 (including the schedule appearing therein) and ThermoGenesis Corp. management s assessment of the effectiveness of internal control over financial reporting as of June 30, 2005 included therein, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their reports thereon, included therein, and incorporated herein by reference. Such financial statements and management s assessment are incorporated herein by reference in reliance upon such reports given on the authority of such firm as experts in accounting and auditing.

LEGAL MATTERS

The validity of the shares of common stock offered will be passed by the law firm of Bullivant&#124Houser&#124Bailey P.C., Sacramento, California.

You should rely only on the information contained in this prospectus supplement, the accompanying prospectus and the documents we incorporate by reference in this prospectus supplement. We have not authorized anyone to provide you with information that is different. We are offering our common stock only in jurisdictions where such offers are permitted. The information contained in this prospectus supplement and the accompanying prospectus is accurate only as of their respective dates, regardless of the time of delivery of this prospectus supplement, or of any sale of our common stock.

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ThermoGenesis Corp.
8,000,000 Shares
Common Stock
Deutsche Bank Securities Inc.
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Prospectus Supplement
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