

PEPLIN INC
Form SC 13D/A
December 08, 2009

**UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549**

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 2)***

Peplin, Inc.
(Name of Issuer)
Common Stock
(Title of Class of Securities)
U7117K107
(CUSIP Number)
Vaughn M. Kailian
MPM Asset Management
The John Hancock Tower
200 Clarendon Street, 54th Floor
Boston, MA 02116
Telephone: (617) 425-9200
(Name, Address and Telephone Number of Person Authorized to
Receive Notices and Communications)
November 11, 2009
(Date of Event Which Requires Filing of this Statement)

If the filing person has previously filed a statement on Schedule 13G to report the acquisition that is the subject of this Schedule 13D, and is filing this schedule because of §§240.13d-1(e), 240.13d-1(f) or 240.13d-1(g), check the following box. o

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See §240.13d-7 for other parties to whom copies are to be sent.

* The remainder of this cover page shall be filled out for a reporting person's initial filing on this form with respect to the subject class of securities, and for any subsequent amendment containing information which would alter disclosures provided in a prior cover page.

The information required on the remainder of this cover page shall not be deemed to be filed for the purpose of Section 18 of the Securities Exchange Act of 1934 (Act) or otherwise subject to the liabilities of that section of the Act but shall be subject to all other provisions of the Act (however, see the Notes).

CUSIP No. U7117K107

Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)

1. MPM BioVentures IV Q-P, L.P.

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. WC

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. Delaware

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

(1) This Amendment no. 2 to Schedule 13D is filed by MPM BioVentures IV-QP, L.P. (BV IV QP), MPM BioVentures IV GmbH & Co. Beteiligungs KG (BV IV KG), MPM Asset Management Investors BV4 LLC (AM LLC), MPM BioVentures IV GP LLC (BV IV GP), MPM BioVentures IV LLC (BV IV LLC), MPM BioVentures III, L.P. (BV III), MPM BioVentures III-QP, L.P. (BV III QP), MPM BioVentures III GmbH & Co. Beteiligungs KG (BV III KG), MPM BioVentures III Parallel Fund, L.P. (BV III PF), MPM Asset Management Investors 2004 BVIII LLC (AM BVIII LLC), MPM BioVentures Strategic Fund, L.P. (BV SF), MPM BioVentures III, GP, L.P. (BV III GP) and MPM BioVentures III, LLC (BV III LLC) (collectively, the MPM Entities) and Ansbert Gadicke, Luke Evnin, Steven St. Peter, William Greene, James Paul Scopa, Ashley Dombkowski, Vaughn Kailian and John Vander Vort (collectively, the Listed Persons and together with the MPM Entities, the Filing Persons). The Listed Persons are members of BV IV LLC and AM LLC and Luke Evnin and Ansbert Gadicke are Series A members of BV III LLC and managers of AM BV III LLC. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.

CUSIP No. U7117K107

Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)

1. MPM BioVentures IV GmbH & Co. Beteiligungs KG

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. WC

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. Germany

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.

CUSIP No. U7117K107

Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)

1. MPM Asset Management Investors BV4 LLC

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. WC

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. Delaware

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

OO

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CUSIP No. U7117K107

Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)

1. MPM BioVentures IV GP LLC

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. WC

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. Delaware

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

OO

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures IV LLC

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF		0
SHARES	8.	Shared Voting Power
BENEFICIALLY		
OWNED BY		0
EACH	9.	Sole Dispositive Power
REPORTING		
PERSON		0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

OO

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures III, L.P.

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF		0
SHARES	8.	Shared Voting Power
BENEFICIALLY		
OWNED BY		0
EACH	9.	Sole Dispositive Power
REPORTING		
PERSON		0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures III-QP, L.P.

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF		0
SHARES	8.	Shared Voting Power
BENEFICIALLY		
OWNED BY		0
EACH	9.	Sole Dispositive Power
REPORTING		
PERSON		0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures III GmbH & Co. Beteiligungs KG

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures III Parallel Fund, L.P.

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY OWNED BY	0	
EACH	9.	Sole Dispositive Power
REPORTING PERSON	0	

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

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CUSIP No. U7117K107

Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)

1. MPM Asset Management Investors 2004 BVIII LLC

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. WC

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. Delaware

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

OO

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures Strategic Fund, L.P.

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF		0
SHARES	8.	Shared Voting Power
BENEFICIALLY		
OWNED BY		0
EACH	9.	Sole Dispositive Power
REPORTING		
PERSON		0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures III GP, L.P.

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

PN

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CUSIP No. U7117K107

1. Name of Reporting Persons I.R.S. Identification No(s). of above person(s) (entities only)
MPM BioVentures III LLC

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
WC

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
Delaware

	7.	Sole Voting Power
NUMBER OF		0
SHARES	8.	Shared Voting Power
BENEFICIALLY		
OWNED BY		0
EACH	9.	Sole Dispositive Power
REPORTING		
PERSON		0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

OO

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
Ansbert Gadicke

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
United States

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
Luke Evnin

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
United States

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
Steven St. Peter

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
United States

	7.	Sole Voting Power
NUMBER OF		0
SHARES	8.	Shared Voting Power
BENEFICIALLY		
OWNED BY		0
EACH	9.	Sole Dispositive Power
REPORTING		
PERSON		0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
William Greene

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
United States

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
James Paul Scopa

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
United States

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

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CUSIP No. U7117K107

1. Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)
Ashley Dombkowski

2. Check the Appropriate Box if a Member of a Group (See Instructions)
(a)
(b) (1)

3. SEC USE ONLY

4. Source of Funds (See Instructions)
OO

5. Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

6. Citizenship or Place of Organization
United States

	7.	Sole Voting Power
NUMBER OF	0	
SHARES	8.	Shared Voting Power
BENEFICIALLY	0	
OWNED BY		
EACH	9.	Sole Dispositive Power
REPORTING	0	
PERSON		

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

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CUSIP No. U7117K107

Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)

1. Vaughn M. Kailian

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. OO

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. United States

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.

CUSIP No. U7117K107

Name of Reporting Persons. I.R.S. Identification No(s). of above person(s) (entities only)

1. John Vander Vort

Check the Appropriate Box if a Member of a Group (See Instructions)

2. (a)
(b) (1)

SEC USE ONLY

3.

Source of Funds (See Instructions)

4. OO

Check if Disclosure of Legal Proceedings Is Required Pursuant to Items 2(d) Or 2(e)

5.

Citizenship or Place of Organization

6. United States

7. Sole Voting Power

NUMBER OF 0

8. Shared Voting Power

BENEFICIALLY OWNED BY 0

9. Sole Dispositive Power

EACH REPORTING PERSON 0

WITH Shared Dispositive Power

10.

0

Aggregate Amount Beneficially Owned by Each Reporting Person

11.

0

Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions)

12.

o

Percent of Class Represented by Amount in Row (11)

13.

0.0%

Type of Reporting Person (See Instructions)

14.

IN

(1) This Schedule is filed by the MPM Entities and the Listed Persons. The MPM Entities and the Listed Persons expressly disclaim status as a group for purposes of this Schedule 13D.

Introductory Note: This Amendment No. 2 to Schedule 13D (this Amendment No. 2) amends and supplements the Schedule 13D originally filed with the United States Securities and Exchange Commission (the SEC) on January 13, 2009 (the Original Schedule 13D), as amended by Amendment No. 1 to Schedule 13D (Amendment No. 1) filed with the SEC on September 10, 2009. The entities and persons filing this statement are MPM BioVentures IV-QP, L.P. (BV IV QP), MPM BioVentures IV GmbH & Co. Beteiligungs KG (BV IV KG), MPM Asset Management Investors BV4 LLC (AM LLC), MPM BioVentures IV GP LLC (BV IV GP), MPM BioVentures IV LLC (BV IV LLC), MPM BioVentures III, L.P. (BV III), MPM BioVentures III-QP, L.P. (BV III QP), MPM BioVentures III GmbH & Co. Beteiligungs KG (BV III KG), MPM BioVentures III Parallel Fund, L.P. (BV III PF), MPM Asset Management Investors 2004 BVIII LLC (AM BVIII LLC), MPM BioVentures Strategic Fund, L.P. (BV SF), MPM BioVentures III, GP, L.P. (BV III GP) and MPM BioVentures III, LLC (BV III LLC) (collectively, the MPM Entities) and Ansbert Gadicke, Luke Evnin, Steven St. Peter, William Greene, James Paul Scopa, Ashley Dombkowski, Vaughn Kailian and John Vander Vort (collectively, the Listed Persons and together with the MPM Entities, the Filing Persons). This Original Schedule 13D, as amended by Amendment No. 1 and this Amendment No. 2 (the Schedule 13D) relates to the common stock, par value \$0.001 per share (the Common Stock), of Peplin, Inc. (the Issuer). The Issuer's principal executive office is located at 6475 Christie Avenue, Emeryville, CA 94608.

Item 4. Purpose of Transaction

Item 4 of the Schedule 13D is hereby amended and supplemented by adding the following at the end thereof: Pursuant to the Merger Agreement, on November 11, 2009, Merger Sub merged with and into the Issuer, and the Issuer is now a wholly-owned subsidiary of Parent. In the Merger, each issued and outstanding share of the Issuer's Common Stock (including all shares of the Issuer's Common Stock held by the MPM Entities and the Listed Persons, including shares underlying CHESSE Depository Interests (CDIs)) was converted into the right to receive \$16.99 in cash. In the Merger, each outstanding option to purchase shares of the Issuer's Common Stock with a per share exercise price less than \$16.99 (including all stock options held by James Paul Scopa) was cancelled in exchange for the right to receive a cash payment, without interest, equal to (i) \$16.99 less the per-share exercise price of such option, multiplied by (ii) the number of shares of the Issuer's Common Stock subject to such stock option. Any unexercised option to purchase shares of the Issuer's Common Stock with a per share exercise price equal to or greater than \$16.99 was cancelled without payment. In the Merger, each outstanding warrant to purchase shares of the Issuer's Common Stock with a per share exercise price less than \$16.99 (including all warrants held by the MPM Entities, including warrants exercisable for CDIs) was cancelled in exchange for the right to receive a cash payment, without interest, equal to (i) \$16.99 less the per-share exercise price of such warrant, multiplied by (ii) the number of shares of the Issuer's Common Stock subject to such stock warrant. Any unexercised warrant to purchase shares of the Issuer's Common Stock with a per share exercise price equal to or greater than \$16.99 was cancelled without payment.

Item 5. Interest in Securities of the Issuer

Items 5 of the Original Schedule 13D is hereby amended and supplemented as follows:

- (a) As a result of the Merger, as of the date hereof the none of the MPM Entities, nor any of the Listed Persons, has beneficial ownership of any of the Issuer's securities.
- (b) None of the MPM Entities, nor any of the Listed Persons, has sole or shared power to vote or dispose, or to direct the disposition or the vote of, any shares of the Issuer's Common Stock.
- (c) Except as described herein, neither the MPM Entities nor the Listed Persons, to the knowledge of the MPM Entities, has effected any transactions in the Common Stock during the past 60 days.
- (d) No other person is known by the MPM Entities to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, shares of Common Stock beneficially owned by the MPM Entities.
- (e) Not applicable.

Item 7. Material to Be Filed as Exhibits

A. Agreement regarding filing of joint Schedule 13D/A.

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Signatures

After reasonable inquiry and to the best of my knowledge and belief, I certify that the information set forth in this statement is true, complete and correct.

Date: December 4, 2009

MPM BioVentures IV GP LLC

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

MPM BioVentures IV LLC

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

MPM BioVentures IV-QP, L.P.

By: MPM BioVentures IV GP LLC, its
General Partner

By: MPM BioVentures IV LLC, its
Managing Member

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

**MPM BioVentures IV GmbH & Co.
Beteiligungs KG**

By: MPM BioVentures IV GP LLC, in its
capacity as the Managing Limited
Partner

By: MPM BioVentures IV LLC, its
Managing Member

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

**MPM Asset Management Investors BV4
LLC**

By: MPM BioVentures IV LLC
Its: Manager

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

MPM BioVentures III, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its General
Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

MPM BioVentures III-QP, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its General
Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

**MPM BioVentures III GmbH & Co.
Beteiligungs KG**

By: MPM BioVentures III GP, L.P., in its
capacity as the Managing Limited
Partner

By: MPM BioVentures III LLC, its General
Partner

By: /s/ Luke Evinin

MPM BioVentures III Parallel Fund, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its General
Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

**MPM Asset Management Investors 2004 BVIII
LLC**

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Manager

MPM BioVentures Strategic Fund, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

MPM BioVentures III GP, L.P.

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Series A Member

MPM BioVentures III, LLC

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Series A Member

/s/ Ansbert Gadicke
Ansbert Gadicke

/s/ Luke Evnin
Luke Evnin

/s/ Steven St. Peter
Steven St. Peter

/s/ William Greene
William Greene

/s/ James Paul Scopa
James Paul Scopa

/s/ Ashley Dombkowski
Ashley Dombkowski

/s/ Vaughn M. Kailian
Vaughn M. Kailian

/s/ John Vander Vort
John Vander Vort

Exhibit Index

A. Agreement regarding filing of joint Schedule 13D/A.

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Exhibit A
Joint Filing Statement

I, the undersigned, hereby express my agreement that the attached Schedule 13D/A (and any amendments thereto) relating to the beneficial ownership by the undersigned of the equity securities of Peplin, Inc. is filed on behalf of each of the undersigned.

Date: December 4, 2009

MPM BioVentures IV GP LLC

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

MPM BioVentures IV LLC

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

MPM BioVentures IV-QP, L.P.

By: MPM BioVentures IV GP LLC, its
General Partner

By: MPM BioVentures IV LLC, its
Managing Member

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

**MPM BioVentures IV GmbH & Co.
Beteiligungs KG**

By: MPM BioVentures IV GP LLC, in its
capacity as the Managing Limited
Partner

By: MPM BioVentures IV LLC, its Managing
Member

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

**MPM Asset Management Investors BV4
LLC**

By: MPM BioVentures IV LLC
Its: Manager

By: /s/ Vaughn M. Kailian
Name: Vaughn M. Kailian
Title: Member

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MPM BioVentures III, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

MPM BioVentures III-QP, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

**MPM BioVentures III GmbH & Co.
Beteiligungs KG**

By: MPM BioVentures III GP, L.P., in its
capacity as the Managing Limited
Partner

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

**MPM BioVentures III Parallel Fund,
L.P.**

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

**MPM Asset Management Investors 2004 BVIII
LLC**

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Manager

MPM BioVentures Strategic Fund, L.P.

By: MPM BioVentures III GP, L.P., its
General Partner

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evinin
Name: Luke Evinin
Title: Series A Member

MPM BioVentures III GP, L.P.

By: MPM BioVentures III LLC, its
General Partner

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Series A Member

MPM BioVentures III, LLC

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Series A Member

/s/ Ansbert Gadicke
Ansbert Gadicke

/s/ Luke Evnin
Luke Evnin

/s/ Steven St. Peter
Steven St. Peter

/s/ William Greene
William Greene

/s/ James Paul Scopa
James Paul Scopa

/s/ Ashley Dombkowski
Ashley Dombkowski

/s/ Vaughn M. Kailian
Vaughn M. Kailian

/s/ John Vander Vort
John Vander Vort