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

**SCHEDULE 13D/A**

**Under the Securities Exchange Act of 1934  
(Amendment No. 1)\***

**PEPGEN INC.**

(Name of Issuer)

**Common Stock, par value \$0.0001 per share**

(Title of Class of Securities)

**713317105**

(CUSIP Number)

**RA Capital Management, L.P.**

**200 Berkeley Street, 18<sup>th</sup> Floor**

**Boston, MA 02116**

**Attn: Peter Kolchinsky**

**Telephone: 617.778.2500**

(Name, Address and Telephone Number of Person  
Authorized to Receive Notices and Communications)

**June 16, 2022**

(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.

**Note:** Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See Section 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, as amended ("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).

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1. Names of Reporting Persons.

**RA Capital Management, L.P.**

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

(a) o

(b) o

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3. SEC Use Only

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4. Source of Funds (See Instructions)

**AF**

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

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6. Citizenship or Place of Organization

**Delaware**

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7. Sole Voting Power

**0**

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

8. Shared Voting Power

**8,131,952**

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9. Sole Dispositive Power

**0**

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10. Shared Dispositive Power

**8,131,952**

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11. Aggregate Amount Beneficially Owned by Each Reporting Person

**8,131,952**

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

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13. Percent of Class Represented by Amount in Row (11)

**34.41%**

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14. Type of Reporting Person (See Instructions)

**IA, PN**

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1. Names of Reporting Persons.

**Peter Kolchinsky**

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

(a)

(b)

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3. SEC Use Only

---

4. Source of Funds (See Instructions)

**AF**

---

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

**0**

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

8. Shared Voting Power

**8,131,952**

---

9. Sole Dispositive Power

**0**

---

10. Shared Dispositive Power

**8,131,952**

---

11. Aggregate Amount Beneficially Owned by Each Reporting Person

**8,131,952**

---

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

---

13. Percent of Class Represented by Amount in Row (11)

**34.41%**

---

14. Type of Reporting Person (See Instructions)

**HC, IN**

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1. Names of Reporting Persons.

**Rajeev Shah**

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

(a)

(b)

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3. SEC Use Only

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4. Source of Funds (See Instructions)

**AF**

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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

**0**

---

Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

8. Shared Voting Power

**8,131,952**

---

9. Sole Dispositive Power

**0**

---

10. Shared Dispositive Power

**8,131,952**

---

11. Aggregate Amount Beneficially Owned by Each Reporting Person

**8,131,952**

---

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

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13. Percent of Class Represented by Amount in Row (11)

**34.41%**

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14. Type of Reporting Person (See Instructions)

**HC, IN**

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1. Names of Reporting Persons.

**RA Capital Healthcare Fund, L.P.**

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

(a)

(b)

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3. SEC Use Only

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4. Source of Funds (See Instructions)

**WC**

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

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6. Citizenship or Place of Organization

**Delaware**

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7. Sole Voting Power

**0**

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

8. Shared Voting Power

**6,621,680**

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9. Sole Dispositive Power

**0**

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10. Shared Dispositive Power

**6,621,680**

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11. Aggregate Amount Beneficially Owned by Each Reporting Person

**6,621,680**

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

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13. Percent of Class Represented by Amount in Row (11)

**28.02%**

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14. Type of Reporting Person (See Instructions)

**PN**

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1. Names of Reporting Persons.

**RA Capital Nexus Fund, II L.P.<sup>1</sup>**

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

(a) o

(b) o

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3. SEC Use Only

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4. Source of Funds (See Instructions)

**WC**

---

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

---

6. Citizenship or Place of Organization

**Delaware**

---

7. Sole Voting Power

**0**

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Number of  
Shares  
Beneficially  
Owned by  
Each  
Reporting  
Person With

8. Shared Voting Power

**1,302,600**

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9. Sole Dispositive Power

**0**

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10. Shared Dispositive Power

**1,302,600**

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11. Aggregate Amount Beneficially Owned by Each Reporting Person

**1,302,600**

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

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13. Percent of Class Represented by Amount in Row (11)

**5.51%**

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14. Type of Reporting Person (See Instructions)

**PN**

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<sup>1</sup> Due to a scrivener's error, this Reporting Person was inadvertently omitted from the initial 13D filing on May 20, 2022. We note that the shares beneficially owned by the RA Capital Nexus Fund II, L.P. were included in the amount reported for RA Capital Management, L.P. in the initial 13D filing.

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<b>Item 1.</b>	<b>Security and Issuer</b>
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Item 1 of the Statement is hereby amended and supplemented as follows:

This Amendment No. 1 amends and supplements the statement on Schedule 13D originally filed with the Securities and Exchange Commission (the “SEC”) on May 20, 2022 (the “Statement”) by RA Capital Management, L.P., Dr. Kolchinsky, Mr. Shah, and RA Capital Healthcare Fund, L.P. (the “Fund”) with respect to the common stock, par value \$0.0001 per share (the “Common Stock”), of PepGen, Inc., a Delaware corporation (the “Issuer”) and serves as the initial Schedule 13D for RA Capital Nexus Fund II, L.P. (the “Nexus Fund II”). Unless otherwise defined herein, capitalized terms used in this Amendment No. 1 shall have the meanings ascribed to them in the Statement. Unless amended or supplemented below, the information in the Statement remains unchanged.

<b>Item 2.</b>	<b>Identity and Background</b>
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Item 2 of the Statement is hereby amended and supplemented as follows:

- (a) This Schedule 13D is being filed on behalf of RA Capital Management, L.P. (“RA Capital”), Peter Kolchinsky, Rajeev Shah, the Fund, and the Nexus Fund II. RA Capital, Dr. Kolchinsky, Mr. Shah, the Fund, and the Nexus Fund II are collectively referred to herein as the “Reporting Persons”. The agreement among the Reporting Persons to file this Schedule 13D jointly in accordance with Rule 13d-1(k) of the Securities Exchange Act of 1934, as amended, is attached hereto as Exhibit 1.

The Common Stock reported herein includes 6,621,680 shares held by the Fund, 1,302,600 shares held by the Nexus Fund II, and 207,672 shares held by a separately managed account (the “Account”). RA Capital Healthcare Fund GP, LLC is the general partner of the Fund and RA Capital Nexus Fund II GP, LLC is the general partner of the Nexus Fund II. The general partner of RA Capital is RA Capital Management GP, LLC, of which Dr. Kolchinsky and Mr. Shah are the controlling persons. RA Capital serves as investment adviser for the Fund, the Nexus Fund II, and the Account and may be deemed a beneficial owner, for purposes of Section 13(d) of the Securities Exchange Act of 1934 (the “Act”), of any securities of the Issuer held by the Fund, the Nexus Fund II or the Account. The Fund and the Nexus Fund II have delegated to RA Capital the sole power to vote and the sole power to dispose of all securities held in the Fund and the Nexus Fund II, and each of these funds has divested themselves of voting and investment power over the reported securities they hold and may not revoke that delegation on less than 61 days’ notice. The Fund and the Nexus Fund II disclaim beneficial ownership of the securities they hold for purposes of Section 13(d) of the Act and therefore disclaim any obligation to report ownership of the reported securities under Section 13(d) of the Act. As managers of RA Capital, Dr. Kolchinsky and Mr. Shah may be deemed beneficial owners, for purposes of Section 13(d) of the Act, of any securities of the Issuer beneficially owned by RA Capital. RA Capital, Dr. Kolchinsky, and Mr. Shah disclaim beneficial ownership of the securities reported in this Schedule 13D Statement (the “Statement”) other than for the purpose of determining their obligations under Section 13(d) of the Act, and the filing of the Statement shall not be deemed an admission that either RA Capital, Dr. Kolchinsky, or Mr. Shah is the beneficial owner of such securities for any other purpose.

- (b) The address of the principal business office of each of the Reporting Persons is 200 Berkeley Street, 18<sup>th</sup> Floor, Boston, MA 02116.
- (c) The Fund and the Nexus Fund II are each a private investment vehicle. RA Capital provides investment management services to the Fund, the Nexus Fund II, and the Account. The principal occupation of Dr. Kolchinsky and Mr. Shah is investment management.
- (d) During the last five years, none of the Reporting Persons has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) During the last five years, none of the Reporting Persons has been a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree of final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.
- (f) See Item 6 of the cover pages.
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<b>Item 5.</b>	<b>Interest in Securities of the Issuer</b>
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Item 5 of the Statement is hereby amended and supplemented as follows:

- (a) The information set forth in rows 11 and 13 of the cover pages to this Schedule 13D is incorporated by reference. The percentage set forth in row 13 is based on 23,631,924 outstanding shares of Common Stock, as reported by the Issuer in its Form 10-Q filed with the Securities and Exchange Commission on June 16, 2022.
- (b) The information set forth in rows 7 through 10 of the cover pages to this Schedule 13D and Item 2 above is incorporated by reference.
- (c) The following table lists the Reporting Persons' transactions in Common Stock that have not previously been reported during the sixty day period prior to the filing of this amended Schedule 13D:

Transaction	Purchaser	Date	No. Shares	Price

- (c) No person (other than the Reporting Persons) is known to have the right to receive or the power to direct the receipt of dividends from, or the proceeds from the sale of, the shares of Common Stock subject to this Schedule 13D.
- (d) Not applicable.

<b>Item 7.</b>	<b>Material to be Filed as Exhibits</b>
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Item 7 of the Statement is hereby amended and restated as follows:

[Exhibit 1 Joint Filing Agreement](#)

[Exhibit 2 Form of Amended and Restated Investors' Rights Agreement \(incorporated by reference to Exhibit 4.1 to the Issuer's Amendment No. 2 to Registration Statement on Form S-1 \(File No. 333-264335\)\)](#)

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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.

Dated: June 23, 2022

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky

Name: Peter Kolchinsky

Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC

Its: General Partner

By: /s/ Peter Kolchinsky

Name: Peter Kolchinsky

Title: Manager

RA CAPITAL NEXUS FUND II, L.P.

By: RA Capital Nexus Fund II GP, LLC

Its: General Partner

By: /s/ Peter Kolchinsky

Name: Peter Kolchinsky

Title: Manager

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**JOINT FILING AGREEMENT**

This Joint Filing Agreement, dated as of June 23, 2022 is by and among RA Capital Management, L.P., Peter Kolchinsky, Rajeev Shah, RA Capital Healthcare Fund, L.P., and the RA Capital Nexus Fund II, L.P. (the foregoing are collectively referred to herein as the “Filers”).

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to Common Stock, par value \$0.0001 per share of PepGen Inc. beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Joint Filing Agreement may be terminated by any of the Filers upon one week’s prior written notice or such lesser period of notice as the Filers may mutually agree.

Executed and delivered as of the date first above written.

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky  
Name: Peter Kolchinsky  
Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC  
Its: General Partner

By: /s/ Peter Kolchinsky  
Name: Peter Kolchinsky  
Title: Manager

RA CAPITAL NEXUS FUND II, L.P.

By: RA Capital Nexus Fund II GP, LLC  
Its: General Partner

By: /s/ Peter Kolchinsky  
Name: Peter Kolchinsky  
Title: Manager

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