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

SCHEDULE 13D
(Rule 13d-102)

**INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT
TO RULE 13d-1(a) AND AMENDMENTS THERETO FILED PURSUANT
TO RULE 13d-2(a)**
(Amendment No.)*

Graphite Bio, Inc.
(Name of Issuer)

Common Stock, par value \$0.00001 per share
(Title of Class of Securities)

38870X104
(CUSIP Number)

Versant Venture Capital VI, L.P.
Robin L. Praeger
One Sansome Street, Suite 3630
San Francisco, CA 94104
415-801-8100

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

June 29, 2021
(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.

* 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.

1.	Name of Reporting Persons Versant Venture Capital VI, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) WC	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 14,708,398 shares of common stock(1)
	8.	Shared Voting Power 0
	9.	Sole Dispositive Power 14,708,398 shares of common stock(1)
	10.	Shared Dispositive Power 0
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 14,708,398 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 26.3% (2)	
14.	Type of Reporting Person (See Instructions) PN	

- (1) These shares are held by Versant VI (as defined in Item 2(a) below). Versant Ventures VIGP-GP (as defined in Item 2(a) below) is the general partner of Versant Ventures VI GP (as defined in Item 2(a) below), which is the general partner of Versant VI. Each of Versant Ventures VI GP-GP and Versant Ventures VI GP may be deemed to share voting and dispositive power with respect to the shares held by Versant VI.
- (2) Based upon 55,979,002 shares of the Issuer's Common Stock outstanding after the Issuer's initial public offering, assuming no exercise of the underwriters' over-allotment option, as reported in the Issuer's prospectus on Form 424(b)(4) filed with the Securities and Exchange Commission ("Commission") on June 28, 2021 (the "Prospectus").

1.	Name of Reporting Persons Versant Ventures VI GP, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) AF	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 0
	8.	Shared Voting Power 14,708,398 shares of common stock (1)
	9.	Sole Dispositive Power 0
	10.	Shared Dispositive Power 14,708,398 shares of common stock (1)
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 14,708,398 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 26.3% (2)	
14.	Type of Reporting Person (See Instructions) PN	

- (1) These shares are held by Versant VI. Versant Ventures VIGP-GP is the general partner of Versant Ventures VI GP, which is the general partner of Versant VI. Each of Versant Ventures VI GP-GP and Versant Ventures VI GP may be deemed to share voting and dispositive power with respect to the shares held by Versant VI.
- (2) Based upon 55,979,002 shares of the Issuer's Common Stock outstanding after the Issuer's initial public offering, assuming no exercise of the underwriters' over-allotment option, as reported in the Prospectus.

1.	Name of Reporting Persons Versant Ventures VI GP-GP, LLC	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) AF	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 0
	8.	Shared Voting Power 14,708,398 shares of common stock (1)
	9.	Sole Dispositive Power 0
	10.	Shared Dispositive Power 14,708,398 shares of common stock (1)
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 14,708,398 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 26.3% (2)	
14.	Type of Reporting Person (See Instructions) OO	

- (1) These shares are held by Versant VI. Versant Ventures VIGP-GP is the general partner of Versant Ventures VI GP, which is the general partner of Versant VI. Each of Versant Ventures VI GP-GP and Versant Ventures VI GP may be deemed to share voting and dispositive power with respect to the shares held by Versant VI.
- (2) Based upon 55,979,002 shares of the Issuer's Common Stock outstanding after the Issuer's initial public offering, assuming no exercise of the underwriters' over-allotment option, as reported in the Prospectus.

1.	Name of Reporting Persons Versant Vantage II, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) WC	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 1,707,719 shares of common stock(1)
	8.	Shared Voting Power 0
	9.	Sole Dispositive Power 1,707,719 shares of common stock(1)
	10.	Shared Dispositive Power 0
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,707,719 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 3.1% (2)	
14.	Type of Reporting Person (See Instructions) PN	

- (1) These shares are held by Versant Vantage II (as defined in item 2(a) below). Versant Vantage II GP (as defined in item 2(a) below) is the general partner of Versant Vantage II, and Versant Vantage II GP-GP (as defined in item 2(a) below) is the general partner of Versant Vantage II GP. Each of Versant Vantage II GP and Versant Vantage II GP-GP share voting and dispositive power over the shares held by Versant Vantage II.
- (2) Based upon 55,979,002 shares of the Issuer's Common Stock outstanding after the Issuer's initial public offering, assuming no exercise of the underwriters' over-allotment option, as reported in the Prospectus.

1.	Name of Reporting Persons Versant Vantage II GP, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) AF	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 0
	8.	Shared Voting Power 1,707,719 shares of common stock(1)
	9.	Sole Dispositive Power 0
	10.	Shared Dispositive Power 1,707,719 shares of common stock(1)
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,707,719 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 3.1% (2)	
14.	Type of Reporting Person (See Instructions) PN	

- (1) These shares are held by Versant Vantage II. Versant Vantage II GP is the general partner of Versant Vantage II, and Versant Vantage IGP-GP is the general partner of Versant Vantage II GP. Each of Versant Vantage II GP and Versant Vantage II GP-GP share voting and dispositive power over the shares held by Versant Vantage II.
- (2) Based upon 55,979,002 shares of the Issuer's Common Stock outstanding after the Issuer's initial public offering, assuming no exercise of the underwriters' over-allotment option, as reported in the Prospectus.

1.	Name of Reporting Persons Versant Vantage II GP-GP, LLC	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC Use Only	
4.	Source of Funds (See Instructions) AF	
5.	Check if Disclosure of Legal Proceedings Is Required Pursuant to Item 2(d) or 2(e) <input type="checkbox"/>	
6.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With	7.	Sole Voting Power 0
	8.	Shared Voting Power 1,707,719 shares of common stock(1)
	9.	Sole Dispositive Power 0
	10.	Shared Dispositive Power 1,707,719 shares of common stock(1)
11.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,707,719 shares of common stock (1)	
12.	Check if the Aggregate Amount in Row (11) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
13.	Percent of Class Represented by Amount in Row 11 3.1% (2)	
14.	Type of Reporting Person (See Instructions) OO	

- (1) These shares are held by Versant Vantage II. Versant Vantage II GP is the general partner of Versant Vantage II, and Versant Vantage IGP-GP is the general partner of Versant Vantage II GP. Each of Versant Vantage II GP and Versant Vantage II GP-GP share voting and dispositive power over the shares held by Versant Vantage II.
- (2) Based upon 55,979,002 shares of the Issuer's Common Stock outstanding after the Issuer's initial public offering, assuming no exercise of the underwriters' over-allotment option, as reported in the Prospectus.

Item 1. Security and Issuer

This joint statement on Schedule 13D (this “Statement”) is filed with respect to the common stock, par value \$0.00001 per share (“Common Stock”), of Graphite Bio, Inc., a Delaware corporation (the “Issuer”). The address of the principal executive offices of the Issuer is 279 East Grand Avenue, Suite 430, South San Francisco, CA 94080.

Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

Item 2. Identity and Background

(a) This Statement is filed by Versant Venture Capital VI, L.P. (“Versant VI”), Versant Vantage II, L.P. (“Versant Vantage II”), Versant Ventures VI GP, L.P. (“Versant Ventures VI GP”), Versant Ventures VI GP-GP, LLC (“Versant Ventures VI GP-GP”), Versant Vantage II GP, L.P. (“Versant Vantage II GP”), and Versant Vantage II GP-GP, LLC (“Versant Vantage II GP-GP”) and together with Versant VI, Versant Vantage II, Versant Ventures VI GP, Versant Ventures VIGP-GP and Versant Vantage II GP, collectively, the “Reporting Persons”). Versant Ventures VI GP-GP is the general partner of Versant Ventures VI GP, which is the general partner of Versant VI. Each of Versant Ventures VI GP-GP and Versant Ventures VI GP share voting and dispositive power with respect to the shares held by Versant VI. Versant Vantage II GP-GP is the general partner of Versant Vantage II GP, which is the general partner of Versant Vantage II. Each of Versant Vantage II GP and Versant Vantage II GP-GP share voting and dispositive power with respect to the shares held by Versant Vantage II. The Reporting Persons expressly disclaim status as a “group” for purposes of this Schedule 13D. The agreement among the Reporting Persons to file jointly in accordance with the provisions of Rule 13d-1(k)(1) under the Act is attached to this Statement as Exhibit 1. Other than those securities reported herein as being held directly by such Reporting Person, each Reporting Person disclaims beneficial ownership of all securities reported in this Amendment except to the extent of such Reporting Person’s pecuniary interest therein.

(b) The business address for each of the Reporting Persons is:

c/o Versant Ventures
One Sansome Street, Suite 3630
San Francisco, CA 94104

(c) Each of Versant VI and Versant Vantage II are venture capital investment entities and each of Versant Ventures VI GP, Versant Ventures VIGP-GP, Versant Vantage II GP and Versant Vantage II GP-GP are the general partners of the venture capital investment entities.

(d) During the past five years, none of the Reporting Persons have been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).

(e) None of the Reporting Persons are, nor during the last five years have 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 or 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)

Versant VI – formed under the laws of the state of Delaware

Versant Vantage II – formed under the laws of the state of Delaware

Versant Vantage II GP – formed under the laws of the state of Delaware

Versant Vantage II GP-GP – formed under the laws of the state of Delaware

Versant Ventures VI GP – formed under the laws of the state of Delaware

Versant Ventures VI GP-GP – formed under the laws of the state of Delaware

Item 3. Source and Amount of Funds or Other Consideration.

On June 1, 2017, Versant VI purchased 1 share of the Issuer’s common stock for a purchase price of \$0.0001 and an aggregate purchase price of \$0.0001.

On April 6, 2020, Versant VI purchased 2,899,999 shares of the Issuer’s common stock for a purchase price of \$0.00001 and an aggregate purchase price of \$29.00.

On April 22, 2020, Versant VI purchased 3,100,000 shares of the Issuer’s common stock for a purchase price of \$0.00001 per share and an aggregate purchase price of \$31.00.

On March 24, 2020, the Issuer issued a convertible promissory note to Versant VI in the principal amount of \$5,000,000.00.

Between June 24, 2020 and February 16, 2021, Versant VI purchased 30,019,945 (including the conversion of the promissory note) shares of the Issuer’s Series A redeemable convertible preferred stock for a purchase price of \$1.00 per share and an aggregate purchase price of \$30,000,000.00.

On March 11, 2021, Versant Vantage II purchased 3,715,415 shares of the Issuer’s Series B redeemable convertible preferred stock for a purchase price of \$5.06 per share and an aggregate purchase price of \$18,799,999.90.

Effective May 7, 2021, the Issuer repurchased 249,119 shares of its common stock held by Versant VI for an aggregate repurchase price of \$2.50.

On June 29, 2021, immediately upon the closing of the Issuer’s initial public offering, each share of the Issuer’s Series A redeemable convertible preferred stock, the Issuer’s Series B redeemable convertible preferred stock and the Issuer’s common stock automatically converted on a 2.432-for-one basis into shares of the Issuer’s common stock without payment of additional consideration.

On June 29, 2021, Versant Vantage II purchased 180,000 shares of the Issuer’s Common Stock, in connection with the Issuer’s initial public offering, for a purchase price of \$17.00 per share and an aggregate purchase price of \$3,060,000.00.

All shares of the capital stock of the Issuer covered by this Statement were originally acquired by Versant VI and Versant Vantage II using investment funds provided to each of Versant VI and Versant Vantage II by their respective limited and general partner investors. Unless noted above, no part of the purchase price was borrowed by any Reporting Person for the purpose of acquiring any securities discussed in this Item 3.

Item 4. Purpose of Transaction

The information set forth in Item 3 of this Statement is incorporated herein by reference. The Reporting Persons hold the securities of the Issuer for general investment purposes. The Reporting Persons reserve the right, based on all relevant factors and subject to applicable law or other restrictions, at any time and from time to time, to acquire additional shares of Common Stock or other securities of the Issuer, dispose of some or all of the shares of Common Stock or other securities of the Issuer that it may own from time to time, in each case in open market or private transactions, block sales or otherwise or pursuant to ordinary stock exchange transactions effected through one or more broker-dealers whether individually or utilizing specific pricing or other instructions (including by means of Rule 10b5-1 programs), and review or reconsider their position, change their purpose, take other actions or formulate and implement plans or proposals with respect to any of the foregoing.

The Reporting Persons intend to review their investment in the Issuer from time to time on the basis of various factors, including the Issuer’s business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Issuer’s stock in particular, as well as other developments.

Item 5. Interest in Securities of the Issuer

- (a) and (b) See Items 7-11 and 13 of the cover pages of this Statement for each Reporting Person and Item 2 above.
- (c) Except as reported in this Statement, none of the Reporting Persons has effected any transactions in the Issuer's securities within the past 60 days.
- (d) Under certain circumstances set forth in the respective limited partnership agreements of each of Versant VI, and Versant Vantage II (the "Funds"), the respective limited and general partners of the Funds may be deemed to have the right to receive dividends from, or the proceeds from, the sale of shares of the Issuer owned by such entity of which they are a partner.
- (e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationships with Respect to Securities of the Issuer

In connection with its purchase of shares of the Issuer's Series B redeemable convertible preferred stock, Versant VI, Versant Vantage II and certain of the Issuer's other investors entered into an Amended and Restated Investors' Rights Agreement, dated March 11, 2021, with the Issuer (the "Rights Agreement"). After the closing of the Issuer's initial public offering, the stockholders party thereto are entitled to certain registration rights, including the right to demand that that the Issuer file a registration statement or request that their shares be covered by a registration statement that the Issuer is otherwise filing. The terms and provisions of the Rights Agreement are described more fully in the Issuer's Registration Statement on Form S-1 (File No. 333-256838) declared effective by the Commission on June 24, 2021 (the "Registration Statement"), and the above summary is qualified by reference to such description and the full text of the Rights Agreement, which is filed as Exhibit 2 to this Statement and is incorporated herein by reference.

In connection with the Issuer's initial public offering, each of Versant VI and Versant Vantage II have entered into lock-up agreements, pursuant to which Versant VI and Versant Vantage II have agreed, subject to certain exceptions, not to sell, transfer or otherwise convey any of the Issuer's securities held by each of Versant VI and Versant Vantage II for 180 days following the date of the underwriting agreement for the Offering. The terms and provisions of such lock-up agreements are described more fully in the Registration Statement, and the above summary is qualified by reference to such description and the full text of the lock-up agreement, a form of which is filed as Exhibit 3 to this Statement and is incorporated herein by reference.

Jerel Davis, Ph.D. ("Dr. Davis"), a Managing Director of Versant Ventures, and Carlo Rizutto, Ph.D. ("Dr. Rizutto"), a Partner of Versant Ventures, are also members of the board of directors of the Issuer. In their capacities as members of the board of directors of the Issuer, each of Dr. Davis and Dr. Rizutto may be entitled to receive stock options or other equity awards pursuant to the Company's 2021 Stock Option and Incentive Plan, attached hereto as Exhibit 4.

The Issuer has entered into an indemnification agreement with each of its directors and executive officers, including each of Dr. Davis and Dr. Rizutto. The indemnification agreement requires the Issuer, among other things, to indemnify each of Dr. Davis and Dr. Rizutto for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by each of Dr. Davis and Dr. Rizutto in any action or proceeding arising out of their respective services as directors. The terms and provisions of the indemnification agreement are described more fully in the Registration Statement, and the above summary is qualified by reference to such description and the full text of the Registration Statement, which is filed as Exhibit 5 to this Statement and is incorporated herein by reference.

Item 7. Material to be Filed as Exhibits

Exhibit Number	Description
Exhibit 1	Joint Filing Agreement
Exhibit 2	Amended and Restated Investors' Rights Agreement, dated as of March 11, 2021 (filed as Exhibit 4.2 to the Issuer's Registration Statement on Form S-1 as filed with the Commission on June 4, 2021 (SEC File No. 333-256838) and incorporated herein by reference).

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- Exhibit 3 Form of Lock-Up Agreement for certain directors, officers and other stockholders of the Issuer (included as Exhibit A to the form of Underwriting Agreement filed as Exhibit 1.1 to the Issuer's Registration Statement on Form S-1/A as filed with the Commission on June 21, 2021 (SEC FileNo. 333-256838) and incorporated herein by reference).
- Exhibit 4 2021 Stock Option and Incentive Plan and associated forms (filed as Exhibit 10.2 to the Issuer's Registration Statement on FormS-1/A as filed with the Commission on June 21, 2021 (SEC File No. 333-256838) and incorporated herein by reference).
- Exhibit 5 Form of Indemnification Agreement by and between the Issuer and its directors and officers (filed as Exhibit 10.9 to the Issuer's Registration Statement on Form S-1/A as filed with the Commission on June 21, 2021 (SEC FileNo. 333-256838) and incorporated herein by reference).

SIGNATURE

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.

July 9, 2021

Versant Venture Capital VI, L.P.

By: Versant Ventures VI GP, L.P.

Its: General Partner

By: Versant Ventures VI GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Ventures VI GP, L.P.

By: Versant Ventures VI GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Ventures VIGP-GP, LLC

By: /s/ Robin L. Praeger, Managing Director

Versant Vantage II, L.P.

By: Versant Vantage II GP, L.P.

Its: General Partner

By: Versant Vantage II GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Vantage II GP, L.P.

By: Versant Vantage II GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Vantage II GP-GP, LLC

By: /s/ Robin L. Praeger, Managing Director

Exhibit 1

Joint Filing Agreement

The undersigned hereby agree that a single Schedule 13D (or any amendment thereto) relating to the Common Stock of Graphite Bio, Inc. shall be filed on behalf of each of the undersigned and that this Agreement shall be filed as an exhibit to such Schedule 13D.

July 9, 2021

Versant Venture Capital VI, L.P.

By: Versant Ventures VI GP, L.P.

Its: General Partner

By: Versant Ventures VI GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Ventures VI GP, L.P.

By: Versant Ventures VI GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Ventures VI GP-GP, LLC

By: /s/ Robin L. Praeger, Managing Director

Versant Vantage II, L.P.

By: Versant Vantage II GP, L.P.

Its: General Partner

By: Versant Vantage II GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Vantage II GP, L.P.

By: Versant Vantage II GP-GP, LLC

Its: General Partner

By: /s/ Robin L. Praeger, Managing Director

Versant Vantage II GP-GP, LLC

By: /s/ Robin L. Praeger, Managing Director