Registration No. 333-220515

UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

AMENDMENT NO. 3 TO FORM S-1

REGISTRATION STATEMENT UNDER THE SECURITIES ACT OF 1933

OPTINOSE, INC.

(Exact Name of Registrant as Specified in its Charter)

Delaware

(State or other jurisdiction of incorporation or organization)

2834

(Primary Standard Industrial Classification Code Number) 42-1771610

(I.R.S. Employer Identification Number)

1020 Stony Hill Road, Suite 300 Yardley, Pennsylvania 19067 (267) 364-3500

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Peter K. Miller **Chief Executive Officer** OptiNose, Inc. 1020 Stony Hill Road, Suite 300 Yardley, Pennsylvania 19067 (267) 364-3500

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Steven J. Abrams Rachael M. Bushev Hogan Lovells US LLP 1735 Market Street, 23rd Floor Philadelphia, PA 19103 (267) 675-4600

Michael F. Marino **Chief Legal Officer** OptiNose, Inc. 1020 Stony Hill Road, Suite 300 Yardley, PA 19067 (267) 364-3500

Divakar Gupta Brian F. Leaf Jeffrey P. Libson Cooley LLP 1114 Avenue of the Americas New York, NY 10036 (212) 479-6000

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

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, as amended (the "Securities Act"), check the following box. o

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

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

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

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

Large accelerated filer o

smaller reporting company)

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. \boxtimes

The registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act or until the registration statement shall become effective on such date as the Commission acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This Amendment No. 3 to the Registration Statement on Form S-1 (File No. 333-220515) of OptiNose, Inc. is being filed solely to file Exhibit 23.1. This Amendment No. 3 does not modify any provision of the prospectus that forms a part of the Registration Statement. Accordingly, a preliminary prospectus has been omitted.

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 13. Other Expenses of Issuance and Distribution.

The following table sets forth all costs and expenses, other than the underwriting discounts and commissions, payable by us in connection with the sale of the common stock being registered. All amounts shown are estimates except for the Securities and Exchange Commission, or SEC, registration fee, the Financial Industry Regulatory Authority, Inc., or FINRA, filing fee and The NASDAQ Global Select Market initial listing fee.

<u>Item</u>	Amount Paid or to be Paid
SEC registration fee	\$ 14,353.00
FINRA filing fee	18,829.00
NASDAQ Global Select Market initial listing fee	150,000.00
Printing and engraving expenses	215,000.00
Legal fees and expenses	1,600,000.00
Accounting fees and expenses	700,000.00
Transfer agent and registrar fees and expenses	5,000.00
Miscellaneous expenses	96,818.00
Total	\$ 2,800,000.00

Item 14. Indemnification of Directors and Officers.

We are incorporated under the laws of the State of Delaware. Section 145 of the Delaware General Corporation Law provides that a Delaware corporation may indemnify any persons who are, or are threatened to be made, parties to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative (other than an action by or in the right of such corporation), by reason of the fact that such person is or was an officer, director, employee or agent of such corporation, or is or was serving at the request of such person as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's best interests and, with respect to any criminal action or proceeding, had no reasonable cause to believe that his or her conduct was illegal. A Delaware corporation may indemnify any persons who are, or are threatened to be made, a party to any threatened, pending or completed action or suit by or in the right of the corporation by reason of the fact that such person is or was a director, officer, employee or agent of such corporation, or is or was serving at the request of such corporation as a director, officer, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees) actually and reasonably incurred by such person in connection with the defense or settlement of such action or suit provided that such person acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the corporation's

best interests except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him or her against the expenses which such officer or director has actually and reasonably incurred. Our fourth amended and restated certificate of incorporation and amended and restated bylaws, each of which will become effective immediately following the closing of this offering, provide for the indemnification of our directors and officers to the fullest extent permitted under the Delaware General Corporation Law.

Section 102(b)(7) of the Delaware General Corporation Law permits a corporation to provide in its certificate of incorporation that a director of the corporation shall not be personally liable to the corporation or its stockholders for monetary damages for breach of fiduciary duties as a director, except for liability for any:

- § transaction from which the director derives an improper personal benefit;
- § act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- § unlawful payment of dividends or redemption of shares; or
- breach of a director's duty of loyalty to the corporation or its stockholders.

Our fourth amended and restated certificate of incorporation, which will become effective immediately following the closing of this offering, includes such a provision. Expenses incurred by any officer or director in defending any such action, suit or proceeding in advance of its final disposition shall be paid by us upon delivery to us of an undertaking, by or on behalf of such director or officer, to repay all amounts so advanced if it shall ultimately be determined that such director or officer is not entitled to be indemnified by us.

As permitted by the Delaware General Corporation Law, we have entered into, or intend to enter into, indemnification agreements with our directors and executive officers. These agreements, among other things, will require us to indemnify each director and officer to the fullest extent permitted by law and advance expenses to each indemnitee in connection with any proceeding in which indemnification is available.

At present, there is no pending litigation or proceeding involving any of our directors or executive officers as to which indemnification is required or permitted, and we are not aware of any threatened litigation or proceeding that may result in a claim for indemnification.

We have an insurance policy covering our officers and directors with respect to certain liabilities, including liabilities arising under the Securities Act of 1933, as amended, or the Securities Act, or otherwise.

The form of underwriting agreement filed as Exhibit 1.1 to this registration statement provides for indemnification by the underwriters named in this registration statement of our executive officers, directors and us, and by us of the underwriters named in this registration statement, for certain liabilities, including liabilities arising under the Securities Act, in connection with matters specifically provided in writing for inclusion in this registration statement.

Item 15. Recent Sales of Unregistered Securities.

Set forth below is information regarding securities issued by us since January 1, 2014 that were not registered under the Securities Act. Also included is the consideration, if any, received by us for such securities, and information relating to the section of the Securities Act, or rule of the SEC, under which exemption from registration was claimed.

(a) Issuances of Capital Stock

- 1. In July 2014, we issued and sold an aggregate of 1,419,781 shares of our Series C-1 Preferred Stock to certain of our existing investors and members of our management team and board of directors at a purchase price of \$21.13 per share, for aggregate consideration of \$30.0 million.
- 2. In July 2015, we issued and sold to our existing Series C-1 Preferred Stock holders an additional 236,629 shares of Series C-1 Preferred Stock at a purchase price of \$21.13 per share, for aggregate consideration of \$5.0 million.
- 3. In March 2017, we issued and sold an aggregate of 1,065,451 shares of our Series D Preferred Stock to certain new and existing investors at a purchase price of \$32.85 per share, for aggregate consideration of \$35.0 million.
- 4. In April 2017 and May 2017, we issued and sold to certain of our existing stockholders an additional 52,127 shares of Series D Preferred Stock at a purchase price of \$32.85 per share, for aggregate consideration of \$1.7 million.

(b) Convertible Notes

1. In September 2015, we issued and sold convertible notes in the aggregate principal amount of \$15.0 million. In March 2017, concurrently with our Series D Preferred Stock financing, the notes were converted into an aggregate of 687,474 shares of our Series C-2 Preferred Stock at a conversion price of approximately \$28.40 per share.

(c) Stock Option Grants

- 1. On March 11, 2014, we granted stock options to purchase a total of 283,655 shares of common stock at an exercise price of \$3.05 per share to 11 employees pursuant to our 2010 Stock Incentive Plan, as amended, or the 2010 Plan.
- 2. On March 11, 2014, we granted stock options to purchase a total of 151,975 shares of common stock at an exercise price of \$3.05 per share to two executive officers pursuant to our 2010 Plan.
- 3. On April 7, 2014, we granted stock options to purchase a total of 866,370 shares of common stock at an exercise price of \$16.31 per share to two executive officers pursuant to our 2010 Plan.
- 4. On April 21, 2014, we granted a stock option to purchase a total of 21,659 shares of common stock at an exercise price of \$3.05 per share to one employee pursuant to our 2010 Plan.
- 5. On April 21, 2014, we granted a stock option to purchase 36,098 shares of common stock at an exercise price of \$3.05 per share to one executive officer pursuant to our 2010 Plan.
- 6. On April 21, 2014, we granted a stock option to purchase 288,790 shares of common stock at an exercise price of \$16.31 per share to one executive officer pursuant to our 2010 Plan.
- 7. On July 30, 2014, we granted a stock option to purchase 14,439 shares of common stock at an exercise price of \$3.05 per share to one employee pursuant to our 2010 Plan.
- 8. On December 20, 2016, we granted stock options to purchase a total of 407,193 shares of common stock at an exercise price of \$5.14 per share to eight employees pursuant to our 2010 Plan.
- 9. On December 20, 2016, we granted stock options to purchase a total of 281,570 shares of our common stock at an exercise price of \$5.14 to two executive officers and two directors pursuant to our 2010 Plan.

- 10. On December 20, 2016, we granted a stock option to purchase 288,790 shares of common stock at an exercise price of \$16.31 per share to one executive officer pursuant to our 2010 Plan.
- 11. On January 23, 2017, we granted a stock option to purchase a total of 158,834 shares of common stock at an exercise price of \$5.14 per share to one executive officer pursuant to our 2010 Plan.
- 12. On January 30, 2017, we granted stock options to purchase a total of 144,395 shares of common stock at an exercise price of \$5.14 per share to one executive officer pursuant to our 2010 Plan.
- 13. On February 13, 2017, we granted stock options to purchase a total of 20,214 shares of common stock at an exercise price of \$5.14 per share to two employees pursuant to our 2010 Plan.
- 14. On February 20, 2017, we granted a stock option to purchase 5,775 shares of common stock at an exercise price of \$5.14 per share to one employee pursuant to our 2010 Plan.
- 15. On February 27, 2017, we granted a stock option to purchase 5,775 shares of common stock at an exercise price of \$5.14 per share to one employee pursuant to our 2010 Plan.
- 16. On August 7, 2017, we granted stock options to purchase a total of 160,278 shares of common stock at an exercise price of \$7.25 per share to nine employees pursuant to our 2010 Plan.
- 17. On September 12, 2017, we granted a stock option to purchase 28,879 shares of common stock at an exercise price of \$7.25 per share to one employee pursuant to our 2010 Plan.

The offers, sales and issuances of the securities described in paragraphs (a) and (b) above were exempt from registration under the Securities Act in reliance on Regulation D of the Securities Act.

With respect to the shares of Series C-2 Preferred Stock issued upon conversion of the convertible notes in March 2017 described in paragraph (b), the issuance of such shares was exempt from registration under Section 3(a)(9) of the Securities Act.

The grants of stock described in paragraph (c) above to our executive officers and directors were exempt from registration under Section 4(a)(2) of the Securities Act as transactions not involving any public offering. The remaining grants of stock options described in paragraph (c) above were exempt from registration under the Securities Act in reliance on Rule 701 as offers and sales of securities under written compensatory benefit plans and contracts relating to compensation in compliance with Rule 701. Each of the recipients of securities in any transaction exempt from registration either received or had adequate access, through employment, business or other relationships, to information about us.

All purchasers of securities in transactions exempt from registration pursuant to Regulation D described above represented to us in connection with their purchase that they were accredited investors, as defined in Rule 501 under the Securities Act, and were acquiring the securities for investment purposes only and not with a view to, or for sale in connection with, any distribution thereof and that they could bear the risks of the investment and could hold the securities for an indefinite period of time. The purchasers received written disclosures that the securities had not been registered under the Securities Act and that any resale must be made pursuant to a registration statement or an available exemption from the registration requirements of the Securities Act.

All of the foregoing securities are deemed restricted securities for purposes of the Securities Act. The certificates representing the issued securities described in this Item 15 included appropriate legends setting forth that the applicable securities have not been registered and reciting the applicable restrictions on transfer. There were no underwriters employed in connection with any of the transactions set forth in this Item 15.

Item 16. Exhibits and Financial Statement Schedules.

(a) Exhibits

The list of exhibits is set forth under "Index to Exhibits" at the end of this registration statement and is incorporated by reference herein.

(b) Financial Statement Schedules

No financial statement schedules are provided because the information called for is not required or is shown either in the financial statements or the notes thereto.

Item 17. Undertakings.

The undersigned registrant hereby undertakes to provide to the underwriters at the closing specified in the underwriting agreement certificates in such denominations and registered in such names as required by the underwriters to permit prompt delivery to each purchaser.

Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Act and will be governed by the final adjudication of such issue.

The undersigned Registrant hereby undertakes that:

- (1) For purposes of determining any liability under the Securities Act, the information omitted from the form of prospectus filed as part of this registration statement in reliance upon Rule 430A and contained in a form of prospectus filed by the Registrant pursuant to Rule 424(b) (1) or (4) or 497(h) under the Securities Act shall be deemed to be part of this registration statement as of the time it was declared effective.
- (2) For the purpose of determining any liability under the Securities Act, each post-effective amendment that contains a form of prospectus shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

INDEX TO EXHIBITS

Exhibit Number	Exhibit Description		
1.1*	Form of Underwriting Agreement.		
2.1*	Exchange Agreement, dated as of June 7, 2010, by and among the Registrant, OptiNose AS and the other signatories thereto (the Registrant hereby agrees to furnish supplementally a copy of any omitted schedules to the SEC upon request).		
3.1*	Third Amended and Restated Certificate of Incorporation, as currently in effect.		
3.2*	By-Laws, as currently in effect.		
3.3*	Amendment No. 1 to the By-Laws, as currently in effect, dated March 24, 2017.		
3.4*	Form of Fourth Amended and Restated Certificate of Incorporation, to be effective immediately following the closing of this offering.		
3.5*	Form of Amended and Restated Bylaws, to be in effect immediately following closing of this offering.		
3.6*	Certificate of Amendment to the Third Amended and Restated Certificate of Incorporation.		
4.1*	Form of Common Stock Certificate.		
4.2*	Second Amended and Restated Registration Rights Agreement, dated March 24, 2017, by and among the Registrant and certain of its stockholders.		
4.3*	Second Amended and Restated Shareholders' Agreement, dated March 24, 2017, by and among the Registrant and certain of its stockholders.		
4.4*	Form of Warrant issued by the Registrant on June 7, 2010.		
4.5 [*]	First Amendment to the Second Amended and Restated Shareholders Agreement, dated October 2, 2017, by and among the Registrant and certain of its stockholders.		
4.6*	Stockholders' Agreement, dated October 2, 2017, by and among OptiNose, Inc. and certain of its stockholders.		
4.7 [*]	First Amendment to the Second Amended and Restated Registration Rights Agreement, dated October 2, 2017, by and among the Registrant and certain of its stockholders.		
5.1*	Opinion of Hogan Lovells US LLP.		
10.1*+	Form of Indemnification Agreement.		
10.2*+	Employment Agreement between OptiNose US, Inc. and Peter K. Miller to be in effect upon the closing of this offering.		
10.3*+	Employment Agreement between OptiNose US, Inc. and Ramy A. Mahmoud to be in effect upon the closing of this offering.		
10.4*+	Employment Agreement between OptiNose US, Inc. and Thomas E. Gibbs to be in effect upon the closing of this offering.		
10.5*+	Employment Agreement between OptiNose US, Inc. and Keith A. Goldan to be in effect upon the closing of this offering.		

Exhibit Number	Exhibit Description			
10.6*+	Employment Agreement between OptiNose US, Inc. and Michael F. Marino to be in effect upon the closing of this offering.			
10.7*+	Amended and Restated 2010 Stock Incentive Plan.			
10.8*+	Form of Non-Qualified Stock Option Agreement Granted Under the 2010 Stock Incentive Plan (Relating to Success Pool Grants).			
10.9*+	Form of Non-Qualified Stock Option Agreement Granted Under the 2010 Stock Incentive Plan (Relating to Option Pool Grants).			
10.10*+	Form of Non-Qualified Stock Option Agreement Granted Under the 2010 Stock Incentive Plan.			
10.11*†	<u>License Agreement, dated as of July 1, 2013, by and between OptiNose AS and Avanir Pharmaceuticals, Inc.</u>			
10.12*†	First Amendment of License Agreement, dated as of April 25, 2014, by and between OptiNose US, Inc. and Avanir Pharmaceuticals, Inc.			
10.13*†	Amendment to License Agreement, dated as of August 6, 2015, by and between OptiNose AS and Avanir Pharmaceuticals, Inc.			
10.14*†	<u>Supply Agreement, dated July 1, 2017, by and between Hovione Inter Ltd and OptiNose US, Inc., OptiNose UK, Ltd and OptiNose AS.</u>			
10.15*†	Manufacture and Supply Agreement, dated as of August 18, 2017, by and among OptiNose US, Inc., OptiNose UK Ltd. and OptiNose AS and Contract Pharmaceuticals Limited Canada.			
10.16*†	Manufacturing Services Agreement, dated as of August 31, 2017, by and among OptiNose US, Inc., OptiNose UK Ltd. and OptiNose AS and Ximedica, LLC.			
10.17*+	Form of Non-Qualified Stock Option Agreement to be Granted Under the Amended and Restated 2010 Stock Incentive Plan.			
10.18*+	2017 Employee Stock Purchase Plan.			
16.1*	Letter of PricewaterhouseCoopers LLP as to change in accountant, dated June 23, 2017.			
21.1*	List of Subsidiaries of the Registrant.			
23.1	Consent of Ernst & Young LLP, independent registered public accounting firm.			
23.2*	Consent of Hogan Lovells US LLP (included in Exhibit 5.1).			
24.1*	Power of Attorney (included on signature page of Registration Statement filed on September 18, 2017).			
99.1*	Consent of Joseph C. Scodari.			
99.2*	Consent of Richard A. Bierly.			

[†] Portions of this exhibit (indicated by asterisks) have been omitted pursuant to a request for confidential treatment pursuant to Rule 406 under the Securities Act of 1933.

+ Indicates management contract or compensatory plan.

99.3* Consent of Wilhelmus Groenhuysen.

* Previously filed.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the Registrant has duly caused this Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the Borough of Yardley, Commonwealth of Pennsylvania, on the 12th day of October, 2017.

OPTINOSE, INC.

By: /s/ PETER K. MILLER

Name: Peter K. Miller Title: *Chief Executive Officer*

Pursuant to the requirements of the Securities Act, this Amendment No. 3 to the Registration Statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ PETER K. MILLER Peter K. Miller	Chief Executive Officer and Director (Principal Executive Officer)	October 12, 2017
* Keith A. Goldan	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	October 12, 2017
* Larry G. Pickering	Chairman of the Board of Directors	October 12, 2017
* Sriram Venkataraman	Director	October 12, 2017
* William F. Doyle	Director	October 12, 2017
* Klaas de Boer	Director	October 12, 2017
* Per Gisle Djupesland	Director	October 12, 2017
	II-8	

	<u>Signature</u>	<u>Title</u>	<u>Date</u>
	* Patrick O'Neill	—— Director	October 12, 2017
	* Joshua A. Tamaroff	— Director	October 12, 2017
*By:	/s/ PETER K. MILLER		
	Peter K. Miller, Attorney-in-fact		
		II-9	

QuickLinks

EXPLANATORY NOTE PART II INFORMATION NOT REQUIRED IN PROSPECTUS

<u>Item 13. Other Expenses of Issuance and Distribution.</u>
<u>Item 14. Indemnification of Directors and Officers.</u>

Item 15. Recent Sales of Unregistered Securities.
Item 16. Exhibits and Financial Statement Schedules.
Item 17. Undertakings.

INDEX TO EXHIBITS
SIGNATURES

Consent of Independent Registered Public Accounting Firm

We consent to the reference to our firm under the caption "Experts" and to the use of our report dated June 23, 2017 (except for Note 14(c), as to which the date is September 18, 2017, and for Note 14(d), as to which the date is October 10, 2017) in Amendment No. 2 to the Registration Statement (Form S-1 No. 333-220515) and the related Prospectus of OptiNose, Inc. dated October 11, 2017.

/s/ Ernst & Young LLP

Philadelphia, Pennsylvania October 11, 2017