UNITED STATES SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

POST-EFFECTIVE AMENDMENT NO. 3 TO Form S-3

REGISTRATION STATEMENT

UNDER THE SECURITIES ACT OF 1933

ATEA PHARMACEUTICALS, INC.

(Exact name of registrant as specified in its charter)

Delaware (State or other jurisdiction of incorporation or organization)

46-0574869 (I.R.S. Employer Identification Number)

225 Summer Street Boston, MA 02110 (857) 284-8891 (Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Jean-Pierre Sommadossi, Ph.D. **President and Chief Executive Officer** Atea Pharmaceuticals, Inc. 225 Summer Street Boston, MA 02110
(857) 284-8891
(Address, including zip code, and telephone number, including area code, of agent for service)

Copies to:

Peter N. Handrinos Wesley C. Holmes Latham & Watkins LLP 200 Clarendon Street Boston, MA 02116 (617) 948-6000

| APPROXIMATE DATE OF COMMENCEMENT OF PROPOSED SALE TO THE PUBLIC: From time to time after the effective date of this registration statement. |
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If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box. \Box

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, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

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

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. $\hfill\Box$

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective on filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box. $\ oxdot$

| If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box. | | | |
|---|--|---------------------------|--|
| Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, 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 | | Accelerated filer | |
| Non-accelerated filer | | Smaller reporting company | |
| | | Emerging growth company | |
| If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for comply with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of Securities Act. | | | |

EXPLANATORY NOTE

This Post-Effective Amendment No. 3 (this "Amendment No. 3") to the Registration Statement on Form S-3 (File No. 333-261344) filed by Atea Pharmaceuticals, Inc. on March 1, 2022 (the "Registration Statement") is being filed solely to update the auditors' consent filed with the Registration Statement as Exhibit 23.2. Accordingly, this Amendment No. 3 consists only of the facing page, this explanatory note, Part II of the Registration Statement, and an updated Exhibit 23.2. The prospectus is unchanged and has been omitted.

PART II INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution

The following is an estimate of the expenses (all of which are to be paid by the registrant) that we may incur in connection with the securities being registered hereby.

| SEC registration fee | \$ 46, | 350 |
|---|--------|-----|
| FINRA filing fee | \$225, | 500 |
| Printing expenses | \$ | (1) |
| Legal fees and expenses | \$ | (1) |
| Accounting fees and expenses | \$ | (1) |
| Blue Sky, qualification fees and expenses | \$ | (1) |
| Transfer agent fees and expenses | \$ | (1) |
| Trustee fees and expenses | \$ | (1) |
| Warrant agent fees and expenses | \$ | (1) |
| Miscellaneous | \$ | (1) |
| Total | \$ | (1) |

(1) These fees are calculated based on the securities offered and the number of issuances and accordingly cannot be estimated at this time.

Item 15. Indemnification of Directors and Officers

Subsection (a) of Section 145 of the General Corporation Law of the State of Delaware, or the DGCL, empowers a corporation to indemnify any person who was or is a party or who is threatened to be made a party 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 the corporation) by reason of the fact that the person is or was a director, officer, employee or agent of the corporation, or is or was serving at the request of the corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by the person in connection with such action, suit or proceeding if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, and, with respect to any criminal action or proceeding, had no reasonable cause to believe the person's conduct was unlawful.

Subsection (b) of Section 145 empowers a corporation to indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action or suit by or in the right of the corporation to procure a judgment in its favor by reason of the fact that the person acted in any of the capacities set forth above, against expenses (including attorneys' fees) actually and reasonably incurred by the person in connection with the defense or settlement of such action or suit if the person acted in good faith and in a manner the person reasonably believed to be in or not opposed to the best interests of the corporation, except that no indemnification shall be made in respect of any claim, issue or matter as to which such person shall have been adjudged to be liable to the corporation unless and only to the extent that the Court of Chancery or the court in which such action or suit was brought shall determine upon application that, despite the adjudication of liability but in view of all the circumstances of the case, such person is fairly and reasonably entitled to indemnity for such expenses which the Court of Chancery or such other court shall deem proper.

Section 145 further provides that to the extent a director or officer of a corporation has been successful on the merits or otherwise in the defense of any action, suit or proceeding referred to in subsections (a) and (b) of

Section 145, or in defense of any claim, issue or matter therein, such person shall be indemnified against expenses (including attorneys' fees) actually and reasonably incurred by such person in connection therewith; that indemnification provided for by Section 145 shall not be deemed exclusive of any other rights to which the indemnified party may be entitled; and the indemnification provided for by Section 145 shall, unless otherwise provided when authorized or ratified, continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of such person's heirs, executors and administrators. Section 145 also empowers the corporation to purchase and maintain insurance on behalf of any person who is or was a director, officer, employee or agent of the corporation, partnership, joint venture, trust or other enterprise against any liability asserted against such person and incurred by such person in any such capacity, or arising out of his status as such, whether or not the corporation would have the power to indemnify such person against such liabilities under Section 145.

Section 102(b)(7) of the DGCL provides that a corporation's certificate of incorporation may contain a provision eliminating or limiting the personal liability of a director to the corporation or its stockholders for monetary damages for breach of fiduciary duty as a director, provided that such provision shall not eliminate or limit the liability of a director (i) for any breach of the director's duty of loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the DGCL, or (iv) for any transaction from which the director derived an improper personal benefit.

Any underwriting agreement or distribution agreement that the registrant enters into with any underwriters or agents involved in the offering or sale of any securities registered hereby may require such underwriters or dealers to indemnify the registrant, some or all of its directors and officers and its controlling persons, if any, for specified liabilities, which may include liabilities under the Securities Act of 1933, as amended.

Our restated certificate of incorporation provides that we will indemnify each person who was or is a party or threatened to be made a party to any threatened, pending or completed action, suit or proceeding (other than an action by or in the right of us) by reason of the fact that he or she is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise (all such persons being referred to as an "Indemnitee"), or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding and any appeal therefrom, if such Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, and, with respect to any criminal action or proceeding, he or she had no reasonable cause to believe his or her conduct was unlawful. Our restated certificate of incorporation provides that we will indemnify any Indemnitee who was or is a party to an action or suit by or in the right of us to procure a judgment in our favor by reason of the fact that the Indemnitee is or was, or has agreed to become, a director or officer, or is or was serving, or has agreed to serve, at our request as a director, officer, partner, employee or trustee of, or in a similar capacity with, another corporation, partnership, joint venture, trust or other enterprise, or by reason of any action alleged to have been taken or omitted in such capacity, against all expenses (including attorneys' fees) and, to the extent permitted by law, amounts paid in settlement actually and reasonably incurred in connection with such action, suit or proceeding, and any appeal therefrom, if the Indemnitee acted in good faith and in a manner he or she reasonably believed to be in, or not opposed to, our best interests, except that no indemnification shall be made with respect to any claim, issue or matter as to which such person shall have been adjudged to be liable to us, unless a court determines that, despite such adjudication but in view of all of the circumstances, he or she is entitled to indemnification of such expenses. Notwithstanding the foregoing, to the extent that any Indemnitee has been successful, on the merits or otherwise, he or she will be indemnified by us against all expenses (including attorneys' fees) actually and reasonably incurred in connection therewith. Expenses must be advanced to an Indemnitee under certain circumstances.

We have entered into indemnification agreements with each of our directors and officers. These indemnification agreements require us, among other things, to indemnify our directors and officers for some expenses, including attorneys' fees, judgments, fines and settlement amounts incurred by a director or officer in any action or proceeding arising out of his or her service as one of our directors or officers, or any of our subsidiaries or any other company or enterprise to which the person provides services at our request.

We maintain a general liability insurance policy that covers certain liabilities of directors and officers of our corporation arising out of claims based on acts or omissions in their capacities as directors or officers.

Item 16. Exhibits

| Exhibit Number | Description |
|-------------------|--|
| 1.1* | Form of Underwriting Agreement. |
| 1.2† | Open Market Sale Agreement SM, dated as of November 24, by and between Atea Pharmaceuticals, Inc. and Jefferies LLC (incorporated by reference to Exhibit 1.2 of the Company's Registration Statement on Form S-3 (File No. 333-261344) filed on November 24, 2021). |
| 3.1† | Restated Certificate of Incorporation of Atea Pharmaceuticals, Inc. (incorporated by reference to the Company's Current Report on Form 8-K (File No. 001-39661) filed on November 5, 2020). |
| 3.2† | Amended and Restated Bylaws of Atea Pharmaceuticals, Inc. (incorporated by reference to the Company's Current Report on Form 8-K (File No. 001-39661) filed on November 5, 2020). |
| 4.1† | Form of Specimen Certificate Representing Common Stock (incorporated by reference to the Company's Registration Statement on Form S-1 (File No. 333-249404) filed on October 9, 2020). |
| 4.2* | Form of Specimen Certificate Representing Preferred Stock. |
| 4.3† | Form of Indenture (incorporated by reference to Exhibit 4.3 of the Company's Registration Statement on Form S-3 (File No. 333-261344) filed on November 24, 2021). |
| 4.4* | Form of Note. |
| 4.5* | Form of Warrant. |
| 4.6* | Form of Warrant Agreement. |
| 4.7* | Form of Unit Agreement. |
| 5.1† | Opinion of Latham & Watkins LLP. |
| 23.1† | Consent of Latham & Watkins LLP (included in Exhibit 5.1). |
| 23.2 | Consent of KPMG LLP, independent registered public accounting firm. |
| 24.1 | Powers of Attorney (incorporated by reference to the signature page hereto). |
| 25.1** | Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939, as amended, of Debt Trustee (to be filed prior to any issuance of Debt Securities). |

- * To be filed by amendment or incorporated by reference in connection with the offering of the securities.
- ** To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939.
- † Previously filed.

Item 17. Undertakings

- (a) The undersigned registrant hereby undertakes:
 - (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:
 - (i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

- (ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and
- (iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (a)(1)(i), (a)(1)(ii), and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the registrant pursuant to section 13 or section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is a part of the registration statement.

- (2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment 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.
- (3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.
 - (5) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:
 - (A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and
 - (B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. *Provided*, *however*, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.
 - (6) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the

securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

- (i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;
- (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;
- (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and
 - (iv) Any other communications that is an offer in the offering made by the undersigned registrant to the purchaser.
- (b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement 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.
- (h) Insofar as indemnification for liabilities arising under the Securities Act of 1933 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 Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by 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 Securities Act and will be governed by the final adjudication of such issue.
- (j) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act (the "Act") in accordance with the rules and regulations prescribed by the SEC under section 305(b)(2) of the Act.

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, the registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Post-Effective Amendment No. 3 to the Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Boston, Commonwealth of Massachusetts, on this 10th day of May, 2022.

| ATEA PHARMACEUTICALS, INC | ATEA | PHARM | ACEUTI | CALS. | . INC. |
|---------------------------|-------------|--------------|--------|-------|--------|
|---------------------------|-------------|--------------|--------|-------|--------|

| By: | /s/ Jean-Pierre Sommadossi | | |
|-----|---------------------------------------|--|--|
| _ | Jean-Pierre Sommadossi, Ph.D. | | |
| | President and Chief Executive Officer | | |

SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, as amended, this registration statement has been signed below by the following persons on behalf of the registrant in the capacities and on the dates indicated.

| SIGNATURE | TITLE | DATE |
|--------------------------------|---|----------------|
| /s/ Jean-Pierre Sommadossi | President, Chief Executive Officer and | May 10, 2022 |
| Jean-Pierre Sommadossi, Ph.D. | Chairman of the Board of Directors (<i>principal executive officer</i>) | |
| /s/ Andrea Corcoran | Chief Financial Officer and Executive | May 10, 2022 |
| Andrea Corcoran | Vice President, Legal and Secretary (principal financial officer) | |
| /s/ Wayne Foster | Executive Vice President and Chief | |
| Wayne Foster | Accounting Officer (principal accounting officer) | May 10, 2022 |
| * | Director | May 10, 2022 |
| Jerome Adams, M.D., M.P.H. | | 5 |
| * | Director | May 10, 2022 |
| Franklin Berger | Brecto. | |
| * | Director | May 10, 2022 |
| Barbara Duncan | Birctoi | 111ay 10, 2022 |
| * | Director | May 10, 2022 |
| Bruno Lucidi | Director | 1VIUY 10, 2022 |
| * | Division | May 10, 2022 |
| Polly A. Murphy, D.V.M., Ph.D. | Director | May 10, 2022 |
| • • • | | 14 40 0000 |
| * Bruce Polsky, M.D. | Director | May 10, 2022 |
| 21466 1 01011, 11112. | | |

By: /s/ Jean-Pierre Sommadossi Jean-Pierre Sommadossi, Ph.D. Attorney-in-Fact

Consent of Independent Registered Public Accounting Firm

We consent to the use of our reports dated February 28, 2022, with respect to the consolidated financial statements of Atea Pharmaceuticals, Inc. and subsidiary, and the effectiveness of internal control over financial reporting, incorporated herein by reference.

/s/ KPMG LLP Boston, Massachusetts May 10, 2022