

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

**FORM S-8  
REGISTRATION STATEMENT**  
Under  
The Securities Act of 1933

**ATHIRA PHARMA, INC.**

(Exact name of Registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**45-3368487**  
(I.R.S. Employer  
Identification Number)

**18706 North Creek Parkway, Suite 104  
Bothell, WA 98011**

(Address of principal executive offices, including zip code)

**2020 Equity Incentive Plan  
2020 Employee Stock Purchase Plan  
2024 Inducement Equity Incentive Plan**

(Full title of the plans)

**Mark Litton, Ph.D.**  
**President and Chief Executive Officer**  
**Athira Pharma, Inc.**  
**18706 North Creek Parkway, Suite 104**  
**Bothell, WA 98011**  
**(425) 620-8501**

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

**Copies to:**

**Michael Nordtvedt**  
**Bryan D. King**  
Wilson Sonsini Goodrich & Rosati,  
Professional Corporation  
701 Fifth Avenue, Suite 5100  
Seattle, WA 98104  
(206) 883-2500

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   
Non-accelerated filer

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 complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

## EXPLANATORY NOTE

This Registration Statement on Form S-8 (the “Registration Statement”) is filed by Athira Pharma, Inc. (the “Registrant”) for the purpose of registering (a) 1,908,630 additional shares of common stock of the Registrant reserved for issuance under the Athira Pharma, Inc. 2020 Equity Incentive Plan (the “2020 Plan”), pursuant to the provision of the 2020 Plan providing for such automatic increase in the number of shares reserved for issuance, (b) 381,726 shares of common stock of the Registrant reserved for issuance under the Athira Pharma, Inc. 2020 Employee Stock Purchase Plan (the “2020 ESPP”), pursuant to the provision of the 2020 ESPP providing for such automatic increase in the number of shares reserved for issuance, and (c) 750,000 shares of common stock of the Registrant reserved for issuance under the Athira Pharma, Inc. 2024 Inducement Equity Incentive Plan (the “2024 Inducement Plan”).

### PART I

#### INFORMATION REQUIRED IN THE SECTION 10(a) PROSPECTUS

The information specified in Item 1 and Item 2 of Part I of Form S-8 is omitted from this Registration Statement on Form S-8 in accordance with the provisions of Rule 428 under the Securities Act of 1933, as amended (the “Securities Act”), and the introductory note to Part I of Form S-8. The documents containing the information specified in Part I of Form S-8 will be delivered to the participants in the equity benefit plans covered by this Registration Statement as specified by Rule 428(b)(1) under the Securities Act. These documents and the documents incorporated by reference in this Registration Statement pursuant to Item 3 of Part II of Form S-8, taken together, constitute a prospectus that meets the requirements of Section 10(a) of the Securities Act.

### PART II

#### INFORMATION REQUIRED IN REGISTRATION STATEMENT

##### **Item 3. Incorporation of Documents by Reference.**

The Registrant hereby incorporates by reference into this Registration Statement the following documents previously filed with the Securities and Exchange Commission (the “Commission”):

- (1) The Registrant’s Annual Report on Form 10-K for the fiscal year ended December 31, 2023, filed with the Commission on February 22, 2024, pursuant to Section 13(a) under the Securities Exchange Act of 1934, as amended (the “Exchange Act”);
  - (2) All other reports filed with the Commission pursuant to Section 13(a) or 15(d) of the Exchange Act (other than the reports, or portions thereof, deemed to have been furnished and not filed with the Commission) since the end of the fiscal year covered by the Annual Report referred to in (1) above; and
  - (3) The description of the Registrant’s Common Stock contained in the Registrant’s Registration Statement on Form 8-A (File No. 001-39503) filed with the Commission on [September 9, 2020](#), pursuant to Section 12(b) of the Exchange Act, including any amendment or report filed for the purpose of updating such description.
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All documents filed by the Registrant pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act on or after the date of this Registration Statement and prior to the filing of a post-effective amendment to this Registration Statement that indicates that all securities offered have been sold or that deregisters all securities then remaining unsold shall be deemed to be incorporated by reference in this Registration Statement and to be a part hereof from the date of filing of such documents; *provided, however*, that documents or information deemed to have been furnished and not filed in accordance with the rules of the Commission shall not be deemed incorporated by reference into this Registration Statement. Any statement contained in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this Registration Statement to the extent that a statement contained herein or in any subsequently filed document which also is deemed to be incorporated by reference herein modifies or supersedes such statement. Any such statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this Registration Statement.

**Item 4. Description of Securities.**

Not applicable.

**Item 5. Interests of Named Experts and Counsel.**

The validity of the shares of common stock offered hereby will be passed upon for the Registrant by Wilson Sonsini Goodrich & Rosati, Professional Corporation, Seattle, Washington. Investment funds associated with Wilson Sonsini Goodrich & Rosati, Professional Corporation, hold an aggregate of 13,706 shares of the Registrant's common stock, which represent less than 1.0% of the Registrant's outstanding shares of common stock.

**Item 6. Indemnification of Directors and Officers.**

Section 145 of the Delaware General Corporation Law authorizes a corporation's board of directors to grant, and authorizes a court to award, indemnity to officers, directors and other corporate agents.

Our certificate of incorporation contains provisions that limit the liability of our directors for monetary damages to the fullest extent permitted by the Delaware General Corporation Law. Consequently, our directors will not be personally liable to us or our stockholders for monetary damages for any breach of fiduciary duties as directors, except liability for the following:

- any breach of their duty of loyalty to us or our stockholders;
- any act or omission not in good faith or that involves intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the Delaware General Corporation Law; or
- any transaction from which they derived an improper personal benefit.

Any amendment, repeal or elimination of these provisions will not eliminate or reduce the effect of these provisions in respect of any act, omission or claim that occurred or arose prior to that amendment, repeal or elimination. If the Delaware General Corporation Law is amended to provide for further limitations on the personal liability of directors of corporations, then the personal liability of our directors will be further limited to the greatest extent permitted by the Delaware General Corporation Law.

In addition, our bylaws provide that we will indemnify our directors and officers, and may indemnify our employees, agents and any other persons, to the fullest extent permitted by the Delaware General Corporation Law. Our bylaws also provide that we must advance expenses incurred by or on behalf of a director or officer in advance of the final disposition of any action or proceeding, subject to limited exceptions.

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Further, we have entered into indemnification agreements with each of our directors and executive officers that may be broader than the specific indemnification provisions contained in the Delaware General Corporation Law. These indemnification agreements require us to, among other things, indemnify our directors and executive officers against liabilities that may arise by reason of their status or service. These indemnification agreements also generally require us to advance all expenses reasonably and actually incurred by our directors and executive officers in investigating or defending any such action, suit or proceeding. We believe that these agreements are necessary to attract and retain qualified individuals to serve as directors and executive officers.

The limitation of liability and indemnification provisions in our certificate of incorporation, bylaws and indemnification agreements may discourage stockholders from bringing a lawsuit against our directors and officers for breach of their fiduciary duties. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Further, a stockholder's investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against our directors and officers as required by these indemnification provisions.

We have obtained insurance policies under which, subject to the limitations of the policies, coverage is provided to our directors and officers against loss arising from claims made by reason of breach of fiduciary duty or other wrongful acts as a director or officer, including claims relating to public securities matters, and to us with respect to payments that may be made by us to our directors and officers pursuant to our indemnification obligations or otherwise as a matter of law.

**Item 7. Exemption from Registration Claimed.**

Not applicable.

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**Item 8. Exhibits.**

Exhibit Number	Exhibit Description	Form	Incorporated by Reference		Filing Date
			File No.	Exhibit	
99.1	<a href="#">Specimen common stock certificate of the Registrant</a>	S-1/A	333-248428	4.1	September 14, 2020
99.2	<a href="#">2020 Equity Incentive Plan</a>	S-1/A	333-248428	10.5	September 8, 2020
99.3	<a href="#">Form of Stock Option Agreement under the 2020 Equity Incentive Plan</a>	S-1/A	333-248428	10.6	September 8, 2020
99.4	<a href="#">Form of Restricted Stock Award Agreement under the 2020 Equity Incentive Plan</a>	S-1/A	333-248428	10.7	September 8, 2020
99.5	<a href="#">Form of RSU Agreement under the 2020 Equity Incentive Plan</a>	S-1/A	333-248428	10.8	September 8, 2020
99.6	<a href="#">2020 Employee Stock Purchase Plan, as amended and Form of Subscription Agreement thereunder</a>	10-K	001-39503	10.8	March 23, 2023
99.7	<a href="#">2024 Inducement Equity Incentive Plan and related form agreements</a>	8-K	001-39503	10.1	February 22, 2024
5.1	<a href="#">Opinion of Wilson Sonsini Goodrich &amp; Rosati, Professional Corporation</a>				
23.1	<a href="#">Consent of Independent Registered Public Accounting Firm</a>				
23.2	<a href="#">Consent of Wilson Sonsini Goodrich &amp; Rosati, Professional Corporation (contained in Exhibit 5.1 hereto)</a>				
24.1	<a href="#">Power of Attorney (contained on signature page hereto)</a>				
107	<a href="#">Filing Fee Table</a>				

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## Item 9. 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;

(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 a 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) and (a)(1)(ii) 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 Exchange Act that are incorporated by reference in the registration statement.

(2) that, for the purpose of determining any liability under the Securities Act, 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.

(b) The undersigned Registrant hereby undertakes that, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) 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.

(c) 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 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.

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## 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-8 and has duly caused this registration statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Bothell, State of Washington, on February 22, 2024.

**ATHIRA PHARMA, INC.**

By: /s/ Mark Litton

*Mark Litton, Ph.D.*

*President and Chief Executive Officer*

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## POWER OF ATTORNEY

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Mark Litton and Andrew Gengos, and each of them, as his or her true and lawful attorney-in-fact and agent, with full power of substitution and resubstitution, for him or her and in his or her name, place and stead, in any and all capacities, to sign any and all amendments to this registration statement, including post-effective amendments, and to file the same, with all exhibits thereto, and all other documents in connection therewith, with the Securities and Exchange Commission, granting unto said attorney-in-fact and agent and each of them, full power and authority to do and perform each and every act and thing requisite and necessary to be done in connection therewith and about the premises, as fully for all intents and purposes as they, he or she might or could do in person, hereby ratifying and confirming all that said attorney-in-fact and agent or any of them, or their, his or her substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this 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>
<u>/s/ Mark Litton</u> Mark Litton	President, Chief Executive Officer and Director (Principal Executive Officer)	February 22, 2024
<u>/s/ Andrew Genegos</u> Andrew Gengos	Chief Financial Officer and Chief Business Officer (Principal Accounting and Financial Officer)	February 22, 2024
<u>/s/ Kelly A. Romano</u> Kelly A. Romano	Chair of the Board of Directors	February 22, 2024
<u>/s/ Joseph Edelman</u> Joseph Edelman	Director	February 22, 2024
<u>/s/ John M. Fluke, Jr.</u> John M. Fluke, Jr.	Director	February 22, 2024
<u>/s/ James A. Johnson</u> James A. Johnson	Director	February 22, 2024
<u>/s/ Barbara Kosacz</u> Barbara Kosacz	Director	February 22, 2024
<u>/s/ Michael Panzara</u> Michael Panzara	Director	February 22, 2024
<u>/s/ Grant Pickering</u> Grant Pickering	Director	February 22, 2024

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Wilson Sonsini Goodrich & Rosati  
Professional Corporation

701 Fifth Avenue  
Suite 5100  
Seattle, Washington 98104-7036

o: 206.883.2500  
f: 866.974.7329

February 22, 2024

Athira Pharma, Inc.  
18706 North Creek Parkway, Suite 104  
Bothell, WA 98011

**Re: Registration Statement on Form S-8**

Ladies and Gentlemen:

We have examined the Registration Statement on Form S-8 (the “Registration Statement”) to be filed by Athira Pharma, Inc., a Delaware corporation, with the Securities and Exchange Commission on or about the date hereof, in connection with the registration under the Securities Act of 1933, as amended, of an aggregate of 3,040,356 shares of your common stock, par value \$0.0001 per share (the “Shares”), consisting of: (i) 1,908,630 shares of common stock to be issued under the 2020 Equity Incentive Plan (the “2020 Plan”), (ii) 381,726 shares of common stock to be issued under the 2020 Employee Stock Purchase Plan (the “2020 ESPP”), and (iii) 750,000 shares of common stock to be issued under the 2024 Inducement Equity Incentive Plan (the “2024 Inducement Plan”, and together with the 2020 Plan and 2020 ESPP, the “Plans”). As your legal counsel, we have reviewed the actions proposed to be taken by you in connection with the issuance and sale of the Shares to be issued under the Plans.

It is our opinion that the Shares, when issued and sold in the manner referred to in the Plans and pursuant to the agreements that accompany the Plans, will be legally and validly issued, fully paid and nonassessable.

We consent to the use of this opinion as an exhibit to the Registration Statement, and further consent to the use of our name wherever appearing in the Registration Statement and any amendments thereto.

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AUSTIN    BEIJING    BOSTON    BRUSSELS    HONG KONG    LONDON    LOS ANGELES    NEW YORK    PALO ALTO  
SAN DIEGO    SAN FRANCISCO    SEATTLE    SHANGHAI    WASHINGTON, DC    WILMINGTON, DE

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Very truly yours,

/s/ Wilson Sonsini Goodrich & Rosati, P.C.

**WILSON SONSINI GOODRICH & ROSATI**  
Professional Corporation

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**Consent of Independent Registered Public Accounting Firm**

We consent to the incorporation by reference in the Registration Statement (Form S-8) pertaining to the 2020 Equity Incentive Plan, 2020 Employee Stock Purchase Plan, and 2024 Inducement Equity Incentive Plan of Athira Pharma, Inc. of our report dated February 22, 2024, with respect to the consolidated financial statements of Athira Pharma, Inc., included in its Annual Report (Form 10-K) for the year ended December 31, 2023, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Seattle, Washington  
February 22, 2024

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**Calculation of Filing Fee Table**

**Form S-8**  
(Form Type)

**Athira Pharma, Inc.**  
(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered Securities

Security Type	Security Class Title	Fee Calculation Rule	Amount Registered <sup>(1)(2)</sup>	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee
Equity	Common Stock, \$0.0001 par value per share, reserved for issuance pursuant to the 2020 Employee Stock Purchase Plan	Other <sup>(3)</sup>	381,726 <sup>(4)</sup>	\$ 3.23 <sup>(3)</sup>	\$ 1,234,597.32	\$ 0.00014760	\$ 182.23
Equity	Common Stock, \$0.0001 par value per share, reserved for issuance pursuant to the 2020 Equity Incentive Plan	Other <sup>(5)</sup>	1,908,630 <sup>(6)</sup>	\$ 3.81 <sup>(5)</sup>	\$ 7,262,337.15	\$ 0.00014760	\$ 1,071.92
Equity	Common Stock, \$0.0001 par value per share, reserved for issuance pursuant to the 2024 Inducement Equity Incentive Plan	Other <sup>(5)</sup>	750,000 <sup>(5)</sup>	\$ 3.81 <sup>(5)</sup>	\$ 2,853,750.00	\$ 0.00014760	\$ 421.21
<b>Total</b>			<b>3,040,356</b>		<b>\$ 11,350,684.47</b>		<b>\$ 1,675.36</b>
<b>Total Fee Offsets</b>							<b>\$ —</b>
<b>Net Fee Due</b>							<b>\$ 1,675.36</b>

- (1) Represents shares of common stock, par value \$0.0001 per share (“Common Stock”) of Athira Pharma, Inc. (the “Registrant”) available for issuance pursuant to awards granted pursuant to the Registrant’s 2020 Employee Stock Purchase Plan (the “2020 ESPP”), 2020 Equity Incentive Plan (the “2020 Plan”), and 2024 Inducement Equity Incentive Plan (the “2024 Inducement Plan”). In addition, pursuant to Rule 416(a) under the Securities Act of 1933, as amended (the “Securities Act”), this Registration Statement shall also cover any additional shares of the Registrant’s Common Stock that become issuable under the 2020 ESPP, 2020 Plan or 2024 Inducement Plan by reason of an event such as any stock split, stock dividend, recapitalization or similar transaction effected without receipt of consideration that increases the number of the Registrant’s outstanding shares of Common Stock.

- (2) For the sole purpose of calculating the registration fee, the amount to be registered under this Registration Statement has been broken down into subtotals.
  - (3) Estimated in accordance with Rules (c) and (h) of Rule 457 under the Securities Act solely for the purposes of calculating the registration fee on the basis of 85% of \$3.81 per share, which represents the average of the high and low price per share of the Registrant's Common Stock on February 20, 2024, as reported on The Nasdaq Global Select Market. Pursuant to the 2020 ESPP, the purchase price of the shares of the Registrant's Common Stock reserved for issuance thereunder will be 85% of the lower of the fair market value of the Common Stock on the first trading day of the offering period or on the last day of the offering period.
  - (4) Represents an automatic annual increase on January 1, 2024 to the number of shares of the Registrant's Common Stock reserved for issuance under the 2020 ESPP pursuant to an "evergreen" provision contained in the 2020 ESPP. Pursuant to such provision, the number of shares of the Registrant's Common Stock available for issuance under the 2020 ESPP is subject to an annual increase on the first day of each fiscal year by an amount equal to the least of (i) 646,000 shares of Common Stock, (ii) one percent (1%) of the outstanding shares of all classes of the Registrant's Common Stock on the last day of the immediately preceding fiscal year or (iii) such other number of shares as the Registrant's board of directors may determine as of no later than the last day of the Registrant's immediately preceding fiscal year.
  - (5) Estimated in accordance with Rules 457(c) and (h) of the Securities Act solely for purposes of calculating the registration fee on the basis of \$3.81 per share, which represents the average of the high and low prices of the Registrant's Common Stock on February 20, 2024, as reported on The Nasdaq Global Select Market.
  - (6) Represents an automatic annual increase on January 1, 2024 to the number of shares of the Registrant's Common Stock reserved for issuance under the 2020 Plan pursuant to an "evergreen" provision contained in the 2020 Plan. Pursuant to such provision, the number of shares of the Registrant's Common Stock available for grant and issuance under the 2020 Plan is subject to an annual increase on the first day of each fiscal year by an amount equal to the least of (i) 3,230,000 shares of Common Stock, (ii) five percent (5%) of the outstanding shares of all classes of the Registrant's Common Stock as of the last day of the immediately preceding fiscal year or (iii) such number of shares as the Registrant's board of directors may determine no later than the last day of the Registrant's immediately preceding fiscal year.
  - (7) Represents 750,000 shares of Common Stock of the Registrant available for issuance as a result of the approval of the 2024 Inducement Plan approved by the board of directors of the Registrant pursuant to the applicable listing rules of the Nasdaq Stock Market LLC.
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