SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13D

Under the Securities Exchange Act of 1934

(Amendment No. 4)*

Athira Pharma, Inc.

(Name of Issuer)

Common Stock, $0.0001 par value

(Title of Class of Securities)

04746L203

(CUSIP Number)

Alexander Rakitin
51 Astor Place, 10th Floor,
New York, NY, 10003
(646) 205-5345

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

12/18/2025

(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 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 (however, see the Notes).

SCHEDULE 13D

CUSIP No. 04746L203

1	Name of reporting person Perceptive Advisors LLC
2	Check the appropriate box if a member of a Group (See Instructions)

☐ (a)
☑ (b)

3	SEC use only
4	Source of funds (See Instructions) AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization DELAWARE

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 540,296.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 540,296.00

11	Aggregate amount beneficially owned by each reporting person 540,296.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐
13	Percent of class represented by amount in Row (11) 13.7 %
14	Type of Reporting Person (See Instructions) IA

SCHEDULE 13D

CUSIP No. 04746L203

1	Name of reporting person Joseph Edelman
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☑ (b)
3	SEC use only
4	Source of funds (See Instructions) AF
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization UNITED STATES

Number of	7	Sole Voting Power

Shares Beneficially Owned by Each Reporting Person With:		0.00
	8	Shared Voting Power 550,024.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 550,024.00

11	Aggregate amount beneficially owned by each reporting person 550,024.00
12	Check if the aggregate amount in Row (11) excludes certain shares (See Instructions) ☐
13	Percent of class represented by amount in Row (11) 13.9 %
14	Type of Reporting Person (See Instructions) IN

SCHEDULE 13D

CUSIP No. 04746L203

1	Name of reporting person Perceptive Life Sciences Master Fund, Ltd.
2	Check the appropriate box if a member of a Group (See Instructions) ☐ (a) ☑ (b)
3	SEC use only
4	Source of funds (See Instructions) WC
5	Check if disclosure of legal proceedings is required pursuant to Items 2(d) or 2(e) ☐
6	Citizenship or place of organization CAYMAN ISLANDS

Number of Shares Beneficially Owned by Each Reporting Person With:	7	Sole Voting Power 0.00
	8	Shared Voting Power 540,296.00
	9	Sole Dispositive Power 0.00
	10	Shared Dispositive Power 540,296.00

11	Aggregate amount beneficially owned by each reporting person

540,296.00

12 Check if the aggregate amount in Row (11) excludes certain shares (See Instructions)

☐

13 Percent of class represented by amount in Row (11)

13.7 %

14 Type of Reporting Person (See Instructions)

CO

SCHEDULE 13D

Item 1. Security and Issuer

(a) Title of Class of Securities:

Common Stock, $0.0001 par value

(b) Name of Issuer:

Athira Pharma, Inc.

(c) Address of Issuer's Principal Executive Offices:

18706 North Creek Parkway, Suite 104, Bothell, WASHINGTON , 98011.

Item 4. Purpose of Transaction

Item 4 of the Schedule 13D is amended and supplemented as follows: The information set forth in Item 6 of this Amendment No. 4 is incorporated by reference to this Item 4.

Item 5. Interest in Securities of the Issuer

(a) Items 5(a)-(b) of the Schedule 13D are amended and supplemented as follows: The information set forth in rows 11 and 13 of the cover pages to this Schedule 13D is incorporated by reference. The percentages set forth in row 13 are based on 3,943,887 shares of Common Stock outstanding as of November 5, 2025, as disclosed by the Issuer in its Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission on November 6, 2025.

(b) The information set forth in rows 7 through 10 of the cover pages to this Schedule 13D is incorporated by reference. Mr. Edelman's cover page includes 9,728 shares of Common Stock that may be acquired upon the exercise of vested options awarded to Mr. Edelman in connection with his role as a director of the Issuer.

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

Item 6 of the Schedule 13D is amended and supplemented as follows: On December 18, 2025, the Perceptive Life Sciences Master Fund, Ltd. (the "Master Fund") and Perceptive Xontogeny Venture Fund II, LP ("PXV II") entered into a Securities Purchase Agreement (the "Securities Purchase Agreement") with the Issuer, pursuant to which the Master Fund and PXV II will acquire an aggregate of 1,319,026 shares of Common Stock at a price of $6.35 per share, pre-funded warrants to purchase 1,830,580 shares of Common Stock at a price of $6.34 per share and with an exercise price of $0.001 per share (the "Pre-Funded Warrants"), warrants to purchase 5,118,109 shares of Common Stock with an exercise price of $6.35 per share (the "Series A Warrants"), and warrants to purchase 4,724,408 shares of Common Stock with an exercise price of $7.62 per share (the "Series B Warrants," and together with the Pre-Funded Warrants and the Series A Warrants, the "Warrants") (the "Private Placement"). The Private Placement is expected to close on December 23, 2025 (the "Closing"), subject to the satisfaction of customary closing conditions. The Series A Warrants will be exercisable after the earlier of (1) the latest of (a) June 30, 2026, (b) the date on which the Issuer announces the enrollment of the 500th subject or the last subject, whichever is earlier, in its ELAINE-3 trial, and (c) the date on which the U.S. Food and Drug Administration approves or issues a complete response letter to Eli Lilly & Co.'s marketing application for imlunestrant in combination with abemaciclib in breast cancer, and (2) October 31, 2026. The Series B Warrants will be exercisable after the later of (1) June 30, 2026 and (2) the date of the completion of the public readout of topline results of the Issuer's ELAINE-3 trial. The terms of the Warrants will provide that the Warrants may not be exercised if, after such exercise, the Reporting Persons, together with their Attribution Parties (as defined in the Warrants) would beneficially own, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, more than 19.99% of the shares of Common Stock then issued and outstanding after giving effect to such exercise (the "Beneficial Ownership Limitation"). The foregoing description of the Securities Purchase Agreement, the Pre-Funded Warrants, the Series A Warrants, and the Series B Warrants is qualified in its entirety by reference to the full text of the agreements, copies of which are included as Exhibit 1, Exhibit 2, Exhibit 3, and Exhibit 4 hereto, respectively. Also on December 18, 2025, the Issuer entered into an agreement with Sermonix Pharmaceuticals, Inc. ("Sermonix") pursuant to which Sermonix granted to the Issuer the exclusive license and right to develop, manufacture and commercialize oral forms of the selective estrogen-receptor modulator known as lasofoxifene in certain territories. In exchange for the granting of such license, the

Issuer will issue to Sermonix pre-funded warrants to purchase an aggregate of 5,502,402 shares of Common Stock with an exercise price of $0.001 per share (the "Sermonix Pre-Funded Warrants") pursuant to a Securities Purchase Agreement dated December 18, 2025 (the "Sermonix Securities Purchase Agreement"). An affiliate of the Reporting Persons currently holds approximately 29% of the outstanding capital stock of Sermonix (excluding securities convertible into shares of Sermonix capital stock). The terms of the Sermonix Pre-Funded Warrants will provide that the Sermonix Pre-Funded Warrants may not be exercised if, after such exercise, Sermonix, together with its Attribution Parties (as defined in the Sermonix Pre-Funded Warrants) would beneficially own, as determined in accordance with Section 13(d) of the Securities Exchange Act of 1934, as amended, more than 4.99% of the shares of Common Stock then issued and outstanding after giving effect to such exercise (the "Sermonix Beneficial Ownership Limitation"). The Sermonix Beneficial Ownership Limitation may be increased or decreased by Sermonix with 61 days' written notice to the Company; provided, however, that such percentage may in no event exceed 19.99% prior to receipt of the Sermonix Stockholder Approval (as defined in the Sermonix Securities Purchase Agreement). The foregoing description of the Sermonix Securities Purchase Agreement and the Sermonix Pre-Funded Warrants is qualified in its entirety by reference to the full text of the agreements, copies of which are included as Exhibit 5 and Exhibit 6 hereto, respectively.

Item 7. Material to be Filed as Exhibits.

Item 7 of the Schedule 13D is amended and supplemented as follows: Exhibit 1 Securities Purchase Agreement dated December 18, 2025, by and among the Issuer, the Master Fund, PXV II, and the other parties thereto (incorporated by reference to Exhibit 10.1 to the Issuer's Current Report on Form 8-K/A filed with the Securities and Exchange Commission on December 18, 2025) Exhibit 2 Form of Pre-Funded Warrant (incorporated by reference to Exhibit 4.1 to the Issuer's Current Report on Form 8-K/A filed with the Securities and Exchange Commission on December 18, 2025) Exhibit 3 Form of Series A Warrant (incorporated by reference to Exhibit 4.2 to the Issuer's Current Report on Form 8-K/A filed with the Securities and Exchange Commission on December 18, 2025) Exhibit 4 Form of Series B Warrant (incorporated by reference to Exhibit 4.3 to the Issuer's Current Report on Form 8-K/A filed with the Securities and Exchange Commission on December 18, 2025) Exhibit 5 Securities Purchase Agreement dated December 18, 2025, by and among the Issuer and Sermonix (incorporated by reference to Exhibit 10.2 to the Issuer's Current Report on Form 8-K/A filed with the Securities and Exchange Commission on December 18, 2025) Exhibit 6 Form of Sermonix Pre-Funded Warrant (incorporated by reference to Exhibit 4.4 to the Issuer's Current Report on Form 8-K/A filed with the Securities and Exchange Commission on December 18, 2025)

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.

Perceptive Advisors LLC

Signature: /s/ Joseph Edelman
Name/Title: Joseph Edelman, Managing Member
Date: 12/22/2025

Joseph Edelman

Signature: /s/ Joseph Edelman
Name/Title: Joseph Edelman
Date: 12/22/2025

Perceptive Life Sciences Master Fund, Ltd.

Signature: /s/ Joseph Edelman
Name/Title: Joseph Edelman, Managing Member
Date: 12/22/2025