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

SCHEDULE 13G/A

Under the Securities Exchange Act of 1934

(Amendment No. 13)*

Ascendis Pharma A/S

(Name of Issuer)

American Depository Shares representing Ordinary Shares of Ascendis Pharma A/S

(Title of Class of Securities)

04351P101

(CUSIP Number)

April 6, 2023

(Date of Event Which Requires Filing of this Statement)

Check the appropriate box to designate the rule pursuant to which this Schedule is filed:

 \Box Rule 13d-1(d)

*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 the disclosures provided in a prior cover page.

The information required in 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).

- Names of Reporting Persons.
 I.R.S. Identification Nos. of above persons (entities only).
 RA Capital Management, L.P.
- Check the Appropriate Box if a Member of a Group (See Instructions)
 (a) □
 (b) □
- 3. SEC Use Only
- 4. Citizenship or Place of Organization Delaware 5. Sole Voting Power 0 shares Number of Shares 6. Shared Voting Power 9,967,172 shares Beneficially Owned by 7. Sole Dispositive Power 0 shares Each Reporting Person With 8. Shared Dispositive Power 9,967,172 shares
 - 9. Aggregate Amount Beneficially Owned by Each Reporting Person

9,967,172 shares

- 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)
- Percent of Class Represented by Amount in Row (9) 17.4%¹
- 12. Type of Reporting Person (See Instructions) IA, PN

¹ The Reporting Person is the beneficial owner of 9,967,172 of the Issuer's American Depository Shares ("ADSs") representing 9,967,172 of the Issuer's ordinary shares. The percentage calculation assumes that there are currently 57,328,548 outstanding ordinary shares of the Issuer, based on the Issuer's Form 6-K as filed with the Securities and Exchange Commission ("SEC") on March 30, 2023.

- 1. Names of Reporting Persons. I.R.S. Identification Nos. of above persons (entities only). Peter Kolchinsky
- 2. Check the Appropriate Box if a Member of a Group (See Instructions) (a) (b)
- SEC Use Only 3.
- 4. Citizenship or Place of Organization **United States** 5. Sole Voting Power 0 shares Number of Shares 6. Shared Voting Power 9,967,172 shares Beneficially Owned by 7. Sole Dispositive Power 0 shares Each Reporting Person With
 - Shared Dispositive Power 9. Aggregate Amount Beneficially Owned by Each Reporting Person

9,967,172 shares

8.

Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) 10.

9,967,172 shares

- 11. Percent of Class Represented by Amount in Row (9) $17.4\%^{2}$
- 12. Type of Reporting Person (See Instructions) HC, IN

² The Reporting Person is the beneficial owner of 9,967,172 of the Issuer's American Depository Shares ("ADSs") representing 9,967,172 of the Issuer's ordinary shares. The percentage calculation assumes that there are currently 57,328,548 outstanding ordinary shares of the Issuer, based on the Issuer's Form 6-K as filed with the SEC on March 30, 2023

- Names of Reporting Persons.
 I.R.S. Identification Nos. of above persons (entities only).
 Rajeev Shah
- Check the Appropriate Box if a Member of a Group (See Instructions)
 (a) □
 (b) □
- 3. SEC Use Only
- 4. Citizenship or Place of Organization **United States** 5. Sole Voting Power 0 shares Number of Shares 6. Shared Voting Power 9,967,172 shares Beneficially Owned by 7. Sole Dispositive Power 0 shares Each Reporting Person With 8. Shared Dispositive Power 9,967,172 shares
 - 9. Aggregate Amount Beneficially Owned by Each Reporting Person

9,967,172 shares

- 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)
- Percent of Class Represented by Amount in Row (9) 17.4%³
- 12. Type of Reporting Person (See Instructions) HC, IN

 $[\]frac{3}{3}$ The Reporting Person is the beneficial owner of 9,967,172 of the Issuer's American Depository Shares ("ADSs") representing 9,967,172 of the Issuer's ordinary shares. The percentage calculation assumes that there are currently 57,328,548 outstanding ordinary shares of the Issuer, based on the Issuer's Form 6-K as filed with the SEC on March 30, 2023.

- Names of Reporting Persons.
 I.R.S. Identification Nos. of above persons (entities only).
 RA Capital Healthcare Fund, L.P.
- Check the Appropriate Box if a Member of a Group (See Instructions)
 (a) □
 (b) □
- 3. SEC Use Only

| 4. Citiz | 4. Citizenship or Place of Organization | | |
|--|---|--------------------------|------------------|
| Number of Shares Beneficially Owned by Each Reporting Person With | 5. | Sole Voting Power | 0 shares |
| | 6. | Shared Voting Power | 9,967,172 shares |
| | 7. | Sole Dispositive Power | 0 shares |
| | 8. | Shared Dispositive Power | 9,967,172 shares |

9. Aggregate Amount Beneficially Owned by Each Reporting Person

9,967,172 shares

- 10. Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions)
- Percent of Class Represented by Amount in Row (9) 17.4%⁴
- 12. Type of Reporting Person (See Instructions) PN

 $^{^{4}}$ The Reporting Person is the beneficial owner of 9,967,172 of the Issuer's American Depository Shares ("ADSs") representing 9,967,172 of the Issuer's ordinary shares. The percentage calculation assumes that there are currently 57,328,548 outstanding ordinary shares of the Issuer, based on the Issuer's Form 6-K as filed with the SEC on March 30, 2023.

Item 1.

(a) Name of Issuer:

Ascendis Pharma A/S (the "Issuer").

(b) Address of the Issuer's Principal Executive Offices:

Tuborg Boulevard 12, DK-2900 Hellerup, Denmark.

Item 2.

(a) **Name of Person Filing:**

The names of the persons filing this report (collectively, the "Reporting Persons") are:

RA Capital Management, L.P. ("RA Capital") Peter Kolchinsky Rajeev Shah RA Capital Healthcare Fund, L.P. (the "Fund")

(b) Address of Principal Business Office:

The principal business office of the Reporting Persons is c/o RA Capital Management, L.P., 200 Berkeley Street, 18th Floor, Boston, MA 02116.

(c) Citizenship:

RA Capital and the Fund are Delaware limited partnerships. Dr. Kolchinsky and Mr. Shah are United States citizens.

(d) Title and Class of Securities:

American Depositary Shares ("ADSs") of the Issuer.

(e) **CUSIP Number:**

04351P101

Item 3. If this statement is filed pursuant to §§240.13d-1(b) or 240.13d-2(b) or (c), check whether the person filing is a:

(e) RA Capital Management, L.P. is a registered investment adviser and is filing this statement in accordance with §240.13d-1(b)(1)(ii)(E);

(g) Peter Kolchinsky and Rajeev Shah are control persons and are filing this statement in accordance with §240.13d-1(b)(1)(ii)(G).

Item 4. Ownership:

The information required by this item with respect to each Reporting Person is set forth in Rows 5 through 9 and 11 of the cover pages to this Schedule 13G/A. The ownership percentages reported are based on 57,328,548 outstanding ordinary shares, as reported in the Issuer's Form 6-K filed with the Securities and Exchange Commission on March 30, 2023.

The Fund directly holds 9,967,172 of the Issuer's American Depository Shares ("ADSs") representing 9,967,172 of the Issuer's ordinary shares.

RA Capital Healthcare Fund GP, LLC is the general partner of the Fund. The general partner of RA Capital is RA Capital Management GP, LLC, of which Dr. Kolchinsky and Mr. Shah are the controlling persons. RA Capital serves as investment adviser for the Fund and may be deemed a beneficial owner, for purposes of Section 13(d) of the Securities Exchange Act of 1934 (the "Act"), of any securities of the Issuer held by the Fund. The Fund has delegated to RA Capital the sole power to vote and the sole power to dispose of all securities held in the Fund's portfolios, including the shares of the Issuer's ordinary shares reported herein. Because the Fund has divested itself of voting and investment power over the reported securities it holds and may not revoke that delegation on less than 61 days' notice, the Fund disclaims beneficial ownership of the securities it holds for purposes of Section 13(d) of the Act and therefore disclaim any obligation to report ownership of the reported securities under Section 13(d) of the Act and therefore disclaim any obligation to report ownership of the reported securities reported in this Schedule 13G/A other than for the purpose of determining their obligations under Section 13(d) of the Act, and the filing of this Schedule 13G/A shall not be deemed an admission that either RA Capital, Dr. Kolchinsky, or Mr. Shah is the beneficial owner of such securities for any other purpose.

| Item 5. | Ownership of Five Percent or Less of a Class: | | |
|--|--|--|--|
| Not applicable. | | | |
| Item 6. | Ownership of More than Five Percent on Behalf of Another Person: | | |
| Not applicable. | | | |
| Item 7. | Identification and Classification of the Subsidiary Which Acquired the Security Being Reported on By the Parent Holding Company or Control Person: | | |
| Not applicable. | | | |
| Item 8. | Identification and Classification of Members of the Group: | | |
| Not applicable. | | | |
| Item 9. | Notice of Dissolution of Group: | | |
| Not applicable. | | | |
| Item 10. | Certification: | | |
| By signing below I cartify that to the best of my knowledge and belief the securities referred to above were acquired and are held in the ordinary course of | | | |

By signing below I certify that, to the best of my knowledge and belief, the securities referred to above were acquired and are held in the ordinary course of business and were not acquired and are not held for the purpose of or with the effect of changing or influencing the control of the issuer of the securities and were not acquired and are not held in connection with or as a participant in any transaction having that purpose or effect, other than activities solely in connection with a nomination under § 240.14a-11.

<u>Exhibit List</u>

Exhibit 1: Joint Filing Agreement

SIGNATURE

After reasonable inquiry and to the best of its knowledge and belief, each of the undersigned certifies that the information set forth in this statement is true, complete and correct.

Date: April 10, 2023

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky Name: Peter Kolchinsky Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

By: RA Capital Healthcare Fund GP, LLC Its: General Partner

By: /s/ Peter Kolchinsky Name: Peter Kolchinsky Title: Manager

AGREEMENT

This Joint Filing Agreement, dated as of April 10, 2023, is by and among RA Capital Management, L.P., Peter Kolchinsky, Rajeev Shah, and RA Capital Healthcare Fund, L.P. (the foregoing are collectively referred to herein as the "Filers").

Each of the Filers may be required to file with the United States Securities and Exchange Commission a statement on Schedule 13G and/or 13D with respect to ADSs representing Ordinary Shares of Ascendis Pharma A/S beneficially owned by them from time to time.

Pursuant to and in accordance with Rule 13(d)(1)(k) promulgated under the Securities Exchange Act of 1934, as amended, the Filers hereby agree to file a single statement on Schedule 13G and/or 13D (and any amendments thereto) on behalf of each of such parties, and hereby further agree to file this Joint Filing Agreement as an exhibit to such statement, as required by such rule.

This Joint Filing Agreement may be terminated by any of the Filers upon one week's prior written notice or such lesser period of notice as the Filers may mutually agree.

Executed and delivered as of the date first above written.

RA CAPITAL MANAGEMENT, L.P.

By: /s/ Peter Kolchinsky Name: Peter Kolchinsky Title: Authorized Signatory

PETER KOLCHINSKY

/s/ Peter Kolchinsky

RAJEEV SHAH

/s/ Rajeev Shah

RA CAPITAL HEALTHCARE FUND, L.P.

- By: RA Capital Healthcare Fund GP, LLC
- Its: General Partner

By: /s/ Peter Kolchinsky

Name: Peter Kolchinsky Title: Manager