

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

SCHEDULE 13D

Under the Securities Exchange Act of 1934
(Amendment No. 7)

ASCENDIS PHARMA A/S

(Name of Issuer)

Ordinary Shares

(Title of Class of Securities)

04351P101

(CUSIP Number)

**OrbiMed Advisors LLC
OrbiMed Capital GP V LLC
Samuel D. Isaly
601 Lexington Avenue, 54th Floor
New York, NY 10022
Telephone: (212) 739-6400**

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

October 24, 2016

(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 .

Note: Schedules filed in paper format shall include a signed original and five copies of the schedule, including all exhibits. See § 240.13d-7(b) for other parties to whom copies are to be sent.

*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 disclosures provided in a prior cover page.

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. 04351P101

Page 2 of 13 Pages

1	NAME OF REPORTING PERSONS OrbiMed Advisors LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 4,198,291
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 4,198,291
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,198,291	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.3%*	
14	TYPE OF REPORTING PERSON (See Instructions) IA	

* This percentage is calculated based upon 31,525,323 of the Issuer's Ordinary Shares outstanding (including any such Ordinary Shares represented by ADSs (as defined below)), as set forth in the Issuer's Prospectus Supplement Form 424B5 dated October 19, 2016 and filed with the SEC (as defined below) on October 19, 2016.

SCHEDULE 13D

CUSIP No. 04351P101

Page 3 of 13 Pages

1	NAME OF REPORTING PERSONS OrbiMed Capital GP V LLC	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION Delaware	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 4,198,291
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 4,198,291
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,198,291	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.3%*	
14	TYPE OF REPORTING PERSON (See Instructions) OO	

* This percentage is calculated based upon 31,525,323 of the Issuer's Ordinary Shares outstanding (including any such Ordinary Shares represented by ADSs (as defined below)), as set forth in the Issuer's Prospectus Supplement Form 424B5 dated October 19, 2016 and filed with the SEC (as defined below) on October 19, 2016.

SCHEDULE 13D

CUSIP No. 04351P101

Page 4 of 13 Pages

1	NAME OF REPORTING PERSONS Samuel D. Isaly	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (a) <input type="checkbox"/> (b) <input type="checkbox"/>	
3	SEC USE ONLY	
4	SOURCE OF FUNDS (See Instructions) AF	
5	CHECK BOX IF DISCLOSURE OF LEGAL PROCEEDINGS IS REQUIRED PURSUANT TO ITEMS 2(d) or 2(e) <input type="checkbox"/>	
6	CITIZENSHIP OR PLACE OF ORGANIZATION United States	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	7	SOLE VOTING POWER 0
	8	SHARED VOTING POWER 4,198,291
	9	SOLE DISPOSITIVE POWER 0
	10	SHARED DISPOSITIVE POWER 4,198,291
11	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON 4,198,291	
12	CHECK BOX IF THE AGGREGATE AMOUNT IN ROW (11) EXCLUDES CERTAIN SHARES (See Instructions) <input type="checkbox"/>	
13	PERCENT OF CLASS REPRESENTED BY AMOUNT IN ROW (11) 13.3%*	
14	TYPE OF REPORTING PERSON (See Instructions) IN	

* This percentage is calculated based upon 31,525,323 of the Issuer's Ordinary Shares outstanding (including any such Ordinary Shares represented by ADSs (as defined below)), as set forth in the Issuer's Prospectus Supplement Form 424B5 dated October 19, 2016 and filed with the SEC (as defined below) on October 19, 2016.

Item 1. Security and Issuer

This Amendment No. 7 ("Amendment No. 7") to Schedule 13D supplements and amends the Statement on Schedule 13D of OrbiMed Advisors LLC, OrbiMed Capital GP V LLC and Samuel D. Isaly originally filed with the Securities and Exchange Commission (the "SEC") on February 12, 2015 (the "Statement") and amended by Amendment No. 1 thereto filed with the SEC on November 20, 2015, Amendment No. 2 thereto filed with the SEC on June 7, 2016, Amendment No. 3 thereto filed with the SEC on June 9, 2016, Amendment No. 4 thereto filed with the SEC on June 17, 2016, Amendment No. 5 thereto filed with the SEC on June 21, 2016 and Amendment No. 6 thereto filed with the SEC on June 30, 2016. The Statement relates to the Ordinary Shares (the "Ordinary Shares") of Ascendis Pharma A/S (the "Issuer"). Certain Ordinary Shares are represented by American Depositary Shares ("ADS"), with each ADS representing one Ordinary Share. The ADSs are listed on the NASDAQ Global Select Market under the ticker symbol "ASND". The Issuer's principal offices are located Tuborg Boulevard 5, DK-2900 Hellerup, Denmark.

On October 19, 2016, the Issuer announced the commencement of an underwritten public offering of 6,315,789 ADSs (the "Offering") at \$19.00 per ADS, which included an underwriter option to purchase up to an additional 947,368 ADSs for a period of 30-days following the Offering. As a result of the Offering, the Issuer's total number of outstanding Ordinary Shares increased to 31,525,323 (the "Outstanding Share Increase"). As more fully described in this Amendment No. 7, the Reporting Persons purchased 526,315 ADSs in the Offering. As a result of the Offering (and more specifically, the Outstanding Share Increase), the percentage of outstanding Ordinary Shares that the Reporting Persons may be deemed to be the beneficial owner of was reduced by more than one percent of the Issuer's Ordinary Shares outstanding after the completion of the Offering. The closing of the Offering occurred on October 24, 2016.

Item 2. Identity and Background

(a) This Amendment No. 7 is being filed by OrbiMed Advisors LLC ("Advisors"), a limited liability company organized under the laws of Delaware, OrbiMed Capital GP V LLC ("GP V"), a limited liability company organized under the laws of Delaware, and Samuel D. Isaly ("Isaly"), an individual (collectively, the "Reporting Persons").

(b) – (c) Advisors, a registered investment adviser under the Investment Advisers Act of 1940, as amended, is the sole managing member of GP V, which is the sole general partner of OrbiMed Private Investments V, LP ("OPI V"), which holds Ordinary Shares, including certain Ordinary Shares represented by ADSs, as more particularly described in Item 3 below. Advisors has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

GP V has its principal offices at 601 Lexington Avenue, 54th Floor, New York, New York 10022.

Isaly, a natural person, is the managing member of Advisors and owns a controlling interest in Advisors.

The directors and executive officers of Advisors and GP V are set forth on Schedules I and II, attached hereto. Schedules I and II set forth the following information with respect to each such person:

(i) name;

(ii) business address;

(iii) present principal occupation or employment and the name, principal business and address of any corporation or other organization in which such employment is conducted; and

(iv) citizenship.

(d) – (e) During the last five years, neither the Reporting Persons nor any person named in Schedule I or II have been (i) convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors) or (ii) a party to a civil proceeding of a judicial or administrative body of competent jurisdiction and as a result of such proceeding was or is subject to a judgment, decree or final order enjoining future violations of, or prohibiting or mandating activities subject to, federal or state securities laws or finding any violation with respect to such laws.

(f) Isaly is a citizen of the United States.

Item 3. Source and Amount of Funds or Other Consideration

The Shares covered by this Statement have been acquired by the Reporting Persons with working capital of OPI V and capital contributions made to OPI V by its partners.

Item 4. Purpose of Transaction

This Amendment No. 7 to the Statement relates to the transactions by the Reporting Persons more fully described in Item 5 below and to the effect on the Reporting Persons' percentage ownership resulting from such transactions and the Outstanding Share Increase. The Shares initially had been acquired (and those that continue to be held, are held) by the Reporting Persons for the purpose of making an investment in the Issuer and not with the intention of acquiring control of the Issuer's business.

The Reporting Persons from time to time intend to review their investment in the Issuer on the basis of various factors, including the Issuer's business, financial condition, results of operations and prospects, general economic and industry conditions, the securities markets in general and those for the Ordinary Shares in particular, as well as other developments and other investment opportunities. Based upon such review, the Reporting Persons will take such actions in the future as the Reporting Persons may deem appropriate in light of the circumstances existing from time to time. If the Reporting Persons believe that further investment in the Issuer is attractive, whether because of the market price of the Ordinary Shares or otherwise, they may acquire Ordinary Shares (including in the form of ADSs) or other securities of the Issuer either in the open market or in privately negotiated transactions. Similarly, depending on market and other factors, the Reporting Persons may determine to dispose of some or all of the Ordinary Shares currently owned by the Reporting Persons or otherwise acquired by the Reporting Persons either in the open market or in privately negotiated transactions.

Except as set forth in this Amendment No. 7, the Reporting Persons have not formulated any plans or proposals which relate to or would result in: (a) the acquisition by any person of additional securities of the Issuer or the disposition of securities of the Issuer; (b) an extraordinary corporate transaction, such as a merger, reorganization or liquidation, involving the Issuer or any of its subsidiaries; (c) a sale or transfer of a material amount of the assets of the Issuer or any of its subsidiaries; (d) any change in the present Board of Directors or management of the Issuer, including any plans or proposals to change the number or term of directors or to fill any existing vacancies on the board; (e) any material change in the Issuer's capitalization or dividend policy of the Issuer; (f) any other material change in the Issuer's business or corporate structure; (g) any change in the Issuer's charter or bylaws or other instrument corresponding thereto or other action which may impede the acquisition of control of the Issuer by any person; (h) causing a class of the Issuer's securities to be deregistered or delisted from a national securities exchange or to cease to be authorized to be quoted in an inter-dealer quotation system of a registered national securities association; (i) a class of equity securities of the Issuer becoming eligible for termination of registration pursuant to Section 12(g)(4) of the Act; or (j) any action similar to any of those enumerated above.

Item 5. Interest in Securities of the Issuer

(a)-(b) As of the date of this filing, the Reporting Persons may be deemed, for purposes of Rule 13d-3 of the Act, directly or indirectly, including by reason of their mutual affiliation, to be the beneficial owners of the Ordinary Shares described in Item 6 below. Based upon information set forth in the Issuer's Prospectus Supplement Form 424B5 dated October 19, 2016 and filed with the SEC on October 19, 2016, such Ordinary Shares constitute approximately 13.3% of the issued and outstanding Ordinary Shares (of which 2,717,315 are represented by ADSs). Advisors, pursuant to its authority as the sole managing member of GP V, the sole general partner of OPI V, may be deemed to indirectly beneficially own the Ordinary Shares held by OPI V.

GP V, pursuant to its authority as the general partner of OPI V, may be deemed to indirectly beneficially own the Ordinary Shares held by OPI V. Isaly, pursuant to his authority as the managing member of Advisors and owner of a controlling interest in Advisors, pursuant to its limited liability company agreement, may also be deemed to indirectly beneficially own the Ordinary Shares attributable to Advisors. As a result, Isaly, Advisors and GP V share the power to direct the vote and to direct the disposition of the Ordinary Shares described in Item 6 below.

(c)

Date of Transaction	Transaction	Number of Shares	Price Per Share
October 19, 2016	Buy	526,315	\$19.00

Except as disclosed in this Item 5, the Reporting Persons have not effected any transactions in the Ordinary Shares or ADSs during the past sixty (60) days.

(d) Not applicable.

(e) Not applicable.

Item 6. Contracts, Arrangements, Understandings or Relationship with Respect to Securities of the Issuer

In addition to the relationships between the Reporting Persons described in Items 2, 3 and 5 above, GP V is the sole general partner of OPI V, pursuant to the terms of the limited partnership agreement of OPI V. Advisors is the sole managing member of GP V, pursuant to the terms of the limited liability company agreement of GP V. Pursuant to these agreements and relationships, Advisors and GP V have discretionary investment management authority with respect to the assets of OPI V. Such authority includes the power of GP V to vote and otherwise dispose of securities purchased by OPI V. The number of outstanding Ordinary Shares held by OPI V is 4,198,291 Ordinary Shares (of which 2,717,315 are represented by ADSs). Advisors and GP V may each be considered to hold indirectly 4,198,291 Ordinary Shares. Isaly, pursuant to his authority as the managing member of, and owner of a controlling interest in, Advisors, also has shared discretionary power to direct the vote and the disposition of the securities of the Issuer held by OPI V.

Jonathan Silverstein (“Silverstein”), a Member of Advisors, has been a member of the Board of Directors of the Issuer since November 2014, and, accordingly, the Reporting Persons may have the ability to affect and influence control of the Issuer. From time to time, Silverstein may receive stock options or other awards of equity-based compensation pursuant to the Issuer’s compensation arrangements for non-employee directors. Silverstein is obligated to transfer any securities issued under any such stock options or other awards, or the economic benefit thereof, to the Reporting Persons, which will in turn ensure that such securities or economic benefit are provided to OPI V.

Registration Rights Agreement

OPI V and certain other stockholders of the Issuer entered into a registration rights agreement with the Issuer (the “Registration Rights Agreement”), dated as of November 24, 2014. Pursuant to the Registration Rights Agreement and subject to the terms and conditions therein, the parties agreed that:

Demand Registration Rights

At any time when the Issuer is eligible to use a Form F-3 registration statement, the holders of at least 25% of the shares covered by the Registration Rights Agreement or their transferees, can request that the Issuer register all or a portion of their shares on Form F-3. Such request for registration must cover a number of shares with an anticipated aggregate offering price, net of selling expenses, of at least \$5.0 million.

The Issuer will not be required to effect a demand registration during the period that is 30 days before the Issuer's good faith estimate of the date of filing of, and ending on a date that is 90 days after the effective date of, a company-initiated registration of its securities, provided that the Issuer is actively employing in good faith commercially reasonable efforts to cause such registration statement to become effective. In addition, the Issuer will not be required to effect a demand registration if it has effected two such demand registrations within the twelve month period immediately preceding the date of such request.

Piggyback Registration Rights

The Registration Rights Agreement further provides that, in the event that the Issuer determines to register any of its securities under the Securities Act, either for its own account or for the account of other security holders, the stockholders who are party to the Registration Rights Agreement, including OPI V, will be entitled to certain "piggyback" registration rights allowing the holders to include their shares in such registration, subject to certain marketing and other limitations. These rights do not apply with respect to a registration related to employee benefit plans, corporate reorganizations or certain other transactions described in Rule 145 under the Securities Act or a registration in which the only Ordinary Shares being registered are Ordinary Shares issuable upon conversion of debt securities that are also being registered.

Expenses of Registration

The Issuer will pay the registration expenses of the holders of the shares registered pursuant to the demand and piggyback registration rights described above.

Indemnification

The Registration Rights Agreement contains customary cross-indemnification provisions, pursuant to which the Issuer is obligated to indemnify the selling stockholders in the event of material misstatements or omissions in the registration statement attributable to the Issuer, and the selling stockholders are obligated to indemnify the Issuer for material misstatements or omissions attributable to them.

Termination of Registration Rights.

OPI V's demand and piggyback registration rights described above generally will terminate upon the earlier of: (i) the date five years following the Issuer's initial public offering; (ii) the closing of a Change in Control, as defined in the Registration Rights Agreement; or (iii) such time as all of the Registrable Securities (as defined in the Registration Rights Agreement) of the Issuer held by OPI V may be sold without any restriction on volume or manner of sale in any three-month period pursuant to Rule 144.

The foregoing description of the Registration Rights Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Registration Rights Agreement, a copy of which is filed as Exhibit 3 and incorporated herein by reference.

Lock-Up Agreement

In connection with the Offering, J.P. Morgan Securities LLC ("J.P. Morgan"), Merrill Lynch, Pierce, Fenner & Smith Inc. ("Merrill Lynch"), Credit Suisse Securities (USA) LLC ("Credit Suisse"), and OPI V entered into a lock-up letter agreement (the "Lock-Up Agreement"). The Lock-Up Agreement provides that, subject to limited exceptions, without the prior written consent of J.P. Morgan, Merrill Lynch and Credit Suisse, OPI V will not for a period of 60 days from the date of the Issuer's prospectus relating to the Offering (the "Lock-Up Period") (1) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase, lend, or otherwise transfer or dispose of any ADSs or Ordinary Shares or any other securities so owned convertible into or exercisable or exchangeable for ADSs or Ordinary Shares (collectively, the "Lock-Up Securities"), or exercise any right with respect to the registration of any Lock-Up Securities, or (2) enter into any swap or other transaction that transfers to another, in whole or in part, directly or indirectly, any of the economic consequences of ownership of the Lock-Up Securities, whether any such transaction described in clause (1) or (2) above is to be settled by delivery of ADSs, Ordinary Shares or such other securities, in cash or otherwise.

After the Lock-Up Period expires, OPI V's Ordinary Shares and ADSs will be eligible for sale in the public market, subject to any applicable limitations under Rule 144 under the Securities Act and other applicable U.S. securities laws. The foregoing description of the Lock-Up Agreement does not purport to be complete and is qualified in its entirety by reference to the full text of the Lock-Up Agreement, a copy of which is filed as Exhibit 3 and incorporated herein by reference.

Other than as described in this Amendment No. 7, to the best of the Reporting Persons' knowledge, there are no other contracts, arrangements, understandings or relationships (legal or otherwise) among the persons named in Item 2 and between such persons and any person with respect to any securities of the Issuer.

Item 7. Materials to Be Filed as Exhibits

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Capital GP V LLC and Samuel D. Isaly.
2.	Registration Rights Agreement by and among the Issuer and each of the persons listed on Schedule A thereto, dated as of November 24, 2014 (incorporated by reference to Exhibit 10.6 to the Issuer's Registration Statement on Form F-1 (SEC File No. 333-201050), filed with the SEC on December 18, 2014).
3.	Lock-Up Letter Agreement, dated as of October 11, 2016, by and among J.P. Morgan, Merrill Lynch, Credit Suisse and OPI V.

After reasonable inquiry and to the best of each of the undersigned's knowledge and belief, each of the undersigned certifies that the information set forth in this Amendment No. 7 is true, complete and correct.

Dated: October 24, 2016

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly

Title: Managing Member

OrbiMed Capital GP V LLC

By: OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly

Title: Managing Member

Samuel D. Isaly

By: /s/ Samuel D. Isaly

Name: Samuel D. Isaly

Schedule I

The name and present principal occupation of each of the executive officers and directors of OrbiMed Advisors LLC are set forth below. Unless otherwise noted, each of these persons are United States citizens and have as their business address 601 Lexington Avenue, 54th Floor, New York, NY 10022.

Name	Position with Reporting Person	Principal Occupation
Samuel D. Isaly	Managing Member	Managing Member OrbiMed Advisors LLC
Carl L. Gordon	Member	Member OrbiMed Advisors LLC
Sven H. Borho German and Swedish Citizen	Member	Member OrbiMed Advisors LLC
Jonathan T. Silverstein	Member	Member OrbiMed Advisors LLC
W. Carter Neild	Member	Member OrbiMed Advisors LLC
Geoffrey C. Hsu	Member	Member OrbiMed Advisors LLC
Evan D. Sotiriou	Chief Financial Officer	Chief Financial Officer OrbiMed Advisors LLC

Schedule II

The business and operations of OrbiMed Capital GP V LLC are managed by the executive officers and directors of its managing member, OrbiMed Advisors LLC, set forth on Schedule I attached hereto.

EXHIBIT INDEX

Exhibit	Description
1.	Joint Filing Agreement among OrbiMed Advisors LLC, OrbiMed Capital GP V LLC and Samuel D. Isaly.
2.	Registration Rights Agreement by and among the Issuer and each of the persons listed on Schedule A thereto, dated as of November 24, 2014 (incorporated by reference to Exhibit 10.6 to the Issuer's Registration Statement on Form F-1 (SEC File No. 333-201050), filed with the SEC on December 18, 2014).
3.	Lock-Up Letter Agreement, dated as of October 11, 2016, by and among J.P. Morgan, Merrill Lynch, Credit Suisse and OPI V.

JOINT FILING AGREEMENT

The undersigned hereby agree that the Statement on this Schedule 13D, dated October 24, 2016 (the "Schedule 13D"), with respect to the Ordinary Shares of Ascendis Pharma A/S is filed, and all amendments thereto will be filed, on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, and that this Agreement shall be included as an Exhibit to this Schedule 13D. Each of the undersigned agrees to be responsible for the timely filing of the Schedule 13D, and for the completeness and accuracy of the information concerning itself contained therein. This Agreement may be executed in any number of counterparts, all of which taken together shall constitute one and the same instrument.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the 24th day of October, 2016.

OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Member

OrbiMed Capital GP V LLC

By: OrbiMed Advisors LLC

By: /s/ Samuel D. Isaly
Name: Samuel D. Isaly
Title: Managing Member

Samuel D. Isaly

By: /s/ Samuel D. Isaly
Samuel D. Isaly

LOCK-UP LETTER AGREEMENT

Form of Lock-Up Agreement

_____, 2016

J.P. Morgan Securities LLC
Merrill Lynch, Pierce, Fenner & Smith
Incorporated
Credit Suisse Securities (USA) LLC
as Representatives of the several
Underwriters to be named in the
within-mentioned Underwriting Agreement

c/o J.P. Morgan Securities LLC
383 Madison Avenue
New York, New York 10179

c/o Merrill Lynch, Pierce, Fenner & Smith
Incorporated
One Bryant Park
New York, New York 10036

c/o Credit Suisse Securities (USA) LLC
Eleven Madison Avenue
New York, New York 10010

Re: Proposed Public Offering by ASCENDIS PHARMA A/S

Dear Sirs:

The undersigned, a shareholder, holder of American Depositary Shares, executive officer and/or board member, as applicable, of ASCENDIS PHARMA A/S, a company organized under the laws of the state of Denmark (the "**Company**"), understands that J.P. Morgan Securities LLC, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Credit Suisse Securities (USA) LLC (collectively, the "**Representatives**") propose to enter into an Underwriting Agreement (the "**Underwriting Agreement**") with the Company providing for the public offering (the "**Public Offering**") of American Depositary Shares of the Company ("**ADSs**"), each ADS representing one ordinary share of the Company, DKK 1 nominal value per share ("**Ordinary Shares**"). In recognition of the benefit that such an offering will confer upon the undersigned as a shareholder, an ADS holder, executive officer and/or board member, as applicable, of the Company, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned agrees with each underwriter to be named in the Underwriting Agreement that, during the period beginning on the date hereof and ending on the date that is 60 days from the date of the Underwriting Agreement (such 60-day period, the "**Lock-Up Period**"), the undersigned will not (except as provided in this lock-up agreement), without the prior written consent of the Representatives, (i) directly or indirectly, offer, pledge, sell, contract to sell, sell any option or contract to purchase, purchase any option or contract to sell, grant any option, right or warrant to purchase or otherwise transfer or dispose of any ADSs, Ordinary Shares or any securities convertible into or exercisable or exchangeable for ADSs or Ordinary Shares, whether now owned or hereafter acquired by the undersigned or with respect to which the undersigned has or hereafter acquires the power of disposition (collectively, the "**Lock-Up Securities**"),

or exercise any right with respect to the registration of any of the Lock-up Securities, or file or cause to be filed any registration statement in connection therewith, under the Securities Act of 1933, as amended (the “**Act**”), or (ii) enter into any swap or any other agreement or any transaction that transfers, in whole or in part, directly or indirectly, the economic consequence of ownership of the Lock-Up Securities, whether any such swap or transaction is to be settled by delivery of ADSs, Ordinary Shares or other securities, in cash or otherwise.

Notwithstanding the foregoing, and subject to the conditions below, (A) the undersigned may transfer the Lock-Up Securities without the prior written consent of the Representatives, *provided* that (1) the Representatives receive a signed lock-up agreement for the balance of the Lock-Up Period from each donee, trustee, distributee, or transferee, as the case may be, where the transferee/donee agrees to be bound by the terms of this lock-up agreement (including, without limitation, the restrictions set forth in the preceding paragraph) to the same extent as the transferee/donee were a party hereto, (2) such transfers are not required to be reported with the Securities and Exchange Commission (the “**Commission**”) on Form 4 in accordance with Section 16 of the Securities Exchange Act of 1934, as amended (the “**Exchange Act**”), (3) the undersigned does not otherwise voluntarily effect any filing under the Act or the Exchange Act during the Lock-Up Period regarding such transfers, and (4) the undersigned notifies the Representatives at least two business days prior to the proposed transfer or disposition:

- (i) as a *bona fide* gift or gifts, sale or other dispositions or distributions, in each case that are made exclusively between and among the undersigned or family members of the undersigned (for purposes of this lock-up agreement, “family member” shall mean the spouse of the undersigned, an immediate family member of the undersigned or an immediate family member of the undersigned’s spouse, in each case living in the undersigned’s household or whose principal residence is the undersigned’s household (regardless of whether such spouse or family member may at the time be living elsewhere due to educational activities, health care treatment, military service, temporary internship or employment or otherwise) or to the undersigned’s affiliates including, without limitation, its partners (if a partnership) or members (if a limited liability company) or to one or more legal entities controlled, directly or indirectly, by the undersigned;
- (ii) to any trust for the direct or indirect benefit of the undersigned or the immediate family of the undersigned (for purposes of this lock-up agreement, “immediate family” shall have the meaning set forth in Rule 16a-1(e) of the Exchange Act);
- (iii) by will, other testamentary document or intestate succession to the legal representative, heir, beneficiary or a family member of the undersigned;
- (iv) transfers or dispositions that occur by operation of law, such as pursuant to a qualified domestic order or in connection with a divorce settlement; or
- (v) as a distribution to limited partners or shareholders of the undersigned; and

(B) the restrictions contained in this lock-up agreement shall not apply to (i) the exercise of warrants (“**Warrants**”) or other instruments convertible or exercisable for ADSs or Ordinary Shares (whether for cash, cashless, or net exercise) granted pursuant to the Company’s equity incentive plans or otherwise outstanding on the date hereof; *provided, however*, that the restrictions contained in this lock-up agreement shall apply to ADSs and Ordinary Shares issued upon such exercise or conversion and that no filing under the Act or the Exchange Act shall be required or shall be voluntarily made during the Lock-Up Period in connection with such exercise; (ii) the establishment of (or amendment of) any contract, instruction or plan that satisfies the requirements of Rule 10b5-1 (a “**Rule 10b5-1 Plan**”) under the Exchange Act; *provided, however*, that no sales of Lock-Up Securities shall be made pursuant to a Rule 10b5-1 Plan prior to the expiration of the Lock-Up Period; *provided further*, that the Company is not required to, and does not voluntarily, report the establishment of such Rule 10b5-1 Plan in any public report or filing with the Commission under the Exchange Act during the Lock-Up Period; (iii) any demands or requests for, the exercise of any right with respect to, or any action in preparation of, the registration by the Company under the Act of the undersigned’s ADSs or Ordinary Shares; *provided, however*, that no transfer of the undersigned’s ADSs or Ordinary Shares registered pursuant to the exercise of any such right shall be made and no registration statement shall be filed under the Act with respect to any of the undersigned’s ADSs or Ordinary Shares during the Lock-Up Period and no public announcement of the demand or exercise of such rights shall be made during the Lock-Up Period; (iv) transfers of Lock-Up Securities to the Company pursuant to agreements under which the Company has the option to repurchase such Lock-Up Securities or the Company has a right of first refusal with respect to transfers of such Lock-Up Securities; (v) transfers of Lock-Up Securities pursuant to a bona fide third-party tender offer, merger, consolidation or other similar transaction made to all holders of ADSs and Ordinary Shares involving a change of control of the Company; *provided, however*, that in the event that the tender offer, merger, consolidation or other such transaction is not completed, the Lock-Up Securities owned by the undersigned shall remain subject to the restrictions contained in this lock-up agreement; (vi) transfers of Lock-Up Securities made pursuant to a Rule 10b5-1 Plan that exists on the date hereof that has been provided to the Representatives; *provided, however*, that no public announcement shall be voluntarily made during the Lock-Up Period in connection with such transfers, and to the extent a public announcement or filing under the Exchange Act is required to be made during the Lock-Up Period regarding any such transfers, such announcement or filing shall include a statement to the effect that the transfer was made pursuant to an established Rule 10b5-1 Plan; and (vii) the conversion of Ordinary Shares into ADSs or ADSs into Ordinary Shares; *provided, however*, that the restrictions contained in this lock-up agreement shall apply to the ADSs or Ordinary Shares issued upon such conversion and that no filing under the Act or the Exchange Act shall be required or shall be voluntarily made during the Lock-Up Period in connection with any such conversion. For purposes of this paragraph, “change of control” shall mean the consummation of any bona fide third party tender offer, merger, consolidation or other similar transaction the result of which is that any “person” (as defined in Section 13(d)(3) of the Exchange Act), or group of persons, other than the Company, becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 of the Exchange Act) of greater than 50% of the total voting power of the voting securities of the Company.

Furthermore, the undersigned may transfer or dispose of ADSs or Ordinary Shares acquired in the Public Offering or purchased by the undersigned on the open market following the Public Offering if and only if (i) such sales are not required to be reported in any public report or filing with the Commission under the Act, the Exchange Act, or otherwise, except for filings required under Section 13(d) of the Exchange Act, and (ii) the undersigned does not otherwise voluntarily effect any filing under the Act or the Exchange Act during the Lock-Up Period regarding such sales.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of the Lock-Up Securities except in compliance with the foregoing restrictions.

It is understood that, if (i) the Company notifies the Underwriters that it does not intend to proceed with the Public Offering, (ii) the Underwriting Agreement is not executed on or before November 18, 2016, or (iii) the Underwriting Agreement (other than the provisions thereof which survive termination) shall terminate or be terminated prior to payment for and delivery of the Securities, the undersigned will be released from its obligations under this lock-up agreement and this lock-up agreement shall automatically terminate.

The undersigned understands that the Company and the Underwriters will proceed with the Public Offering in reliance on this lock-up agreement.

[Signature page follows]

The undersigned hereby represents and warrants that the undersigned has full power and authority to enter into this lock-up agreement and that, upon reasonable request, the undersigned will execute any additional documents necessary in connection with the enforcement hereof. Any obligations of the undersigned shall be binding upon the heirs, personal representatives, successors and assigns of the undersigned.

Very truly yours,

Name: OrbiMed Private Investments V, LP

By: OrbiMed Capital GP V LLC, its General Partner

By: OrbiMed Advisors LLC, its Managing Member

By: _____

Name: Jonathan T. Silverstein

Title: Member

Dated: _____

Address: 601 Lexington Avenue, 54th Floor

New York, NY 10022

212-739-6400

Telephone Number

Facsimile Number

[Signature Page to Lock-Up Agreement]
