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

SCHEDULE 13G

**UNDER THE SECURITIES EXCHANGE ACT OF 1934
(Amendment No.)***

Syndax Pharmaceuticals, Inc.

(Name of Issuer)

Common Stock
(Title of Class of Securities)

87164F105
(CUSIP Number)

December 31, 2016
(Date of Event Which Requires Filing of This Statement)

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

- Rule 13d-1(b)
- Rule 13d-1(c)
- 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).

1.	Name of Reporting Persons MPM BioVentures IV-QP, L.P.
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC USE ONLY
4.	Citizenship or Place of Organization Delaware
Number of Shares Beneficially Owned by Each Reporting Person With:	5. Sole Voting Power 1,806,759
	6. Shared Voting Power 0
	7. Sole Dispositive Power 1,806,759
	8. Shared Dispositive Power 0
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,806,759
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 9.9%
12.	Type of Reporting Person (See Instructions) PN

1.	Name of Reporting Persons MPM BioVentures IV GmbH & Co. Beteiligungs KG
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC USE ONLY
4.	Citizenship or Place of Organization Germany
Number of Shares Beneficially Owned by Each Reporting Person With:	5. Sole Voting Power 69,600
	6. Shared Voting Power 0
	7. Sole Dispositive Power 69,600
	8. Shared Dispositive Power 0
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 69,600
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 0.4%
12.	Type of Reporting Person (See Instructions) PN

1.	Name of Reporting Persons MPM Asset Management Investors BV4 LLC
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC USE ONLY
4.	Citizenship or Place of Organization Delaware
Number of Shares Beneficially Owned by Each Reporting Person With:	5. Sole Voting Power 51,369
	6. Shared Voting Power 0
	7. Sole Dispositive Power 51,369
	8. Shared Dispositive Power 0
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 51,369
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 0.3%
12.	Type of Reporting Person (See Instructions) OO

1.	Name of Reporting Persons MPM BioVentures IV Strategic Fund, L.P.	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	Citizenship or Place of Organization Delaware	
Number of Shares Beneficially Owned by Each Reporting Person With:	5.	Sole Voting Power 240,963
	6.	Shared Voting Power 0
	7.	Sole Dispositive Power 240,963
	8.	Shared Dispositive Power 0
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 240,963	
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9) 1.3%	
12.	Type of Reporting Person (See Instructions) PN	

1.	Name of Reporting Persons MPM BioVentures IV GP LLC
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC USE ONLY
4.	Citizenship or Place of Organization Delaware
Number of Shares Beneficially Owned by Each Reporting Person With:	5. Sole Voting Power 0
	6. Shared Voting Power 2,117,322*
	7. Sole Dispositive Power 0
	8. Shared Dispositive Power 2,117,322*
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 2,117,322*
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 11.6%
12.	Type of Reporting Person (See Instructions) PN

* Consists of 1,806,759 shares of Common Stock held by MPM BioVentures IV-QP, L.P. ("BV IV QP"), 69,600 shares of Common held by MPM BioVentures IV GmbH & Co. Beteiligungs KG ("BV KG") and 240,963 shares of Common by MPM BioVentures IV Strategic Fund, L.P. ("BV SF"). The Reporting Person is the direct general partner of BV IV QP, BV KG and BV SF.

1.	Name of Reporting Persons MPM BioVentures IV LLC
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC USE ONLY
4.	Citizenship or Place of Organization Delaware
Number of Shares Beneficially Owned by Each Reporting Person With:	5. Sole Voting Power 0
	6. Shared Voting Power 2,168,691*
	7. Sole Dispositive Power 0
	8. Shared Dispositive Power 2,168,691*
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 2,168,691*
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 11.9%
12.	Type of Reporting Person (See Instructions) OO

* Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common held by BV KG, 240,963 shares of Common Stock held by BV SF and 51,369 shares of Common Stock held by MPM Asset Management Investors BV4 LLC ("AM BV4"). The Reporting Person is the indirect general partner of BV IV QP, BV KG and BV SF and the manager of AM BV4.

1.	Name of Reporting Persons Luke Evnin	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	Citizenship or Place of Organization United States	
Number of Shares Beneficially Owned by Each Reporting Person With:	5.	Sole Voting Power 15,610*
	6.	Shared Voting Power 2,168,691**
	7.	Sole Dispositive Power 15,610*
	8.	Shared Dispositive Power 2,168,691**
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 2,184,301* **	
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9) 12.0%	
12.	Type of Reporting Person (See Instructions) IN	

* Consists of shares of Common Stock issuable pursuant to options which are exercisable within 60 days of December 31, 2016.

** Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common held by BV KG, 240,963 shares of Common Stock held by BV SF and 51,369 shares of Common Stock held by AM BV4. The Reporting Person is the indirect general partner of BV IV QP, BV KG and BV SF and the manager of AM BV4. MPM IV GP and MPM IV LLC are the direct and indirect general partners of BV IV QP, BV KG and BV SF and MPM IV LLC is the manager of AM BV4. The Reporting Person is a member of MPM IV LLC.

1.	Name of Reporting Persons Ansbert Gadicke
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>
3.	SEC USE ONLY
4.	Citizenship or Place of Organization United States
Number of Shares Beneficially Owned by Each Reporting Person With:	5. Sole Voting Power 0
	6. Shared Voting Power 2,168,691*
	7. Sole Dispositive Power 0
	8. Shared Dispositive Power 2,168,691*
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 2,168,691*
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>
11.	Percent of Class Represented by Amount in Row (9) 11.9%
12.	Type of Reporting Person (See Instructions) IN

* Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common held by BV KG, 240,963 shares of Common Stock held by BV SF and 51,369 shares of Common Stock held by AM BV4. The Reporting Person is the indirect general partner of BV IV QP, BV KG and BV SF and the manager of AM BV4. MPM IV GP and MPM IV LLC are the direct and indirect general partners of BV IV QP, BV KG and BV SF and MPM IV LLC is the manager of AM BV4. The Reporting Person is a member of MPM IV LLC.

1.	Name of Reporting Persons Todd Foley	
2.	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/>	
3.	SEC USE ONLY	
4.	Citizenship or Place of Organization United States	
Number of Shares Beneficially Owned by Each Reporting Person With:	5.	Sole Voting Power 0
	6.	Shared Voting Power 2,168,691*
	7.	Sole Dispositive Power 0
	8.	Shared Dispositive Power 2,168,691*
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 2,168,691*	
10.	Check if the Aggregate Amount in Row (9) Excludes Certain Shares (See Instructions) <input type="checkbox"/>	
11.	Percent of Class Represented by Amount in Row (9) 11.9%	
12.	Type of Reporting Person (See Instructions) IN	

* Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common held by BV KG, 240,963 shares of Common Stock held by BV SF and 51,369 shares of Common Stock held by AM BV4. The Reporting Person is the indirect general partner of BV IV QP, BV KG and BV SF and the manager of AM BV4. MPM IV GP and MPM IV LLC are the direct and indirect general partners of BV IV QP, BV KG and BV SF and MPM IV LLC is the manager of AM BV4. The Reporting Person is a member of MPM IV LLC.

Item 1.

- (a) Name of Issuer
Syndax Pharmaceuticals, Inc.
- (b) Address of Issuer's Principal Executive Offices
400 Totten Pond Road, Suite 110
Waltham, MA 02451

Item 2.

- (a) Name of Person Filing
MPM BioVentures IV-QP, L.P.
MPM BioVentures IV GmbH & Co. Beteiligungs KG
MPM Asset Management Investors BV4 LLC
MPM BioVentures IV Strategic Fund, L.P.
MPM BioVentures IV GP LLC
MPM BioVentures IV LLC
Luke Evnin
Ansbert Gadicke
Todd Foley
- (b) Address of Principal Business Office or, if none, Residence
c/o MPM Capital LLC
450 Kendall Street
Cambridge, MA 02142
- (c) Citizenship
All entities were organized in Delaware except MPM BioVentures IV GmbH & Co. Beteiligungs KG, which was organized in Germany. The individuals are all United States citizens.
- (d) Title of Class of Securities
Common Stock
- (e) CUSIP Number
87164F105

- 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:**
Not applicable

Item 4. Ownership

<u>MPM Entity</u>	<u>Shares Held Directly</u>	<u>Sole Voting Power</u>	<u>Shared Voting Power</u>	<u>Sole Dispositive Power</u>	<u>Shared Dispositive Power</u>	<u>Beneficial Ownership</u>	<u>Percentage of Class</u>
BV IV QP	1,806,759	1,806,759	0	1,806,759	0	1,806,759	9.9%
BV KG	69,600	69,600	0	69,600	0	69,600	0.4%
BV SF	240,963	240,963	0	240,963	0	240,963	1.3%
AM BV4	51,369	51,369	0	51,369	0	51,369	0.3%
BV IV GP(1)	0	0	2,117,322	0	2,117,322	2,117,322	11.6%
BV IV LLC(2)	0	0	2,168,691	0	2,168,691	2,168,691	11.9%
Luke Evnin(3)(4)	0	15,610	2,168,691	15,610	2,168,691	2,184,301	12.0%
Ansbert Gadicke(3)	0	0	2,168,691	0	2,168,691	2,168,691	11.9%
Todd Foley(3)	0	0	2,168,691	0	2,168,691	2,168,691	11.9%

- (1) Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common Stock held by BV KG and 240,963 shares of Common held by BV SF. The Reporting Person is the direct general partner of BV IV QP and BV KG.
- (2) Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common Stock held by BV KG, 240,963 shares of Common held by BV SF and 51,369 shares of Common Stock held by AM BV4. The Reporting Person is the indirect general partner of BV IV QP and BV KG and the manager of AM BV4.
- (3) Consists of 1,806,759 shares of Common Stock held by BV IV QP, 69,600 shares of Common Stock held by BV KG and 240,963 shares of Common held by BV SF. MPM IV GP and MPM IV LLC are the direct and indirect general partners of BV IV QP, BV KG and BV SF and MPM IV LLC is the manager of AM BV4. The Reporting Person is a member of MPM IV LLC.
- (4) Consists of shares of Common Stock issuable pursuant to options which are exercisable within 60 days of December 31, 2016.

Item 5. Ownership of Five Percent or Less of a Class

If this statement is being filed to report the fact that as of the date hereof the reporting person has ceased to be the beneficial owner of more than five percent of the class of securities, check the following .

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 a Group

Not Applicable

Item 10. Certification

Not Applicable

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.

Dated: February 8, 2017

MPM BIOVENTURES IV-QP, L.P.

By: MPM BioVentures IV GP LLC,
its General Partner

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV GMBH & CO. BETEILIGUNGS KG

By: MPM BioVentures IV GP LLC,
in its capacity as the Managing Limited Partner

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM ASSET MANAGEMENT INVESTORS BV4 LLC

By: MPM BioVentures IV LLC
its Manager

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV STRATEGIC FUND, L.P.

By: MPM BioVentures IV GP LLC,
its General Partner

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV GP LLC

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV LLC

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

By: /s/ Luke Evnin
Name: Luke Evnin

By: /s/ Ansbert Gadicke
Name: Ansbert Gadicke

By: /s/ Todd Foley
Name: Todd Foley

EXHIBITS

A: Joint Filing Agreement

EXHIBIT A

JOINT FILING AGREEMENT

In accordance with Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended, the undersigned agree to the joint filing on behalf of each of them of a statement on Schedule 13G (including amendments thereto) with respect to the Common Stock of Syndax Pharmaceuticals, Inc. and further agree that this agreement be included as an exhibit to such filing. Each party to the agreement expressly authorizes each other party to file on its behalf any and all amendments to such statement. Each party to this agreement agrees that this joint filing agreement may be signed in counterparts.

In evidence whereof, the undersigned have caused this Agreement to be executed on their behalf this 8th day of February, 2017.

MPM BIOVENTURES IV-QP, L.P.

By: MPM BioVentures IV GP LLC,
its General Partner

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV GMBH & CO. BETEILIGUNGS KG

By: MPM BioVentures IV GP LLC,
in its capacity as the Managing Limited Partner

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM ASSET MANAGEMENT INVESTORS BV4 LLC

By: MPM BioVentures IV LLC
its Manager

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV STRATEGIC FUND, L.P.

By: MPM BioVentures IV GP LLC,
its General Partner

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

MPM BIOVENTURES IV GP LLC

By: MPM BioVentures IV LLC,
its Managing Member

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

By: /s/ Luke Evnin
Name: Luke Evnin

By: /s/ Todd Foley
Name: Todd Foley

MPM BIOVENTURES IV LLC

By: /s/ Luke Evnin
Name: Luke Evnin
Title: Member

By: /s/ Ansbert Gadicke
Name: Ansbert Gadicke