

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

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No. 3)***

Amylyx Pharmaceuticals, Inc.
(Name of Issuer)

Common Stock, par value \$0.0001 per share
(Title of Class of Securities)

03237H101
(CUSIP Number)

**Morningside Venture Investments Limited
C/O THC Management Services S.A.M.,
2nd Floor,
Le Prince De Galles
3-5 Avenue Des Citronniers
Monaco, MC 98000
011-377-97-97-47-37**

with a copy to:

**Morningside Technology Advisory, LLC
Attn: Daniel White, Esq.
1188 Centre Street
Newton Centre, MA 02459**

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

August 15, 2023
(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 Rule 13d-7 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)

(1)	Names of Reporting Persons	
	Morningside Venture Investments Limited	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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)	
	<input type="checkbox"/>	
(6)	Citizenship or Place of Organization	
	British Virgin Islands	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power
		0
	(8)	Shared Voting Power
		4,618,846
	(9)	Sole Dispositive Power
		0
	(10)	Shared Dispositive Power
		4,618,846
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person	
	4,618,846	
(12)	Check 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)	
	6.86% (1)	
(14)	Type of Reporting Person (See Instructions)	
	CO	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission ("SEC") on August 10, 2023.

(1)	Names of Reporting Persons	
	MVIL, LLC	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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)	
	<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
		1,621,544
	(9)	Sole Dispositive Power
		0
	(10)	Shared Dispositive Power
		1,621,544
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person	
	1,621,544	
(12)	Check 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)	
	2.41% (1)	
(14)	Type of Reporting Person (See Instructions)	
	CO	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

(1)	Names of Reporting Persons	
	Frances Anne Elizabeth Richard	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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)	
	<input type="checkbox"/>	
(6)	Citizenship or Place of Organization	
	United Kingdom	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power
		0
	(8)	Shared Voting Power
		4,618,846
	(9)	Sole Dispositive Power
		0
	(10)	Shared Dispositive Power
		4,618,846
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person	
	4,618,846	
(12)	Check 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)	
	6.86% (1)	
(14)	Type of Reporting Person (See Instructions)	
	IN	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

(1)	Names of Reporting Persons Jill Marie Franklin	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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) <input type="checkbox"/>	
(6)	Citizenship or Place of Organization United Kingdom	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 4,618,846
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 4,618,846
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 4,618,846	
(12)	Check 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) 6.86% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

(1)	Names of Reporting Persons Peter Stuart Allenby Edwards	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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) <input type="checkbox"/>	
(6)	Citizenship or Place of Organization United Kingdom	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 4,618,846
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 4,618,846
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 4,618,846	
(12)	Check 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) 6.86% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

(1)	Names of Reporting Persons Cheung Ka Ho	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions) (a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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) <input type="checkbox"/>	
(6)	Citizenship or Place of Organization Hong Kong	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power 0
	(8)	Shared Voting Power 4,618,846
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 4,618,846
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 4,618,846	
(12)	Check 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) 6.86% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

(1)	Names of Reporting Persons	
	Cheng Yee Wing Betty	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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)	
	<input type="checkbox"/>	
(6)	Citizenship or Place of Organization	
	Hong Kong	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power
		0
	(8)	Shared Voting Power
		1,621,544
	(9)	Sole Dispositive Power
		0
	(10)	Shared Dispositive Power
		1,621,544
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person	
	1,621,544	
(12)	Check 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)	
	2.41% (1)	
(14)	Type of Reporting Person (See Instructions)	
	IN	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

(1)	Names of Reporting Persons	
	Wong See Wai	
(2)	Check the Appropriate Box if a Member of a Group (See Instructions)	
	(a) <input checked="" type="checkbox"/> (b) <input type="checkbox"/>	
(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)	
	<input type="checkbox"/>	
(6)	Citizenship or Place of Organization	
	Hong Kong	
Number of Shares Beneficially Owned by Each Reporting Person With:	(7)	Sole Voting Power
		0
	(8)	Shared Voting Power
		1,621,544
	(9)	Sole Dispositive Power
		0
	(10)	Shared Dispositive Power
		1,621,544
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person	
	1,621,544	
(12)	Check 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)	
	2.41% (1)	
(14)	Type of Reporting Person (See Instructions)	
	IN	

(1) Based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023.

Item 1. Security and Issuer.

This Amendment No. 3 (“Amendment No. 3”) to Schedule 13D amends and supplements the statement on Schedule 13D originally filed on January 25, 2022 (the “Initial Statement”), Amendment No. 1 to the Initial Statement filed on September 30, 2022 and Amendment No. 2 to the Initial Statement filed on April 3, 2023. This Amendment No. 3 on Schedule 13D relates to the Reporting Persons’ (as defined in Item 2 below) beneficial ownership interest in the common stock, par value \$0.0001 per share (the “Common Stock”), of Amylyx Pharmaceuticals, Inc., a Delaware corporation (the “Issuer”). The address of the principal executive office of the Issuer is 43 Thorndike St., Cambridge, Massachusetts 02141. Information given in response to each item shall be deemed incorporated by reference in all other items, as applicable.

Item 3. Source and Amount of Funds or Other Consideration.

Item 3 of the Initial Statement is hereby amended and supplemented to add the following:

On August 15, 2023, MVIL donated an aggregate of 2,000,000 shares of Common Stock to a 501(c)(3) organization.

On August 16, 2023, MVIL made an open market sale for an aggregate of 2,000,000 shares of Common Stock at a price per share of \$19.62.

Item 5. Interest in Securities of the Issuer.

Item 5 of the Initial Statement is hereby amended as the following:

- (1) The aggregate percentage of Common Stock reported beneficially owned by each person named herein is determined in accordance with SEC rules and is based on 67,377,743 shares of Common Stock outstanding as of August 7, 2023, as reported in the Issuer’s Quarterly Report on Form 10-Q filed with the SEC on August 10, 2023. The applicable SEC rules generally attribute beneficial ownership of securities to persons who possess sole or shared voting power or investment power with respect to those securities.

A. Morningside Venture Investments Limited

- (a) As of the date hereof, MVIL beneficially owns 4,618,846 shares of Common Stock, representing a beneficial ownership of approximately 6.86% of the Common Stock. MVIL directly holds 2,997,302 shares of Common Stock and MVIL LLC, its wholly owned subsidiary, holds 1,621,544 shares of Common Stock.

(b)	1. Sole power to vote or direct vote:	-0-
	2. Shared power to vote or direct vote:	4,618,846
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	4,618,846

B. MVIL, LLC

- (a) As of the date hereof, MVIL LLC beneficially owns 1,621,544 shares of Common Stock, representing a beneficial ownership of approximately 2.41% of the Common Stock.

(b)	1. Sole power to vote or direct vote:	-0-
	2. Shared power to vote or direct vote:	1,621,544
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	1,621,544

C. Frances Anne Elizabeth Richard

(a) As of the date hereof, Ms. Richard beneficially owns 4,618,846 shares of Common Stock, representing a beneficial ownership of approximately 6.86% of the Common Stock. Ms. Richard disclaims any personal beneficial ownership of such Common Stock.

(b) 1. Sole power to vote or direct vote:	-0-
2. Shared power to vote or direct vote:	4,618,846
3. Sole power to dispose or direct the disposition:	-0-
4. Shared power to dispose or direct the disposition:	4,618,846

D. Jill Marie Franklin

(a) As of the date hereof, Ms. Franklin beneficially owns 4,618,846 shares of Common Stock, representing a beneficial ownership of approximately 6.86% of the Common Stock. Ms. Franklin disclaims any personal beneficial ownership of such Common Stock.

(b) 1. Sole power to vote or direct vote:	-0-
2. Shared power to vote or direct vote:	4,618,846
3. Sole power to dispose or direct the disposition:	-0-
4. Shared power to dispose or direct the disposition:	4,618,846

E. Peter Stuart Allenby Edwards

(a) As of the date hereof, Mr. Edwards beneficially owns 4,618,846 shares of Common Stock, representing a beneficial ownership of approximately 6.86% of the Common Stock. Mr. Edwards disclaims any personal beneficial ownership of such Common Stock.

(b) 1. Sole power to vote or direct vote:	-0-
2. Shared power to vote or direct vote:	4,618,846
3. Sole power to dispose or direct the disposition:	-0-
4. Shared power to dispose or direct the disposition:	4,618,846

F. Cheung Ka Ho

(a) As of the date hereof, Mr. Cheung beneficially owns 4,618,846 shares of Common Stock, representing a beneficial ownership of approximately 6.86% of the Common Stock. Mr. Cheung disclaims any personal beneficial ownership of such Common Stock.

(b) 1. Sole power to vote or direct vote:	-0-
2. Shared power to vote or direct vote:	4,618,846
3. Sole power to dispose or direct the disposition:	-0-
4. Shared power to dispose or direct the disposition:	4,618,846

G. Cheng Yee Wing Betty

(a) As of the date hereof, Ms. Cheng beneficially owns 1,621,544 shares of Common Stock, representing a beneficial ownership of approximately 2.41% of the Common Stock. Ms. Cheng disclaims any personal beneficial ownership of such Common Stock.

(b) 1. Sole power to vote or direct vote:	-0-
2. Shared power to vote or direct vote:	1,621,544
3. Sole power to dispose or direct the disposition:	-0-
4. Shared power to dispose or direct the disposition:	1,621,544

H. Wong See Wai

(a) As of the date hereof, Mr. Wong beneficially owns 1,621,544 shares of Common Stock, representing a beneficial ownership of approximately 2.41% of the Common Stock. Mr. Wong disclaims any personal beneficial ownership of such Common Stock.

(b) 1. Sole power to vote or direct vote:	-0-
2. Shared power to vote or direct vote:	1,621,544
3. Sole power to dispose or direct the disposition:	-0-
4. Shared power to dispose or direct the disposition:	1,621,544

- (c) See Item 3.
- (d) Not applicable.
- (e) Not applicable.

Item 7. Material to be Filed as Exhibits.

The following documents are filed as Exhibits to this statement.

<u>Exhibit Number</u>	<u>Exhibit Description</u>
99.1	Joint Filing Agreement

SIGNATURES

After reasonable inquiry and to the best of my knowledge and belief, we certify that the information set forth in this statement is true, complete and correct. We also hereby agree to file this statement jointly pursuant to the Agreement listed on Exhibit 99.1 hereto.

Dated: August 17, 2023

For and on behalf of

**MORNINGSIDE VENTURE INVESTMENTS
LIMITED**

By: /s/ Frances Anne Elizabeth Richard
Frances Anne Elizabeth Richard, Director

For and on behalf of

MVIL, LLC

By: /s/ Cheng Yee Wing Betty
Cheng Yee Wing, Manager

/s/ Frances Anne Elizabeth Richard
Frances Anne Elizabeth Richard

/s/ Jill Marie Franklin
Jill Marie Franklin

/s/ Peter Stuart Allenby Edwards
Peter Stuart Allenby Edwards

/s/ Cheung Ka Ho
Cheung Ka Ho

/s/ Cheng Yee Wing Betty
Cheng Yee Wing Betty

/s/ Wong See Wai
Wong See Wai

CUSIP No. 03237H101

JOINT FILING AGREEMENT

The undersigned, being duly authorized thereunder, hereby execute this agreement as an exhibit to this Schedule 13D to evidence the agreement of the below-named parties, in accordance with the rules promulgated pursuant to the Securities Exchange Act of 1934, to file this Schedule jointly on behalf of each such party.

Dated: August 17, 2023

**MORNINGSIDE VENTURE INVESTMENTS
LIMITED**

By: /s/ Frances Anne Elizabeth Richard
Frances Anne Elizabeth Richard, Director

For and on behalf of

MVIL, LLC

By: /s/ Cheng Yee Wing Betty
Cheng Yee Wing, Manager

/s/ Frances Anne Elizabeth Richard
Frances Anne Elizabeth Richard

/s/ Jill Marie Franklin
Jill Marie Franklin

/s/ Peter Stuart Allenby Edwards
Peter Stuart Allenby Edwards

/s/ Cheung Ka Ho
Cheung Ka Ho

/s/ Cheng Yee Wing Betty
Cheng Yee Wing Betty

/s/ Wong See Wai
Wong See Wai