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

SCHEDULE 13D

**Under the Securities Exchange Act of 1934
(Amendment No.1)***

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)

September 23, 2022
(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 9,302,142
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 9,302,142
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 9,302,142	
(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) 15.89% (1)	
(14)	Type of Reporting Person (See Instructions) CO	

(1) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the Securities and Exchange Commission ("SEC") on August 11, 2022.

(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) 2.77% (1)	
(14)	Type of Reporting Person (See Instructions) CO	

(2) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

(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 9,302,142
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 9,302,142
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 9,302,142	
(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) 15.89% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(3) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

(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 9,302,142
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 9,302,142
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 9,302,142	
(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) 15.89% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(4) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

(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 9,302,142
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 9,302,142
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 9,302,142	
(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) 15.89% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(5) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

(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 9,302,142
	(9)	Sole Dispositive Power 0
	(10)	Shared Dispositive Power 9,302,142
(11)	Aggregate Amount Beneficially Owned by Each Reporting Person 9,302,142	
(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) 15.89% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(6) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

(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	
	New Zealand	
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)	
	2.77% (1)	
(14)	Type of Reporting Person (See Instructions)	
	IN	

(7) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

(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) 2.77% (1)	
(14)	Type of Reporting Person (See Instructions) IN	

(8) Based on 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022.

Item 1. Security and Issuer.

This Amendment No. 1 (“Amendment No. 1”) to Schedule 13D amends and supplements the statement on Schedule 13D originally filed on January 25, 2022 (the “Initial Statement”). This Amendment No.1 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 2. Identity and Background.

- (a) This statement is filed by:
- (i) Morningside Venture Investments Limited, a British Virgin Islands exempted company (“MVIL”), with respect to the Common Stock directly and beneficially owned by it;
 - (ii) MVIL, LLC, a Delaware limited liability company (“MVIL LLC”), with respect to the Common Stock directly and beneficially owned by it;
 - (iii) Frances Anne Elizabeth Richard, with respect to the Common Stock beneficially owned by her as a result of her position as a director with MVIL;
 - (iv) Jill Marie Franklin, with respect to the Common Stock beneficially owned by her as a result of her position as a director with MVIL;
 - (v) Peter Stuart Allenby Edwards, with respect to the Common Stock beneficially owned by him as a result of his position as a director with MVIL;
 - (vi) Cheung Ka Ho, with respect to the Common Stock beneficially owned by him as a result of his position as a director with MVIL;
 - (vii) Cheng Yee Wing Betty, with respect to the Common Stock beneficially owned by her as a result of her position as a manager with MVIL LLC; and
 - (viii) Wong See Wai, with respect to the Common Stock beneficially owned by him as a result of his position as a manager with MVIL LLC.

Each of the foregoing is referred to as a “Reporting Person” and collectively as the “Reporting Persons.”

Frances Anne Elizabeth Richard, Jill Marie Franklin, Peter Stuart Allenby Edwards, and Cheung Ka Ho are the directors of MVIL and share voting and dispositive power with respect to the securities held by MVIL, including by MVIL LLC, its wholly owned subsidiary. Ms. Richard, Ms. Franklin, Mr. Edwards and Mr. Cheung each disclaim beneficial ownership of the securities held by MVIL and MVIL LLC. Cheng Yee Wing Betty and Wong See Wai are the managers of MVIL LLC and share voting and dispositive power with respect to the securities held by MVIL LLC. Ms. Cheng and Mr. Wong each disclaim ownership of the securities owned by MVIL LLC. MVIL is ultimately wholly beneficially owned by a trust over which Adriel Wenbwo Chan and Yuk Lan Wong share authority to remove the trustee.

- (b) The business address of each of the Reporting Persons is:

c/o THC Management Services S.A.M.,
2nd Floor, Le Prince De Galles
3-5 Avenue Des Citronniers
MC 98000, Monaco

With copies to:

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

Springfield Financial Advisory Limited
Attn: Investment Administration Department
22nd Floor Hang Lung Centre
2-20 Paterson Street
Causeway Bay, Hong Kong

- (c) The present principal business of MVIL, MVIL LLC, Ms. Richard, Ms. Franklin, Mr. Edwards, Mr. Cheung, Ms. Cheng and Mr. Wong is the venture capital and private equity investment business.
- (d) No Reporting Person, during the last five years, has been convicted in a criminal proceeding (excluding traffic violations or similar misdemeanors).
- (e) No Reporting Person, during the last five years, has been 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) Citizenship of the Reporting Persons is as set forth below:

MVIL	British Virgin Islands
MVIL LLC	Delaware
Ms. Richard	United Kingdom
Ms. Franklin	United Kingdom
Mr. Edwards	United Kingdom
Mr. Cheung	Hong Kong
Ms. Cheng	New Zealand
Mr. Wong	Hong Kong

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:

Between September 12, 2022 and September 23, 2022, MVIL donated an aggregate of 1,376,666 shares of Common Stock to certain 501(c)(3) organizations.

Item 4. Purpose of Transaction.

The securities reported herein were acquired solely for investment purposes with the aim of increasing the value of the investment and the Issuer. Other than as described above, the Reporting Persons do not have any plans or proposals which would result in any of the following:

- (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 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 present capitalization or dividend policy of the Issuer;
- (f) Any other material change in the Issuer's business or corporate structure;
- (g) Changes in the Issuer's charter, bylaws or instruments corresponding thereto or other actions that may impede the acquisition of control of the Issuer by any person;
- (h) Causing a class of securities of the Issuer to be 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 Securities Exchange Act of 1934, as amended; or
- (j) Any action similar to any of those enumerated above.

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 58,533,226 shares of Common Stock outstanding as of August 8, 2022, as reported in the Issuer's Quarterly Report on Form 10-Q filed with the SEC on August 11, 2022. 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 9,302,142 shares of Common Stock, representing a beneficial ownership of approximately 15.89% of the Common Stock. MVIL directly holds 7,680,598 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:	9,302,142
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	9,302,142

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 2.77% 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 9,302,142 shares of Common Stock, representing a beneficial ownership of approximately 15.89% of the Common Stock.

(b)	1. Sole power to vote or direct vote:	-0-
	2. Shared power to vote or direct vote:	9,302,142
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	9,302,142

D. Jill Marie Franklin

- (a) As of the date hereof, Ms. Franklin beneficially owns 9,302,142 shares of Common Stock, representing a beneficial ownership of approximately 15.89% of the Common Stock.

(b)	1. Sole power to vote or direct vote:	-0-
	2. Shared power to vote or direct vote:	9,302,142
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	9,302,142

E. Peter Stuart Allenby Edwards

- (a) As of the date hereof, Mr. Edwards beneficially owns 9,302,142 shares of Common Stock, representing a beneficial ownership of approximately 15.89% of the Common Stock.

(b)	1. Sole power to vote or direct vote:	-0-
	2. Shared power to vote or direct vote:	9,302,142
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	9,302,142

F. Cheung Ka Ho

- (a) As of the date hereof, Mr. Cheung beneficially owns 9,302,142 shares of Common Stock, representing a beneficial ownership of approximately 15.89% of the Common Stock.

(b)	1. Sole power to vote or direct vote:	-0-
	2. Shared power to vote or direct vote:	9,302,142
	3. Sole power to dispose or direct the disposition:	-0-
	4. Shared power to dispose or direct the disposition:	9,302,142

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 2.77% 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

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 2.77% 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) See Item 3.
 (d) Not applicable.
 (e) Not applicable.

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

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: September 30, 2022

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
Cheung Ka Ho

/s/ Wong See Wai
Cheung Ka Ho

JOINT FILING AGREEMENT

The undersigned, MVIL, LLC is jointly filing the attached Schedule 13D with MORNINGSIDE VENTURE INVESTMENTS LIMITED with respect to the beneficial ownership of securities of Amylyx Pharmaceuticals, Inc.

MVIL, LLC

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