

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

**FORM S-1  
REGISTRATION STATEMENT**  
*UNDER  
THE SECURITIES ACT OF 1933*

**Amylyx Pharmaceuticals, Inc.**  
(Exact name of registrant as specified in its charter)

**Delaware**  
(State or other jurisdiction of  
incorporation or organization)

**2834**  
(Primary Standard Industrial  
Classification Code Number)

**46-4600503**  
(I.R.S. Employer  
Identification No.)

**43 Thorndike St.  
Cambridge, Massachusetts 02141  
(617) 682-0917**

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

**Joshua B. Cohen, Co-Chief Executive Officer  
Justin B. Klee, Co-Chief Executive Officer  
Amylyx Pharmaceuticals, Inc.  
43 Thorndike St.  
Cambridge, Massachusetts 02141  
(617) 682-0917**

(Name, address, including zip code, and telephone number, including area code, of agent for service)

*Copies to:*

**Mitchell S. Bloom, Esq.  
Benjamin K. Marsh, Esq.  
Goodwin Procter LLP  
100 Northern Avenue  
Boston, Massachusetts 02210  
(617) 570-1000**

**Lisa Firenze, Esq.  
Stuart M. Falber, Esq.  
Jeffries Oliver-Li, Esq.  
Wilmer Cutler Pickering Hale and Dorr LLP  
7 World Trade Center  
250 Greenwich Street  
New York, New York 10007  
(212) 230-8800**

**Approximate date of commencement of proposed sale to the public:** As soon as practicable after the effective date of this Registration Statement.

If any of the securities being registered on this form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933 check the following box. ☐

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☒ **333-267730**

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

If this form is a post-effective amendment filed pursuant to Rule 462(d) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering. ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☐

Accelerated filer ☐

Non-accelerated filer☒

Smaller reporting company☒

Emerging growth company☒

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act. ☐

**The Registration Statement shall become effective upon filing in accordance with Rule 462(b) promulgated under the Securities Act of 1933, as amended.**

---

---

---

## EXPLANATORY NOTE AND INCORPORATION BY REFERENCE

This Registration Statement is being filed pursuant to Rule 462(b) under the Securities Act of 1933, as amended, or the Securities Act, for the sole purpose of increasing the aggregate offering price of shares of common stock to be offered by Amylyx Pharmaceuticals, Inc., or the Registrant, by \$41,054,984, which includes additional shares that the underwriters have the option to purchase. The contents of the Registration Statement on Form S-1 (File No. 333-267730) filed by the Registrant with the Securities and Exchange Commission, or the Commission, pursuant to the Securities Act, or the Prior Registration Statement, which was declared effective by the Commission on October 6, 2022, including all exhibits to the Prior Registration Statement, are incorporated by reference into this Registration Statement. The additional securities that are being registered for issuance and sale are in an amount and at a price that together represent no more than 20% of the maximum aggregate offering price set forth in the Calculation of Filing Fees table contained in the Prior Registration Statement.

The required opinion and consents are listed on an Exhibit Index attached hereto and filed herewith.

## EXHIBIT INDEX

Exhibit Number	Description of Exhibit
5.1	<a href="#"><u>Opinion of Goodwin Procter LLP.</u></a>
23.1	<a href="#"><u>Consent of Deloitte &amp; Touche LLP, independent registered public accounting firm.</u></a>
23.2	<a href="#"><u>Consent of Goodwin Procter LLP (included in Exhibit 5.1).</u></a>
24.1*	<a href="#"><u>Power of Attorney.</u></a>
107	<a href="#"><u>Filing Fee Table.</u></a>

\* Previously filed on the signature page to the Registrant's Registration Statement on Form S-1 (File No. 333-267730), originally filed with the Securities and Exchange Commission on October 4, 2022 and incorporated by reference herein.

## SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the registrant has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Cambridge, Commonwealth of Massachusetts, on this 6th day of October, 2022.

AMYLYX PHARMACEUTICALS, INC.

By: /s/ Joshua Cohen

Joshua Cohen  
Co-Chief Executive Officer

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

Signature	Title	Date
<u>/s/ Joshua Cohen</u> Joshua Cohen	Co-Chief Executive Officer and Director (Principal Executive Officer)	October 6, 2022
<u>/s/ Justin Klee</u> Justin Klee	Co-Chief Executive Officer and Director (Principal Executive Officer)	October 6, 2022
<u>/s/ James M. Frates</u> James M. Frates, MBA	Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)	October 6, 2022
<u>*</u> George Mclean Milne Jr, Ph.D.	Director	October 6, 2022
<u>*</u> Paul Fonteyne, MS, MBS	Director	October 6, 2022
<u>*</u> Isaac Cheng, M.D.	Director	October 6, 2022
<u>*</u> Daphne Quimi, MBA	Director	October 6, 2022

\*By: /s/ Joshua Cohen

Name: Joshua Cohen

Title: Attorney-in-fact



Goodwin Procter LLP  
The New York Times Building  
620 Eighth Avenue  
New York, NY 10018

goodwinlaw.com  
+1 212 813 8800

October 6, 2022

Amylyx Pharmaceuticals, Inc.  
43 Thorndike St.  
Cambridge, Massachusetts 02141

Re: Securities Registered under Registration Statement on Form S-1

We have acted as counsel to you in connection with your filing of (i) a Registration Statement on Form S-1 (File No. 333-267730) (as amended or supplemented, the "Initial Registration Statement") filed on October 4, 2022 pursuant to the Securities Act of 1933, as amended (the "Securities Act"), and (ii) a second Registration Statement on Form S-1 filed pursuant to Rule 462(b) promulgated under the Securities Act (the "462(b) Registration Statement," and together with the Initial Registration Statement, the "Registration Statement"). This opinion letter is furnished to you in connection with your filing of the 462(b) Registration Statement, relating to the registration of the offering by Amylyx Pharmaceuticals, Inc., a Delaware corporation (the "Company") of up to 7,697,812 shares (the "Shares") of the Company's Common Stock, \$0.0001 par value per share, including Shares purchasable by the underwriters upon their exercise of an option granted to the underwriters by the Company. The Shares are being sold to the several underwriters named in, and pursuant to, an underwriting agreement among the Company and such underwriters (the "Underwriting Agreement").

We have reviewed such documents and made such examination of law as we have deemed appropriate to give the opinions set forth below. We have relied, without independent verification, on certificates of public officials and, as to matters of fact material to the opinions set forth below, on certificates of officers of the Company.

The opinion set forth below is limited to the Delaware General Corporation Law.

Based on the foregoing, we are of the opinion that the Shares have been duly authorized and, upon issuance and delivery against payment therefor in accordance with the terms of the Underwriting Agreement, the Shares will be validly issued, fully paid and non-assessable.

We hereby consent to the inclusion of this opinion as Exhibit 5.1 to the 462(b) Registration Statement and to the references to our firm under the caption "Legal Matters" in the Initial Registration Statement. In giving our consent, we do not admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations thereunder.

Very truly yours,

/s/ Goodwin Procter LLP  
GOODWIN PROCTER LLP

**CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM**

We consent to the incorporation by reference in this Registration Statement on Form S-1 of our report dated March 31, 2022 relating to the financial statements of Amylyx Pharmaceuticals, Inc., appearing in the Annual Report on Form 10-K of Amylyx Pharmaceuticals, Inc. for the year ended December 31, 2021 and incorporated by reference in Registration Statement on Form S-1 No. 333-267730. We also consent to the reference to us under the heading “Experts” in Registration Statement on Form S-1 No. 333-267730.

/s/ Deloitte & Touche LLP

Boston, Massachusetts  
October 6, 2022

## Calculation of Filing Fee Tables

**Form S-1**

(Form Type)

**Amylyx Pharmaceuticals, Inc.**

(Exact Name of Registrant as Specified in its Charter)

**Table 1: Newly Registered Securities and Carry Forward Securities**

	Security type	Security class title	Fee calculation or carry forward rule	Amount registered	Proposed maximum offering price per share	Proposed maximum aggregate offering price(1)(2)	Fee rate	Amount of registration fee (3)
<b>Newly Registered Securities</b>								
Fees to Be Paid	Equity	Common Stock, par value \$0.0001 per share	457(o)	—	—	\$41,054,984	0.0001102	\$4,524.26
Fees Previously Paid	—	—	—	—	—	—	—	—
<b>Carry Forward Securities</b>								
Carry Forward Securities	—	—	—	—	—	—	—	—
	Total Offering Amounts					\$41,054,984		\$4,524.26
	Total Fees Previously Paid							—
	Total Fee Offsets							—
	Net Fee Due (4)							\$4,524.26

- (1) Estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act of 1933, as amended (the “Securities Act”).
- (2) Includes the offering price of shares that the underwriters may purchase pursuant to an option to purchase additional shares.
- (3) Calculated pursuant to Rule 457(o) based on an estimate of the proposed maximum aggregate offering price.
- (4) The Registrant previously registered securities having a proposed maximum aggregate offering price of \$205,275,000 on its Registration Statement on Form S-1 (File No. 333-267730), which was declared effective by the Securities and Exchange Commission on October 6, 2022. In accordance with Rule 462(b) under the Securities Act, an additional number of securities having a proposed maximum offering price of \$41,054,984 is hereby registered, which includes securities issuable upon the exercise of the underwriters’ option to purchase additional shares.