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

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**SCHEDULE 13G**  
(Rule 13d-102)

**INFORMATION TO BE INCLUDED IN STATEMENTS FILED PURSUANT TO § 240.13d-1(b), (c) AND (d) AND  
AMENDMENTS THERETO FILED PURSUANT TO § 240.13d-2**  
(Amendment No. \_\_)

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**Lexeo Therapeutics, Inc.**  
(Name of Issuer)

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

**52886X107**  
(CUSIP Number)

**December 31, 2023**  
(Date of Event Which Requires Filing of this Statement)

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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 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).

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1	NAMES OF REPORTING PERSONS	
	Omega Fund VI, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION	
	Cayman Islands	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER
		0
	6	SHARED VOTING POWER
		2,157,623
	7	SOLE DISPOSITIVE POWER
		0
	8	SHARED DISPOSITIVE POWER
		2,157,623
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON	
	2,157,623	
10	CHECK BOX 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	
	8.1% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)	
	PN	

- (1) This Schedule 13G is filed by Omega Fund VI, L.P. (“Omega Fund”), Omega Fund VI GP, L.P. (“Omega GP”), Omega Fund VI GP Manager, Ltd. (“Omega Ltd”), Claudio Nessi (“Nessi”), Otello Stampacchia (“Stampacchia”), and Anne-Mari Paster (“Paster”) (together, the “Reporting Persons”). Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund; and each of Omega Ltd and Omega GP may be deemed to own beneficially the shares held by Omega Fund. Nessi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund. The Reporting Persons may be deemed a “group” for purposes of Section 13 of the Exchange Act and expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer’s Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.

1	NAMES OF REPORTING PERSONS  Omega Fund VI GP, L.P.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Cayman Islands	
NUMBER OF SHARES  BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0
	6	SHARED VOTING POWER  2,157,623
	7	SOLE DISPOSITIVE POWER  0
	8	SHARED DISPOSITIVE POWER  2,157,623
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  2,157,623	
10	CHECK BOX 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  8.1% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  PN	

- (1) This Schedule 13G is filed by Omega Fund VI, L.P. (“Omega Fund”), Omega Fund VI GP, L.P. (“Omega GP”), Omega Fund VI GP Manager, Ltd. (“Omega Ltd”), Claudio Nessi (“Nessi”), Otello Stampacchia (“Stampacchia”), and Anne-Mari Paster (“Paster”) (together, the “Reporting Persons”). Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund; and each of Omega Ltd and Omega GP may be deemed to own beneficially the shares held by Omega Fund. Nessi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund. The Reporting Persons may be deemed a “group” for purposes of Section 13 of the Exchange Act and expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer’s Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.

1	NAMES OF REPORTING PERSONS  Omega Fund VI GP Manager, Ltd.	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Cayman Islands	
NUMBER OF SHARES  BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0
	6	SHARED VOTING POWER  2,157,623
	7	SOLE DISPOSITIVE POWER  0
	8	SHARED DISPOSITIVE POWER  2,157,623
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  2,157,623	
10	CHECK BOX 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  8.1% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  PN	

- (1) This Schedule 13G is filed by Omega Fund VI, L.P. (“Omega Fund”), Omega Fund VI GP, L.P. (“Omega GP”), Omega Fund VI GP Manager, Ltd. (“Omega Ltd”), Claudio Nesi (“Nesi”), Otello Stampacchia (“Stampacchia”), and Anne-Mari Paster (“Paster”) (together, the “Reporting Persons”). Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund; and each of Omega Ltd and Omega GP may be deemed to own beneficially the shares held by Omega Fund. Nesi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund. The Reporting Persons may be deemed a “group” for purposes of Section 13 of the Exchange Act and expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer’s Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.

1	NAMES OF REPORTING PERSONS  Claudio Nessi	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Switzerland	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0
	6	SHARED VOTING POWER  2,157,623
	7	SOLE DISPOSITIVE POWER  0
	8	SHARED DISPOSITIVE POWER  2,157,623
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  2,157,623	
10	CHECK BOX 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  8.1% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  IN	

- (1) This Schedule 13G is filed by Omega Fund VI, L.P. (“Omega Fund”), Omega Fund VI GP, L.P. (“Omega GP”), Omega Fund VI GP Manager, Ltd. (“Omega Ltd”), Claudio Nessi (“Nessi”), Otello Stampacchia (“Stampacchia”), and Anne-Mari Paster (“Paster”) (together, the “Reporting Persons”). Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund; and each of Omega Ltd and Omega GP may be deemed to own beneficially the shares held by Omega Fund. Nessi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund. The Reporting Persons may be deemed a “group” for purposes of Section 13 of the Exchange Act and expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer’s Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.

1	NAMES OF REPORTING PERSONS  Otello Stampacchia	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  Italy	
NUMBER OF SHARES  BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0
	6	SHARED VOTING POWER  2,157,623
	7	SOLE DISPOSITIVE POWER  0
	8	SHARED DISPOSITIVE POWER  2,157,623
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  2,157,623	
10	CHECK BOX 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  8.1% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  IN	

- (1) This Schedule 13G is filed by Omega Fund VI, L.P. (“Omega Fund”), Omega Fund VI GP, L.P. (“Omega GP”), Omega Fund VI GP Manager, Ltd. (“Omega Ltd”), Claudio Nessi (“Nessi”), Otello Stampacchia (“Stampacchia”), and Anne-Mari Paster (“Paster”) (together, the “Reporting Persons”). Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund; and each of Omega Ltd and Omega GP may be deemed to own beneficially the shares held by Omega Fund. Nessi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund. The Reporting Persons may be deemed a “group” for purposes of Section 13 of the Exchange Act and expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer’s Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.

1	NAMES OF REPORTING PERSONS  Anne-Mari Paster	
2	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (SEE INSTRUCTIONS) (a) <input type="checkbox"/> (b) <input checked="" type="checkbox"/> (1)	
3	SEC USE ONLY	
4	CITIZENSHIP OR PLACE OF ORGANIZATION  United States of America	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5	SOLE VOTING POWER  0
	6	SHARED VOTING POWER  2,157,623
	7	SOLE DISPOSITIVE POWER  0
	8	SHARED DISPOSITIVE POWER  2,157,623
9	AGGREGATE AMOUNT BENEFICIALLY OWNED BY EACH REPORTING PERSON  2,157,623	
10	CHECK BOX 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  8.1% (2)	
12	TYPE OF REPORTING PERSON (SEE INSTRUCTIONS)  IN	

- (1) This Schedule 13G is filed by Omega Fund VI, L.P. (“Omega Fund”), Omega Fund VI GP, L.P. (“Omega GP”), Omega Fund VI GP Manager, Ltd. (“Omega Ltd”), Claudio Nessi (“Nessi”), Otello Stampacchia (“Stampacchia”), and Anne-Mari Paster (“Paster”) (together, the “Reporting Persons”). Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund; and each of Omega Ltd and Omega GP may be deemed to own beneficially the shares held by Omega Fund. Nessi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund. The Reporting Persons may be deemed a “group” for purposes of Section 13 of the Exchange Act and expressly disclaim status as a “group” for purposes of this Schedule 13G.
- (2) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer’s Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.

Introductory Note: This statement on Schedule 13G is filed on behalf of the Reporting Persons, in respect of shares of Common Stock (“Common Stock”), of Lexeo Therapeutics, Inc. (the “Issuer”).

**Item 1(a) Name of Issuer:**

Lexeo Therapeutics, Inc. (the “Issuer”)

**Item 1(b) Address of Issuer’s principal executive offices:**

Lexeo Therapeutics, Inc.  
345 Park Avenue South, Floor 6  
New York, NY 10010

**Items 2(a) Name of Reporting Persons filing:**

Omega Fund VI, L.P. (“Omega Fund”)  
Omega Fund VI GP, L.P. (“Omega GP”)  
Omega Fund VI GP Manager, Ltd. (“Omega Ltd”)  
Claudio Nesi (“Nesi”)  
Otello Stampacchia (“Stampacchia”)  
Anne-Mari Paster (“Paster”)

**Item 2(b) Address or principal business office or, if none, residence:**

The address of the principal business office of Omega Fund, Omega GP, Omega Ltd, Nesi, Stampacchia, and Paster, is c/o Omega Fund Management, LLC, 888 Boylston Street, Suite 1111, Boston, MA 02199.

**Item 2(c) Citizenship:**

<u>Name</u>	<u>Citizenship or Place of Organization</u>
Omega Fund	Cayman Islands
Omega GP	Cayman Islands
Omega Ltd	Cayman Islands
Nesi	Switzerland
Stampacchia	Italy
Paster	United States of America

**Item 2(d) Title of class of securities:**

Common Stock

**Item 2(e) CUSIP No.:**

52886X107

**Item 3 If this statement is filed pursuant to §§ 240.13d-1(b), or 240.13d-2(b) or (c), check whether the person filings is a:**

Not applicable.

**Item 4 Ownership**

The following information with respect to the ownership of Common Stock of the Issuer by the Reporting Persons filing this statement on Schedule 13G is provided as of December 31, 2023.

Reporting Persons	Shares of Common Stock Held Directly	Sole Voting Power	Shared Voting Power	Sole Dispositive Power	Shared Dispositive Power	Beneficial Ownership	Percentage of Class (1)
Omega Fund(2)(3)	2,157,623	0	2,157,623	0	2,157,623	2,157,623	8.1%
Omega GP(2)(3)	0	0	2,157,623	0	2,157,623	2,157,623	8.1%
Omega Ltd(2)(3)	0	0	2,157,623	0	2,157,623	2,157,623	8.1%
Nessi(2)(3)	0	0	2,157,623	0	2,157,623	2,157,623	8.1%
Stampacchia(2)(3)	0	0	2,157,623	0	2,157,623	2,157,623	8.1%
Paster(2)(3)	0	0	2,157,623	0	2,157,623	2,157,623	8.1%

- (1) The following percentages are based on 26,645,538 shares of common stock outstanding as of December 7, 2023, as set forth in the Issuer's Quarterly Report on 10-Q for the period ended September 30, 2023, filed with the Securities and Exchange Commission on December 11, 2023.
- (2) Omega Fund owns 2,157,623 shares of the Common Stock. Omega Ltd serves as the general partner of Omega GP, which serves as the general partner of Omega Fund, and each of Omega GP and Omega Ltd may be deemed to own beneficially the shares held by Omega Fund. Nessi, Stampacchia, and Paster are the directors of Omega Ltd and may be deemed to beneficially own the shares held by Omega Fund.
- (3) The Reporting Persons may be deemed a "group" for purposes of Section 13 of the Exchange Act and expressly disclaim status as a "group" for purposes of this Schedule 13G.

**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 Group**

Not applicable.

**Item 10 Certifications**

Not applicable.

**SIGNATURES**

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 14, 2024

OMEGA FUND VI, L.P.

BY: Omega Fund VI GP, L.P.  
ITS: GENERAL PARTNER

BY: Omega Fund VI GP Manager, Ltd.  
ITS: GENERAL PARTNER

By: /s/ Otello Stampacchia  
Director

OMEGA FUND VI GP, L.P.

BY: Omega Fund VI GP Manager, Ltd.  
ITS: GENERAL PARTNER

By: /s/ Otello Stampacchia  
Director

OMEGA FUND VI GP MANAGER, LTD.

By: /s/ Otello Stampacchia  
Director

/s/ \* Otello Stampacchia, as Attorney-in-Fact  
Claudio Nessi

/s/ Otello Stampacchia  
Otello Stampacchia

/s/ \* Otello Stampacchia, as Attorney-in-Fact  
Anne-Mari Paster

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**Exhibit(s):**

Exhibit 99.1: Joint Filing Statement

Exhibit 99.2: Power of Attorney

**JOINT FILING AGREEMENT**

Each of the undersigned, pursuant to Rule 13d-1(k)(1) under the Act, hereby agrees and acknowledges that only one statement containing the information required by Schedule 13G need be filed with respect to the ownership by each of the undersigned of the Common Stock and the information required by this Schedule 13G, to which this Agreement is attached as an exhibit, is filed on behalf of them. The undersigned further agree that any further amendments or supplements thereto shall also be filed on behalf of each of them.

February 14, 2024

OMEGA FUND VI, L.P.

BY: Omega Fund VI GP, L.P.  
ITS: GENERAL PARTNER

BY: Omega Fund VI GP Manager, Ltd.  
ITS: GENERAL PARTNER

By: /s/ Otello Stampacchia  
Director

OMEGA FUND VI GP, L.P.

BY: Omega Fund VI GP Manager, Ltd.  
ITS: GENERAL PARTNER

By: /s/ Otello Stampacchia  
Director

OMEGA FUND VI GP MANAGER, LTD.

By: /s/ Otello Stampacchia  
Director

/s/ \* Otello Stampacchia, as Attorney-in-Fact  
Claudio Nessi

/s/ Otello Stampacchia  
Otello Stampacchia

/s/ \* Otello Stampacchia, as Attorney-in-Fact  
Anne-Mari Paster

**POWER OF ATTORNEY**

Know all by these presents, that each of the undersigned hereby constitutes and appoints each other undersigned, such person's true and lawful attorney-in-fact, to:

- (1) execute for and on behalf of each of such person Forms 3, 4, and 5 and Schedules 13D or 13G, as appropriate, and any required amendments thereto (collectively, the "Reports"), with respect to their current or future beneficial ownership of securities of any public company, in accordance with Section 13(d) and/or Section 16(a) of the Securities Exchange Act of 1934, as amended, and the respective rules (including Rule 13d-1) promulgated thereunder;
- (2) do and perform any and all acts for and on behalf of such person which may be necessary or desirable to complete and execute any such Report and timely file such form with the United States Securities and Exchange Commission and any stock exchange or similar authority; and
- (3) take any other action of any type whatsoever in connection with the foregoing which, in the opinion of an attorney-in-fact, may be of benefit to, in the best interest of, or legally required by, such person, it being understood that the documents executed by an attorney-in-fact on behalf of such person pursuant to this Power of Attorney shall be in such form and shall contain such terms and conditions as such attorney-in-fact may approve in such attorney-in-fact's discretion.

Each of the undersigned hereby grants to each attorney-in-fact full power and authority to do and perform any and every act and thing whatsoever requisite, necessary, or proper to be done in the exercise of any of the rights and powers herein granted, as fully to all intents and purposes as the undersigned might or could do if personally present, with full power of substitution or revocation, hereby ratifying and confirming all that each attorney-in-fact, or such attorney-in-fact's substitute or substitutes, shall lawfully do or cause to be done by virtue of this power of attorney and the rights and powers herein granted. Each of the undersigned hereby ratifies and confirms each Report that has been signed by any other undersigned prior to the date hereof. Each of the undersigned acknowledges that each foregoing attorney-in-fact, in serving in such capacity at the request of the undersigned, is not assuming any of the undersigned's responsibilities to comply with Section 13(d) or Section 16 of the Securities Exchange Act of 1934.

This Power of Attorney shall remain in full force and effect until the undersigned are no longer required to file Reports with respect to the undersigned's current or future holdings of and transactions in securities issued by any public company, unless earlier revoked by the undersigned in a signed writing delivered to each foregoing attorney-in-fact.

[The remainder of this page is intentionally left blank.]

IN WITNESS WHEREOF, the undersigned have caused this Power of Attorney to be executed as of dates set forth opposite their names.

/s/ Otello Stampacchia  
Otello Stampacchia

Dated: February 12, 2020

/s/ Claudio Nesi  
Claudio Nesi

Dated: February 11, 2020

/s/ Anne-Mari Paster  
Anne-Mari Paster

Dated: February 11, 2020

/s/ Deirdre A. Cunnane  
Deirdre A. Cunnane

Dated: February 11, 2020