
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

SCHEDULE 13G

(Rule 13d-102)

Under the Securities Exchange Act of 1934

LogicBio Therapeutics, Inc.
(Name of Issuer)

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

54142F102
(CUSIP Number)

December 31, 2019
(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.	Names of Reporting Persons Ran Nussbaum	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (c) <input type="checkbox"/> (d) <input type="checkbox"/>	
3.	SEC Use Only	
4.	Citizenship or Place of Organization Israel	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	Sole Voting Power 0
	6.	Shared Voting Power 1,787,413¹
	7.	Sole Dispositive Power 0
	8.	Shared Dispositive Power 1,787,413¹
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,787,413¹	
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) 7.7%	
12.	Type of Reporting Person (See Instructions) IN	

1. Consists of: (i) 881,582 shares of common stock owned by Pontifax (Israel) IV, Limited Partnership, (ii) 440,339 shares of common stock owned by Pontifax (Cayman) IV, L.P., and (iii) 465,492 shares of common stock owned by Pontifax (China) IV, L.P.

Pontifax 4 G.P., Limited Partnership is the general partner of Pontifax (Israel) IV, Limited Partnership, Pontifax (Cayman) IV, L.P. and Pontifax (China) IV, L.P. Pontifax Management IV, G.P. (2015) Ltd. is the general partner of Pontifax 4 G.P., Limited Partnership. Ran Nussbaum and Tomer Kariv are directors of Pontifax IV, G.P. (2015) Ltd. Each of Ran Nussbaum and Tomer Kariv disclaim beneficial ownership of the shares reported in this Schedule 13G, as amended, and the inclusion of such shares in this Schedule 13G shall not be deemed to be an admission of beneficial ownership of the reported shares.

1.	Names of Reporting Persons Tomer Kariv	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (e) <input type="checkbox"/> (f) <input type="checkbox"/>	
3.	SEC Use Only	
4.	Citizenship or Place of Organization Israel	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	Sole Voting Power 8,033¹
	6.	Shared Voting Power 1,787,413²
	7.	Sole Dispositive Power 8,033¹
	8.	Shared Dispositive Power 1,787,413²
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,795,446³	
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) 7.7%	
12.	Type of Reporting Person (See Instructions) IN	

1. Consists of options to purchase 8,033 ordinary shares exercisable within 60 days of December 31, 2019.
2. Consists of: (i) 881,582 shares of common stock owned by Pontifax (Israel) IV, Limited Partnership, (ii) 440,339 shares of common stock owned by Pontifax (Cayman) IV, L.P., and (iii) 465,492 shares of common stock owned by Pontifax (Cayman) IV, L.P.
3. See notes 1 and 2 above.

Each of Ran Nussbaum and Tomer Kariv disclaim beneficial ownership of the shares reported in this Schedule 13G, as amended, and the inclusion of such shares in this Schedule 13G shall not be deemed to be an admission of beneficial ownership of the reported shares.

1.	Names of Reporting Persons Pontifax 4 G.P., Limited Partnership	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions) (g) <input type="checkbox"/> (h) <input type="checkbox"/>	
3.	SEC Use Only	
4.	Citizenship or Place of Organization Israel	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	Sole Voting Power 0
	6.	Shared Voting Power 1,787,413¹
	7.	Sole Dispositive Power 0
	8.	Shared Dispositive Power 1,787,413¹
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,787,413¹	
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) 7.7%	
12.	Type of Reporting Person (See Instructions) PN	

1. Consists of: (i) 881,582 shares of common stock owned by Pontifax (Israel) IV, Limited Partnership, (ii) 440,339 shares of common stock owned by Pontifax (Cayman) IV, L.P., and (iii) 465,492 shares of common stock owned by Pontifax (Cayman) IV, L.P. Each of Ran Nussbaum and Tomer Kariv disclaim beneficial ownership of the shares reported in this Schedule 13G, as amended, and the inclusion of such shares in this Schedule 13G shall not be deemed to be an admission of beneficial ownership of the reported shares.

1.	Names of Reporting Persons Pontifax Management IV, G.P. (2015) Ltd.	
2.	CHECK THE APPROPRIATE BOX IF A MEMBER OF A GROUP (See Instructions)	(i) <input type="checkbox"/> (j) <input type="checkbox"/>
3.	SEC Use Only	
4.	Citizenship or Place of Organization Israel	
NUMBER OF SHARES BENEFICIALLY OWNED BY EACH REPORTING PERSON WITH	5.	Sole Voting Power 0
	6.	Shared Voting Power 1,787,413¹
	7.	Sole Dispositive Power 0
	8.	Shared Dispositive Power 1,787,413¹
9.	Aggregate Amount Beneficially Owned by Each Reporting Person 1,787,413¹	
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) 7.7%	
12.	Type of Reporting Person (See Instructions) CO	

1. Consists of: (i) 881,582 shares of common stock owned by Pontifax (Israel) IV, Limited Partnership, (ii) 440,339 shares of common stock owned by Pontifax (Cayman) IV, L.P., and (iii) 465,492 shares of common stock owned by Pontifax (Cayman) IV, L.P. Each of Ran Nussbaum and Tomer Kariv disclaim beneficial ownership of the shares reported in this Schedule 13G, as amended, and the inclusion of such shares in this Schedule 13G shall not be deemed to be an admission of beneficial ownership of the reported shares.

Introductory Note: This Schedule 13G is filed on behalf of Pontifax 4 G.P., Limited Partnership, a limited partnership organized under the laws of the State of Israel, Pontifax Management IV, G.P. (2015) Ltd., an Israeli company, Ran Nussbaum and Tomer Kariv (the "Reporting Persons"), in respect of shares of common stock of LogicBio Therapeutics, Inc.

Item 1(a). Name of Issuer:

LogicBio Therapeutics, Inc.

Item 1(b). Address of Issuer's Principal Executive Offices:

99 Erie Street, Cambridge MA 02139

Item 2(a). Name of Person Filing:

This Statement is filed on behalf of Pontifax 4 G.P., Limited Partnership, Pontifax Management IV, G.P. (2015) Ltd., Ran Nussbaum. and Tomer Kariv.

Item 2(b). Address of Principal Offices or, if None, Residence:

The addresses of the Reporting Persons are:

Pontifax 4 G.P., Limited Partnership - 14 Shenkar St. Herzliya, 46140, Israel

Pontifax Management IV, G.P. (2015) Ltd. - 14 Shenkar St. Herzliya, 46140, Israel

Ran Nussbaum - 14 Shenkar St. Herzliya, 46140, Israel

Tomer Kariv - 14 Shenkar St. Herzliya, 46140, Israel

Item 2(c). Citizenship:

Pontifax 4 G.P., Limited Partnership is organized in the State of Israel, Pontifax Management IV, G.P. (2015) Ltd. is incorporated in the State of Israel, Ran Nussbaum is a citizen of the State of Israel, and Tomer Kariv is a citizen of the State of Israel.

Item 2(d). Title of Class of Securities:

Shares of common stock

Item 2(e). CUSIP Number:

54142F102

Item 3. If the Statement is being filed pursuant to Rule 13d-1(b) or 13d-2(b) or (c), check whether the filing person is a:

Not applicable.

- (a) Broker or dealer registered under section 15 of the Act (15 U.S.C. 78o);
- (b) Bank as defined in section 3(a)(6) of the Act (15 U.S.C. 78c);
- (c) Insurance company as defined in section 3(a)(19) of the Act (15 U.S.C. 78c);
- (d) Investment company registered under section 8 of the Investment Company Act of 1940 (15 U.S.C. 80a-8);
- (e) An investment adviser in accordance with §240.13d-1(b)(1)(ii)(E);
- (f) An employee benefit plan or endowment fund in accordance with §240.13d-1(b)(1)(ii)(F);
- (g) A parent holding company or control person in accordance with §240.13d-1(b)(1)(ii)(G);
- (h) A savings association as defined in Section 3(b) of the Federal Deposit Insurance Act (12 U.S.C. 1813);
- (i) A church plan that is excluded from the definition of an investment company under Section 3(c)(14) of the Investment Company Act (15 U.S.C. 80a-3);
- (j) A non-U.S. institution in accordance with § 240.13d-1(b)(1)(ii)(J);
- (k) Group, in accordance with §240.13d-1(b)(1)(ii)(K).

If filing as a non-U.S. institution in accordance with §240.13d-1(b)(1)(ii)(J), please specify the type of institution: _____

Item 4. Ownership.

- (a) Amount beneficially owned:
Tomer Kariv: 1,795,446 shares¹
Other Reporting Persons: 1,787,413 shares
- (b) Percent of class:
7.7%¹
- (c) Number of shares as to which such person has:
 - (i) Sole power to vote or direct the vote:
Tomer Kariv – 8,033 shares

- (ii) Shared power to vote or direct the vote: 1,787,413 shares¹
- (iii) Sole power to dispose or to direct the disposition of:
Tomer Kariv – 8,033 shares
- (iv) Shared power to dispose or to direct the disposition of: 1,787,413 shares

1. Includes: (i) 881,582 shares of common stock owned by Pontifax (Israel) IV, Limited Partnership, (ii) 440,339 shares of common stock owned by Pontifax (Cayman) IV, L.P., and (iii) 465,492 shares of common stock owned by Pontifax (Cayman) IV, L.P. In addition, for Mr. Kariv, includes options to purchase 8,033 ordinary shares exercisable within 60 days of December 31, 2019.

Pontifax 4 G.P., Limited Partnership is the general partner of Pontifax (Israel) IV, Limited Partnership, Pontifax (Cayman) IV, L.P. and Pontifax (China) IV, L.P. Pontifax Management IV, G.P. (2015) Ltd. is the general partner of Pontifax 4 G.P., Limited Partnership. Ran Nussbaum and Tomer Kariv are directors of Pontifax IV, G.P. (2015) Ltd. Each of Ran Nussbaum and Tomer Kariv disclaim beneficial ownership of the shares reported in this Schedule 13G, as amended, and the inclusion of such shares in this Schedule 13G shall not be deemed to be an admission of beneficial ownership of the reported shares.

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 had ceased to be the beneficial owner of more than 5 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. Certification.

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.

Date: February 14, 2020

PONTIFAX 4 G.P., LIMITED PARTNERSHIP

By: /s/ Pontifax Management IV G.P. (2015) Ltd.
Name: Pontifax Management IV G.P. (2015) Ltd.
Title: General Partner

By: /s/ Ran Nussbaum
Name: Ran Nussbaum
Title: Director

PONTIFAX MANAGEMENT IV, G.P. (2015) LTD.

By: /s/ Ran Nussbaum
Name: Ran Nussbaum
Title: Director

/s/ Tomer Kariv
TOMER KARIV

/s/ Ran Nussbaum
Ran Nussbaum

Attention. Intentional misstatements or omissions of fact constitute Federal criminal violations (*see* 18 U.S.C. 1001).

EXHIBIT INDEX

- A. [Joint Filing Agreement, dated as of February 14, 2020, by and among Pontifax 4 G.P., Limited Partnership, Pontifax Management IV, G.P. \(2015\) Ltd., Ran Nussbaum and Tomer Kariv.](#)
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JOINT FILING AGREEMENT

The undersigned hereby agree that the Schedule 13G with respect to the shares of common stock of \$0.0001 per share, of LogicBio Therapeutics, Inc., dated as of February 14, 2020, is, and any amendments thereto (including amendments on Schedule 13D) signed by each of the undersigned shall be, filed on behalf of each of us pursuant to and in accordance with the provisions of Rule 13d-1(k) under the Securities Exchange Act of 1934, as amended.

Date: February 14, 2020

PONTIFAX 4 G.P., LIMITED PARTNERSHIP

By: /s/ Pontifax Management IV G.P. (2015) Ltd.

Name: Pontifax Management IV G.P. (2015) Ltd.

Title: General Partner

By: /s/ Ran Nussbaum

Name: Ran Nussbaum

Title: Director

PONTIFAX MANAGEMENT IV, G.P. (2015) LTD.

By: /s/ Ran Nussbaum

Name: Ran Nussbaum

Title: Director

/s/ Tomer Kariv

TOMER KARIV

/s/ Ran Nussbaum

Ran Nussbaum
