

# FORM 4

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

OMB APPROVAL	
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Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

## STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP OF SECURITIES

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

(Print or Type Responses)

1. Name and Address of Reporting Person * <b>Hirsch David</b>		2. Issuer Name and Ticker or Trading Symbol <b>Molecular Templates, Inc. [MTEM]</b>		5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director <input checked="" type="checkbox"/> 10% Owner Officer (give title below) Other (specify below)	
(Last) (First) (Middle) <b>C/O LONGITUDE CAPITAL PARTNERS III, LLC, 2740 SAND HILL ROAD, SECOND FLOOR</b>		3. Date of Earliest Transaction (Month/Day/Year) <b>11/25/2019</b>			
(Street) <b>MENLO PARK, CA 94025</b>		4. If Amendment, Date Original Filed(Month/Day/Year) <b>11/27/2019</b>		6. Individual or Joint/Group Filing (Check Applicable Line) <input checked="" type="checkbox"/> Form filed by One Reporting Person <input type="checkbox"/> Form filed by More than One Reporting Person	
(City) (State) (Zip)		<b>Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned</b>			

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Stock	11/25/2019		P		937,500 <u>(1)</u> <u>(2)</u>	A	\$ 8	4,199,035	I <u>(3)</u>	By Longitude Venture Partners III, L.P. <u>(3)</u>

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

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**Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned**  
(e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4, and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Underlying Securities (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of Derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form of Derivative Security: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date					

## Reporting Owners

Reporting Owner Name / Address	Relationships			
	Director	10% Owner	Officer	Other
Hirsch David C/O LONGITUDE CAPITAL PARTNERS III, LLC 2740 SAND HILL ROAD, SECOND FLOOR MENLO PARK, CA 94025	X	X		

## Signatures

/s/ David Hirsch	12/05/2019
<small>**Signature of Reporting Person</small>	<small>Date</small>

## Explanation of Responses:

\* If the form is filed by more than one reporting person, *see* Instruction 4(b)(v).

\*\* Intentional misstatements or omissions of facts constitute Federal Criminal Violations. *See* 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

(1) These shares were purchased pursuant to an underwritten public offering.

(2) Includes 500 shares that were inadvertently omitted from the original Form 4.

These shares are held by Longitude Venture Partners III, L.P. The Reporting Person is a member of Longitude Capital Partners III, LLC, the general partner of Longitude  
(3) Venture Partners III, L.P., and may be deemed to share voting, investment and dispositive power over these shares. The Reporting Person disclaims beneficial ownership of these shares except to the extent of his pecuniary interest therein.

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, *see* Instruction 6 for procedure.

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