

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

FORM 8-K

CURRENT REPORT
Pursuant to Section 13 or 15(d)
of the Securities Exchange Act of 1934

Date of Report (Date of earliest event reported): January 5, 2018

Molecular Templates, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction
of incorporation)

001-32979
(Commission
File Number)

94-3409596
(IRS Employer
Identification No.)

9301 Amberglen Blvd, Suite 100
Austin, TX
(Address of principal executive offices)

78729
(Zip Code)

Registrant's telephone number, including area code: (512) 869-1555

(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligations of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

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 13(a) of the Exchange Act.

Item 7.01 Regulation FD Disclosure.

On January 5, 2018, Molecular Templates, Inc. (the “Company”) issued a press release entitled “Molecular Templates Provides Corporate Update and Outlines 2018 Milestones” (the “Press Release”). A copy of the Press Release is furnished as Exhibit 99.1 to this current report on Form 8-K.

The information contained in this Item 7.01 and in the Press Release furnished as Exhibit 99.1 to this current report on Form 8-K shall not be deemed “filed” for purposes of Section 18 of the Securities Exchange Act of 1934, as amended, or otherwise subject to the liabilities of that Section or Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended. The information contained in this Item 7.01 and in the Press Release furnished as Exhibit 99.1 to this current report on Form 8-K shall not be incorporated by reference into any filing with the U.S. Securities and Exchange Commission made by the Company whether made before or after the date hereof, regardless of any general incorporation language in such filing.

Item 9.01 Financial Statements and Exhibits.***(d) Exhibits***

<u>Exhibit No.</u>	<u>Description</u>
99.1	Press Release dated January 5, 2018.

SIGNATURES

Pursuant to the requirements of the Securities Exchange Act of 1934, the Registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Molecular Templates, Inc.

Dated: January 5, 2018

By: /s/ Eric E. Poma, Ph.D.

Name: Eric E. Poma, Ph.D.

Title: Chief Executive Officer



Molecular Templates Provides Corporate Update and Outlines 2018 Milestones

*Takeda Nominated Two Targets Under Research Collaboration in Dec. 2017
Updated MT-3724 Clinical Results Expected in 1H18
At Least Two New MTEM Products to Enter the Clinic in 2018*

AUSTIN, Texas – January 5, 2018 -- Molecular Templates, Inc., (Nasdaq: MTEM) a clinical stage biopharmaceutical company focused on the discovery and development of Engineered Toxin Bodies (ETBs), a new class of targeted biologic therapies that possess unique mechanisms of action in oncology, today provided a review of 2017 company progress as well as an update on expected 2018 milestones.

“2017 was a transformational year for Molecular Templates as we became a publicly traded company, raised \$60 million from institutional investors and our partner Takeda Pharmaceuticals, made important clinical progress with our lead pipeline program MT-3724, and expanded and advanced our collaboration with Takeda,” said Eric Poma Ph.D., Chief Executive and Chief Scientific Officer of Molecular Templates. “We expect multiple value enhancing events throughout 2018, with our team focused on generating more data for our lead product candidate MT-3724, advancing additional products into the clinic, making continued progress with our partner Takeda, and exploring additional business development opportunities.”

Corporate Updates

Summary of Key 2017 Accomplishments

- **Reverse merger and financing.** Completed reverse merger with Threshold Pharmaceuticals and concurrent \$40 million equity financing and \$20 million private placement to Millennium Pharmaceuticals (a wholly owned subsidiary of Takeda Pharmaceuticals).
- **Takeda collaboration expansion and progress.** Expanded Takeda collaboration in June 2017 with multi-target research and licensing collaboration agreement, followed by nomination of two biological targets by Takeda in December 2017.
- **MT-3724 development advanced.** Established maximum tolerated dose (MTD) for MT-3724 and began dosing in an expansion cohort of the ongoing Phase 1 study focused on relapsed/refractory diffuse large B-cell lymphoma (DLBCL) patients. The goal of the expansion cohort is to better define the overall response rate of MT-3724 in heavily pre-treated DLBCL patients.
- **Pipeline expanded and progressed.** Pipeline of several other ETB candidates in preclinical development targeting both solid and hematological cancers expected to yield 2-3 INDs in 2018.

Expected 2018 Milestones

MT-3724 (targeting CD20)

- 1H18: Initial results from expansion cohort in DLBCL
- 1H18: Initiation of chemo combination study
- 1H18: Initiation of non-chemo combination study
- 2H18: Initial results from the combination studies
- 2H18: Initiation of Phase 2 study (potential pivotal)

MT-4019 (targeting CD38)

- 3Q18: Initiation of Phase 1 study in multiple myeloma in the United States

Pipeline

- 1H18: Presentation of preclinical data at medical and/or scientific meetings
- 4Q18: File IND for HER2 and/or PD-L1 programs

Business development

- 2018: Continued progress with Takeda partnership
- 2018: Potential new research partnerships

About Molecular Templates

Molecular Templates is focused on the discovery, development and commercialization of next-generation immunotoxins called Engineered Toxin Bodies (ETBs) for the treatment of cancers and other serious diseases. For additional information, please visit Molecular Templates' website at www.mtem.com.

Forward-Looking Statements

This press release contains forward-looking statements that involve substantial risks and uncertainties. All statements, other than statement of historical facts, included in this press release regarding Molecular Templates' strategy, future operations and plans are forward-looking statements. Examples of such statements include, but are not limited to, statements relating to the development, potential benefits and uses of and markets for Molecular Templates' product candidates, including MT-3724, MT-4019 and evofosfamide, and anticipated clinical trials, including timing and potential results. Actual results or events could differ materially from the plans, intentions, expectations and projections disclosed in the forward-looking statements. Various important factors could cause actual results or events to differ materially from the forward-looking statements that Molecular Templates makes, including, but not limited to, the risk that trials and studies may be delayed and may not have satisfactory outcomes, potential adverse effects arising from the testing or use of MT-3724, MT-4019 and evofosfamide and other risks described in the "Risk Factors" section of Molecular Templates' most recent 10-K, 10-Q, and other reports on file with the SEC. Molecular Templates does not assume any obligation to update any forward-looking statements, except as required by law.

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