

**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): May 26, 2023**

**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**  
(I.R.S. Employer Identification No.)

**9301 Amberglen Blvd, Suite 100**  
**Austin, Texas 78729**  
(Address of Principal Executive Offices) (Zip Code)

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

(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 obligation 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))

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Common Stock, \$0.001 Par Value	MTEM	The Nasdaq Global Select Market

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 8.01. Other Events.**

On May 26, 2023, the Registrant issued a press release, a copy of which is attached hereto as Exhibit 99.1 and is incorporated herein by reference.

The information contained in this Item 8.01 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 Sections 11 and 12(a)(2) of the Securities Act of 1933, as amended. The information contained in this Item 8.01 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.**

[99.1](#) [Press Release dated May 26, 2023](#)

104 Cover Page Interactive Data File (embedded within the Inline XBRL document)

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**SIGNATURE**

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.**

Date: May 26, 2023

By: /s/ Eric E. Poma, Ph.D.  
Eric E. Poma, Ph.D.  
Chief Executive Officer

## Molecular Templates to Present on Phase I Dose Escalation Study of MT-6402 at the 2023 American Society of Clinical Oncology (ASCO) Annual Meeting

AUSTIN, Texas, May 26, 2023 (GLOBE NEWSWIRE) -- Molecular Templates, Inc. (Nasdaq: MTEM, “Molecular Templates,” or “MTEM”), a clinical-stage biopharmaceutical company focused on the discovery and development of proprietary targeted biologic therapeutics, engineered toxin bodies (“ETBs”), to create novel therapies with potent differentiated mechanisms of action for cancer, announced today the presentation of a poster at the American Society of Clinical Oncology (“ASCO”) Annual Meeting, taking place June 2-6, 2023 in Chicago, IL. One-on-one meetings may be scheduled directly with Molecular Templates.

The poster will highlight interim efficacy and safety data on MT-6402, MTEM’s ETB program designed to activate T-cells through direct cell-kill of immunosuppressive PD-L1+ immune cells. MT-6402 can also deliver and induce the presentation of an MHC class I CMV antigen on tumor cells (antigen seeding mechanism of action) for pre-existing CD8 T-cell recognition and destruction in HLA-A\*02/CMV+ patients with high PD-L1 expression on their tumors. MT-6402 continues to demonstrate pharmacodynamic effects and monotherapy activity in heavily pre-treated checkpoint therapy experienced patients. To date, no instances of capillary leak syndrome or other manifestations of innate immunity have been observed with any next-generation ETB.

### Details

Presentation Title: MT-6402, an engineered toxin body (ETB) targeting PD-L1: Interim efficacy and safety data

Poster Number: 2552

Session: Developmental Therapeutics – Immunotherapy

Date/Time: 8 – 11am CST Saturday, June 3, 2023

Location: Board #394, Hall A (McCormick Place)

*The poster will be available in the Presentations section of MTEM’s website.*

### About Molecular Templates

Molecular Templates is a clinical-stage biopharmaceutical company focused on the discovery and development of targeted biologic therapeutics. Our proprietary drug platform technology, known as engineered toxin bodies, or ETBs, leverages the resident biology of a genetically engineered form of Shiga-like Toxin A subunit to create novel therapies with potent and differentiated mechanisms of action for cancer.

### Forward-Looking Statements

*This press release contains forward-looking statements for purposes of the Private Securities Litigation Reform Act of 1995 (the “Act”). Molecular Templates disclaims any intent or obligation to update these forward-looking statements and claims the protection of the Act’s Safe Harbor for forward-looking statements. All statements, other than statements of historical facts, included in this press release regarding strategy, future operations, future financial position, future revenue, projected expenses, prospects, plans and objectives of management are forward-looking statements. In addition, when or if used in this press release, the words “may,” “could,” “should,” “anticipate,” “believe,” “estimate,” “expect,” “intend,” “plan,” “predict” and similar expressions and their variants, as they relate to Molecular Templates may identify forward-looking statements. Examples of such statements include but are not limited to the safety or potential efficacy of Molecular Templates’ drug or biologic candidates; the expected participation and presentation at upcoming conferences; Molecular Templates’ belief that its proprietary biologic drug platform technology, or ETBs, provides for a differentiated mechanism of action for cancer; and the prospects for continued clinical development and regulatory approval. Forward-looking statements are not guarantees of future performance and involve risks and uncertainties. Actual events or results may differ materially from those discussed in the forward-looking statements as a result of various factors including, but not limited to the following: the uncertainties inherent in the preclinical and clinical development process, including the fact that interim results may not be indicative of future results; whether Molecular Templates’ cash resources, will be sufficient to fund its continuing operations for the periods and/or trials anticipated; Molecular Templates’ ability to timely enroll patients in its clinical trials; the ability of Molecular Templates’ to protect its intellectual property rights; and legislative, regulatory, political and economic developments, as well as those risks identified under the heading “Risk Factors” in Molecular Templates’ filings with the SEC. There can be no assurance that any of Molecular Templates’ drug or biologic candidates will be successfully developed, manufactured, or commercialized, that final results of clinical trials will be supportive of regulatory approvals required to market products, or that any of the forward-looking information provided herein will be proven accurate. Any forward-looking statements contained in this press release speak only as of the date hereof, and Molecular Templates specifically disclaims any obligation to update any forward-looking statement, whether because of new information, future events or otherwise.*

### Contacts:

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