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): April 11, 2024

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))

D 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:

	Trading	Name of each exchange
Title of each class	Symbol(s)	on which registered
Common Stock, \$0.001 Par Value	MTEM	The Nasdag Capital 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 \Box

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 2.05. Costs Associated with Exit or Disposal Activities.

On April 11, 2024, the Board of Directors of Molecular Templates, Inc. (the "Company" or "Molecular Templates") approved a reduction in force (the "Reduction in Force") in order to extend its resources to better position the organization and to allow the Company to continue to support its clinical studies for MT-6402, MT-8421 and MT-0169. The Reduction in Force would reduce the Company's current workforce by approximately 30%.

The Company estimates that it will incur aggregate pre-tax charges of approximately \$0.1 million in connection with the Reduction in Force, primarily consisting of legal fees and other related termination costs.

The Company expects that this Reduction in Force will be complete by the end of April 2024 and that theseone-time charges will be incurred in the second quarter of 2024.

Item 5.02. Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

Effective April 30, 2024 and in connection with the Reduction in Force, Maurizio Voi, M.D. will cease to serve as the Company's Chief Medical Officer.

Forward-Looking Statements

This Form 8-K 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 forwardlooking 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 Form 8-K, 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 expectations regarding the intended benefits of the Reduction in Force, including with respect to Molecular Templates' expectations regarding the estimated costs and cost savings, the timing of such costs and cost savings; and the timing of completion of the Reduction in Force. 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 those risks identified under the heading "Risk Factors" in Molecular Templates' filings with the Securities and Exchange Commission. Any forward-looking statements contained in this Form 8-K 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.

2

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: April 12, 2024

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

Eric E. Poma, Ph.D. Chief Executive Officer

3