

MOLECULAR TEMPLATES, INC.

9301 Amberglen Blvd.
Austin, TX 78729

VIA EDGAR

August 16, 2023
United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, DC 20549

**Re: Molecular Templates, Inc.
Acceleration Request for Registration Statement on Form S-3
Filed August 10, 2023
File No. 333-273864**

Ladies and Gentlemen:

Pursuant to Rule 461 under the Securities Act of 1933, as amended, Molecular Templates, Inc. hereby requests that the effective date and time of the above-referenced registration statement be accelerated to August 18, 2023, at 4:05 p.m., Eastern Time, or as soon thereafter as practicable.

If you have any questions regarding this request, please contact Melanie R. Levy of Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C. at (858) 314 - 1873.

Sincerely,

MOLECULAR TEMPLATES, INC.

/s/ Jason S. Kim

Jason S. Kim
Chief Financial Officer

cc: Eric E. Poma, *Molecular Templates, Inc.*
Michelle Iwamoto-Fan, *Molecular Templates, Inc.*
Melanie R. Levy, *Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.*