



DIVISION OF  
CORPORATION FINANCE

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

August 12, 2020

Eric E. Poma, Ph.D.  
Chief Executive Officer  
Molecular Templates, Inc.  
9301 Amberglen Blvd, Suite 100  
Austin, TX 78729

**Re: Molecular Templates, Inc.**  
**Registration Statement on Form S-3**  
**Filed August 7, 2020**  
**File No. 333-242078**

Dear Dr. Poma:

This is to advise you that we have not reviewed and will not review your registration statement.

Please refer to Rules 460 and 461 regarding requests for acceleration. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Please contact Ada D. Sarmiento at 202-551-3798 with any questions.

Sincerely,

Division of Corporation Finance  
Office of Life Sciences

cc: Matthew J. Gardella