

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

June 14, 2024

Mark Lappe Chief Executive Officer Inhibrx Biosciences, Inc. 11025 N. Torrey Pines Road, Suite 140 La Jolla, California 92037

Re: Inhibrx Biosciences, Inc.
Registration Statement on Form S-1
Filed June 11, 2024
File No. 333-280127

Dear Mark Lappe:

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 Jimmy McNamara at 202-551-7349 with any questions.

Sincerely,

Division of Corporation Finance Office of Life Sciences

cc: Melanie Ruthrauff Levy