

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

May 4, 2023

David Gaiero
Chief Financial Officer and Treasurer
Cyteir Therapeutics, Inc.
128 Spring Street, Building A, Suite 510
Lexington, Massachusetts, 02421

Re: Cyteir Therapeutics, Inc. Form 10-K for the Fiscal Year Ended December 31, 2022 Filed March 23, 2023 File No. 001-40499

Dear David Gaiero:

We have completed our review of your filings. 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.

Sincerely,

Division of Corporation Finance Office of Life Sciences