



DIVISION OF
CORPORATION FINANCE

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

October 23, 2018

Jennifer Burstein
Senior Vice President of Finance
Loxo Oncology, Inc.
281 Tresser Blvd
9th Floor
Stamford, CT 06901

Re: Loxo Oncology, Inc.
Form 10-K for the fiscal year ended December 31, 2017
Filed March 1, 2018
File No. 001-36562

Dear Ms. Burstein:

We have completed our review of your filing. 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 Healthcare & Insurance