



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