



DIVISION OF
CORPORATION FINANCE

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

July 12, 2016

Via E-Mail

Mr. Marc Belsky
Senior Vice President and Chief Financial Officer
Five Prime Therapeutics Inc.
Windsor Place, 3rd Floor
Two Corporate Drive
South San Francisco, CA 94080

Re: Five Prime Therapeutics Inc.
Form 10-K for the Year Ended December 31, 2015
Filed March 11, 2016
File No. 001-36070

Dear Mr. Belsky:

We have completed our review of your filing. We remind you that our comments or changes to disclosure in response to our comments do not foreclose the Commission from taking any action with respect to the company or the filing and the company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States. We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable rules require.

Sincerely,

/s/ Sharon Blume

Sharon M. Blume
Accounting Branch Chief
Office of Healthcare and Insurance