



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

DIVISION OF  
CORPORATION FINANCE

Mail Stop 4546

November 18, 2016

Via E-mail

Christopher Anzalone  
Chief Executive Officer  
Arrowhead Pharmaceuticals, Inc.  
225 South Lake Avenue, Suite 1050  
Pasadena, California 91101

**Re: Arrowhead Pharmaceuticals, Inc.  
Registration Statement on Form S-3  
Filed October 28, 2016  
File No. 333-214311**

Dear Mr. Anzalone:

We have limited our review of your registration statement to those issues we have addressed in our comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments.

General

1. Please amend your registration statement to file the Common Stock Purchase Agreement with Amgen, Inc. as an exhibit.
2. We note that certain of the shares being registered for resale will be issued to Amgen, Inc. upon termination of the applicable waiting period under the HSR Act. Please tell us whether Amgen, Inc. is irrevocably bound to purchase these shares and whether there are any conditions to closing that are within Amgen, Inc.'s control. Please also confirm that you will not request effectiveness of the registration statement until all conditions to closing are satisfied or will be satisfied within a short time after effectiveness, including expiration of the HSR waiting period. For guidance, please refer to Question 139.11 of the Securities Act Sections Compliance and Disclosure Interpretations.

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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.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

You may contact Johnny Gharib at (202) 551-3170 or Erin Jaskot at (202) 551-3442 with any questions.

Sincerely,

/s/ Erin K. Jaskot, *for*

Suzanne Hayes  
Assistant Director  
Office of Healthcare and Insurance