

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

October 11, 2017

William B. O'Connor Chief Financial Officer The Medicines Company 8 Sylvan Way Parsippany, NJ 07054

Re: The Medicines Company

Form 10-K for the Fiscal Year Ended December 31, 2016

Filed March 1, 2017 File No. 000-31191

Dear Mr. O'Connor:

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 by the staff.

Division of Corporation Finance Office of Healthcare & Insurance