Mark A. Goldsmith Chief Executive Officer Revolution Medicines, Inc. 700 Saginaw Drive Redwood City, CA 94063

> Re: Revolution Medicines, Inc. Amendment No. 1 to Draft Registration Statement on Form S-1 Submitted October 31, 2019 CIK No. 0001628171

Dear Dr. Goldsmith:

We have reviewed your amended draft registration statement and have the following 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 providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. 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 the information you provide in response to these comments and your amended draft registration statement or filed registration statement, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our October 16, 2019 letter.

Amendment No. 1 to Draft Registration Statement on Form S-1

Prospectus Summary Overview, page 1

We note your revised disclosure on page 1 and throughout in response to 1. comment 1 that RMC-4630 is a potent and selective inhibitor of SHP2, "based on preclinical evidence described in this prospectus." Please provide a summary of the preclinical studies in the prospectus summary, including the range of results observed, a description of how the test was conducted and the number of tests conducted. Similarly, on page 103, please revise to include a summary of the preclinical study conducted with RMC-4530, including the range of results observed, how the test was conducted and the number of tests conducted. Mark A. Goldsmith Revolution Medicines, Inc. November 5, 2019 Page 2 Certain relationships and related party transactions Transactions with Sanofi, page 174 Please include the disclosure required by Item 404 of Regulation S-K 2. for the Quality Agreement and Clinical Supply Agreement with Sanofi, including the approximate dollar value of the amount involved with these agreements. You may contact Sonia Bednarowski at 202-551-3666 or Dietrich King at 202-551-8071 if you have questions regarding comments on the financial statements and related matters. Please contact Bonnie Baynes at 202-551-4924 or Lisa Vanjoske at 202-551-3614 with any other questions.

FirstName LastNameMark A. Goldsmith Comapany NameRevolution Medicines, Inc. Sincerely,

Division of

Corporation Finance November 5, 2019 Page 2 Sciences FirstName LastName

Office of Life