



DIVISION OF
CORPORATION FINANCE

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

January 22, 2018

William Clark
Chief Executive Officer
Genocea Biosciences, Inc.
100 Acorn Park Drive
Cambridge, MA 02140

Re: Genocea Biosciences, Inc.
Form 10-K for the Fiscal Year Ended December 31, 2016
Response dated November 30, 2017
File No. 001-36289

Dear Mr. Clark:

We have reviewed your November 30, 2017 response to our comment letter 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 these comments within ten business days by providing the requested information or advise us as soon as possible when you will respond. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing your response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our November 16, 2017 letter.

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

Our Immuno-Oncology Program, page 12

1. We note your response to our prior comment 1. Please confirm that, to the extent you reference DFCI and MSKCC in your 2017 10-K, you will clarify that DFCI and MSKCC's obligations under the agreement were limited to providing you with blood and tumor samples and that the DFCI agreement was completed in 2014 and that the MSKCC agreement expired in November 2017.

Please contact Ada D. Sarmento at 202-551-3798 or Suzanne Hayes at 202-551-3675 with any questions.

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Division of Corporation Finance
Office of Healthcare & Insurance

cc: Marc Rubenstein, Esq.