



DIVISION OF
CORPORATION FINANCE

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

April 15, 2019

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

Re: Genocea Biosciences, Inc.
Registration Statement on Form S-3
Filed March 28, 2019
File No. 333-230577

Dear Mr. Clark:

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.

Registration Statement on Form S-3

General

1. Based on your disclosures on pages 4 and 8, it appears that the selling stockholders are not irrevocably bound to purchase 51,352,857 common shares in the "optional second closing." Accordingly, please revise the registration statement to remove the 51,352,857 common shares. With reference to the 11,712,494 common shares underlying warrants, we note the forfeiture provision referenced on page 2 and ask that you provide us an analysis explaining whether you have completed a Section 4(a)(2) exempt sale of the warrants. In particular, please discuss whether the private placement investors have fully paid for the warrants. For guidance, please refer to Compliance Disclosure Interpretations, Securities Act Rules, Questions 139.06 and 139.11.

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Exhibits

2. Please file the Subscription Agreement as an exhibit to the registration statement or advise. Refer to Regulation S-K, Item 601(b)(4).

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.

Please contact Joseph McCann at (202) 551-6262 or Mary Beth Breslin at (202) 551-3625 with any other questions.

Sincerely,

Division of Corporation Finance
Office of Healthcare & Insurance