

**GENOCEA BIOSCIENCES, INC.**  
100 Acorn Park Drive  
Cambridge, Massachusetts 02149  
(617) 876-8191

May 6, 2021

**VIA EDGAR**

U.S. Securities and Exchange Commission  
Division of Corporation Finance  
100 F. Street, N.E.  
Washington, D.C. 20549

RE:           Genocea Biosciences, Inc.  
              Registration Statement on Form S-3 (File No. 333-255610)  
              Request for Acceleration

Ladies and Gentlemen:

Pursuant to Rule 461 promulgated under the Securities Act of 1933, as amended, Genocea Biosciences, Inc., a Delaware corporation (the "Company"), hereby respectfully requests that the effective date of its Registration Statement on Form S-3 (File No. 333-255610) (the "Registration Statement") be accelerated by the Securities and Exchange Commission so that it will be declared effective at 4:00 p.m. ET on May 10, 2021, or as soon as possible thereafter. The Company hereby authorizes Thomas Danielski of Ropes & Gray LLP, counsel to the Company, to orally modify or withdraw this request for acceleration.

It would be appreciated if, as soon as the Registration Statement is declared effective, you would inform Thomas Danielski of Ropes & Gray LLP at Thomas.danielski@ropesgray.com or (617) 235-4961.

Very truly yours,  
**GENOCEA BIOSCIENCES, INC.**

By:    /s/ Diantha Duvall  
\_\_\_\_\_  
Diantha Duvall  
Chief Financial Officer