

Gritstone Oncology, Inc.
5858 Horton Street, Suite 210
Emeryville, California 94608

September 25, 2018

VIA EDGAR AND E-MAIL

United States Securities and Exchange Commission
Division of Corporation Finance
100 F Street, N.E.
Washington, D.C. 20549-6010

Attention: Mary Beth Breslin
Ada D. Sarmento
Jim B. Rosenberg
Rolf Sundwall

Re: Gritstone Oncology, Inc. Registration Statement on Form S-1 (Registration No. 333-226976)

Ladies and Gentlemen:

In accordance with Rule 461 of Regulation C of the General Rules and Regulations under the Securities Act of 1933, as amended, we hereby request acceleration of the effective date of the Registration Statement on Form S-1 (File No. 333-226976) (the “**Registration Statement**”) of Gritstone Oncology, Inc. (the “**Company**”). We respectfully request that the Registration Statement become effective as of 4:00 p.m., Washington, D.C. time, on September 27, 2018, or as soon as practicable thereafter. Once the Registration Statement has been declared effective, please orally confirm that event with our counsel, Latham & Watkins LLP, by calling Brian Cuneo at (650) 463-3014.

Thank you for your assistance in this matter.

Very truly yours,

GRITSTONE ONCOLOGY, INC.

By: /s/ Andrew Allen

Andrew Allen, M.D., Ph.D.
President and Chief Executive Officer

CC: Jean-Marc Bellemin, Gritstone Oncology, Inc.
Alan C. Mendelson, Latham & Watkins LLP
Brian J. Cuneo, Latham & Watkins LLP
David Peinsipp, Cooley LLP