

September 21, 2018

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VIA EDGAR AND HAND DELIVERY

United States Securities and Exchange Commission
Division of Corporation Finance
Office of Healthcare & Insurance
100 F Street, N.E.
Washington, D.C. 20549

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

**Re: Gritstone Oncology, Inc.
Amendment No. 1 to Registration Statement on Form S-1
Filed September 17, 2018
File No. 333-226976**

Ladies and Gentlemen:

On behalf of our client, Gritstone Oncology, Inc. (the "**Company**"), we are hereby filing Amendment No. 2 to the Registration Statement on Form S-1 ("**Amendment No. 2**"). The Company previously filed its Amendment No. 1 to Registration Statement on Form S-1 with the U.S. Securities and Exchange Commission (the "**Commission**") on September 17, 2018 ("**Amendment No. 1**"). Amendment No. 2 has been revised to reflect the Company's responses to the comment letter to Amendment No. 1 received September 20, 2018 from the staff of the Commission (the "**Staff**"). For your convenience, we are providing by overnight delivery a courtesy package that includes copies of Amendment No. 2, including copies which have been marked to show changes from Amendment No. 1, as well as copy of this letter.

For ease of review, we have set forth below the numbered comment of your letter in bold type followed by the Company's response thereto.

LATHAM & WATKINS^{LLP}

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

Use of Proceeds, page 73

1. **We refer to your response to comment 3 of our letter dated June 3, 2018. Please revise your disclosure to indicate what the continued buildout of your manufacturing facility entails and what you expect to accomplish regarding the buildout using the proceeds from the offering.**

Response: The Company respectfully acknowledges the Staff's comment and, in response, the Company has revised page 73 of Amendment No. 2.

Capitalization, page 76

2. **You disclose here and throughout your filing that you assume the automatic conversion of your convertible preferred stock into common stock immediately prior to the consummation of your offering. It appears that you may not meet the offering price criterion identified in Note 8 to your Unaudited Interim Condensed Financial Statements on page F-52. Please represent to us and revise your disclosure accordingly that in the event this criterion is not met that you will receive the affirmative election of at least a majority of your convertible preferred stockholders to effect conversion.**

Response: The Company respectfully acknowledges the Staff's comment and has revised pages 9, 11, 76, 78, 171 and 175 of Amendment No. 2. The Company represents to the Staff that the requisite stockholders of the Company have already provided affirmative written consent for the conversion of all shares of the Company's preferred stock into shares of common stock effective immediately prior to the closing of the offering in accordance with the provisions of the Company's Amended and Restated Certificate of Incorporation. Therefore, all shares of the Company's preferred stock will convert into common stock without regard to the offering price criterion.

* * *

LATHAM & WATKINS^{LLP}

We hope the foregoing answers are responsive to your comments. Please do not hesitate to contact me by telephone at (650) 463-3014 or by fax at (650) 463-2600 with any questions or comments regarding this correspondence.

Very truly yours,

/s/ Brian J. Cuneo

Brian J. Cuneo
of LATHAM & WATKINS LLP

cc: Andrew Allen, M.D., Ph.D., Gritstone Oncology, Inc.
Jean Marc Bellemin, Gritstone Oncology, Inc.
Alan C. Mendelson, Latham & Watkins LLP
David Peinsipp, Cooley LLP