

July 22, 2016

VIA EDGAR AND FACSIMILE

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

Attention: Irene Paik

Re: Blueprint Medicines Corporation

Acceleration Request for Registration Statement on Form S-3

File No. 333-211266

Dear Ms. Paik:

Pursuant to Rule 461 under the Securities Act of 1933, as amended (the "Act"), Blueprint Medicines Corporation (the "Company") hereby requests that the effective date of the above-referenced registration statement, as amended (the "Registration Statement"), be accelerated to July 25, 2016, at 4:30 pm Eastern Time, or as soon thereafter as practicable, unless we or our outside counsel, Goodwin Procter LLP, request by telephone that such Registration Statement be declared effective at some other time. In making this acceleration request, the Company acknowledges that it is aware of its responsibilities under the Act.

In connection with the foregoing, the Company hereby acknowledges the following:

•should the Commission or the staff of the Commission, acting pursuant to delegated authority, declare the Registration Statement effective, it does not foreclose the Commission from taking any action with respect to the Registration Statement;

the action of the Commission or the staff of the Commission, acting pursuant to delegated authority, in declaring the Registration Statement effective, does not relieve the Company from its full responsibility for the adequacy and accuracy of the disclosure in the Registration Statement; and

the Company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

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If you have any questions regarding this request, please contact Danielle Lauzon of Goodwin Procter LLP at (617) 570-1955.

Sincerely,

BLUEPRINT MEDICINES CORPORATION

By: /s/ Jeffrey W. Albers Name: Jeffrey W. Albers

Title: President and Chief Executive Officer

Michael Landsittel, *Blueprint Medicines Corporation* Christopher Frankenfield, *Blueprint Medicines Corporation* cc: Danielle M. Lauzon, Goodwin Procter LLP