

March 30, 2022

Keith Gottesdiener, M.D.
President and Chief Executive Officer
Prime Medicine, Inc.
21 Erie Street
Cambridge, MA 02139

Re: Prime Medicine,
Amendment No. 4 to
Submitted March 25,
CIK No. 0001894562

Inc.
Draft Registration Statement on Form S-1
2022

Dear Dr. Gottesdiener:

We have reviewed your amended draft registration statement and have the following comment.

Please respond to this letter by providing the requested information and either submitting an amended draft registration statement or publicly filing your registration statement on EDGAR. If you do not believe our comment applies to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing the information you provide in response to this comment and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 4 to Draft Registration Statement on Form S-1

Our Prime Editing Platform, page 1

1. We note your response to prior comment 1 and your position in your response that the license agreement does "not impose material limitations on the Company's future use of Prime Editing technology." So that investors can better understand your business model and intellectual property rights arrangements, and can better evaluate the materiality of this information, please expand the disclosure in your summary section to indicate, if true, that:

your license agreement is with the Broad Institute (and provide a summary of the Prime Broad Field); your license agreement is subject to Broad Institute's inclusive innovation model, pursuant to which Broad Institute retains the right, in certain circumstances, to grant

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to third parties (other than specified competitors of yours) licenses under the licensed patent rights that would otherwise fall within the scope of the exclusive license granted to your company; and all gene targets, which are any human genes to which a program is directed, are subject to Broad Institute's march-in license, which means Broad Institute has the right to terminate your license to gene targets under certain conditions and could

make one or more gene targets unavailable to your company, but that once you initiate a program for a gene target, in accordance with the terms of the Broad License Agreement, Broad Institute loses the right to use its march-in license for such gene target, provided you continue to use commercially reasonable efforts to continue to progress such development and that, as such, you believe that Broad Institute cannot exercise its march-in license with respect to any of your current programs for gene targets because such programs have been initiated in accordance with the terms and requirements of the Broad License Agreement and you believe the march-in license would only potentially impact a small number of individual gene targets, and the march-in license would likely not have an impact on the company's ability to initiate a program for a gene target, if desired.

You may contact Tracey Houser at 202-551-3736 or Angela Connell at 202-551-3426 if you have questions regarding comments on the financial statements and related matters. Please contact Dillon Hagius at 202-551-7967 or Tim Buchmiller at 202-551-3635 with any other questions.

FirstName LastNameKeith Gottesdiener, M.D.

Corporation Finance
Comapany NamePrime Medicine, Inc.

Sciences
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cc: Marishka DeToy, Esq.
FirstName LastName

Sincerely,

Division of

Office of Life