

March 15, 2022

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

Re: Prime Medicine,  
Amendment No. 3 to  
Submitted March 7,  
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 comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

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 comments apply 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 these comments and your amended draft registration statement or filed registration statement, we may have additional comments.

Amendment No. 3 to Draft Registration Statement on Form S-1

Our Prime Editing Platform, page 1

1. We note your response to comment 1. We understand your position that the 18 Prime Editing programs that are currently in development are not subject to the risks associated with the Broad Institute License, but we do not agree with your position that the requested balancing disclosure would not be appropriate disclosure for investors. While the Prime Editing technology may have the theoretical potential to repair approximately 90 percent of known disease causing mutations across many organisms, organs and cell types, there are material limitations to your future use of the Prime Editing technology pursuant to your licensing arrangement with Broad Institute. Please add balancing disclosure that that your rights to the Prime Editing technology may be limited by the terms of the Broad

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Institute license, which are subject to an inclusive innovation model, are subject to march-in-licenses, and that the Broad Institute may terminate your license with respect to gene targets under the terms of the Broad License Agreement. Our rights to develop and commercialize our Prime Editing platform technology and product candidates are subject to the terms. . . , page 45

2. We note your revised disclosure on page 45 that "once we initiate a

program for a gene target, Broad Institute loses the right to use its march-in license for such gene target." Per your agreement with the Broad Institute, please define "gene program" and clarify how you determine when a gene program has been initiated. Additionally, if true, please clarify in the filing that none of the Company's current gene target programs are subject to Broad Institute's march-in license because they have been initiated. Research Collaboration, Option and License Agreement with Myeloid, page 183

3. We note your response to comment 16. Please tell us whether Dr. Thomas Cahill, whom you disclose is the "founding investor and director" of Myeloid Therapeutics on page 209, was a party to this contract. If so, please file your Research Collaboration, Option and License Agreement with Myeloid as an exhibit.

11. License and Collaboration Agreements  
Related Party Beam Collaboration Agreement, page F-40

4. We note your response to comment 18 in which you state that for both protected and non-optioned products, you are eligible to receive development and sales-based milestones as well as tiered royalties with the only difference in economics being the protected product option fee of either \$5.0 million or \$10.0 million. You further state that you are also eligible to receive such milestones and royalties for collaboration products outside of the United States. It therefore remains unclear to us how you determined that the arrangement does not include any variable consideration at contract inception, recognizing that such variable consideration may be fully constrained. In this regard, it does not appear that upon exercise of either the protected product or collaboration option that you are required to provide any additional goods or services under the arrangement, and therefore any additional consideration would relate to the combined performance obligation determined at contract inception. Please advise or revise your disclosure to clarify that you are Keith Gottesdiener, M.D. eligible for certain milestones and royalties regardless of whether any options are exercised and that Prime Medicine, Inc. such consideration is considered variable consideration that may be fully constrained at contract inception.

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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.

Sincerely,

Corporation Finance

Division of  
Office of Life

Sciences

cc: Marishka DeToy, Esq.