August 11, 2020

Nello Mainolfi, Ph.D. President and Chief Executive Officer Kymera Therapeutics, Inc. 300 Technology Square, 2nd Floor Cambridge, MA 02139

Re: Kymera

Therapeutics, Inc. Statement on Form S-1 Registration Statement on Form S-1 2020 Filed August 5, Filed No. 333-240264

Dear Dr. Mainolfi:

We have reviewed your 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 amending your registration statement and providing the requested information. 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 any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Registration Statement on Form S-1 Prospectus Summary Overview, page 1 1 Refer to comment 2. The products in your discovery pipeline are not sufficiently advanced or under your control to emphasize in the pipeline table. Revise to eliminate the discovery pipeline. 2. Refer to comment 3. Revise the pipeline to include individual columns for Phases 2 and 3, or tell us on what basis you believe you will be able to combine your Phase 2 and 3 $\,$ studies for all of the product candidates listed in this table. Nello Mainolfi, Ph.D. Kymera Therapeutics, Inc. August 11, 2020 Page 2 Refer to comment 4. Revise the pipeline table to clearly distinguish 3. between the application for which you will seek regulatory approval for KT-474. In doing so, explain or delete the reference to "others." Risk Factors Risks Related to Intellectual Property, page 46 We note your response to comment 8. As you take the position Kymera will 4. not be required to change its name, revise to add a risk factor specifically outlining the risks if you are unable to trademark Kymera in the United States. Expand on your disclosure that

you "may not be able to compete effectively and [y]our business may be adversely

affected." Business Overview, page 100 Refer to comment 13. You continue to describe your potential products as 5. potent on pages 1, 81, 99, 103 and elsewhere. Revise these and all similar statements in the document. We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff. Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement. You may contact Vanessa Robertson at (202) 551-3649 or Daniel Gordon at (202) 551-3486 if you have questions regarding the financial statements and related matters. Please contact Abby Adams at (202) 551-6902 or Celeste Murphy at (202) 551-3257 with any other questions. Sincerely, FirstName LastNameNello Mainolfi, Ph.D. Division of

Corporation Finance Comapany NameKymera Therapeutics, Inc.

Office of Life

Sciences August 11, 2020 Page 2 cc: William D. Collins, Esq. FirstName LastName