Goodwin Procter LLP
100 Northern Avenue
Boston, MA 02210

goodwinlaw.com
+1 617 570 1000

July 31, 2020

Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549
Attention: Abby Adams
Celeste Murphy
Vanessa Robertson
Daniel Gordon

Re: Kymera Therapeutics, Inc.
Draft Registration Statement on Form S-1
Submitted June 22, 2020
CIK No. 0001815442

Ladies and Gentlemen,

On behalf of our client, Kymera Therapeutics, Inc. (the "**Company**"), we are responding to the comments from the Staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") relating to the Company's confidential draft Registration Statement on Form S-1 (the "**Draft Registration Statement**") contained in the Staff's letter dated July 17, 2020 (the "**Comment Letter**"). In response to the comments set forth in the Comment Letter, the Company has revised the Draft Registration Statement and is publicly submitting a revised Registration Statement (the "**S-1 Registration Statement**") together with this response letter. The S-1 Registration Statement also contains certain additional updates and revisions.

Set forth below are the Company's responses to the Staff's comments in the Comment Letter. The responses and information below are based on information provided to us by the Company. For convenience, the Staff's comments are repeated below in italics, followed by the Company's response to the comments as well as a summary of the responsive actions taken. We have included page numbers to refer to the location in the S-1 Registration Statement submitted herewith where the revised language addressing a particular comment appears. Capitalized terms used but not defined herein are used herein as defined in the S-1 Registration Statement.

Draft Registration Statement on Form S-1

Prospectus Summary
Overview, page 1

1. *Define or explain these terms the first time you use them in the document:*

   - *"IL-1R/TLR" and "JAK/STAT" (page 1);*
   - *"E3 ligase" (page 2);*
   - *"hidradenitis suppurativa" (page 3);*
   - *"JAKs" (page 3);*
   - *PK/PD modeling (page 4);*
   - *"cereblon and von Hippel-Lindau, or VHL" (at pages 100, 103); and*
   - *TPD (page 105).*

   RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 2, 3, 101, and 103 of the S-1 Registration Statement in response to the Staff's comment to define or explain the various terms noted.

2. *Your pipeline appears to include every in-house development program as well as the program you have licensed to Vertex. Please revise the table to include only those programs that are material to the company. If you believe that every program listed is material, please provide us an analysis explaining your belief. To the extent the Pegasus Platform remains in your table, revise the disclosure to correspond to the appropriate column of development.*

   RESPONSE: The Company respectfully advises the Staff that it has revised the table on pages 2 and 102 of the S-1 Registration Statement in response to the Staff's comment to clarify the stages of development of its programs with additional specificity and to more accurately depict the Company's development pipeline, which includes certain programs partnered with Sanofi and Vertex.

   In addition, the Company respectfully advises the staff that the Company considers each of the programs depicted in the pipeline graphic to be material to the Company and its investors for the following reasons:

   - Each IRAK4, IRAKIMiD, and STAT3 program depicted in the pipeline graphic, beyond our KT-474 program, reflects a high-priority area of focus of the Company's most advanced discovery efforts. These programs are all in preclinical development with likely clinical entry in 2021. Though development candidates have not yet been identified for all of these programs, the Company believes this disclosure is important to investors in light of its efforts to drive its IRAK4, IRAKIMiD, and STAT3 programs to deliver transformative therapies to patients, as described in its planned use of proceeds;

- With respect to the Company's IRAK4 and IRAKIMiD programs generally, the significant research and development costs incurred with respect to IRAK4 and IRAKIMiD in fiscal year 2019 and the first half of 2020 as described in "Management's Discussion and Analysis of Financial Condition and Results of Operations";
- With respect to the Company's lead development candidate KT-474 under its IRAK4 program, the current expectation that the Company will move forward with Phase 1 and Phase 2 clinical development in HS, AD and RA, as described on page 120 of the S-1 Registration Statement;
- With respect to the Company's IRAK4 programs beyond its lead development candidate KT-474, the potential milestone payments attributable to the Company's IRAK4 program under its collaboration with Sanofi described elsewhere in the S-1 Registration Statement;
- With respect to the Company's STAT3 programs generally, the significant research and development costs incurred with respect to STAT3 in fiscal year 2019 and the first half of 2020 as described in "Management's Discussion and Analysis of Financial Condition and Results of Operations," including an increase of more than four times the amount of such expense incurred over the same periods in fiscal year 2018 and the first half of 2019;
- With respect to the Company's STAT3 program in autoimmune & fibrotic diseases, the strategic importance of its efforts in these disease areas given their prevalence in the population, the frequency in these disease areas of biological pathways that include previously undrugged or inadequately drugged targets, and the potential synergies with the Company's lead development efforts in IRAK4;
- With respect to the Company's discovery pipeline partnered with Vertex, the potential milestone payments attributable to those programs under its collaboration with Vertex described elsewhere in the S-1 Registration Statement;
- With respect to the Company's discovery pipeline partnered with Sanofi, the potential milestone payments attributable to those programs under its collaboration with Sanofi described elsewhere in the S-1 Registration Statement; and
- With respect to the Company's internal discovery pipeline, the significant development efforts and expenses undertaken in connection with building out its Pegasus Platform and potential validating of our technology beyond our lead programs while leveraging the Company's capabilities in E3 ligase biology and chemistry that it expects will result in differentiated and transformative therapies.

3. *Please revise your table to include columns showing the various material phases of the development of your potential products, including, as applicable, discovery, preclinical, development and the various phases of clinical development. Also include an arrow indicating the phase each of your product candidates is in for the various stages of development for each indicated disease area.*

   RESPONSE: The Company respectfully advises the Staff that it has revised the table on pages 2 and 102 of the S-1 Registration Statement in response to the Staff's comment to include columns showing the various phases of the development of the Company's potential products.

4. *You mention in your summary and highlight in the pipeline table that other potential targets for your KT-474 product, which is the farthest product you have in development, are atopic dermatitis (AD) and rheumatoid arthritis (RA). You also state, however, that your product is not targeting these indications. As such, revise your summary and pipeline table to remove these references or provide your analysis of why they are material and appropriate for disclosure here.*

   RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 2, 102, and 120 of the S-1 Registration Statement in response to the Staff's comment to clarify that AD and RA are among the indications the Company is evaluating for KT-474. The Company believes that its current development efforts in AD and RA with respect to KT-474 are material to investors in light of the Company's currently expected KT-474 Phase 1 and Phase 2 clinical development plan. Specifically, as revised on page 120 of the S-1 Registration Statement, in its planned Phase 1 trial of KT-474, the Company will work to characterize the pharmacokinetic and pharmacodynamic profile of the recommended Phase 2 dose of KT-474 in an additional cohort of up to 20 AD and HS patients. Based on the results of that Phase 1 trial, the Company expects to conduct Phase 2 randomized placebo controlled trials for KT-474 in one or more indications including but not limited to AD, HS, and RA.

Our IRAK4, IRAKIMiD, and STAT3 Programs, page 3

5. *Please revise your statements on pages 3, 125 and elsewhere in the prospectus that certain of your product candidates are "first-in-class." These statements imply an expectation of regulatory approval and are inappropriate given the length of time and uncertainty with respect to securing marketing approval.*

   RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 4, 127, and 140 of the S-1 Registration Statement in response to the Staff's comment to remove references to our product candidates as "first-in-class."

6. *For KT-474 and IRAKIMiD you state you will submit an IND and initiate phase 1 trial in first half of 2021, and for IRAKIMiD, you state you expect to do both in the second half of 2021. As you have more control over when you submit the IND, revise to clarify when you expect that to occur for each product.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 2, 3, 81, 100, 101, 102, 113, and 120, to clarify that the Company expects to submit an Investigational New Drug Application, or IND, to the U.S. Food and Drug Administration for KT-474 in the first half of 2021, and for degraders from its IRAKIMiD and STAT3 programs in the second half of 2021. If approved, the Company expects to initiate a Phase 1 trial for KT-474 in the first half of 2021, and for its IRAKIMiD and STAT3 programs in the second half of 2021.

Corporate Information, page 6

7. *Please provide us with copies of all written communications, as defined in Rule 405 under the Securities Act, that you, or anyone authorized to do so on your behalf, present to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of the communications.*

RESPONSE: The Company respectfully advises the Staff that it will provide the Staff, on a confidential basis under separate cover, copies of all written communications presented to potential investors in reliance on Section 5(d) of the Securities Act, whether or not they retain copies of such communications.

Risk Factors

Risks Related to Intellectual Property, page 43

8. *We note the risk factor on page 46 related to objections to the name Kymera and Kymera Therapeutics. You disclose that "If we are unable to obtain a registered trademark or establish name recognition based on our trademarks and trade names, we may not be able to compete effectively and our business may be adversely affected." Is it also true that you could be forced to change your name and incur additional significant related expenses? Revise the risk factor to further disclose the potential material risks.*

RESPONSE: The Company respectfully advises the staff that Novartis AG is disputing the registration of the Company's name as a trademark but not the Company's use of the name. The Company would not be forced to change its name or incur additional significant related expenses in the event the Company is unable to obtain a registered trademark. The Company further respectfully advises the Staff that it has revised the disclosure on page 46 to clarify this point.

9. *On page 53, you disclose that "the Leahy-Smith Act has transformed the U.S. patent system into a "first inventor to file" system. The first-inventor-to-file provisions, however, only became effective on March 16, 2013. Accordingly, it is not yet clear what, if any, impact the Leahy-Smith Act will have on the operation of our business." (Emphasis Added). As your company was first incorporated in December 2015, clarify why the Act's application to you remains unclear.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 52 of the S-1 Registration Statement in response to the Staff's comment to remove references to the Leahy-Smith Act.

Use of Proceeds, page 70

10. You state the proceeds will be used for the "advancement" of each of your products. Please expand your disclosure regarding the proceeds to be used for your product candidates to describe how far in the development process you estimate the allocated proceeds from this offering will enable you to reach.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 69 of the S-1 Registration Statement to expand its disclosure regarding the proceeds to be used for the Company's product candidates to describe how far in the development process the Company estimates the allocated proceeds from this offering will enable it to reach.

Management's Discussion and Analysis of Financial Condition and Results of Operations

Components of Our Results of Operations, page 83

11. It appears from page F-24 you have a collaboration agreement with an entity other than Vertex, or a prior, separate collaboration agreement with Vertex. Revise to disclose that collaboration or provide your analysis why disclosure is not required.

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 93 and 140 of the S-1 Registration Statement to disclose the Company's Collaboration Agreement with GlaxoSmithKline Intellectual Property Development Limited ("GSK") dated October 3, 2017 ("GSK Agreement"). The GSK Agreement will be filed by amendment at a later date as Exhibit 10.12 to the S-1 Registration Statement.

Critical Accounting Policies and Estimates

Determination of the Fair Value of Common Stock, page 94

12. Once you have an estimated offering price or range, please explain to us how you determined the fair value of the common stock underlying your equity issuances and the reasons for any differences between the recent valuations of your common stock leading up to the IPO and the estimated offering price. This information will help facilitate our review of your accounting for equity issuances including stock compensation and beneficial conversion features.

RESPONSE: The Company respectfully acknowledges the Staff's comment and will supplementally provide the requested information once the estimated offering price or range has been determined.

Business Overview, page 97

13. *Here and on pages 103 and 104 you refer to "potent activity" of your potential degraders, your "highly efficient, selective and potent degraders" with "appropriate pharmaceutical properties" and "potent and specific degraders." Given the stage of your product development, it appears premature to describe your product candidates as potent, which implies they are effective. Please revise or advise why this disclosure is appropriate.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 3, 100, 107, 110, 111, 113, 114, 117, 120, 123, and 125 of the S-1 Registration Statement to clarify the Company's statements.

Our Strategy, page 99

14. *Given the current state of development of your product candidates, it is unclear if you have a basis for your statements that you have "industry-leading expertise" (at page 99 and 137) and "significant competitive advantages" and "dominant intellectual property position (at page 137). Please clarify.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 143 of the S-1 Registration Statement to clarify the Company's statements.

15. *Revise Figures 8-10 and 18 to better explain what each depicts. For Figures 8-9 in particular, the point of the graphics are unclear beyond reinforcing your product by association.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure and figures on pages 112-114 of the S-1 Registration Statement to clarify the purpose of the figures.

16. *On page 113, you defined hPMBC. Then, starting on page 117 and going forward, you identify the generic word "blood" as PMBC. Please clarify any distinction.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 119 of the S-1 Registration Statement to clarify the distinction between hPBMC and PBMC.

17. *We note the blog and press release on your website related to the findings reported at the American Association of Cancer Research virtual meeting held June 22, 2020, the date of this registration statement. To the extent you have not done so, revise the document to include material information included on your website.*

RESPONSE: The Company respectfully advises the Staff that it has reviewed the materials on the Company's website and confirmed that no additional material information found thereon should be included in the S-1 Registration Statement.

Collaborations, page 136

18. *On your website you list several "Academic Collaborators" including Yale, Columbia, New York University and the Dana-Farber Cancer Institute, and "Partners," including GlaxoSmithKline, Vertex and the Leukemia & Lymphoma Society. Only the Vertex agreement is discussed here. Advise us of your collaborations or partnerships with these entities and provide your analysis regarding whether they are required to be disclosed here.*

RESPONSE: The Company respectfully advises the Staff that it does not have material collaboration or partnership agreements with Yale University, Columbia University, New York University, the Dana-Farber Cancer Institute, or the Leukemia & Lymphoma Society ("LLS"). Rather, with respect to Yale University, Columbia University, New York University and the Dana-Farber Cancer Institute, the Company works with faculty members at each of these institutions as scientific co-founders and advisors, providing the Company access to those faculty members' scientific input and their research if the Company so requests. With respect to LLS, which is an equity holder in the Company, the Company provides periodic updates regarding its work in the field of blood cancers in exchange for access to LLS's team of research experts and network of organizational supporters. Otherwise, the Company has disclosed its collaborations on pages 84-85 and 140-142 of the S-1 Registration Statement and filed the material agreements with Sanofi, Vertex and GSK as exhibits to the S-1 Registration Statement.

19. *Revise to disclose your collaboration with Sanofi as discussed in your July 9, 2020 press release. Avoid use of the term "first-in-class," used in the press release, for the reasons cited above.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on pages 2, 3, 81, 84, 85, 100, 113, 120, 141, 142, F-39, F-40, F-46, F-63, and F-64 of the S-1 Registration Statement to disclose the Company's collaboration with Genzyme Corporation, or Sanofi, and the Company has also filed the Collaboration Agreement with Sanofi as Exhibit 10.14 to the S-1 Registration Statement.

Intellectual Property, page 138

20. *Revise the paragraph addressing "Target-Specific Degrader Patent Families" to disclose the number of patents and their location. Revise this section to clarify whether you own or license the patents disclosed, clarify the types of patents you have, and identify the jurisdictions in which you have foreign patents. We note some of this disclosure in the risk factor on page 43.*

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 144 of the S-1 Registration Statement in response to the Staff's comment to disclose the number of patents and their location. The Company has also revised the disclosure on pages 144 and 145 to clarify whether the Company owns or licenses the patents disclosed, the types of patents, and the jurisdictions in which the Company has foreign patents.

Facilities, page 156

21. You disclose in the notes of the financial statements that you terminated a lease effective July 31, 2020. It appears that is the Cambridge lease, as the lease you have included as an exhibit extends until May 2023. You state you "lease and expect to occupy" the property in Watertown. Revise your disclosure in this section to clarify your current and expected facilities. Refer to Item 102 of Regulation S-K

RESPONSE: The Company respectfully advises the Staff that it has revised the disclosure on page 162, F-54 and F-55 of the S-1 Registration Statement to clarify statements related to the Cambridge lease, which was terminated in May 2020.

Executive Compensation

Employment Agreements with our Named Executive Officers, page 169

22. File the employment agreements with each of the named executive officers as required by Item 601(b)(10) of Regulation S-K.

RESPONSE: The Company respectfully advises the Staff that it plans to file the Form of Amended and Restated Employment Agreement as an exhibit to the S-1 Registration Statement once the form of agreement is finalized.

Certain Relationships and Related Party Transactions, page 182

23. File the Vertex Participation Agreement as an exhibit. Refer to Item 601(b)(10) of Regulation S-K.

RESPONSE: The Company respectfully advises the Staff that it has revised the exhibit index on page II-4 of the S-1 Registration Statement in response to the Staff's comment and has filed the Vertex Participation Agreement as Exhibit 10.13 to the S-1 Registration Statement.

Description of Capital Stock

Choice of Forum, page 193

24. Here you state, that your "choice of forum provision does not apply to any causes of action arising under the Securities Act or the Exchange Act." in the risk factor on page 62, however, you state, "The Delaware Forum Provision will not apply to any causes of action arising under the Securities Act or the Exchange Act," but then state, "the United States District Court for the District of Massachusetts shall be the sole and exclusive forum for resolving any complaint asserting a cause of action arising under the Securities Act," calling that the "Federal Forum Provision." We note

that Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and Regulations thereunder, and Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder. Clarify whether there are forum restrictions for Exchange Act claims.

RESPONSE: The Company respectfully advises the Staff that its Form of Second Amended and Restated Bylaws, which will become effective upon the effectiveness of the S-1 Registration Statement and be filed as an exhibit in a later amendment, will not include any forum restrictions on Exchange Act claims. Specifically, the Delaware Forum Provision shall apply only to state law claims, as stated elsewhere in our "Risk Factors" section, and the Federal Forum Provision shall apply to Securities Act claims, and not Exchange Act claims.

Sincerely,

/s/ Gabriela Morales-Rivera

Gabriela Morales-Rivera

cc: Nello Mainolfi, *Kymera Therapeutics, Inc.*
Bruce Jacobs, *Kymera Therapeutics, Inc.*
William D. Collins, *Goodwin Procter LLP*
Sarah Ashfaq, *Goodwin Procter LLP*