

January 6, 2023

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, D.C. 20549

Attn: Ibolya Ignat
Franklin Wyman

Re: **Gracell Biotechnologies Inc. (the "Company")**
Form 20-F for Fiscal Year Ended December 31, 2021
Filed April 22, 2022
File No. 001-39838

Ladies and Gentlemen:

This letter sets forth the Company's responses to the comment of the staff (the "**Staff**") of the Securities and Exchange Commission (the "**Commission**") contained in the letter dated December 27, 2022 (the "**Comment Letter**") and the comment of the Staff communicated verbally on December 27, 2022, relating to the above referenced Form 20-F (the "**Form 20-F**"). The Staff's comments are repeated below in bold and are followed by the Company's responses. Capitalized terms used but not defined herein are used herein as defined in the Form 20-F.

Form 20-F for the Fiscal Year Ended December 31, 2021

Item 5. Operating and Financial Review and Prospectus

A. Operating Results

Comparison of Years Ended December 31, 2020 and 2021

Research and Development Expenses, page 174

- You state that research and development activities are central to the Company's business model and are expected to increase substantially in the future. In this regard, please disclose costs incurred during each period presented for each of your key research and development projects and provide other quantitative or qualitative disclosure that increases transparency as to the type of research and development expenses incurred. We note that this information had been requested in our comment letters dated November 15, 2020 and December 12, 2020 and included in your Registration Statement on Form F-1 that was declared effective on January 7, 2021.**

In response to the Staff's comment, the Company respectfully proposes to include the below disclosure in its annual report for the fiscal year ended December 31, 2022 on Form 20-F (the "**2022 Form 20-F**") under the section entitled "*Item 5. A. Results of Operations – Comparison of Years Ended December 31, 2022 and 2021 – Operating Expenses – Research and Development Expenses*" once it clears the Staff's comments.

Operating Expenses

Research and Development Expenses

Research and development expenses for the year ended December 31, 2021 were RMB326.9 million, compared to RMB168.8 million for the year ended December 31, 2020. This increase of RMB158.1 million was primarily due to (i) an increase of RMB60.1 million in preclinical studies and clinical trials from RMB76.7 million for the year ended December 31, 2020 to RMB136.8 million for the year ended December 31, 2021, as a result of manufacturing and other costs to support the progression of our preclinical studies and clinical trials; (ii) an increase of RMB37.3 million in payroll and other personnel expenses from RMB37.6 million for the year ended December 31, 2020 to RMB74.9 million for the year ended December 31, 2021, as a result of expanded research and development headcount; (iii) an increase of RMB21.7 million in depreciation expenses from RMB21.1 million for the year ended December 31, 2020 to RMB42.8 million for the year ended December 31, 2021, as a result of depreciation of manufacturing facilities; (iv) an increase of RMB19.3 million in professional services, from RMB6.8 million for the year ended December 31, 2020 to RMB26.1 million for the year ended December 31, 2021, as a result of various projects during the course of 2021; (v) an increase of RMB15.7 million in share-based compensation, from nil for the year ended December 31, 2020 to RMB15.7 million for the year ended December 31, 2021, as a result of completion of our IPO and additional share-based awards issued; and (vi) an increase of RMB3.9 million in other expenses from RMB26.6 million for the year ended December 31, 2020 to RMB30.6 million for the year ended December 31, 2021.

Our key research and development projects for the years ended December 31, 2020 and 2021 were GC012F, GC007g, and GC019F. GC012F is our lead FasTCAR autologous CAR-T product candidate that is being studied in investigator-initiated Phase 1 trials in China for two indications, MM and B-NHL. Our research and development expenses for GC012F increased by RMB76.3 million from RMB23.2 million for the year ended December 31, 2020 to RMB99.5 million for the year ended December 31, 2021, primarily because we enrolled additional patients to the ongoing investigator-initiated Phase 1 trials. GC007g is a donor-derived CD19-directed allogeneic CAR-T cell therapy and our most clinically advanced product candidate. Our research and development expenses for GC007g increased by RMB38.0 million from RMB34.3 million for the year ended December 31, 2020 to RMB72.3 million for the year ended December 31, 2021, as we engaged in more clinical development activities for this product candidate during the course of 2021 following the grant of approval from the NMPA on December 24, 2020 for a seamless Phase 1/2 registrational trial. Our research and development expenses for GC019F, another FasTCAR autologous CAR-T product candidate, decreased by RMB11.2 million from RMB66.5 million for the year ended December 31, 2020 to RMB55.3 million for the year ended December 31, 2021, as we concluded the investigator-initiated Phase 1 trials for this product candidate in China in 2020, had initiated the Phase 1 trial for this product candidate in China but had not yet engaged in substantive clinical development for such Phase 1 trial by the end of 2021. Our research and development expense for other product candidates in clinical, preclinical and earlier stages increased by RMB54.9 million from RMB44.8 million for the year ended December 31, 2020 to RMB99.8 million for the year ended December 31, 2021, as we continued to invest in our overall research and development efforts.

The Company further advises the Staff that it intends to include similar disclosure for the comparison of years ended December 31, 2021 and 2022 in the 2022 Form 20-F.

Verbal Comment Communicated on December 27, 2022

2. **In the next Form 20-F filing, please address the Staff’s comments in relation to the Company’s registration statement on Form F-3, that was effective on June 30, 2022 (the “*F-3 Registration Statement*”).**

In response to the Staff’s comment, the Company undertakes to include in the 2022 Form 20-F such disclosure to reflect the Staff’s comments in its comment letters dated May 11 and June 1, 2022, respectively, in relation to the F-3 Registration Statement, to the extent applicable.

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If you have any questions regarding the response letter, please contact the Company's U.S. counsel Will H. Cai of Cooley LLP by phone at +852-3758-1210 or via e-mail at wcai@cooley.com.

Very truly yours,

/s/ William Wei Cao

William Wei Cao
Chairman and Chief Executive Officer

cc: Yili Kevin Xie, Chief Financial Officer, Gracell Biotechnologies Inc.
Will H. Cai, Esq., Cooley LLP
