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September 4, 2020

VIA EDGAR AND OVERNIGHT DELIVERY

U.S. Securities and Exchange Commission Division of Corporation Finance Office of Life Sciences 100 F Street, NE Washington, DC 20549

Attention: Kristin Lochhead Lisa Vanjoske Jason L. Drory Mary Beth Breslin

Graybug Vision, Inc. **Draft Registration Statement on Form S-1** Submitted July 31, 2020 CIK No. 0001534133

Ladies and Gentlemen:

On behalf of Graybug Vision, Inc. (the "Company"), we are concurrently transmitting herewith the Company's Registration Statement on Form S-1 (the "Registration Statement"). In this letter, we respond to the comments of the staff of the Commission (the "Staff") contained in the Staff's letter dated August 27, 2020 (the "Letter") regarding the Company's Confidential Draft Registration Statement on Form S-1 as confidentially submitted by the Company to the U.S. Securities and Exchange Commission (the "Commission") on July 31, 2020. The numbered paragraphs below correspond to the numbered comments in the Letter, and the Staff's comments are presented in bold italics.

In addition to addressing the comments raised by the Staff in the Letter, the Company has revised the Registration Statement to update certain other disclosures, including the addition of the financial statements for the period ended June 30, 2020.

Registration Statement on Form S-1

Our Pipeline, page 3

1. Please shorten the arrows in your pipeline table to more precisely indicate the development status of each product candidate. As one example, we note that you are currently conducting IND-enabling activities for GB-401 and expect to begin a Phase 1/2a trial in the second half of 2021, yet the arrow indicates that you are already in Phase 1 development.

In response to the Staff's comment, the Company has revised the pipeline table on pages 3 and 91 of the Registration Statement.

Our Lead Program GB-102, page 4

2. We note your statements on page 4 that GB-102 met its primary endpoint of safety and tolerability in the ADAGIO trial and based on the data from ADAGIO you initiated a Phase 2b ALTISSIMO trial. Balance your disclosure here by disclosing that you terminated the development of the GB-102 2 mg dose in all of your clinical trials based on your safety analysis of your Phase 2a clinical trial of GB-102 in 21 patients with ME secondary to DME and RVO.

In response to the Staff's comment, the Company has revised its disclosure on pages 4 and 93 of the Registration Statement.

Differentiation of our product candidates, page 5

3. We note your statements throughout your filing that you believe GB-102 and GB-103 may potentially be a "first-in-class" intravitreal injection. Given the early stage of development, and your statements that your results in your preclinical studies may not be indicative of results obtained in later trials, these statements are overly speculative and inappropriate. Please remove these statements from the descriptions of your product candidates.

In response to the Staff's comment, the Company has revised its disclosure on pages 4, 5, 93 and 95 of the Registration Statement.

Implications of Being an Emerging Growth Company and a Smaller Reporting Company, page 7

4. Please supplementally 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.

The Company acknowledges the Staff's request and will supplementally provide the Staff with a copy of any written communications it presents to potential investors in "testing-the-waters" meetings in reliance on Section 5(d) of the Securities Act of 1933, as amended. The Company respectfully requests that the Staff destroy such materials upon completion of its review.

Risk Factors, page 13

5. We note your references on page 21 and elsewhere that GB-102 demonstrated a "favorable safety and tolerability." Please revise your disclosure here and throughout your prospectus to remove your characterization of GB-102 as safe, as a determination of whether a product candidate is safe is solely within the authority of the U.S. Food and Drug Administration and comparable regulatory bodies. We will not object to statements that GB-102 was well tolerated or information about the number of treatment related serious adverse events, but you should not state or imply that your product candidate is safe.

In response to the Staff's comment, the Company has revised its disclosure on pages 5, 21, 95 and 104 of the Registration Statement.

Use of Proceeds, page 65

6. Please expand your first bullet to disclose the estimated proceeds to be allocated to each of your target indications and product candidates and clarify the stage of development you expect to be able to complete for each indication using the estimated proceeds.

In response to the Staff's comment, the Company has revised its disclosure on page 65 of the Registration Statement.

Management's Discussion and Analysis of Financial Condition and Results of Operations Results of Operations for years ended December 31, 2019 and 2018, page 78

7. Reference your disclosure that personnel and professional service costs increased in the year ended December 31, 2019 as compared to 2018 as a result of changes in and additions to executive management in 2019. Please revise to disclose the specific changes in and additions to executive management and quantify the impact of each change on personnel and professional service costs. Explain how additions to executive management affected professional service costs.

In response to the Staff's comment, the Company has revised its disclosure on pages 79 and 80 of the Registration Statement to specify the changes in and additions to its executive management impacting such costs. In addition, the Company notes that as its former Interim Chief Financial Officer was compensated for his service through a consulting agreement between the Company and Danforth Advisors, LLC, as discussed on page 155 of the Registration Statement, the Company's professional service costs in the year ended December 31, 2019 were larger than those in the year ended December 31, 2018.

Determination of Fair Value of Common Stock on Grant Dates, page 83

8. We see that you issued 11.3 million stock options during the year ended December 31, 2019. Please revise to disclose the fair value of common stock that was used during the fiscal year and any subsequent interim period provided in the financial statements to determine the fair value of the stock options. In that regard, provide us the estimated offering price or range when it is available and explain to us the reasons for significant differences between recent valuations of your common stock and the estimated offering price.

In response to the Staff's comment, the Company has revised its disclosure on page 86 of the Registration Statement. The Company will supplementally provide the requested information once the estimated offering price or range has been determined.

Our Product Candidates

GB-102, page 95

9. The illustrations provided on the bottom of page 97 and the top of page 98 appear to contain text that is illegible. In addition, certain symbols appear in the graphics without a legend such that it is unclear what they are depicting. Please revise these figures accordingly.

In response to the Staff's comment, the Company has revised the illustrations on pages 100 and 101 of the Registration Statement.

10. Your duration of response graph on the bottom of page 98 does not include a legend and it is unclear what the horizontal lines and the green and yellow dots represent. Please revise your disclosure accordingly.

In response to the Staff's comment, the Company has revised the graph on page 101 of the Registration Statement.

Phase 2b trial of GB-102 in patients with wet AMD, page 102

11. Please revise to clarify whether the trial design changes of the ALTISSIMO trial, including the primary endpoint of median time to first additional anti-VEFG supportive therapy, were related to the termination of the 2mg dose in your clinical trial programs. If the modifications were made for other reasons, please disclose the reasons.

In response to the Staff's comment, the Company has revised its disclosure on page 106 of the Registration Statement.

GB-401

Unmet Need, page 106

12. We note your disclosure that 15% of glaucoma patients progress to blindness within 20 years of diagnosis. Please disclose the source for this information.

In response to the Staff's comment, the Company has revised its disclosure on page 109 of the Registration Statement.

Our Future Development Plans, page 109

13. We note your planned reliance on the 505(b)(2) approval pathway. Please identify and describe the studies and results you intend to rely on to pursue this pathway.

In response to the Staff's comment, the Company has revised its disclosure on page 112 of the Registration Statement. The Company respectfully advises the Staff that it has not disclosed the active pharmaceutical ingredient ("*API*") that it intends to use for GB-401 for proprietary and competitive reasons. However, the Company has outlined the clinical development plans that it believes are appropriate to support this regulatory pathway.

Description of Capital Stock, page 154

14. You disclose here and on pages 148 and F-31, that certain purchasers of Series C preferred stock have the option to purchase additional shares upon the achievement of certain development milestones. Please revise to describe such milestones in greater detail, and if applicable, how they will be calculated. In addition, please provide the term and expiration period of the option to purchase.

In response to the Staff's comment, the Company has revised its disclosure on pages 154, 160, F-44 and F-46 of the Registration Statement.

Should the Staff have additional questions or comments regarding the foregoing, please do not hesitate to contact the undersigned at (650) 335-7292, or, in his absence, Julia Forbess at (415) 875-2420.

Sincerely,

/s/ Robert A. Freedman

Robert A. Freedman Partner

FENWICK & WEST LLP

Frederic Guerard, Pharm.D., Chief Executive OfficerRobert S. Breuil, Chief Financial OfficerGraybug Vision, Inc.

Effie Toshav, Esq. Julia Forbess, Esq.

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