UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

DIVISION OF
CORPORATION FINANCE

Mail Stop 4720

October 2, 2015

Via E-mail
Paul B. Bolno, M.D.
President and Chief Executive Officer
WAVE Life Sciences Pte. Ltd.
8 Cross Street #10-00
PWC Building
Singapore 048424

Re: WAVE Life Sciences Pte. Ltd.
Draft Registration Statement on Form S-1
Submitted September 4, 2015
CIK No. 0001631574

Dear Dr. Bolno:

We have reviewed your 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.

Prospectus Summary, page 1

Advantages of Our Approach, page 4

1. We note your statement that you "are a leader in the manufacturing of PS-modified stereopure nucleic acid therapeutics…" As you do not manufacture any commercial products, this statement appears to be premature. Please qualify the quoted language appropriately.

Our Strategy, page 5

2. Revise the first bullet point to clarify that you must first identify product candidates and then advance those candidates through the testing and approval process. You should also clarify that your company does not have experience conducting clinical trials or otherwise advancing product candidates through the approval process.

Our Product Pipeline, page 5

3. Revise the heading to this section to more clearly indicate that you do not, at this time, have any products, but instead you have areas of research focuses which may lead to the identification of product candidates.

Risks Related to Our Business, page 7

4. Revise this section to clarify that not only do you have a history of losses, but you have not, to date, produced meaningful revenues.

Use of Proceeds, page 47

5. For each therapeutic program that you intend to develop with the proceeds from this offering, please state the anticipated stage of development that you expect to reach using the proceeds of the offering.

Management's Discussion and Analysis of Financial Condition and Results of Operations
Critical Accounting Policies and Significant Judgments and Estimates
Share-Based Compensation, page 66

6. We may have additional comments on your accounting for equity issuances including stock compensation and beneficial conversion features. Once you have an estimated offering price, please provide us an analysis explaining the reasons for the differences between recent valuations of your common stock leading up to the IPO and the estimated offering price.

Business, page 71

7. Please revise your disclosure to provide brief explanations of scientific terms to enable a lay investor to understand. For instance, at first use, please define the following terms:

    - "Stereochemistry technology;"
    - "Stereopure nucleic acid therapeutics;"
    - "Stereoisomer mixtures;"
    - "Antisense;"
    - "oligonucleotide stereochemistry;"

- "Ribonucleic acid interference;"
- "Exon skipping;"
- "HTT SNP-1 and HTT SNP-2;"
- "Exon 51;"
- "SMAD7;"
- "KRT14 SNP-1 and KRT14 SNP-2;"
- "Chiral centers;"
- "directing medicine 'upstream' of protein production;" and
- "splice-correction"

Please make corresponding changes to the Prospectus Summary.

Proof of Concept of Our Technology, page 74

Efficacy, page 76

8. We note your statement that the results of your preclinical study "confirm [y]our ability to rationally design PS-modified nucleic acid therapeutics with greater stability, catalytic activity, efficacy and durability." Because approval of the FDA and other comparable regulatory agencies is dependent on such agencies making a determination (according to criteria specified in law and agency regulations) that a drug or biologic is effective, it is premature for you to describe or suggest that any non-approved product is effective. Accordingly, please delete this language throughout your registration statement. In addition, please revise your disclosure as necessary to make clear that any observations you make about your products' potential for efficacy are your own, are not based on the FDA's or any other comparable governmental agency's assessment and do not indicate that your products will achieve favorable results in any later stage trials or that the FDA or comparable agency will ultimately determine that your product is effective for purposes of granting marketing approval.

Immunogenicity, page 78

9. Please provide a brief explanation of the term "C3a levels" for a lay investor to understand.

10. Please provide a brief discussion of enzyme-linked immunosorbent assay (ELISA) analytical method.

Our Initial Therapeutic Candidates, page 80

11. Revise this section to clarify which of your candidates will require the Max Planck license in order for you to continue your research and proceed through the approval process.

Intellectual Property, page 87

12. We note your discussion of patents licensed from or co-owned with the University of Tokyo or Shin Nippon Biomedical Laboratories, Ltd. Please provide a discussion of the material terms of such license or co-ownership agreements and file the agreements as exhibits to the registration statement. In the alternative, please provide your analysis for why these patents and the underlying agreements are not material to your business.

Competition, page 88

13. To the extent known, please disclose the stage of development of competing product candidates.

General

14. 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.

15. Please confirm that the images included in your draft registration statement are all of the graphic, visual or photographic information you will be including. If you intend to use any additional images, please provide us proofs of such materials. Please note that we may have comments regarding this material.

You may contact Lisa Vanjoske at (202) 551-3614 or Joel Parker, Accounting Branch Chief, at (202) 551-3651 if you have questions regarding comments on the financial statements and related matters. Please contact Christina De Rosa at (202) 551-3577, or Christian Windsor, Special Counsel, at (202) 551-3419 with any other questions.

Sincerely,

/s/ Christian Windsor
Special Counsel
For

Suzanne Hayes
Assistant Director

cc: Via E-mail
Matthew J. Gardella
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.
One Financial Center
Boston, MA 02111