



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

DIVISION OF
CORPORATION FINANCE

Mail Stop 4720

October 20, 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.
Registration Statement on Form S-1
Filed October 9, 2015
File No. 333-207379**

Dear Dr. Bolno:

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.

Prospectus Summary, page 1

1. Revise your disclosure in the Overview section to clarify that while your nucleic acid therapeutics have led to some significant initial results, the FDA has only approved two treatments using this type of therapeutics.
2. Revise your disclosure throughout the document, and particularly in the Summary, to clarify that while you have done some initial research that suggests that by controlling stereochemistry you are able to increase the safety and effectiveness of nucleic therapy, these results are preclinical and therefore the ability of the concept to lead to therapies that can be approved for use in humans is speculative at this point. Similarly, when referencing your "demonstrated ability" to synthesize stereopure PS-modified nucleic

acid therapeutics, please clarify that you have shown, in preclinical models, that your therapeutics may be able to produce complex nucleic acid therapeutic drug mixtures, if the preclinical results continue as you advance through the clinical trials process.

3. We note your response to our prior comments 7, 9 and 10 as well as the “Glossary of Scientific Terms” added to the registration statement. In order for investors to better understand the scientific basis for your research and product targets, please revise your disclosure in the Summary, and particularly when you first introduce a scientific concept or a disease target, to provide an explanation of the scientific concept that is accessible for a reader who may lack scientific training. For instance, on page 1 you discuss how your most advanced therapeutic programs target HTT SNP-1, Exon 51 and SMAD7, among other targets. Revise to explain why those specific targets are most likely to be impacted by the therapy and how the therapy would lead to an alleviation of the symptoms for Huntington’s disease, DMD or IBD. Please refer to Item 503 of Regulation S-K that the prospectus summary be written in plain English.

Business, page 72

Advantages of Our Approach, page 74

4. We note your disclosure, both here and on page 5 of the Summary, that you have significant experience producing PS-modified therapeutics. However, your disclosure on page 88 indicates that you have manufactured “only limited supplies” of drug substances. Since you cite your experience producing PS-modified therapeutics, please revise the text to discuss the source of your manufacturing experience, including production beyond what you reference on page 88. If you are relying on the prior experience of your key employees manufacturing therapeutics earlier in their career, please make this clear.

Our Pipeline, page 80

5. Please revise your pipeline table to delete the list of early-stage discovery programs. Since you have not yet selected a target for the programs, it is premature to include them in a product pipeline table. If you feel that your investors would benefit from knowing other areas where you are conducting early-stage research, consider presenting them separately from your disclosure about programs where you have selected a target.

Description of Share Capital, page 115

6. Please expand your discussion of your shareholder register to make clear how shares purchased in this offering are expected to be held and describe the procedures and timing required to make appropriate entries. Please include a statement, if true, that the company will perform the procedures to register the shares in the register. You should also discuss the ability of shareholders to seek rectification of the register as necessary.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Act of 1933 and all applicable Securities Act rules require. Since the company and its management are in possession of all facts relating to a company's disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Notwithstanding our comments, in the event you request acceleration of the effective date of the pending registration statement, please provide a written statement from the company acknowledging that:

- should the Commission or the staff, acting pursuant to delegated authority, declare the filing effective, it does not foreclose the Commission from taking any action with respect to the filing;
- the action of the Commission or the staff, acting pursuant to delegated authority, in declaring the filing effective, does not relieve the company from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- the company may not assert staff comments and the declaration of effectiveness as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Please refer to Rules 460 and 461 regarding requests for acceleration. We will consider a written request for acceleration of the effective date of the registration statement as confirmation of the fact that those requesting acceleration are aware of their respective responsibilities under the Securities Act of 1933 and the Securities Exchange Act of 1934 as they relate to the proposed public offering of the securities specified in the above registration statement. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Christina De Rosa at (202) 551-3577, or Christian Windsor, Special Counsel, at (202) 551-3419 with any questions.

Sincerely,

/s/ Suzanne Hayes

Suzanne Hayes
Assistant Director
Office of Healthcare & Insurance

cc: Via E-mail
Matthew J. Gardella
Mintz, Levin, Cohn, Ferris, Glovsky and Popeo, P.C.

Paul B. Bolno, M.D.
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October 20, 2015
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