



DIVISION OF
CORPORATION FINANCE

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

January 17, 2017

Paul B. Bolno
President and Chief Executive Officer
WAVE Life Sciences Ltd.
8 Cross Street #10-00
PWC Building
Singapore 048424

Re: WAVE Life Sciences Ltd.
Registration Statement on Form S-3
Filed January 4, 2017
File No. 333-215428

Dear Dr. Bolno:

We have limited our review of your registration statement to those issues we have addressed in our 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.

Form S-3 filed January 4, 2017

Exhibits

1. We note that you are registering rights under the registration statement. Please have counsel revise the legality opinion to cover these rights. For guidance, please see Part II.B.1.f of Staff Legal Bulletin No. 19.
2. We note that the debt securities are governed by New York law but that counsel's legality opinion is limited to Singapore law. As such, please file an opinion pursuant to Regulation S-K, Item 601(b)(5) that covers the legality of the debt securities under New York law. For guidance, please refer to Staff Legal Bulletin No. 19, Part II.B.1.e and Part II.B.3.b.

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We remind you that the company and its management are responsible for the accuracy and adequacy of their disclosures, notwithstanding any review, comments, action or absence of action by the staff.

Refer to Rules 460 and 461 regarding requests for acceleration. Please allow adequate time for us to review any amendment prior to the requested effective date of the registration statement.

Please contact Josh Samples at (202) 551-3199 or Joseph McCann at (202) 551-6262 with any questions.

Division of Corporation Finance
Office of Healthcare and
Insurance

cc: Brian Keane, Esq.