UNITED STATES SECURITIES AND EXCHANGE COMMISSION

WASHINGTON, D.C. 20549

FORM 8-K

CURRENT REPORT Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of report (Date of earliest event reported): July 3, 2017

WAVE LIFE SCIENCES LTD.

(Exact name of registrant as specified in its charter)

Singapore (State or other jurisdiction of incorporation) 001-37627 (Commission File Number) Not Applicable (IRS Employer Identification No.)

8 Cross Street #10-00, PWC Building Singapore 048424 (Address of principal executive offices)

048424 (Zip Code)

Registrant's telephone number, including area code: +65 6236 3388

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions (see General Instruction A.2. below):

□ Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)

□ Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)

Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))

□ Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter).

Emerging growth company \boxtimes

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Item 5.02 Departure of Directors or Certain Officers; Election of Directors; Appointment of Certain Officers; Compensatory Arrangements of Certain Officers.

(b) On July 3, 2017, Masaharu Tanaka informed the Board of Directors (the "Board") of WAVE Life Sciences Ltd. ("WAVE") that he has decided to retire from the Board and therefore will not be seeking re-election when his term expires at WAVE's upcoming 2017 Annual General Meeting of Shareholders. Mr. Tanaka's decision follows his recent retirement from Kagoshima Development Co. Ltd., and he indicated that his decision did not arise from any disagreement on any matter relating to WAVE's operations, policies or practices.

Mr. Tanaka joined the Board in connection with Kagoshima Shinsangyo Sousei Investment Limited Partnership's initial investment in WAVE and he helped transition WAVE to become a publicly traded company in 2015. WAVE thanks Mr. Tanaka for his service and contributions to WAVE since August 2014.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

Date: July 6, 2017

WAVE LIFE SCIENCES LTD.

/s/ Paul B. Bolno, M.D.

Paul B. Bolno, M.D. President and Chief Executive Officer