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

FORM 10-Q

(Mark One)

☒ **QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the quarterly period ended March 31, 2016

☐ **TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934**

For the transition period from _____ to _____

Commission File No. 001-37627

WAVE LIFE SCIENCES LTD.
(Exact name of registrant as specified in its charter)

Singapore	**Not applicable**
(State or other jurisdiction of incorporation or organization)	**(I.R.S. Employer Identification No.)**
8 Cross Street #10-00, PWC Building Singapore 048424	**+65 6236 3388**
(Address of principal executive offices)	**(Registrant's telephone number)**

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ☒ No ☐

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ☒ No ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒ (Do not check if a smaller reporting company)	Smaller reporting company	☐

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act). Yes ☐ No ☒

The number of outstanding ordinary shares of the registrant as of May 9, 2016 was 23,426,423.

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WAVE LIFE SCIENCES LTD.

QUARTERLY REPORT ON FORM 10-Q

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Special Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements that involve substantial risks and uncertainties. In some cases, forward-looking statements are identified by the words “anticipate,” “believe,” “continue,” “could,” “estimate,” “expect,” “future,” “goals,” “intend,” “likely,” “may,” “might,” “ongoing,” “objective,” “plan,” “potential,” “predict,” “project,” “seek,” “should,” “strategy,” “will” and “would” or the negative of these terms, or other comparable terminology intended to identify statements about the future. Forward-looking statements include statements about our success, cost and timing of our product development activities and future clinical trials; the timing of and our ability to obtain and maintain regulatory approvals for any of our product candidates; our ability to identify and develop new product candidates; our intellectual property position; our manufacturing and commercialization capabilities and strategy; our use of proceeds from our initial public offering; our estimates regarding future expenses and needs for additional financing; our ability to identify, recruit and retain key personnel; our financial performance; our competitive position; and our liquidity and working capital requirements. These forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to be materially different from the information expressed or implied by these statements, including the following: the ability of our preclinical programs to produce data sufficient to support the filing of investigational new drug applications and the timing thereof; our ability to continue to build and maintain the company infrastructure and personnel needed to achieve our goals; the clinical results of our programs, which may not support further development of our product candidates; actions of regulatory agencies, which may affect the initiation, timing and progress of clinical trials; our effectiveness in managing future clinical trials and regulatory processes; the success of our platform in identifying viable candidates; the continued development and acceptance of nucleic acid therapeutics as a class of drugs; our ability to demonstrate the therapeutic benefits of our stereopure candidates in clinical trials, including our ability to develop candidates across multiple therapeutic modalities; our ability to obtain, maintain and protect intellectual property; our ability to enforce our patents against infringers and defend our patent portfolio against challenges from third parties; our ability to raise additional capital as needed; and competition from others developing therapies for similar uses, as well as the information under the caption “Risk Factors” contained in our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the Securities and Exchange Commission (“SEC”) and in other filings we make with the SEC. If our forward-looking statements prove to be inaccurate, the inaccuracy may be material. In light of the significant uncertainties in these forward-looking statements, these statements should not be regarded as representations or warranties by us or any other person that we will achieve our objectives and plans in any specified time frame, or at all. We undertake no obligation to publicly update any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law.

As used in this Quarterly Report on Form 10-Q, unless otherwise stated or the context otherwise indicates, references to “WAVE,” the “Company,” “we,” “our,” “us” or similar terms refer to WAVE Life Sciences Ltd. and our wholly owned subsidiaries.

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements.

WAVE LIFE SCIENCES LTD.
UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except share amounts)

	March 31, 2016	December 31, 2015
Assets		
Current Assets:		
Cash	$153,397	$ 161,220
Prepaid expenses and other current assets	580	146
Deferred tax assets	23	18
Total current assets	154,000	161,384
Property and equipment, net	3,218	2,789
Deferred tax assets	192	192
Restricted cash	1,055	1,055
Other assets	57	4
Total assets	$158,522	$ 165,424
Liabilities, Series A preferred shares and shareholders' equity		
Current Liabilities:		
Accounts payable	$ 2,437	$ 2,811
Accrued expenses and other current liabilities	1,271	945
Current portion of capital lease obligation	62	62
Total current liabilities	3,770	3,818
Long-term liabilities:		
Capital lease obligation, net of current portion	62	78
Other liabilities	295	163
Total long-term liabilities	357	241
Total liabilities	$ 4,127	$ 4,059
Series A preferred shares, no par value; 3,901,348 shares issued and outstanding	7,874	7,874
Shareholders' equity:		
Ordinary shares, no par value; 21,551,423 shares issued and outstanding	185,344	185,344
Additional paid-in capital	4,048	3,182
Accumulated other comprehensive income	52	41
Accumulated deficit	(42,923)	(35,076)
Total shareholders' equity	146,521	153,491
Total liabilities, Series A preferred shares and shareholders' equity	$158,522	$ 165,424

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

WAVE LIFE SCIENCES LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except share and per share amounts)

	Three Months Ended March 31,	
	2016	2015
Revenue	$ —	$ 26
Operating expenses:		
Research and development	4,736	1,607
General and administrative	3,216	1,884
Total operating expenses	7,952	3,491
Loss from operations	(7,952)	(3,465)
Other income (expense):		
Interest income, net	104	—
Other income (expense), net	(4)	50
Total other income (expense), net	100	50
Loss before income tax provision	(7,852)	(3,415)
Income tax benefit (provision)	5	(50)
Net loss	$ (7,847)	$ (3,465)
Net loss per share attributable to ordinary shareholders—basic and diluted	$ (0.36)	$ (0.42)
Weighted-average ordinary shares used in computing net loss per share attributable to ordinary shareholders—basic and diluted	21,551,423	8,273,805

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

WAVE LIFE SCIENCES LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF COMPREHENSIVE LOSS

(In thousands)

	Three Months Ended March 31,	
	2016	2015
Net loss	$(7,847)	$(3,465)
Other comprehensive income (loss):		
Foreign currency translation	11	(28)
Comprehensive loss	$(7,836)	$(3,493)

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

WAVE LIFE SCIENCES LTD.
UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Three Months Ended March 31,	
	2016	2015
Cash flows from operating activities		
Net loss	$ (7,847)	$ (3,465)
Adjustments to reconcile net loss to net cash flows used in operating activities:		
Depreciation and amortization	153	89
Share-based compensation expense	866	1,846
Deferred rent	136	(30)
Deferred income taxes	(5)	50
Changes in operating assets and liabilities:		
Accounts receivable	—	(31)
Prepaid expenses and other current assets	(414)	(50)
Other non-current assets	(53)	
Accounts payable	(296)	249
Accrued expenses and other current liabilities	329	(251)
Deferred revenue	—	(26)
Other non-current liabilities	(5)	—
Net cash used in operating activities	(7,136)	(1,619)
Cash flows from investing activities		
Increase in restricted cash	—	(55)
Purchase of property and equipment	(685)	(17)
Net cash used in investing activities	(685)	(72)
Cash flows from financing activities		
Proceeds from issuance of ordinary shares, net of offering costs	—	11,631
Payments on capital lease obligation	(16)	—
Net cash (used in) provided by financing activities	(16)	11,631
Effect of foreign exchange rates on cash	14	(27)
Net (decrease) increase in cash	(7,823)	9,913
Cash at beginning of period	161,220	1,048
Cash at end of period	$153,397	$10,961
Supplemental disclosure of cash flow information:		
Property and equipment purchases in accounts payable at period end	$ 185	$ —

The accompanying notes are an integral part of the unaudited condensed consolidated financial statements.

WAVE Life Sciences Ltd.

Notes to Unaudited Condensed Consolidated Financial Statements

1. THE COMPANY

Organization

WAVE Life Sciences Ltd. (together with its subsidiaries, "WAVE" or the "Company") is a preclinical biotechnology company with an innovative and proprietary synthetic chemistry drug development platform that the Company is using to design, develop and commercialize a broad pipeline of first-in-class or best-in-class nucleic acid therapeutic candidates. The Company is initially developing nucleic acid therapeutics that target genetic defects to either reduce the expression of disease-promoting proteins or transform the production of dysfunctional mutant proteins into the production of functional proteins.

The Company was incorporated in Singapore on July 23, 2012 and has its principal office in Cambridge, Massachusetts. The Company was incorporated with the purpose of combining two commonly held companies, WAVE Life Sciences USA, Inc. ("WAVE USA"), a Delaware corporation (formerly Ontorii, Inc.), and WAVE Life Sciences (Japan) ("WAVE Japan"), a company organized under the laws of Japan (formerly Chiralgen., Ltd.), which occurred on September 12, 2012.

The Company's primary activities since inception have been conducting research and experimental development of biotechnology and chemicals, conducting preclinical testing, recruiting personnel, and raising capital to support development activities.

Initial Public Offering

On November 16, 2015, the Company completed an initial public offering of its ordinary shares, in which the Company issued and sold 6,375,000 ordinary shares at a price to the public of $16.00 per share. On December 4, 2015, the Company issued an additional 618,126 ordinary shares at a price of $16.00 per share pursuant to a partial exercise of the underwriters' over-allotment option. The aggregate net proceeds to the Company from the initial public offering, inclusive of the over-allotment exercise, were approximately $100.4 million after deducting underwriting discounts and commissions and offering expenses payable by the Company. Upon the listing of the Company's ordinary shares on the NASDAQ Global Market on November 11, 2015, all of the outstanding Series B preferred shares of the Company automatically converted into 5,334,892 of the Company's ordinary shares.

Risks and Uncertainties

The Company is subject to risks common to companies in the biotechnology industry including, but not limited to, new technological innovations, protection of proprietary technology, dependence on key personnel, compliance with government regulations and the need to obtain additional financing. The Company's therapeutic programs will require significant additional research and development efforts, including extensive pre-clinical and clinical testing and regulatory approval, prior to commercialization of any product candidates. These efforts require significant amounts of additional capital, adequate personnel infrastructure and extensive compliance-reporting capabilities. The Company's therapeutic programs are currently in the development or discovery stage. There can be no assurance that the Company's research and development will be successfully completed, that adequate protection for the Company's intellectual property will be obtained, that any products developed will obtain necessary government regulatory approval or that any approved products will be commercially viable. Even if the Company's product development efforts are successful, it is uncertain when, if ever, the Company will generate significant revenue from product sales. The Company operates in an environment of rapid change in technology and substantial competition from pharmaceutical and biotechnology companies. In addition, the Company is dependent upon the services of its employees and consultants.

Basis of Presentation

The Company has prepared the accompanying consolidated financial statements in conformity with U.S. GAAP and in U.S. dollars.

2. SIGNIFICANT ACCOUNTING POLICIES

The significant accounting policies described in the Company's audited financial statements as of and for the year ended December 31, 2015, and the notes thereto, which are included in the Company's Annual Report on Form 10-K filed with the Securities and Exchange Commission ("SEC") on March 30, 2016, have had no material changes during the three months ended March 31, 2016.

Unaudited Interim Financial Data

The accompanying interim condensed consolidated balance sheet as of March 31, 2016, the related interim condensed consolidated statements of operations, comprehensive loss and cash flows for the three months ended March 31, 2016 and 2015, and the related interim information contained within the notes to the condensed consolidated financial statements have been prepared in accordance with the rules and regulations of the Securities and Exchange Commission for interim financial information. Accordingly, they do not include all of the information and the notes required by U.S. GAAP for complete financial statements. The financial data and other information disclosed in these notes related to the three months ended March 31, 2016 and 2015 are unaudited. In the opinion of management, the unaudited interim consolidated financial statements reflect all adjustments, consisting of normal and recurring adjustments, necessary for the fair presentation of the Company's financial position at March 31, 2016 and the consolidated results of its operations, and comprehensive loss for the three months ended March 31, 2016 and 2015 and the consolidated results of its cash flows for the three months ended March 31, 2016 and 2015 are not necessarily indicative of the results to be expected for the year ending December 31, 2016 or any other interim period or future year or period.

Principles of Consolidation

The Company's consolidated financial statements include the accounts of the Company and its wholly-owned subsidiaries. All significant intercompany balances and transactions have been eliminated in consolidation.

Recently Issued Accounting Pronouncements

In February 2015, the FASB issued ASU 2015-02, Consolidation (Topic 810) ("ASU 2015-02"), to address financial reporting considerations for the evaluation as to the requirement to consolidate certain legal entities. ASU 2015-02 is effective for fiscal years and for interim periods within those fiscal years beginning after December 15, 2015. The Company has evaluated the impact of ASU 2015-02 and has concluded that it has no effect on the consolidated financial statements.

In April 2015, the FASB issued ASU 2015-03, Interest—Imputation of Interest (Subtopic 835-30) ("ASU 2015-03"), as part of the initiative to reduce complexity in accounting standards. The update requires that debt issuance costs related to a recognized debt liability be presented in the balance sheet as a direct deduction from the carrying amount of that debt liability, consistent with debt discounts. The Company has evaluated the impact of ASU 2015-03 and has concluded that it has no effect on the consolidated financial statements.

In November 2015, the FASB issued ASU 2015-17, Balance Sheet Classification of Deferred Taxes ("ASU 2015-17"), which requires entities to present deferred tax assets and deferred tax liabilities as noncurrent in a classified balance sheet. The ASU simplifies the current guidance in ASC Topic 740, Income Taxes, which requires entities to separately present deferred tax assets and liabilities as current and noncurrent in a classified balance sheet. ASU 2015-17 is effective for fiscal years beginning after December 15, 2016, and interim periods within those annual periods. Early adoption is permitted for all entities as of the beginning of an interim or annual reporting period. The Company does not expect the impact of ASU 2015-17 to be material to its consolidated financial statements.

In February 2016, the FASB issued ASU 2016-02, Leases ("ASU 2016-02"), which requires a lessee to recognize assets and liabilities on the balance sheet for operating leases and changes many key definitions, including the definition of a lease. The update includes a short-term lease exception for leases with a term of 12 months or less, in which a lessee can make an accounting policy election not to recognize lease assets and lease liabilities. Lessees will continue to differentiate between finance leases (previously referred to as capital leases) and operating leases, using classification criteria that are substantially similar to the previous guidance. For lessees, the recognition, measurement, and presentation of expenses and cash flows arising from a lease have not significantly changed from previous GAAP. Lessees and lessors are required to recognize and measure leases at the beginning of the earliest period presented using a modified retrospective approach. The modified retrospective approach includes a number of optional practical expedients that entities may elect to apply as well as transition guidance specific to nonstandard leasing transactions. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, and interim periods within those fiscal years. The Company does not expect the impact of ASU 2016-02 to be material to its consolidated financial statements.

In March 2016, the FASB issued ASU 2016-09, Improvements to Employee Share-Based Payment Accounting ("ASU 2016-09"), which simplifies share-based payment accounting through a variety of amendments. The standard will be effective for annual reporting periods and interim periods within those annual periods, beginning after December 15, 2016, and early adoption is permitted. The Company does not expect the impact of ASU 2016-09 to be material to its consolidated financial statements.

Other accounting standards that have been issued or proposed by the FASB or other standards-setting bodies that do not require adoption until a future date are not expected to have a material impact on the Company's consolidated financial statements upon adoption.

3. SHARE-BASED COMPENSATION

The WAVE Life Sciences Ltd. 2014 Equity Incentive Plan (the "2014 Plan") authorizes the board of directors or a committee of the board to grant incentive share options, non-qualified share options ("NQSOs"), share appreciation rights and restricted share awards to eligible employees, outside directors and consultants of the Company. Options generally vest over a period of three or four years, and options that lapse or are forfeited are available to be granted again. The contractual life of all options is ten years from the date the option begins to vest.

As of March 31, 2016, there were 2,342,962 ordinary shares available for future grant under the 2014 Plan.

The Company recorded share-based compensation expense of $0.9 million for the three months ended March 31, 2016, of which $0.4 million related to options granted to non-employees. The Company measures and records the value of options granted to non-employees over the period of time services are provided and, as such, unvested portions are subject to re-measurement at subsequent reporting periods.

Share option activity under the 2014 Plan for the three months ended March 31, 2016 is summarized as follows:

	Number of Shares	Weighted-Average Exercise Price
Outstanding as of January 1, 2016	2,215,342	$ 3.88
Granted	317,000	$ 14.11
Cancelled or forfeited	(1,616)	$ 10.22
Outstanding as of March 31, 2016	2,530,726	$ 5.15
Options exercisable as of March 31, 2016	848,223	$ 2.48
Options vested and expected to vest as of March 31, 2016	2,434,625	$ 5.07

Share-based compensation expense for the three months ended March 31, 2016 and 2015 were classified in the consolidated statements of operations as follows:

	Three Months Ended March 31,	
	2016	2015
	(in thousands)	
Research and development expenses	$ 588	$ 830
General and administrative expenses	278	1,016
Total share-based compensation	$ 866	$ 1,846

4. NET LOSS PER ORDINARY SHARE

The Company applies the two-class method to calculate its basic and diluted net loss per share attributable to ordinary shareholders, as its Series A preferred shares are participating securities. The two-class method is an earnings allocation formula that treats a participating security as having rights to earnings that otherwise would have been available to ordinary shareholders. However, for the periods presented, the two-class method does not impact the net loss per ordinary share as the Company was in a net loss position for each of the periods presented and holders of Series A preferred shares do not participate in losses.

Basic loss per share is computed by dividing net loss attributable to ordinary shareholders by the weighted-average number of ordinary shares used in computing net loss per share attributable to ordinary shareholders.

The Company's potentially dilutive shares, which include outstanding share options to purchase ordinary shares and Series A preferred shares, are considered to be ordinary share equivalents and are only included in the calculation of diluted net loss per share when their effect is dilutive.

The following potential ordinary shares, presented based on amounts outstanding at each period end, were excluded from the calculation of diluted net loss per share attributable to ordinary shareholders for the periods indicated because including them would have had an anti-dilutive effect:

	As of March 31,	
	2016	2015
Options to purchase ordinary shares	2,530,726	1,297,268
Series A preferred shares	3,901,348	3,901,348

5. INCOME TAXES

The Company is a multi-national company subject to taxation in the United States, Japan and Singapore. During the three months ended March 31, 2016 and 2015, the Company recorded a tax benefit of less than $0.1 million and tax provision of $0.1 million, respectively, each of which are a result of income generated in the United States for each respective period. During the three months ended March 31, 2016 and 2015, the Company recorded no income tax benefits for the net operating losses incurred in Japan and Singapore, due to its uncertainty of realizing a benefit from those items.

The Company's reserves related to taxes and its accounting for uncertain tax positions are based on a determination of whether and how much of a tax benefit taken by the Company in its tax filings or positions is more-likely-than-not to be realized following resolution of any potential contingencies present related to the tax benefit.

Unrecognized tax benefits related to net operating losses are netted against the related deferred tax asset. The Company believes it is reasonably possible that approximately $0.7 million of its unrecognized tax benefits may decrease by the end of 2016 as a result of the Company's intention to amend its tax filings for transfer pricing in prior years. The impact of the reversal of the uncertain tax benefit will reduce the net operating loss carryforwards in the United States.

6. RELATED PARTIES

(Presented in thousands)

The Company had the following related party transactions for the periods presented in the accompanying consolidated financial statements, which have not otherwise been discussed in these notes to the consolidated financial statements:

- The Company had cash of $126 and $115 at March 31, 2016 and December 31, 2015, respectively, in depository accounts with one of its investors, who became an investor in February 2014.
- The Company made payments for lease rentals and other related expenses in the amount of $39 and $54 to Shin Nippon Biomedical Laboratories Ltd. ("SNBL"), a related party, for the three months ended March 31, 2016 and March 31, 2015. As of March 31, 2016 and December 31, 2015, the Company owed $54 and $59 related to this rental obligation.
- Pursuant to the terms of a service agreement previously held with SNBL, a related party, the Company paid SNBL $3 and $6 for the three months ended March 31, 2016 and 2015, respectively, for accounting and administrative services provided to the Company and its affiliates.
- Pursuant to the terms of a service agreement with SNBL, a related party, which was entered into in the third quarter 2015, the Company paid SNBL $115 for the three months ended March 31, 2016 for contract research services provided to the Company and its affiliates. As the agreement was not entered into until later in 2015, there were no payments made related to this agreement for the three months ended March 31, 2015.
- In 2012, the Company entered into a consulting agreement with a shareholder for services in the capacity as a scientific advisor. The consulting agreement does not have a certain term and may be terminated by either party upon 14 days' prior written notice. The Company pays the shareholder $13 per month and reimbursement for certain expenses.
- The Company also has an informal consulting arrangement with a shareholder for scientific advisory services in the amount of 250 Japanese yen, or approximately $2, per month, plus reimbursement of certain expenses.

7. GEOGRAPHIC DATA

The Company's long-lived assets consist of property and equipment and are located in the following geographical areas:

	March 31, 2016	December 31, 2015
	(in thousands)	
Asia	$ 552	$ 578
United States	2,666	2,211
Total long-lived assets	$ 3,218	$ 2,789

8. SUBSEQUENT EVENTS

On May 5, 2016, the Company entered into a Research, License and Option Agreement (the "Agreement") with Pfizer Inc. ("Pfizer"). Simultaneously with the entry into the Agreement on May 5, 2016, the Company entered into a Share Purchase Agreement (the "Equity Agreement," and together with the Agreement, the "Pfizer Agreements") with C.P. Pharmaceuticals International C.V., an affiliate of Pfizer (the "Pfizer Affiliate").

Pursuant to the terms of the Agreement, the Company and Pfizer have agreed to collaborate on the discovery, development and commercialization of stereopure oligonucleotide therapeutics for up to five programs (each, a "Pfizer Program"), each directed at a genetically-defined hepatic target selected by Pfizer (the "Collaboration"). Under the Agreement, the parties agreed to collaborate during a four-year research term. The term of the Agreement runs from the effective date until the date of the last to expire payment obligations with respect to each Pfizer Program and with respect to each Company program, and expires on a program-by-program basis accordingly.

Under the terms of the Pfizer Agreements, Pfizer agreed to pay the Company $40.0 million upfront, $30.0 million of which is in the form of an equity investment in the Company. Subject to option exercises by Pfizer, assuming five potential products are successfully developed and commercialized, the Company may earn up to an additional $871.0 million in potential research, development and commercial milestone payments, plus royalties, tiered up to low double-digits, on sales of any products that may result from the Collaboration. Under the Equity Agreement, the Company issued 1,875,000 shares of the Company's ordinary shares to the Pfizer Affiliate at a purchase price of $16.00 per share, for an aggregate purchase price of $30.0 million.

Item 2. Management's Discussion and Analysis of Financial Condition and Results of Operations.

The following discussion and analysis of our financial condition and results of operations should be read in conjunction with our financial statements and related notes appearing elsewhere in this Quarterly Report on Form 10-Q and in our Annual Report on Form 10-K for the year ended December 31, 2015, filed with the SEC on March 30, 2016 (the "2015 Annual Report on Form 10-K"). Some of the information contained in this discussion and analysis or set forth elsewhere in this Quarterly Report on Form 10-Q, including information with respect to our plans and strategy for our business, includes forward-looking statements that involve risks and uncertainties. As a result of many factors, including those factors set forth under the caption "Risk Factors" in our 2015 Annual Report on Form 10-K, our actual results could differ materially from the results described, in or implied, by these forward-looking statements.

Overview

We are a preclinical biotechnology company with an innovative and proprietary synthetic chemistry drug development platform that we are using to design, develop and commercialize a broad pipeline of first-in-class or best-in-class nucleic acid therapeutic candidates. Nucleic acid therapeutics have the potential to address diseases that have been difficult to treat with small molecule drugs or biologics and have emerged as a large and promising class of drugs. We are initially developing nucleic acid therapeutics that target genetic defects to either reduce the expression of disease-promoting proteins or transform the production of dysfunctional mutant proteins into the production of functional proteins. Building upon the innovative work of our scientific founders, Gregory L. Verdine, Ph.D. and Takeshi Wada, Ph.D., our preclinical studies have demonstrated that our stereopure nucleic acid therapeutics may achieve superior drug properties as compared to mixture-based nucleic acid therapeutics. Our platform is designed to enable us to rationally design, optimize and manufacture stereopure nucleic acid therapeutics. Further, it has the potential to be used to design therapies that utilize any of the major molecular mechanisms employed by nucleic acid therapeutics, including antisense, ribonucleic acid interference ("RNAi") and exon skipping.

We are advancing a diverse pipeline of stereopure nucleic acid medicines across a broad spectrum of rare genetic diseases in multiple therapeutic areas, with a focus on neurological and neuromuscular diseases. Our most advanced therapeutic programs are in Huntington's disease, Duchenne muscular dystrophy ("DMD") and inflammatory bowel disease ("IBD"). In Huntington's disease, we have programs targeting HTT SNP-1 and HTT SNP-2; in DMD, we are targeting Exon 51; and in IBD, we are targeting SMAD7. We have selected lead product candidates in our programs targeting HTT SNP-1, HTT SNP-2 and Exon 51, and we expect to select a lead candidate in our SMAD7 program in late 2016. We expect to file investigational new drug applications ("INDs") with the U.S. Food and Drug Administration ("FDA") for HTT SNP-1 and HTT SNP-2 in late 2016 and Exon 51 in mid-2017. In addition, we have identified over 20 other target indications and we are working toward candidate selection for those indications.

Since our inception in 2012, we have devoted substantially all of our resources to developing an innovative and proprietary synthetic chemistry drug development platform that we are using to design, develop and commercialize nucleic acid therapeutic candidates, building our intellectual property portfolio, developing our supply chain, business planning, raising capital and providing general and administrative support for these operations. To date, we have not generated any product revenue and we have primarily financed our operations through sales of our securities.

In November 2015, we completed an initial public offering of our ordinary shares, in which the aggregate net proceeds to us, inclusive of the partial over-allotment exercise in December 2015, were approximately $100.4 million.

We have never been profitable, and since our inception, we have incurred significant operating losses. Our net loss was $7.8 million and $3.5 million for the three months ended March 31, 2016 and 2015 respectively. As of March 31, 2016 and December 31, 2015, we had an accumulated deficit of $42.9 million and $35.1 million, respectively. We expect to incur significant expenses and increasing operating losses for the foreseeable future.

Recent Developments

On May 5, 2016, we entered into the Pfizer Agreements (as defined in Note 8 above). Under these agreements, we and Pfizer have agreed to collaborate during a four-year research term on the discovery, development and commercialization of stereopure oligonucleotide therapeutics for up to five programs, each directed at a genetically-defined hepatic target selected by Pfizer. Pursuant to these agreements, Pfizer agreed to pay us $40.0 million upfront, $30.0 million of which is in the form of an equity investment in our ordinary shares. For a description of these agreements and Pfizer's equity investment in our ordinary shares, refer to our Current Report on Form 8-K filed with the SEC on May 5, 2016.

Financial Operations Overview

Revenue

We have not generated any product revenue since our inception and do not expect to generate any revenue from the sale of products for the foreseeable future. Our revenue during the three months ended March 31, 2015 related to research and development services performed under an agreement that was terminated in May 2015. We were not a party to any other license or collaboration agreements that had generated revenue as of March 31, 2016.

Operating Expenses

Our operating expenses since inception have consisted primarily of research and development costs and general and administrative costs.

Research and Development Expenses

Research and development expenses consist primarily of costs incurred for our research activities, including our discovery efforts, and the development of our product candidates, which include:

- expenses incurred under agreements with third parties, including contract research organizations ("CROs") that conduct research and preclinical activities on our behalf, as well as contract manufacturing organizations ("CMOs") that manufacture drug products for use in our preclinical trials;
- employee salaries, bonus and other related benefits costs, including share-based compensation expense, for personnel in our research and development organization;
- costs of third-party consultants, including fees, share-based compensation and related travel expenses;
- the cost of sponsored research, which includes laboratory supplies and facility-related expenses, including rent, maintenance and other operating costs; and
- costs related to compliance with regulatory requirements.

We recognize research and development costs as incurred and are reflected in our financial statements as prepaid or accrued research and development expenses. We recognize external development costs based on an evaluation of the progress to completion of specific tasks using information provided to us by our vendors. Payments for these activities are based on the terms of the individual agreements, which may differ from the pattern of costs incurred, and are reflected in our financial statements as prepaid or accrued research and development expenses.

Our primary research and development focus since inception has been the development of our innovative and proprietary synthetic chemistry drug development platform. We are using our platform to design, develop and commercialize a broad pipeline of nucleic acid therapeutic candidates.

Our direct research and development expenses are tracked on a program-by-program basis and consist primarily of CROs, consultants, and other external costs incurred in connection with our preclinical studies and regulatory fees. However, we do not allocate the cost of sponsored research on a program by program basis, because these costs are deployed across multiple product programs under development and, as such, are classified as costs of our research. The cost of sponsored research includes laboratory supplies, equipment repairs and maintenance and facility-related expenses.

The table below summarizes our research and development expenses incurred on our platform and by program for the periods presented below:

	Three Months Ended March 31,	
	2016	2015
	(in thousands)	
HD HTT SNP-1 and HD HTT SNP-2 programs (1)	$ 477	$ 28
DMD Exon 51 program	235	31
IBD SMAD7 program	51	37
Other discovery programs, platform development and identification of potential drug discovery candidates	3,973	1,511
Total research and development expenses	$ 4,736	$ 1,607

(1) Given the nature of program development for these programs, the costs incurred in such programs have been common to both programs and therefore are not subject to separability. We expect that upon the filing of an IND with respect to the lead product candidate in each such program and the initiation of clinical studies for each such candidate, the costs incurred for each such candidate will be separate and distinct.

Product candidates in later stages of clinical development generally have higher development costs than those in earlier stages of clinical development, primarily due to the increased size and duration of later-stage clinical trials. We expect that our expenses related to salaries, bonus and other related benefits costs will increase in the future as we attract and maintain additional personnel. We expect that our research and development expenses will continue to increase in the foreseeable future as we initiate clinical trials for certain product candidates, continue to discover and develop additional product candidates, and pursue later stages of clinical development of product candidates.

General and Administrative Expenses

General and administrative expenses consist primarily of salaries, bonus and other related benefits costs, including share-based compensation, for personnel in our executive, finance, corporate and business development and administrative functions. General and administrative expenses also include legal fees relating to patent and corporate matters; professional fees for accounting, auditing, tax and consulting services; insurance costs; travel expenses; other operating costs; and facility-related expenses.

We anticipate that our general and administrative expenses will increase in the future, in the form of additional compensation, including salaries, benefits, incentive arrangements and share-based compensation awards, as we increase our headcount to support the expected growth in our research and development activities and the potential commercialization of our product candidates. We also expect to continue to incur increased expenses associated with being a public company, including increased costs of accounting, audit, legal, regulatory and tax-related services associated with maintaining compliance with exchange listing and SEC requirements, director and officer insurance costs and investor and public relations costs.

Other Income (Expense), net

Other income consists primarily of interest income earned on cash balances for the three months ended March 31, 2016. For the three months ended March 31, 2015 our other income mainly consisted of reimbursement of research and development costs under a research and development grant awarded by the Ministry of Economy, Trade and Industry.

Income Taxes

We are a multi-national company subject to taxation in the United States, Japan and Singapore. During the three months ended March 31, 2016 and 2015, we recorded a tax benefit of less than $0.1 million and a tax provision of $0.1 million, respectively, which is a result of U.S. income generated under research and management services arrangements between our U.S. and Singapore entities.

Critical Accounting Policies and Significant Judgments and Estimates

Our consolidated financial statements are prepared in accordance with generally accepted accounting principles in the United States of America. The preparation of our financial statements and related disclosures requires us to make estimates, assumptions and judgments that affect the reported amount of assets, liabilities costs and expenses, and related disclosures. During the three months ended March 31, 2016, there were no material changes to our critical accounting policies. Our critical accounting policies are described under the caption "Management's Discussion and Analysis of Financial Condition and Results of Operations— Critical Accounting Policies and Significant Judgments and Estimates" in our 2015 Annual Report on Form 10-K and the notes to the consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q. We believe that of our critical accounting policies, the accounting policies with respect to income taxes and share-based compensation involve the most judgment and complexity.

Accordingly, we believe these identified policies are critical to fully understanding and evaluating our financial condition and results of operations. If actual results or events differ materially from the estimates, judgments and assumptions used by us in applying these policies, our reported financial condition and results of operations could be materially affected.

Results of Operations

Comparison of Three Months Ended March 31, 2016 and 2015

The following table summarizes our results of operations for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31,		Increase (Decrease)
	2016	2015	
	(in thousands)		
Revenues	$ —	$ 26	$ (26)
Operating expenses			
Research and development	4,736	1,607	3,129
General and administrative	3,216	1,884	1,332
Total operating expense	7,952	3,491	4,461
Loss from operations	(7,952)	(3,465)	(4,487)
Other income (expense), net	100	50	50
Loss before income taxes	(7,852)	(3,415)	(4,437)
Income tax benefit (provision)	5	(50)	55
Net loss	$(7,847)	$(3,465)	$ (4,382)

Revenue

There was no revenue for the three months ended March 31, 2016 and there was less than $0.1 million of revenue for the three months ended March 31 2015.

Research and Development Expenses

The table below summarizes our research and development expenses incurred for the three months ended March 31, 2016 and 2015:

	Three Months Ended March 31,		
	2016	2015	Increase
		(in thousands)	
HD HTT SNP-1 and HD HTT SNP-2 programs (1)	$ 477	$ 28	$ 449
DMD Exon 51 program	235	31	204
IBD SMAD7 program	51	37	14
Other discovery programs, platform development and identification of potential drug discovery candidates	3,973	1,511	2,462
Total research and development expenses	$4,736	$ 1,607	$ 3,129

(1) Given the nature of program development for these programs, the costs incurred in such programs have been common to both programs and therefore are not subject to separability. We expect that upon the filing of an IND with respect to the lead product candidate in each such program and the initiation of clinical studies for each such candidate, the costs incurred for each such candidate will be separate and distinct.

Research and development expenses were $4.7 million for the three months ended March 31, 2016, compared to $1.6 million for the three months ended March 31, 2015. The increase of $3.1 million was due, in part, to the following:

- an increase of $0.4 million in development expenses related to our HD HTT SNP-1 and HD HTT SNP-2 programs for IND enabling activities;
- an increase of $0.2 million in research expenses related to our DMD Exon 51 program for collaborations with the University of Oxford and other organizations for preclinical research studies; and
- an increase of $2.5 million in other discovery, platform development and identification of potential drug discovery candidates, due to an increase in salary, bonus and related benefits costs of $1.0 million, resulting from an increase in employee headcount; an increase of $0.7 million in other discovery expenses; and an increase of $0.8 million related to research and development supplies and services expenses and facility-related expenses.

Foreign currency translation did not have a significant impact on changes in our consolidated research and development expenses from the three months ended March 31, 2015 to the three months ended March 31, 2016.

General and Administrative Expenses

General and administrative expenses were $3.2 million for the three months ended March 31, 2016 compared to $1.9 million for the three months ended March 31, 2015. The increase of $1.3 million was primarily due to an increase in professional fees of $0.7 million and an increase in outside support services of $0.4 million due to the costs of being a public company. The remaining increase of $0.2 million stemmed primarily from various general and administrative expenses related to salary and benefits increases due to increase in headcount, offset by a decrease in share based compensation expense.

Foreign currency translation did not have a significant impact on changes in our consolidated general and administrative expenses from the three months ended March 31, 2015 to the three months ended March 31, 2016.

Other Income (Expense), net

Other income was $0.1 million for both the three months ended March 31, 2016 and 2015.

Income Tax Benefit (Provision)

During the three months ended March 31, 2016 and 2015, we recorded a tax benefit of less than $0.1 million and a tax provision of $0.1 million, respectively, which is a result of US income generated under research and management services arrangements between our U.S. and Singapore entities. During the three months ended March 31, 2016 and 2015, we recorded no income tax benefits for the net operating losses incurred in Japan and Singapore, due to uncertainty regarding future taxable income in these jurisdictions.

Liquidity and Capital Resources

On November 16, 2015, we completed an initial public offering of our ordinary shares, in which we issued and sold 6,375,000 ordinary shares at a price to the public of $16.00 per share. On December 4, 2015, we issued an additional 618,126 ordinary shares at a price of $16.00 per share pursuant to a partial exercise of the underwriters' over-allotment option. The aggregate net proceeds to us from our initial public offering, inclusive of the over-allotment exercise, were approximately $100.4 million after deducting underwriting discounts and commissions and offering expenses payable by us.

Since our inception, we have not generated any product revenue and have incurred recurring net losses. Prior to the completion of our initial public offering, we financed our operations through private placements of our debt and equity securities, which resulted in net proceeds of $89.3 million from such transactions.

As of March 31, 2016, we had cash totaling $153.4 million and an accumulated deficit of $42.9 million and restricted cash of $1.1 million related primarily to a letter of credit for our office and laboratory space in Cambridge, Massachusetts.

On May 5, 2016, we entered into the Pfizer Agreements, as further described under "—Recent Developments" above. Under the terms of these agreements, Pfizer agreed to pay us $40.0 million upfront, $30.0 million of which is in the form of an equity investment in our ordinary shares.

We expect that the cash resources we had on hand at March 31, 2016, together with the $40.0 million in upfront cash payments under the Pfizer Agreements, will fund our operating expenses and capital expenditure requirements into 2019. We have based this estimate on assumptions that may prove to be wrong, and we may use our available capital resources sooner than we currently expect.

Until we can generate significant revenue from product sales, if ever, we expect to finance our operations through a combination of public equity or debt financings or other sources, which may include collaborations with third parties. Adequate additional financing may not be available to us on acceptable terms, or at all. Our inability to raise capital as and when needed would have a negative impact on our financial condition and our ability to pursue our business strategy. We will need to generate significant revenue to achieve profitability, and we may never do so.

Cash Flows

The following table summarizes our sources and uses of cash for each of the periods presented:

	Three Months Ended March 31,	
	2016	2015
	(in thousands)	
Cash used in operating activities	$(7,136)	$ (1,619)
Cash used in investing activities	(685)	(72)
Cash (used in) provided by financing activities	(16)	11,631
Effect of foreign exchange rates of cash	14	(27)
Net increase (decrease) in cash	$(7,823)	$ 9,913

Operating Activities

During the three months ended March 31, 2016, operating activities used approximately $7.1 million of cash, which was the result of our net loss of $7.8 million and changes in operating assets and liabilities of less than $0.5 million, offset by non-cash charges of $1.2 million. The non-cash charges were related primarily to share-based compensation of $0.9 million. The cash used in changes in our operating assets and liabilities was the result of a $0.5 million increase in prepaid expenses and other operating assets offset by the decrease in our operating liabilities of less than $0.1 million. The change in operating assets and liabilities primarily reflects the prepayment of additional expenses required to operate as a public company.

During the three months ended March 31, 2015, operating activities used $1.6 million of cash, which was the result of our net loss of $3.5 million, offset by non-cash charges of $1.9 million. The non-cash charges were related primarily to share-based compensation of $1.8 million.

Investing Activities

During the three months ended March 31, 2016, investing activities used $0.7 million of cash, consisting of purchases of property and equipment.

During the three months ended March 31, 2015, investing activities used less than $0.1 million of cash.

Financing Activities

During the three months ended March 31, 2016, net cash used by financing activities was less than $0.1 million.

During the three months ended March 31, 2015, net cash provided by financing activities was $11.6 million, primarily from the issuance of ordinary shares to investors.

Effect of Foreign Exchange Rates on Cash

During the three months ended March 31, 2016, the positive effect of changes in foreign exchange rates on cash was less than $0.1 million due to minimal changes in the Japanese yen from December 31, 2015 to March 31, 2016.

During the three months ended March 31, 2015, the negative effect of changes in foreign exchange rates on cash was less than $0.1 million due to minimal changes in the Japanese yen from December 31, 2014 to March 31, 2015.

Funding Requirements

We expect our expenses to increase substantially in connection with our ongoing research and development activities. In addition, we expect to incur additional costs associated with operating as a public company. We anticipate that our expenses will increase substantially if and as we:

- initiate IND-enabling studies, file INDs and initiate clinical studies for our programs in Huntington's disease, DMD and IBD;
- conduct research and continue preclinical development of discovery targets and other future potential pipeline candidates;
- make strategic investments in manufacturing processes and formulations;
- develop manufacturing capabilities through outsourcing and potentially build a scalable manufacturing facility;
- maintain our intellectual property portfolio and consider the acquisition of complementary intellectual property; and
- seek regulatory approvals for our product candidates.

We may experience delays or encounter issues with any of the above, including but not limited to failed studies, complex results, safety issues or other regulatory challenges.

Because of the numerous risks and uncertainties associated with the development of drug candidates or follow-on programs and because the extent to which we may enter into collaborations with third parties for development of product candidates is unknown, we are unable to estimate the amounts of increased capital outlays and operating expenses associated with completing the research and development for our therapeutic programs. Our future capital requirements for our therapeutic programs will depend on many factors, including:

- the progress and results of conducting research and continued preclinical development within our therapeutic programs and with respect to future potential pipeline candidates;
- the cost of manufacturing clinical supplies of our product candidates;
- the costs, timing and outcome of regulatory review of our product candidates;
- the costs and timing of future commercialization activities, including manufacturing, marketing, sales and distribution, for any of our product candidates for which we receive marketing approval;
- the revenue, if any, received from commercial sales of our product candidates for which we receive marketing approval;
- the costs and timing of preparing, filing and prosecuting patent applications, maintaining and enforcing our intellectual property rights and defending any intellectual property-related claims;
- the effect of competing technological and market developments; and
- the extent to which we acquire or invest in businesses, products and technologies, including entering into licensing or collaboration arrangements for product candidates, although we currently have no commitments or agreements to complete any such transactions.

Identifying potential product candidates and conducting preclinical testing and clinical trials is a time-consuming, expensive and uncertain process that takes years to complete, and we may never generate the necessary data or results required to obtain marketing approval and achieve product sales. In addition, our product candidates, if approved, may not achieve commercial success. Our product revenue, if any, will be derived from sales of products that we do not expect to be commercially available for many years, if ever. Accordingly, we will need to obtain substantial additional funds to achieve our business objectives.

Adequate additional funds may not be available to us on acceptable terms, or at all. We do not currently have any committed external source of funds, except for the aforementioned Collaboration Agreement with Pfizer which was entered into on May 5, 2016. Additional debt financing and preferred equity financing, if available, may involve agreements that include covenants limiting or restricting our ability to take specific actions, such as incurring additional debt, making capital expenditures or declaring dividends and may require the issuance of warrants, which could potentially dilute our shareholders' ownership interests.

If we raise additional funds through collaborations, strategic alliances or licensing arrangements with third parties, we may have to relinquish valuable rights to our technologies, future revenue streams, research programs or product candidates or grant licenses on terms that may not be favorable to us. If we are unable to raise additional funds through equity or debt financings when needed, we may be required to delay, limit, reduce or terminate our product development programs or any future commercialization efforts or grant rights to develop and market product candidates that we would otherwise prefer to develop and market ourselves.

Off-Balance Sheet Arrangements

We had no off-balance sheet arrangements (as that term is defined in Item 303(a)(4)(ii) of Regulation S-K) as of March 31, 2016 that had or were reasonably likely to have a current or future effect on our financial condition, changes in financial condition, revenues or expenses, results of operations, liquidity, capital expenditures or capital resources.

Recently Issued Accounting Pronouncements

For detailed information regarding recently issued accounting pronouncements and the expected impact on our condensed consolidated financial statements, see Note 2, "Significant Accounting Policies" in the notes to the consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q.

Item 3. Quantitative and Qualitative Disclosures about Market Risk.

Market risk represents the risk of loss that may impact our financial position due to adverse changes in financial market prices and rates. Our market risk exposure is primarily the result of fluctuations in interest rates and foreign exchange rates as well as, to a lesser extent, inflation.

Interest Rate Risk

We are exposed to interest rate risk in the ordinary course of our business. Our cash is held in readily available checking accounts.

Foreign Currency Risk

We are exposed to market risk related to changes in the value of the Japanese yen, which is the currency our Japanese subsidiary conducts its business in. As of March 31, 2016 and December 31, 2015, 0.6% and 0.5% of our assets, respectively, were located in Japan, and 1.2%, and 10.2% of our general and administrative expenses were transacted in Japanese yen during the three months ended March 31, 2016 and 2015. Additionally, 3.5%, and 9.2% of our research and development expenses were transacted in Japanese yen through the three months ended March 31, 2016 and 2015. Therefore, when the U.S. dollar strengthens relative to the yen, our U.S. dollar reported revenue and expense from non-U.S. dollar denominated income and operating costs will decrease. Conversely, when the U.S. dollar weakens relative to the yen, our U.S. dollar reported revenue and expenses from non-U.S. dollar denominated income and operating costs will increase. Changes in the relative values of currencies occur regularly and, in some instances, could materially adversely affect our business, results of operations, financial condition or cash flows. Our foreign currency sensitivity is affected by changes in the Japanese yen, which is impacted by economic factors both locally in Japan and worldwide. A hypothetical 10% change in foreign currency rates would not have a material impact on our historical financial position or results of operations.

Inflation Risk

We do not believe that inflation had a material effect on our business, financial condition or results of operations for the three months ended March 31, 2016 or 2015.

Item 4. Controls and Procedures.

Evaluation of Disclosure Controls and Procedures

Our management, with the participation of our principal executive officer and principal financial officer, evaluated the effectiveness of our disclosure controls and procedures as of March 31, 2016. The term "disclosure controls and procedures," as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended, or the Exchange Act, means controls and other procedures of a company that are designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is recorded, processed, summarized and reported, within the time periods specified in the SEC's rules and forms. Disclosure controls and procedures include, without limitation, controls and procedures designed to ensure that information required to be disclosed by a company in the reports that it files or submits under the Exchange Act is accumulated and communicated to its management, including its principal executive and principal financial officers, as appropriate to allow timely decisions regarding required disclosure. Management recognizes that any controls and procedures, no matter how well designed and operated, can provide only reasonable assurance of achieving their objectives and management necessarily applies its judgment in evaluating the cost-benefit relationship of possible controls and procedures. Based on the evaluation of our disclosure controls and procedures as of March 31, 2016, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were not effective at the reasonable assurance level.

Material Weakness and Remediation of Material Weakness

The management of the company is responsible for establishing and maintaining adequate internal control over financial reporting as defined in Rules 13a-15(f) and 15d-15(f) under the Exchange Act. In connection with the audit of our consolidated financial statements for the years ended December 31, 2015, 2014 and 2013, we and our independent registered public accounting firm identified a material weakness in our internal control over financial reporting. A material weakness is a deficiency, or a combination of deficiencies, in internal control over financial reporting, such that there is a reasonable possibility that a material misstatement of our annual or interim financial statements will not be prevented or detected on a timely basis.

Prior to the completion of our initial public offering, we were a private company and had limited accounting and financial reporting personnel and other resources with which to address our internal controls and procedures. Our lack of adequate accounting personnel resulted in the identification of a material weakness in our internal control over financial reporting. Specifically, we did not appropriately design and implement controls over the review and approval of manual journal entries and the related supporting journal entry calculations.

We have begun our remediation plan, and have hired and intend to hire additional accounting and finance personnel. Additionally, we are in the process of implementing a more robust review, and increasing the supervision and monitoring of the financial reporting process intended to remediate the identified material weakness.

Changes in Internal Control over Financial Reporting

Other than as described above, there were no changes in our internal control over financial reporting identified in connection with the evaluation required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the fiscal quarter ended March 31, 2016 that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

PART II – OTHER INFORMATION

Item 1. Legal Proceedings.

We are not currently a party to any material legal proceedings.

Item 1A. Risk Factors.

In addition to the other information set forth in this Quarterly Report on Form 10-Q, you should carefully consider the factors discussed under the caption "Risk Factors" in our 2015 Annual Report on Form 10-K, which could materially affect our business, financial condition or results of operations. There have been no material changes in or additions to the risk factors included in our 2015 Annual Report on Form 10-K.

Item 2. Unregistered Sales of Equity Securities and Use of Proceeds.

(a) ***Recent Sales of Unregistered Equity Securities***

None.

(b) ***Use of Proceeds***

On November 10, 2015, the SEC declared our registration statement on Form S-1 (Registration No. 333-207379) effective for our initial public offering. There has been no material change in the planned use of proceeds from our initial public offering as described in our final prospectus filed with the SEC on November 12, 2015 pursuant to Rule 424(b). We have been using and will continue to use the net offering proceeds to advance our product candidates through clinical trial programs and for working capital and general corporate purposes.

Item 3. Defaults Upon Senior Securities.

None.

Item 4. Mine Safety Disclosures.

Not applicable.

Item 5. Other Information.

Not applicable

Item 6. Exhibits.

The exhibits listed in the Exhibit Index to this Quarterly Report on Form 10-Q are incorporated herein by reference.

SIGNATURES

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 thereunto duly authorized.

DATE: May 16, 2016

WAVE LIFE SCIENCES LTD.

By: /s/ Paul B. Bolno, M.D.
Paul B. Bolno, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

By: /s/ Kyle Moran
Kyle Moran
Vice President, Head of Finance (Principal Financial Officer and Principal Accounting Officer)

EXHIBIT INDEX

Exhibit Number	Exhibit Description	Filed with this Report	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
31.1	Rule 13a-14(a)/15d-14(a) Certification of Principal Executive Officer	X			
31.2	Rule 13a-14(a)/15d-14(a) Certification of Principal Financial Officer	X			
32.1*	Section 1350 Certification of Principal Executive Officer	X			
32.2*	Section 1350 Certification of Principal Financial Officer	X			
101.INS	XBRL Instance Document	X			
101.SCH	XBRL Taxonomy Extension Schema Document	X			
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document	X			
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document	X			
101.LAB	XBRL Taxonomy Extension Label Linkbase Document	X			
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document	X			

* The certifications attached as Exhibits 32.1 and 32.2 that accompany this Quarterly Report on Form 10-Q are not deemed filed with the Securities and Exchange Commission and are not to be incorporated by reference into any filing of WAVE Life Sciences Ltd. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of such Form 10-Q), irrespective of any general incorporation language contained in such filing.

Exhibit 31.1

CERTIFICATION PURSUANT TO
SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Paul B. Bolno, M.D., certify that:

(1) I have reviewed this Quarterly Report on Form 10-Q of WAVE Life Sciences Ltd.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

May 16, 2016

By: /s/ Paul B. Bolno, M.D.
Paul B. Bolno, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

Exhibit 31.2

CERTIFICATION PURSUANT TO
SECTION 302 OF
THE SARBANES-OXLEY ACT OF 2002

I, Kyle Moran, certify that:

(1) I have reviewed this Quarterly Report on Form 10-Q of WAVE Life Sciences Ltd.;

(2) Based on my knowledge, this report does not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements made, in light of the circumstances under which such statements were made, not misleading with respect to the period covered by this report;

(3) Based on my knowledge, the financial statements, and other financial information included in this report, fairly present in all material respects the financial condition, results of operations and cash flows of the registrant as of, and for, the periods presented in this report;

(4) The registrant's other certifying officer and I are responsible for establishing and maintaining disclosure controls and procedures (as defined in Exchange Act Rules 13a-15(e) and 15d-15(e)) for the registrant and have:

(a) Designed such disclosure controls and procedures, or caused such disclosure controls and procedures to be designed under our supervision, to ensure that material information relating to the registrant, including its consolidated subsidiaries, is made known to us by others within those entities, particularly during the period in which this report is being prepared;

(b) Evaluated the effectiveness of the registrant's disclosure controls and procedures and presented in this report our conclusions about the effectiveness of the disclosure controls and procedures, as of the end of the period covered by this report based on such evaluation; and

(c) Disclosed in this report any change in the registrant's internal control over financial reporting that occurred during the registrant's most recent fiscal quarter (the registrant's fourth fiscal quarter in the case of an annual report) that has materially affected, or is reasonably likely to materially affect, the registrant's internal control over financial reporting; and

(5) The registrant's other certifying officer and I have disclosed, based on our most recent evaluation of internal control over financial reporting, to the registrant's auditors and the audit committee of the registrant's board of directors (or persons performing the equivalent functions):

(a) All significant deficiencies and material weaknesses in the design or operation of internal control over financial reporting which are reasonably likely to adversely affect the registrant's ability to record, process, summarize and report financial information; and

(b) Any fraud, whether or not material, that involves management or other employees who have a significant role in the registrant's internal control over financial reporting.

May 16, 2016

By: /s/ Kyle Moran
Kyle Moran
Vice President, Head of Finance (Principal Financial Officer and Principal Accounting Officer)

Exhibit 32.1

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report on Form 10-Q of WAVE Life Sciences Ltd. (the "Company") for the period ended March 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Paul B. Bolno, M.D., President and Chief Executive Officer of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that, to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

May 16, 2016

By: /s/ Paul B. Bolno
Paul B. Bolno, M.D.
President and Chief Executive Officer
(Principal Executive Officer)

This certification accompanies the Quarterly Report on Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of WAVE Life Sciences Ltd. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of such Form 10-Q), irrespective of any general incorporation language contained in such filing.

Exhibit 32.2

CERTIFICATION PURSUANT TO
18 U.S.C. SECTION 1350,
AS ADOPTED PURSUANT TO
SECTION 906 OF THE SARBANES-OXLEY ACT OF 2002

In connection with the Quarterly Report of WAVE Life Sciences Ltd. (the "Company") on Form 10-Q for the period ended March 31, 2016, as filed with the Securities and Exchange Commission on the date hereof (the "Report"), I, Kyle Moran, Vice President, Head of Finance of the Company, certify, pursuant to 18 U.S.C. § 1350, as adopted pursuant to § 906 of the Sarbanes-Oxley Act of 2002, that to my knowledge:

(1) The Report fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934; and

(2) The information contained in the Report fairly presents, in all material respects, the financial condition and results of operations of the Company.

May 16, 2016

By: /s/ Kyle Moran
Kyle Moran
Vice President, Head of Finance (Principal
Financial Officer and Principal Accounting Officer)

This certification accompanies the Quarterly Report on Form 10-Q to which it relates, is not deemed filed with the Securities and Exchange Commission and is not to be incorporated by reference into any filing of WAVE Life Sciences Ltd. under the Securities Act of 1933, as amended, or the Securities Exchange Act of 1934, as amended (whether made before or after the date of such Form 10-Q), irrespective of any general incorporation language contained in such filing.