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): November 9, 2016

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

ck 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 isions (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))

Item 2.02 Results of Operations and Financial Condition.

On November 9, 2016, WAVE Life Sciences Ltd. (the "Company") announced its financial results for the quarter ended September 30, 2016 and provided a business update. The full text of the press release issued in connection with the announcement is furnished as Exhibit 99.1 to this Current Report on Form 8-K and is incorporated by reference herein.

The information in this Current Report on Form 8-K, including Exhibit 99.1 attached hereto, is intended to be furnished and shall not be deemed "filed" for purposes of Section 18 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), or otherwise subject to the liabilities of that section, nor shall it be deemed incorporated by reference in any filing under the Securities Act of 1933, as amended, or the Exchange Act, except as expressly set forth by specific reference in such filing.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

The following exhibit relating to Item 2.02 of this Current Report on Form 8-K shall be deemed to be furnished and not filed:

Exhibit No. Description

99.1 Press release issued on November 9, 2016.

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: November 9, 2016

WAVE LIFE SCIENCES LTD.

/s/ Keith C. Regnante

Keith C. Regnante Chief Financial Officer



WAVE Life Sciences Reports Third Quarter 2016 Financial Results and Provides Business Update

CAMBRIDGE, Mass., November 9, 2016 – WAVE Life Sciences Ltd. (NASDAQ: WVE), a genetic medicines company focused on developing targeted therapies for patients impacted by rare diseases, today announced financial results for the third quarter ended September 30, 2016.

"WAVE continued its strong progress this quarter and we are on track to achieve our 2016 corporate goals, including the filing of two INDs in Huntington's disease," said Paul Bolno, M.D., MBA, President and Chief Executive Officer of WAVE Life Sciences. "We presented compelling pre-clinical data for our two lead candidates in HD and our lead candidate in DMD, and secured a manufacturing facility that will support pipeline growth and provide further control over our manufacturing process. One year following our initial public offering, we are on track to file six INDs with the FDA by the end of 2018, and are preparing to enter the clinic in 2017 with our three lead programs, WVE-120101, WVE-120102 and DMD Exon 51."

Third Quarter Business Update

· Two lead candidates in Huntington's disease (HD) on track to initiate clinical trials 1H 2017

WAVE's allele-specific antisense programs for HD, WVE-120101 and WVE-120102, are designed to selectively silence mRNA transcript produced by the disease causing mutant huntingtin (HTT) allele thus reducing mutant HTT protein while leaving the healthy HTT allele transcript intact to produce normal functioning protein. In a non-human primate study conducted in the third quarter, intrathecal administration of WVE-120101 demonstrated perinuclear distribution of the compound within the cells of the cortex and striatum. Each candidate has the potential to become the first allele-targeted, disease-modifying therapy available for HD patients. Individual Phase 1b/2a clinical trials for each candidate are expected to begin in 1H 2017 and will assess safety and tolerability of single ascending and multiple intrathecal doses in early manifest HD patients, as well as exploratory pharmacokinetic, pharmacodynamic, clinical and MRI endpoints.

Candidate in Duchenne Muscular Dystrophy (DMD) Exon 51 on track to enter clinic 2H 2017

Quantitative Western blot studies of WAVE's DMD Exon 51 candidate conducted in the third quarter demonstrated 50-100% dystrophin protein restoration of normal skeletal muscle tissue lysates, compared to approximately 1% in other exon-skipping therapies. The studies used gymnotic uptake, or no transfection reagents, in patient-derived myotubes (*in vitro*). WAVE's DMD Exon 51 candidate is expected to enter the clinic in 2H 2017.

New manufacturing facility secured to support clinical development

In September, WAVE signed a lease for an approximately 60,000 square foot facility in Lexington, MA to secure internal GMP manufacturing capabilities, and provide additional laboratory and office space to support WAVE's growth. WAVE plans to occupy the facility by the end of 1Q 2017.

Expansion of senior management and neurology franchise team

WAVE has continued to enhance its team by attracting and hiring experts across critical functions, including research & development, manufacturing, finance and legal. In August, WAVE appointed Keith Regnante as Chief Financial Officer, bringing substantial management experience to the company's finance and operations functions. Led by Michael Panzara, WAVE has also continued the build out its core neurology franchise, adding key positions in regulatory affairs, clinical operations and medical communications. WAVE remains focused on the neurology platform for its wholly-owned drug candidates, with three lead candidates expected to enter the clinic in 2017.

Progress under Pfizer Collaboration

In May 2016, WAVE entered into a collaboration with Pfizer focused on the advancement of genetically defined targets for the treatment of metabolic diseases, bringing together WAVE's proprietary drug development platform, across antisense and single-stranded RNAi modalities, along with GalNAc and Pfizer's hepatic targeting technology for enhanced delivery to the liver. The parties continue their progress under this collaboration, and in the third quarter, Pfizer nominated the third of five targets under the agreement.

Third Quarter 2016 Financial Results and Financial Guidance

WAVE reported a net loss of \$17.5 million in the third quarter of 2016 as compared to a net loss of \$4.9 million in the third quarter of 2015. The increase in net loss for the third quarter was largely due to increased research and development efforts as well as investments in the company's infrastructure.

Research and development expenses were \$13.7 million for the third quarter of 2016 as compared to \$2.1 million for the same period in 2015. The increase in research and development expenses in the quarter was primarily driven by increases in our research and discovery efforts, increases to salary and benefits as our headcount grows, and the continued development of our DMD and two HD programs.

General and administrative expenses were \$3.9 million for the third quarter of 2016 as compared to \$2.9 million for the same period in the prior year. The increase in general and administrative expenses in the third quarter was primarily due to salary and benefits increases due to an increase in headcount as we continued to attract key talent and grow our organization to support our corporate goals.

WAVE's cash and cash equivalents as of September 30, 2016 were \$169.0 million compared to \$181.8 million as of June 30, 2016. We expect that the cash resources on hand as of September 30, 2016 will fund our operating expenses and capital expenditure requirements into 2019.

About WAVE Life Sciences

At WAVE Life Sciences, we are driven by an unwavering passion and commitment to deliver on our mission of confronting challenging diseases by developing transformational therapies and empowering patients. We are utilizing our innovative and proprietary synthetic chemistry drug development platform to design, develop and commercialize rationally redesigned nucleic acid therapeutics that precisely target the underlying cause of rare and other serious genetically defined diseases. Given the versatility of our chemistry platform, WAVE's deep, diverse pipeline spans multiple modalities including antisense, exon-skipping, and single-stranded RNAi. For more information, please visit www.wavelifesciences.com.

Forward Looking Information

This press release contains forward-looking statements concerning our goals, beliefs, expectations, strategies, objectives and plans, and other statements that are not necessarily based on historical facts, including statements regarding the following: the anticipated timing of our IND filings and the commencement of our clinical trials; the design and anticipated goals of our clinical trials; the future performance and results of our programs in clinical trials; the progress and potential benefits of our collaborations with partners; our identification of future candidates and their therapeutic potential; the anticipated therapeutic benefits of stereopure therapies compared to other therapies; our advancing of therapies across multiple modalities and the anticipated benefits of that strategy; our future growth; the potential of our stereopure approach and nucleic acid therapeutics generally; and our cash position supporting our anticipated business activities. Actual results may differ materially from those indicated by these forward-looking statements as a result of various important factors, including the following: the ability of our preclinical programs to produce data sufficient to support the filing of INDs 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 product candidates; actions of regulatory agencies, which may affect the initiation, timing and progress of clinical studies; 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 filed with the Securities and Exchange Commission (SEC) on March 30, 2016 and in other filings we make with the SEC. We undertake no obligation to update the information contained in this press release to reflect subsequently occurring events or circumstances.

Media and Investor Contact:

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WAVE LIFE SCIENCES LTD. UNAUDITED CONDENSED CONSOLIDATED BALANCE SHEETS

(In thousands, except share amounts)

	Sej	otember 30, 2016	De	cember 31, 2015
Assets				,
Current assets:				
Cash and cash equivalents	\$	169,015	\$	161,220
Accounts receivable		2,500		_
Prepaid expenses and other current assets		625		146
Deferred tax assets			<u></u>	18
Total current assets		172,140		161,384
Property and equipment, net		6,693		2,789
Deferred tax assets		32		192
Restricted cash		1,055		1,055
Other assets		53		4
Total assets	\$	179,973	\$	165,424
Liabilities, Series A preferred shares and shareholders' equity				
Current liabilities:				
Accounts payable	\$	3,825	\$	2,811
Accrued expenses and other current liabilities		4,833		945
Current portion of capital lease obligation		62		62
Deferred tax liabilities				_
Current portion of deferred revenue		2,705		_
Total current liabilities		11,425		3,818
Long-term liabilities:				
Capital lease obligation, net of current portion		31		78
Deferred revenue, net of current portion		8,987		_
Other liabilities		522	<u> </u>	163
Total long-term liabilities		9,540		241
Total liabilities	\$	20,965	\$	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; 23,474,369 and 21,551,423 shares issued and outstanding at September 30, 2016 and				
December 31, 2015, respectively		215,505		185,344
Additional paid-in capital		7,568		3,182
Accumulated other comprehensive income		84		41
Accumulated deficit		(72,023)		(35,076)
Total shareholders' equity		151,134		153,491
Total liabilities, Series A preferred shares and shareholders' equity	\$	179,973	\$	165,424

WAVE LIFE SCIENCES LTD. UNAUDITED CONDENSED CONSOLIDATED STATEMENTS OF OPERATIONS

(In thousands, except share and per share amounts)

		nths Ended nber 30,	Nine Months Ended September 30,		
	2016	2015	2016	2015	
Revenue	\$ 392	<u> </u>	\$ 809	\$ 152	
Operating expenses:	· · · · · · · · · · · · · · · · · · ·		· · ·		
Research and development	13,686	2,132	26,823	5,589	
General and administrative	3,939	2,858	10,809	6,647	
Total operating expenses	17,625	4,990	37,632	12,236	
Loss from operations	(17,233)	(4,990)	(36,823)	(12,084)	
Other income (expense):					
Interest income (expense), net	118	25	328	10	
Other income (expense), net	(36)	112	(25)	155	
Total other income (expense), net	82	137	303	165	
Loss before income tax provision	(17,151)	(4,853)	(36,520)	(11,919)	
Income tax provision	(384)	(83)	(427)	(182)	
Net loss	\$ (17,535)	\$ (4,936)	\$ (36,947)	\$ (12,101)	
Net loss per share attributable to ordinary shareholders—basic and diluted	\$ (0.75)	\$ (0.54)	\$ (1.64)	\$ (1.36)	
Weighted-average ordinary shares used in computing net loss per share attributable					
to ordinary shareholders—basic and diluted	23,445,673	9,223,405	22,571,575	8,895,660	