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, 2022

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

For the transition period from _____ to _____

Commission File Number: 001-37627

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

Singapore **(State or other jurisdiction of incorporation or organization)**	**Not applicable** **(I.R.S. Employer Identification No.)**
7 Straits View #12-00, Marina One East Tower **Singapore** **(Address of principal executive offices)**	**018936** **(Zip Code)**

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

Securities registered pursuant to Section 12(b) of the Act:

Title of each class	Trading symbol	Name of each exchange on which registered
$0 Par Value Ordinary Shares	WVE	The Nasdaq Global Market

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 every Interactive Data File required to be submitted 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 such files). Yes ☒ No ☐

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

Large accelerated filer	☐	Accelerated filer	☐
Non-accelerated filer	☒	Smaller reporting company	☒
		Emerging growth company	☐

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. ☐

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, 2022 was 61,249,222.

WAVE LIFE SCIENCES LTD.

QUARTERLY REPORT ON FORM 10-Q

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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.

Special Note Regarding Forward-Looking Statements

This Quarterly Report on Form 10-Q contains forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended (the "Securities Act"), and Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), that relate to future events or to our future operations or financial performance. Any forward-looking statement involves known and unknown risks, uncertainties and other factors that may cause our actual results, levels of activity, performance or achievements to differ materially from any future results, levels of activity, performance or achievements expressed or implied by such forward-looking statement. 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," "target," "will" and "would" or the negative of these terms, or other comparable terminology intended to identify statements about the future, although not all forward-looking statements contain these identifying words. Forward-looking statements include statements, other than statements of historical fact, about, among other things: our ability to fund our future operations; our financial position, revenues, costs, expenses, uses of cash and capital requirements; our need for additional financing or the period for which our existing cash resources will be sufficient to meet our operating requirements; the success, progress, number, scope, cost, duration, timing or results of our research and development activities, preclinical studies and clinical trials, including the timing for initiation or completion of or availability of results from any preclinical studies and clinical trials or for submission, review or approval of any regulatory filing; the timing of, and our ability to, obtain and maintain regulatory approvals for any of our product candidates; the potential benefits that may be derived from any of our product candidates; our strategies, prospects, plans, goals, expectations, forecasts or objectives; the success of our collaborations with third parties; any payment that our collaboration partners may make to us; our ability to identify and develop new product candidates; our intellectual property position; our commercialization, marketing and manufacturing capabilities and strategy; our ability to develop sales and marketing capabilities; our ability to identify, recruit and retain key personnel; our financial performance; developments and projections relating to our competitors in the industry; our liquidity and working capital requirements; the expected impact of new accounting standards; and our expectations regarding the impact of COVID-19, and variants thereof on our business, including on our research and development activities, preclinical studies and clinical trials, supply of drug product, and workforce.

Although we believe that we have a reasonable basis for each forward-looking statement contained in this report, we caution you that these statements are based on our estimates or projections of the future that are subject to known and unknown risks and uncertainties and other important factors that may cause our actual results, level of activity, performance or achievements expressed or implied by any forward-looking statement to differ. These risks, uncertainties and other factors include, among other things, our critical accounting policies; the ability of our preclinical studies to produce data sufficient to support the filing of global clinical trial 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 and timing 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 current and 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 fund our operations and to raise additional capital as needed; competition from others developing therapies for similar uses; the severity and duration of the COVID-19 pandemic; the COVID-19 pandemic, and variants thereof, may negatively impact the conduct of, and the timing of enrollment, completion and reporting with respect to, our clinical trials; any other impacts on our business as a result of or related to the COVID-19 pandemic, as well as other risks and uncertainties under the caption "Risk Factors" contained in this Quarterly Report on Form 10-Q and in other filings we make with the Securities and Exchange Commission.

Each forward-looking statement contained in this report is based on a combination of facts and factors currently known by us and our expectations of the future, about which we cannot be certain. As a result of these factors, we cannot assure you that the forward-looking statements in this report will prove to be accurate. Furthermore, 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 timeframe, or at all. We caution you not to place undue reliance on any forward-looking statement.

In addition, any forward-looking statement in this report represents our views only as of the date of this report and should not be relied upon as representing our views as of any subsequent date. We anticipate that subsequent events and developments may cause our views to change. Although we may elect to update these forward-looking statements publicly at some point in the future, 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 applicable law. Our forward-looking statements do not reflect the potential impact of any future acquisitions, mergers, dispositions, joint ventures or investments we may make.

The Wave Life Sciences Ltd. and Wave Life Sciences Pte. Ltd. names, the Wave Life Sciences mark, PRISM and the other registered and pending trademarks, trade names and service marks of Wave Life Sciences Ltd. appearing in this Form 10-Q are the property of Wave Life Sciences Ltd. This Form 10-Q also contains additional trade names, trademarks and service marks belonging to Wave Life Sciences Ltd. and to other companies. We do not intend our use or display of other parties' trademarks, trade names or service marks to imply, and such use or display should not be construed to imply, a relationship with, or endorsement or sponsorship of us by, these other parties. Solely for convenience, the trademarks and trade names in this Form 10-Q are referred to without the ® and ™ symbols, but such reference should not be construed as any indicator that their respective owners will not assert, to the fullest extent under applicable law, their rights thereto.

PART I - FINANCIAL INFORMATION

Item 1. Financial Statements

WAVE LIFE SCIENCES LTD.
UNAUDITED CONSOLIDATED BALANCE SHEETS

(In thousands, except share amounts)

	March 31, 2022	December 31, 2021
Assets		
Current assets:		
Cash and cash equivalents	$ 61,713	$ 150,564
Short-term investments	50,000	—
Prepaid expenses	6,940	6,584
Other current assets	5,730	5,416
Total current assets	124,383	162,564
Long-term assets:		
Property and equipment, net	21,046	22,266
Operating lease right-of-use assets	17,594	18,378
Restricted cash	3,651	3,651
Other assets	685	148
Total long-term assets	42,976	44,443
Total assets	$ 167,359	$ 207,007
Liabilities, Series A preferred shares and shareholders' equity (deficit)		
Current liabilities:		
Accounts payable	$ 9,853	$ 7,281
Accrued expenses and other current liabilities	7,087	14,861
Current portion of deferred revenue	36,426	37,098
Current portion of operating lease liability	5,120	4,961
Total current liabilities	58,486	64,201
Long-term liabilities:		
Deferred revenue, net of current portion	76,567	77,479
Operating lease liability, net of current portion	23,617	24,955
Other liabilities	868	—
Total long-term liabilities	$ 101,052	$ 102,434
Total liabilities	$ 159,538	$ 166,635
Series A preferred shares, no par value; 3,901,348 shares issued and outstanding at March 31, 2022 and December 31, 2021	$ 7,874	$ 7,874
Shareholders' equity (deficit):		
Ordinary shares, no par value; 60,859,968 and 59,841,116 shares issued and outstanding at March 31, 2022 and December 31, 2021, respectively	$ 751,229	$ 749,851
Additional paid-in capital	91,951	87,980
Accumulated other comprehensive income	95	181
Accumulated deficit	(843,328)	(805,514)
Total shareholders' equity (deficit)	$ (53)	$ 32,498
Total liabilities, Series A preferred shares and shareholders' equity (deficit)	$ 167,359	$ 207,007

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

WAVE LIFE SCIENCES LTD.
UNAUDITED CONSOLIDATED STATEMENTS OF OPERATIONS AND COMPREHENSIVE LOSS

(In thousands, except share and per share amounts)

	Three Months Ended March 31,	
	2022	2021
Revenue	$ 1,750	$ —
Operating expenses:		
Research and development	27,470	33,393
General and administrative	12,374	10,078
Total operating expenses	39,844	43,471
Loss from operations	(38,094)	(43,471)
Other income, net:		
Dividend income and interest income, net	26	11
Other income, net	254	996
Total other income, net	280	1,007
Loss before income taxes	(37,814)	(42,464)
Income tax provision	—	—
Net loss	$ (37,814)	$ (42,464)
Net loss per share attributable to ordinary shareholders—basic and diluted	$ (0.62)	$ (0.86)
Weighted-average ordinary shares used in computing net loss per share attributable to ordinary shareholders—basic and diluted	60,516,616	49,101,606
Other comprehensive loss:		
Net loss	$ (37,814)	$ (42,464)
Foreign currency translation	(86)	(120)
Comprehensive loss	$ (37,900)	$ (42,584)

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

WAVE LIFE SCIENCES LTD.
UNAUDITED CONSOLIDATED STATEMENTS OF SERIES A PREFERRED SHARES AND SHAREHOLDERS' EQUITY (DEFICIT)

(In thousands, except share amounts)

	Series A Preferred Shares		Ordinary Shares		Additional Paid-In-Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Shareholders' Equity
	Shares	Amount	Shares	Amount				
Balance at December 31, 2020	3,901,348	$ 7,874	48,778,678	$ 694,085	$ 71,573	$ 389	$ (683,269)	$ 82,778
Issuance of ordinary shares pursuant to the at-the-market equity program, net	—	—	844,796	8,028	—	—	—	8,028
Share-based compensation	—	—	—	—	4,063	—	—	4,063
Vesting of RSUs	—	—	155,184	—	—	—	—	—
Option exercises	—	—	31,957	200	—	—	—	200
Issuance of ordinary shares under the ESPP	—	—	44,036	336	—	—	—	336
Other comprehensive loss	—	—	—	—	—	(120)	—	(120)
Net loss	—	—	—	—	—	—	(42,464)	(42,464)
Balance at March 31, 2021	3,901,348	$ 7,874	49,854,651	$ 702,649	$ 75,636	$ 269	$ (725,733)	$ 52,821

	Series A Preferred Shares		Ordinary Shares		Additional Paid-In-Capital	Accumulated Other Comprehensive Income	Accumulated Deficit	Total Shareholders' Equity (Deficit)
	Shares	Amount	Shares	Amount				
Balance at December 31, 2021	3,901,348	$ 7,874	59,841,116	$ 749,851	$ 87,980	$ 181	$ (805,514)	$ 32,498
Issuance of ordinary shares pursuant to the at-the-market equity program, net	—	—	458,092	1,167	—	—	—	1,167
Share-based compensation	—	—	—	—	3,971	—	—	3,971
Vesting of RSUs	—	—	468,226	—	—	—	—	—
Option exercises	—	—	15,000	37	—	—	—	37
Issuance of ordinary shares under the ESPP	—	—	77,534	174	—	—	—	174
Other comprehensive loss	—	—	—	—	—	(86)	—	(86)
Net loss	—	—	—	—	—	—	(37,814)	(37,814)
Balance at March 31, 2022	3,901,348	$ 7,874	60,859,968	$ 751,229	$ 91,951	$ 95	$ (843,328)	$ (53)

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

WAVE LIFE SCIENCES LTD.
UNAUDITED CONSOLIDATED STATEMENTS OF CASH FLOWS

(In thousands)

	Three Months Ended March 31,	
	2022	2021
Cash flows from operating activities		
Net loss	$ (37,814)	$ (42,464)
Adjustments to reconcile net loss to net cash used in operating activities:		
Amortization of right-of-use assets	784	512
Depreciation of property and equipment	1,730	1,948
Share-based compensation expense	3,971	4,063
Changes in operating assets and liabilities:		
Prepaid expenses	(356)	4
Other assets	(851)	(1,715)
Accounts payable	2,490	(466)
Accrued expenses and other current liabilities	(7,932)	(5,310)
Deferred revenue	(1,584)	—
Operating lease liabilities	(1,179)	(880)
Other non-current liabilities	868	(67)
Net cash used in operating activities	(39,873)	(44,375)
Cash flows from investing activities		
Purchases of property and equipment	(208)	(108)
Purchase of short-term investments	(50,000)	—
Net cash used in investing activities	(50,208)	(108)
Cash flows from financing activities		
Proceeds from issuance of ordinary shares pursuant to the at-the-market equity program, net	1,105	8,105
Proceeds from the exercise of share options	37	200
Proceeds from the ESPP	174	336
Net cash provided by financing activities	1,316	8,641
Effect of foreign exchange rates on cash, cash equivalents and restricted cash	(86)	(120)
Net decrease in cash, cash equivalents and restricted cash	(88,851)	(35,962)
Cash, cash equivalents and restricted cash, beginning of period	154,215	188,148
Cash, cash equivalents and restricted cash, end of period	$ 65,364	$ 152,186
Supplemental disclosure of cash flow information:		
At-the-market offering costs in accounts payable at period end	$ —	$ 77

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

1. THE COMPANY

Organization

Wave Life Sciences Ltd. (together with its subsidiaries, "Wave" or the "Company") is a clinical-stage genetic medicines company committed to delivering life-changing treatments for people battling devastating diseases. PRISM, Wave's proprietary discovery and drug development platform, enables the precise design, optimization and production of novel stereopure oligonucleotides. Wave has built a genetic toolkit comprised of multiple therapeutic modalities, including RNase-H mediated silencing, RNAi, splicing, and RNA base editing, all of which leverage learnings and optimizations from the PRISM platform and allow Wave to design built-for-purpose molecules to optimally address disease biology.

The Company was incorporated in Singapore on July 23, 2012 and has its principal U.S. 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, Inc. ("Wave Japan"), a company organized under the laws of Japan (formerly Chiralgen., Ltd.), which occurred on September 13, 2012. On May 31, 2016, Wave Life Sciences Ireland Limited ("Wave Ireland") was formed as a wholly-owned subsidiary of Wave Life Sciences Ltd. On April 3, 2017, Wave Life Sciences UK Limited ("Wave UK") was formed as a wholly-owned subsidiary of Wave Life Sciences Ltd.

The Company's primary activities since inception have been developing and evolving PRISM to design, develop and commercialize oligonucleotide therapeutics, advancing the Company's differentiated neurology portfolio, as well as exploring other therapeutic areas of interest, building the Company's research, development and manufacturing capabilities, advancing programs into the clinic, furthering clinical development of such clinical-stage programs, building the Company's intellectual property, and assuring adequate capital to support these activities.

Liquidity

Since its inception, the Company has not generated any product revenue and has incurred recurring net losses. To date, the Company has primarily funded its operations through private placements of debt and equity securities, public offerings of its ordinary shares and collaborations with third parties. Until the Company can generate significant revenue from product sales, if ever, the Company expects to continue to finance operations through a combination of public or private equity or debt financings or other sources, which may include collaborations with third parties. Adequate additional financing may not be available to the Company on acceptable terms, or at all. The inability to raise capital as and when needed would have a negative impact on the Company's financial condition and ability to pursue its business strategy.

As of March 31, 2022, the Company had cash, cash equivalents and short-term investments of $111.7 million. The Company expects that its existing cash, cash equivalents and short-term investments will be sufficient to fund its operations for at least the next twelve months. The Company has based this expectation on assumptions that may prove to be incorrect, and the Company may use its available capital resources sooner than it currently expects. If the Company's anticipated operating results are not achieved in future periods, planned expenditures may need to be further reduced in order to extend the time period over which the then-available resources would be able to fund the Company's operations. In addition, the Company may elect to raise additional funds before it needs them if the conditions for raising capital are favorable due to market conditions or strategic considerations, even if the Company expects it has sufficient funds for its current or future operating plans.

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, maintaining internal manufacturing capabilities, 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 preclinical 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. There can be no assurance that the Company's research and development efforts will be successful, 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.

Basis of Presentation

The Company has prepared the accompanying consolidated financial statements in conformity with generally accepted accounting principles in the United States ("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, 2021, and the notes thereto, which are included in the Company's Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission ("SEC") on March 3, 2022, as amended (the "2021 Annual Report on Form 10-K"), have had no material changes during the three months ended March 31, 2022, except as described below.

Fair Value of Financial Instruments

The Company is required to disclose information on all assets and liabilities reported at fair value that enables an assessment of the inputs used in determining the reported fair values. The fair value hierarchy is a hierarchy of inputs used in measuring fair value that maximizes the use of observable inputs and minimizes the use of unobservable inputs by requiring that the observable inputs be used when available. Observable inputs are inputs that market participants would use in pricing the financial instrument based on market data obtained from sources independent of the Company. Unobservable inputs are inputs that reflect the Company's assumptions about the inputs that market participants would use in pricing the financial instrument and are developed based on the information available in the circumstances. The fair value hierarchy applies only to the valuation inputs used in determining the reported fair value of the investments and is not a measure of the investment credit quality. The hierarchy defines three levels of valuation inputs:

Level 1—Unadjusted quoted prices in active markets that are accessible at the measurement date of identical, unrestricted assets.

Level 2—Quoted prices for similar assets, or inputs that are observable, either directly or indirectly, for substantially the full term through corroboration with observable market data. Level 2 includes investments valued at quoted prices adjusted for legal or contractual restrictions specific to the security.

Level 3—Pricing inputs are unobservable for the asset, that is, inputs that reflect the reporting entity's own assumptions about the assumptions market participants would use in pricing the asset. Level 3 includes private investments that are supported by little or no market activity.

Cash and Cash Equivalents

The Company considers all highly liquid securities with original final maturities of three months or less from the date of purchase to be cash equivalents. Cash and cash equivalents are comprised of funds in cash and money market accounts.

Short-Term Investments

The Company considers all time deposits with original maturities of more than three months from the date of purchase to be short-term investments.

Concentration of Credit Risk

Cash, cash equivalents, restricted cash and short-term investments are financial instruments that potentially subject the Company to concentration of credit risk. The Company uses several financial institutions to maintain its cash, cash equivalents, restricted cash and short-term investments, all of which are high quality, accredited financial institutions and, accordingly, such funds are subject to minimal credit risk. The Company has not experienced any losses in such accounts and management believes that the Company is not exposed to significant credit risk due to the financial position of the depository institutions in which those deposits are held. The Company has no financial instruments with off-balance sheet risk of loss.

Unaudited Interim Financial Data

The accompanying interim consolidated balance sheet as of March 31, 2022, the related interim consolidated statements of operations and comprehensive loss for the three months ended March 31, 2022 and 2021, the consolidated statements of Series A preferred shares and shareholders' equity (deficit) for the three months ended March 31, 2022 and 2021, the consolidated statements of cash flows for the three months ended March 31, 2022 and 2021, and the related interim information contained within the notes to the unaudited consolidated financial statements have been prepared in accordance with the rules and regulations of the SEC 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, 2022 and 2021 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 and results of operations for the three months ended March 31, 2022 and 2021. The results of operations for the interim periods are not necessarily indicative of the results to be expected for the year ending December 31, 2022 or any other interim period or future year or period.

3. FAIR VALUE MEASUREMENTS

The following table sets forth the Company's financial assets that are measured at fair value on a recurring basis:

	Total	Level 1	Level 2	Level 3
		(in thousands)		
March 31, 2022				
Cash and cash equivalents	$ 61,713	$ 61,713	$ —	$ —
Short-term investments	50,000	—	50,000	—
Restricted cash	3,651	3,651	—	—
Total	$ 115,364	$ 65,364	$ 50,000	$ —
December 31, 2021				
Cash and cash equivalents	$ 150,564	$ 150,564	$ —	$ —
Short-term investments	—	—	—	—
Restricted cash	3,651	3,651	—	—
Total	$ 154,215	$ 154,215	$ —	$ —

There have been no transfers between fair value levels during the three months ended March 31, 2022.

Cash, cash equivalents and restricted cash are Level 1 assets which are comprised of funds held in checking and money market accounts. Short-term investments are Level 2 assets which are comprised of time deposits with original maturities of more than three months. The Company determined that the fair value of its short-term investments is $50.0 million as of March 31, 2022, which approximates the carrying value of the term deposits. There were no short-term investments as of December 31, 2021, as the term deposits that constitute the Company's short-term investments were purchased during the three months ended March 31, 2022. The carrying amounts of accounts payable and accrued expenses approximate their fair values due to their short-term maturities.

4. SHARE-BASED COMPENSATION

The Wave Life Sciences Ltd. 2021 Equity Incentive Plan (the "2021 Plan") was approved by the Company's shareholders and went into effect on August 10, 2021. The 2021 Plan serves as the successor to the Wave Life Sciences Ltd. 2014 Equity Incentive Plan, as amended (the "2014 Plan"), such that outstanding awards granted under the 2014 Plan continue to be governed by the terms of the 2014 Plan, but no awards may be made under the 2014 Plan after August 10, 2021. The aggregate number of ordinary shares authorized for issuance of awards under the 2021 Plan is 5,450,000 ordinary shares, plus the number of ordinary shares underlying any awards under the 2014 Plan that are forfeited, cancelled or otherwise terminated (other than by exercise or withheld by the Company to satisfy any tax withholding obligation) on or after August 10, 2021.

The 2021 Plan authorizes (and the 2014 Plan previously authorized) the Company's board of directors or a committee of the board of directors to, among other things, grant non-qualified share options, restricted awards, which include restricted shares and restricted share units ("RSUs"), and performance awards to eligible employees and directors of the Company.

Options generally vest over periods of one to four years, and any options that are forfeited or cancelled are available to be granted again. The contractual life of options is generally five or ten years from the grant date. RSUs can be time-based or performance-based. Time-based RSUs generally vest over a period of one to four years. The vesting of performance-based RSUs is contingent on the achievement of certain performance milestones. Any RSUs that are forfeited are available to be granted again.

In March 2021, the compensation committee of the Company's board of directors approved an amendment and restatement of the Company's outstanding 2019 performance-based RSUs to add an additional milestone to the existing milestones. In 2021, the Company also granted performance-based RSUs with the same terms to certain employees who did not receive the 2019

performance-based RSUs. This modification did not result in any incremental expense. The Company did not recognize any expense related to the performance-based RSUs during the three months ended March 31, 2022, as the related milestones were not considered probable of achievement as of March 31, 2022.

During the three months ended March 31, 2022, the Company granted 1,989,025 options and 24,025 time-based RSUs to employees.

As of March 31, 2022, 1,286,637 ordinary shares remained available for future grant under the 2021 Plan.

The Wave Life Sciences Ltd. 2019 Employee Share Purchase Plan ("ESPP") allows all full-time and certain part-time employees to purchase the Company's ordinary shares at a discount to fair market value. Eligible employees may enroll in a six-month offering period beginning on or about January 15th and July 15th every year. Shares are purchased at a price equal to 85% of the lower of the fair market value of the Company's ordinary shares on the first business day or the last business day of an offering period. During the three months ended March 31, 2022, 77,534 ordinary shares were issued under the ESPP. As of March 31, 2022, there were 804,940 ordinary shares available for issuance under the ESPP.

Subsequent to March 31, 2022, the Company determined that a performance-based RSU milestone was achieved and consequently 50% of the outstanding performance-based RSUs vested, which resulted in the issuance of 384,646 ordinary shares. During the three months ending June 30, 2022, the Company plans to record share-based compensation expense of approximately $3.8 million, which represents all of the expense related to the achievement of this performance-based RSU milestone.

5. COLLABORATION AGREEMENTS

Takeda Collaboration and Equity Agreements

In February 2018, Wave USA and Wave UK entered into a global strategic collaboration (the "Takeda Collaboration") with Takeda Pharmaceutical Company Limited ("Takeda"), pursuant to which Wave USA, Wave UK and Takeda agreed to collaborate on the research, development and commercialization of oligonucleotide therapeutics for disorders of the Central Nervous System ("CNS"). The Takeda Collaboration provides the Company with at least $230.0 million in committed cash and Takeda with the option to co-develop and co-commercialize the Company's CNS development programs in (1) Huntington's disease ("HD"); (2) amyotrophic lateral sclerosis ("ALS") and frontotemporal dementia ("FTD"); and (3) the Company's discovery-stage program targeting *ATXN3* for the treatment of spinocerebellar ataxia 3 ("SCA3") (collectively, "Category 1 Programs"). In addition, the Takeda Collaboration provided Takeda the right to exclusively license multiple preclinical programs for CNS disorders, including Alzheimer's disease and Parkinson's disease (collectively, "Category 2 Programs"). In April 2018, the Takeda Collaboration became effective and Takeda paid the Company $110.0 million as an upfront payment. Takeda also agreed to fund the Company's research and preclinical activities in the amount of $60.0 million during the four-year research term and to reimburse the Company for any collaboration-budgeted research and preclinical expenses incurred by the Company that exceed that amount.

Simultaneously with Wave USA and Wave UK's entry into the collaboration and license agreement with Takeda (the "Takeda Collaboration Agreement"), the Company entered into a share purchase agreement with Takeda (the "Takeda Equity Agreement," and together with the Takeda Collaboration Agreement, the "Takeda Agreements") pursuant to which it agreed to sell to Takeda 1,096,892 of its ordinary shares at a purchase price of $54.70 per share. In April 2018, the Company closed the Takeda Equity Agreement and received aggregate cash proceeds of $60.0 million. The Company did not incur any material costs in connection with the issuance of shares.

With respect to Category 1 Programs, the Company will be responsible for researching and developing products and companion diagnostics for Category 1 Programs through completion of the first proof of mechanism study for such products. Takeda will have an exclusive option for each target and all associated products and companion diagnostics for such target, which it may exercise at any time through completion of the proof of mechanism study. If Takeda exercises this option, the Company will receive an opt-in payment and will lead manufacturing and joint clinical co-development activities and Takeda will lead joint co-commercial activities in the United States and all commercial activities outside of the United States. Global costs and potential profits will be shared 50:50 and the Company will be eligible to receive development and commercial milestone payments. In addition to its 50% profit share, the Company is eligible to receive option exercise fees and development and commercial milestone payments for each of the Category 1 Programs.

With respect to Category 2 Programs, the Company granted Takeda the right to exclusively license multiple preclinical programs during a four-year research term (subject to limited extension for programs that were initiated prior to the expiration of the research term, in accordance with the Takeda Collaboration Agreement) ("Category 2 Research Term"). During that term, the Takeda Collaboration provided that the parties may collaborate on preclinical programs for up to six targets at any one time. The Company was responsible for researching and preclinically developing products and companion diagnostics directed to the agreed upon targets through completion of Investigational New Drug application ("IND")-enabling studies in the first major market country. Thereafter, Takeda would have an exclusive worldwide license to develop and commercialize products and companion diagnostics directed to such targets, subject to the Company's retained rights to lead manufacturing activities for products directed to such targets. Takeda agreed to fund the Company's research and preclinical activities in the amount of $60.0 million during the research term and

reimburse the Company for any collaboration-budgeted research and preclinical expenses incurred by the Company that exceeded that amount. The Company was also eligible to receive tiered high single-digit to mid-teen royalties on Takeda's global commercial sales of products from each Category 2 Program.

Under the Takeda Collaboration Agreement, each party granted to the other party specific intellectual property licenses to enable the other party to perform its obligations and exercise its rights under the Takeda Collaboration Agreement, including license grants to enable each party to conduct research, development and commercialization activities pursuant to the terms of the Takeda Collaboration Agreement.

The term of the Takeda Collaboration Agreement commenced on April 2, 2018 and, unless terminated earlier, will continue until the date on which: (i) with respect to each Category 1 Program target for which Takeda does not exercise its option, the expiration or termination of the development program with respect to such target; (ii) with respect to each Category 1 Program target for which Takeda exercises its option, the date on which neither party is researching, developing or manufacturing any products or companion diagnostics directed to such target; or (iii) with respect to each Category 2 Program target, the date on which royalties are no longer payable with respect to products directed to such target.

Takeda may terminate the Takeda Collaboration Agreement for convenience on 180 days' notice, in its entirety or on a target-by-target basis. Subject to certain exceptions, each party has the right to terminate the Takeda Collaboration Agreement on a target-by-target basis if the other party, or a third party related to such party, challenges the patentability, enforceability or validity of any patents within the licensed technology that cover any product or companion diagnostic that is subject to the Takeda Collaboration Agreement. In the event of any material breach of the Takeda Collaboration Agreement by a party, subject to cure rights, the other party may terminate the Takeda Collaboration Agreement in its entirety if the breach relates to all targets or on a target-by-target basis if the breach relates to a specific target. In the event that Takeda and its affiliates cease development, manufacturing and commercialization activities with respect to compounds or products subject to the Takeda Collaboration Agreement and directed to a particular target, the Company may terminate the Takeda Collaboration Agreement with respect to such target. Either party may terminate the Takeda Collaboration Agreement for the other party's insolvency. In certain termination circumstances, the Company would receive a license from Takeda to continue researching, developing and manufacturing certain products, and companion diagnostics.

The Takeda Collaboration is managed by a joint steering committee ("JSC") in which both parties are represented equally. The JSC is tasked with overseeing the scientific progression of each Category 1 Program and, prior to the Amendment (discussed below), the Category 2 Programs.

The Company assessed this arrangement in accordance with ASC Topic 606, Revenue from Contracts with Customers ("ASC 606") and concluded that the contract counterparty, Takeda, is a customer for Category 1 Programs prior to Takeda exercising its option, and for Category 2 Programs during the Category 2 Research Term. The Company identified the following material promises under the arrangement: (1) the non-exclusive, royalty-free research and development license for each Category 1 Program; (2) the research and development services for each Category 1 Program through completion of the first proof of mechanism study; (3) the exclusive option to license, co-develop and co-commercialize each Category 1 Program; (4) the right to exclusively license the Category 2 Programs; and (5) the research and preclinical development services of the Category 2 Programs through completion of IND-enabling studies. The research and development services for each Category 1 Program were determined to not be distinct from the research and development license and should therefore be combined into a single performance obligation for each Category 1 Program. The research and preclinical development services for the Category 2 Programs were determined to not be distinct from the exclusive licenses for the Category 2 Programs and should therefore be combined into a single performance obligation.

Additionally, the Company determined that the exclusive option for each Category 1 Program was priced at a discount, and, as such, provide material rights to Takeda, representing three separate performance obligations. Based on these assessments, the Company identified seven performance obligations in the Takeda Collaboration Agreement: (1) research and development services through completion of the first proof of mechanism and non-exclusive research and development license for HD; (2) research and development services through completion of the first proof of mechanism and non-exclusive research and development license for ALS and FTD; (3) research and development services through completion of the first proof of mechanism and non-exclusive research and development license for SCA3; (4) the material right provided for the exclusive option to license, co-develop and co-commercialize HD; (5) the material right provided for the exclusive option to license, co-develop and co-commercialize ALS and FTD; (6) the material right provided for the exclusive option to license, co-develop and co-commercialize SCA3; and (7) the research and preclinical development services and right to exclusively license the Category 2 Programs.

At the outset of the arrangement, the transaction price included the $110.0 million upfront consideration received and the $60.0 million of committed research and preclinical funding for the Category 2 Programs. The Company determined that the Takeda Collaboration Agreement did not contain a significant financing component. The option exercise fees to license, co-develop and co-commercialize each Category 1 Program that may be received are excluded from the transaction price until each customer option is exercised. The potential milestone payments were excluded from the transaction price, as all milestone amounts were fully constrained at the inception of the Takeda Collaboration Agreement. The Company will reevaluate the transaction price at the end of each reporting period and as uncertain events are resolved or other changes in circumstances occur, if necessary, will adjust its estimate of the transaction price.

The Company allocated the transaction price to the performance obligations on a relative standalone selling price basis. For the performance obligations associated with the research and development services through completion of the first proof of mechanism and non-exclusive research and development license for HD; the research and development services through completion of the first proof of mechanism and non-exclusive research and development license for ALS and FTD; the research and development services through completion of the first proof of mechanism and non-exclusive research and development license for SCA3; and the research and preclinical development services and right to exclusively license the Category 2 Programs, the Company determined the standalone selling price using estimates of the costs to perform the research and development services, including expected internal and external costs for services and supplies, adjusted to reflect a profit margin. The total estimated cost of the research and development services reflected the nature of the services to be performed and the Company's best estimate of the length of time required to perform the services. For the performance obligations associated with the material right provided for the exclusive option to license, co-develop and co-commercialize HD; the material right provided for the exclusive option to license, co-develop and co-commercialize ALS and FTD; and the material right provided for the exclusive option to license, co-develop and co-commercialize SCA3, the Company estimated the standalone fair value of the option to license each Category 1 Program utilizing an adjusted market assessment approach, and determined that any standalone fair value in excess of the amounts to be paid by Takeda associated with each option represented a material right.

Revenue associated with the research and development services for each Category 1 Program performance obligation is being recognized as the research and development services are provided using an input method, according to the costs incurred on each Category 1 Program and the total costs expected to be incurred to satisfy each Category 1 Program performance obligation. Revenue associated with the research and preclinical development services for the Category 2 Programs performance obligation is being recognized as the research and preclinical development services are provided using an input method, according to the costs incurred on Category 2 Programs and the total costs expected to be incurred to satisfy the performance obligation. The transfer of control for these performance obligations occurs over time and, in management's judgment, this input method is the best measure of progress towards satisfying the performance obligations. The amount allocated to the material right for each Category 1 Program option will be recognized on the date that Takeda exercises each respective option, or immediately as each option expires unexercised. The amounts received that have not yet been recognized as revenue are recorded in deferred revenue on the Company's consolidated balance sheet.

On October 15, 2021, Wave USA, Wave UK and Takeda entered into the Second Amendment to the Takeda Collaboration Agreement (the "Amendment"), which discontinued the Category 2 component of the Takeda Collaboration. Pursuant to the Amendment, Takeda agreed to pay the Company an additional $22.5 million as full payment for reimbursable Category 2 Program collaboration-budgeted research and preclinical expenses. The Category 1 Programs under the Takeda Collaboration Agreement remain in effect and are unchanged by the Amendment.

Through March 31, 2022, the Company had recognized revenue of approximately $79.5 million as collaboration revenue under the Takeda Collaboration Agreement. During the three months ended March 31, 2022, the Company recognized revenue of $1.6 million under the Takeda Collaboration Agreement. No revenue was recognized under the Takeda Collaboration Agreement during the three months ended March 31, 2021 based on the revenue recognition standard.

The aggregate amount of the transaction price allocated to the Company's unsatisfied and partially unsatisfied performance obligations and recorded in deferred revenue as of December 31, 2021 was $114.6 million, of which $37.1 million was included in current liabilities. The aggregate amount of the transaction price allocated to the Company's unsatisfied and partially unsatisfied performance obligations and recorded in deferred revenue at March 31, 2022 is $113.0 million, of which $36.4 million is included in current liabilities. The Company expects to recognize revenue for the portion of the deferred revenue that relates to the research and development services for each Category 1 Program as costs are incurred, over the remaining research term. The Company expects to recognize revenue for the portion of the deferred revenue that relates to the material right for each Category 1 Program option upon Takeda's exercise of such option, or immediately as each option expires unexercised.

6. 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.

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

The Company's potentially dilutive shares, which include outstanding share options to purchase ordinary shares, RSUs, 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 ordinary share equivalents, 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,	
	2022	2021
Options to purchase ordinary shares	8,760,336	4,588,951
RSUs	1,420,568	2,022,268
Series A preferred shares	3,901,348	3,901,348

Additionally, 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.

7. INCOME TAXES

During the three months ended March 31, 2022 and 2021, the Company recorded no income tax provision. The Company maintained a full valuation allowance for the three months ended March 31, 2022 and 2021 in all jurisdictions due to uncertainty regarding future taxable income.

8. GEOGRAPHIC DATA

Substantially all of the Company's long-lived assets were located in the United States as of March 31, 2022 and December 31, 2021.

9. RELATED PARTIES

The Company had the following related party transaction for the periods presented in the accompanying consolidated financial statements:

- In 2012, the Company entered into a consulting agreement for scientific advisory services with Dr. Gregory L. Verdine, one of the Company's founders and a member of the Company's board of directors. The consulting agreement does not have a specific term and may be terminated by either party upon 14 days' prior written notice. Pursuant to the consulting agreement, the Company pays Dr. Verdine approximately $13 thousand per month, plus reimbursement for certain expenses.

10. ACCRUED EXPENSES AND OTHER CURRENT LIABILITIES

Accrued expenses and other current liabilities consist of the following:

	March 31, 2022	December 31, 2021
	(in thousands)	
Accrued compensation	$ 3,459	$ 10,181
Accrued expenses related to CROs and CMOs	3,152	3,571
Accrued expenses and other current liabilities	476	1,109
Total accrued expenses and other current liabilities	$ 7,087	$ 14,861

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, 2021, filed with the Securities and Exchange Commission ("SEC") on March 3, 2022, as amended (the "2021 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 in the "Risk Factors" section of this Quarterly Report on Form 10-Q or the "Risk Factor" section of our 2021 Annual Report on Form 10-K, our actual results could differ materially from the results described in, or implied by, these forward-looking statements.

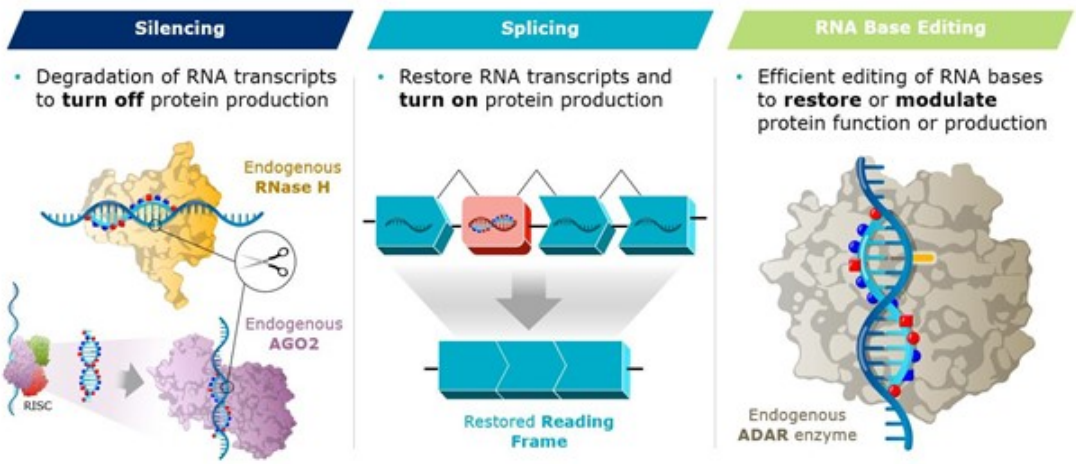
Overview

We are a clinical-stage genetic medicines company committed to delivering life-changing treatments for people battling devastating diseases. Using PRISM™, our proprietary discovery and drug development platform that enables the precise design, optimization and production of novel stereopure oligonucleotides, we aspire to develop best-in-class medicines that target the transcriptome to treat genetically defined diseases with a high degree of unmet need.

We are developing oligonucleotides that target ribonucleic acid ("RNA") and harness existing cellular machinery to reduce the expression of disease-promoting RNA or proteins, restore the production of functional proteins, or modulate protein expression. By intervening at the RNA level, we have the potential to address diseases that have historically been difficult to treat with small molecules or biologics, while retaining the ability to titrate dose, modulate duration of effect, and avoid risk of permanent off-target genetic changes and other challenges associated with DNA editing or gene therapy approaches. Oligonucleotides have additional advantages as a therapeutic class, including the ability to access multiple tissue types and the ability to modulate the frequency of dosing to ensure broad distribution within tissues over time. Oligonucleotides also have well-established manufacturing processes and validated test methods based on decades of improvements, as well as established regulatory, access and reimbursement pathways.

Our approach is based on the scientific insight that the biological machinery necessary to address genetic diseases already exists in human cells and can be controlled with the right tools. We have built a genetic toolkit comprised of multiple therapeutic modalities, including RNase-H mediated silencing, RNAi, splicing, and RNA base editing, all of which leverage learnings and optimizations from our PRISM platform and allow us to design built-for-purpose molecules to optimally address disease biology.

Our A-to-I RNA base editing oligonucleotides ("AIMers") represent our newest therapeutic modality. AIMers are designed to correct single base mutations on RNA transcript, thereby avoiding permanent changes to the genome that occur with DNA-targeting approaches. Rather than using an exogenous editing enzyme, AIMers recruit proteins that exist in the body, called ADAR (adenosine deaminases acting on RNA) enzymes, which naturally possess the ability to change an adenine (A) to an inosine (I), which cells read as guanine (G). This approach enables simplified delivery and avoids the risk of irreversible off-target effects with DNA-targeting approaches. AIMers are short in length, fully chemically modified, and use novel chemistry, including proprietary PN backbone modifications and control of stereochemistry, which make them distinct from other ADAR-mediated editing approaches.



Our PRISM platform is built on the recognition that a significant opportunity exists to tune the pharmacological properties of oligonucleotide therapeutics by leveraging three key features of these molecules: sequence, chemistry, and stereochemistry. Our unique ability to control stereochemistry, which is a reality of chemically modified oligonucleotides, provides the resolution necessary to optimize pharmacological profiles.

PRISM enables us to design stereopure oligonucleotides, which are comprised of molecules with atoms precisely and purposefully arranged in three-dimensional orientations at each linkage. These differ from the mixture-based oligonucleotides currently on the market or in development by others. Additionally, to mitigate pharmacological risks and potential manufacturing challenges, our approach focuses on designing short, chemically modified oligonucleotides without the need for complex delivery vehicles or engineered exogenous enzymes.

Our work in developing stereopure oligonucleotides has enabled the continued evolution of PRISM and our drug discovery process of selecting genetically defined targets, identifying a sequence and applying the therapeutic modality we determine is best suited for the disease biology. We use our PRISM platform engine to screen candidates and optimize the pharmacologic profile based on predefined design principles, which reflect a deep understanding of how the interplay among oligonucleotide sequence, chemistry and backbone stereochemistry impacts key pharmacological properties. Through continued exploration of these interactions using iterative analysis of *in vitro* and *in vivo* outcomes and machine learning-driven predictive modeling, we also continue to refine our design principles that we deploy across subsequent programs. We continue to invest in PRISM to further evolve and apply the expanding capabilities and promise of our unique platform.

In August 2020, we publicly introduced our novel PN backbone chemistry modifications, which have been shown preclinically to increase potency, distribution, and durability of effect across various modalities. PN chemistry has been incorporated into all our current clinical, preclinical, and discovery-stage programs.

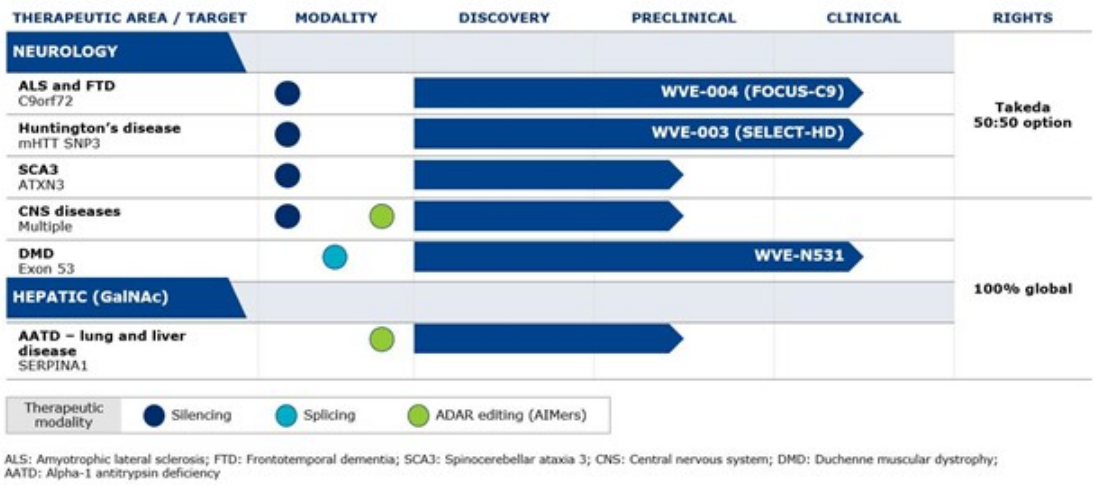
We have a robust and diverse pipeline of PN-modified, stereopure oligonucleotides, including our clinical silencing and splicing programs, as well as our AIMers. Our lead clinical development programs are designed to treat genetic diseases within the central nervous system ("CNS"), including amyotrophic lateral sclerosis ("ALS"), frontotemporal dementia ("FTD"), Huntington's disease ("HD"), and Duchenne muscular dystrophy ("DMD"). These programs include:

- WVE-004 (silencing), our C9orf72 molecule for the treatment of C9orf72-associated ALS and FTD,
- WVE-003 (silencing), our mHTT SNP3 molecule for the treatment of HD, and
- WVE-N531 (splicing), our exon 53 molecule for the treatment of DMD.

With RNA base editing, our initial focus is on using GalNAc-conjugated AIMers to treat hepatic diseases and our lead program is designed to treat alpha-1antitrypsin deficiency ("AATD"). We expect to select an AATD AIMer development candidate and initiate IND-enabling toxicology studies in the third quarter of 2022.

When we built Wave, we recognized the growing momentum in RNA therapeutics and anticipated the value in having an internal current good manufacturing practices ("cGMP") manufacturing facility. This capability provides us with increased control and visibility of our drug substance supply chain, thereby accelerating transitions from discovery through clinical development, and the continued ability to innovate in oligonucleotide manufacturing. Our team includes experts in oligonucleotide manufacturing that have successfully delivered clinical supply for six global studies at Wave to date. With our existing manufacturing facility, we are evaluating using our additional capacity to support the clinical supply of innovative oligonucleotides for new partners.

Our Current Programs



ALS: Amyotrophic lateral sclerosis; FTD: Frontotemporal dementia; SCA3: Spinocerebellar ataxia 3; CNS: Central nervous system; DMD: Duchenne muscular dystrophy; AATD: Alpha-1 antitrypsin deficiency

Additional details regarding our lead therapeutic programs are set forth below.

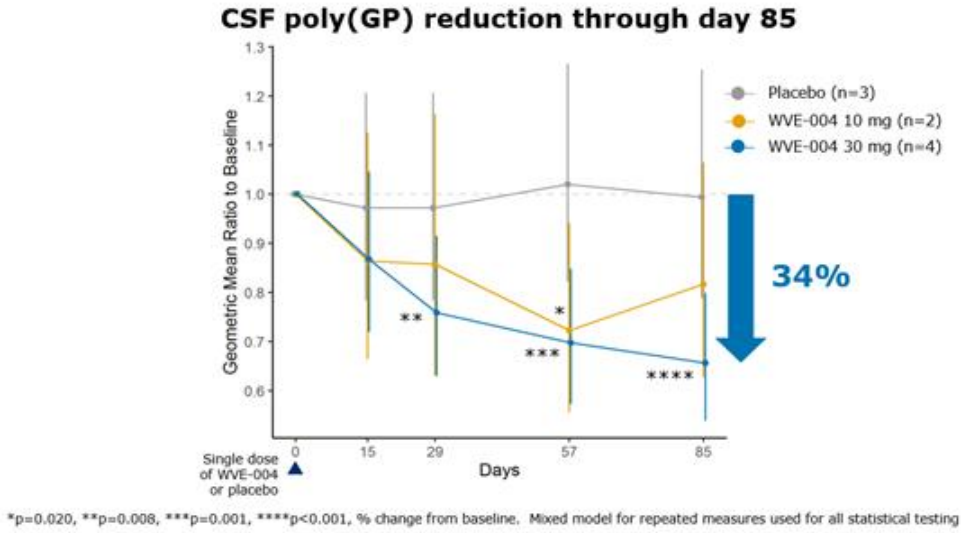
Neurology

WVE-004: In ALS and FTD, we are advancing WVE-004, which uses our novel PN chemistry and preferentially targets the transcripts containing the hexanucleotide G4C2 expansion in the *C9orf72* gene. In C9 BAC transgenic mice, WVE-004 led to substantial reductions in repeat-containing C9orf72 transcripts and dipeptide repeat ("DPR") proteins that are sustained for at least six months, without disrupting total C9orf72 protein expression.

In 2021, we initiated our FOCUS-C9 trial, which is a global, multicenter, randomized, double-blind, placebo-controlled Phase 1b/2a clinical trial to assess the safety and tolerability of intrathecal doses of WVE-004 for patients with C9-ALS and/or C9-FTD. Additional objectives include measurement of polyGP proteins in the cerebrospinal fluid ("CSF"), plasma and CSF pharmacokinetics and exploratory biomarker and clinical endpoints. The FOCUS-C9 trial is designed to be adaptive with dose level and dosing frequency being guided by an independent committee. Preclinical models that have established pharmacologic activity have informed the starting dose for this trial.

In April 2022, we announced a positive update to the ongoing FOCUS-C9 trial that was driven by the observation of potent, durable reductions of poly(GP) dipeptide repeat proteins in CSF with low, single doses of WVE-004. Poly(GP) is a key C9-ALS/C9-FTD disease biomarker that, when reduced in CSF, indicates WVE-004's engagement of target in the brain and spinal cord.

- Reductions in poly(GP) were observed across all active treatment groups (10 mg, n=2 patients; 30 mg, n=4 patients; 60 mg, n=3 patients), reaching statistical significance versus placebo (n=3 patients) after single 30 mg doses, with a 34% reduction in poly(GP) at day 85 (p=0.011). At the time of analysis, none of the patients dosed with 60 mg had reached day 85.



*p=0.020, **p=0.008, ***p=0.001, ****p<0.001, % change from baseline. Mixed model for repeated measures used for all statistical testing

- As the poly(GP) reduction in the 30 mg single dose cohort does not appear to have plateaued, we are extending the observation period from approximately three months (85 days) to approximately six months to identify the maximum reduction of poly(GP) and duration of effect of low single doses. Based on the durability and potency observed in the 30 mg cohort, FOCUS-C9 has been adapted to include additional patients receiving 20 mg and 30 mg single doses of WVE-004.
- Additional exploratory assessments included monitoring of CSF neurofilament light chain ("NfL") and clinical outcome measures. CSF NfL elevations were observed in some patients in the 30 mg and 60 mg single dose cohorts with no meaningful changes in clinical outcome measures, although the dataset and duration were not sufficient to assess clinical effects. Exploratory assessments will continue throughout the single and multidose phases of the FOCUS-C9 trial.
- Adverse events were balanced across treatment groups, including placebo, and were mostly mild to moderate in intensity. Four patients (including one on placebo) experienced severe and/or serious adverse events; three were reported by the investigators to be related to ALS or administration, and one was reported by the investigator to be related to study drug. There were no treatment-associated elevations in CSF white blood cell counts or protein and no other notable laboratory abnormalities were observed.

We expect to share additional single and multidose data from the FOCUS-C9 clinical trial throughout 2022. We expect to use these data to optimize dose level and frequency, as well as enable discussions with regulatory authorities regarding the next phase of development later in 2022. Planning is underway for expected initiation of an open-label extension clinical trial in mid-2022.

WVE-003: In HD, we are currently advancing WVE-003, a stereopure antisense oligonucleotide designed to selectively target an undisclosed single nucleotide polymorphism ("SNP"), "mHTT SNP3", associated with the disease-causing mutant huntingtin ("mHTT") mRNA transcript within the *HTT* gene. WVE-003 incorporates our novel PN chemistry, as well as learnings from our first-generation HD programs. Targeting mRNA with SNP3 allows us to lower expression of transcript from the mutant allele, while leaving the healthy transcript relatively intact, thereby preserving wild-type (healthy) huntingtin ("wtHTT") protein, which is important for neuronal function. Our allele-selective approach may also enable us to address the pre-manifest, or asymptomatic, HD patient population in the future. In preclinical studies, WVE-003 showed dose-dependent and selective reduction of mHTT mRNA *in vitro*, potent and durable knockdown of mHTT mRNA and protein *in vivo*. A pharmacokinetic-pharmacodynamic ("PK-PD") model for WVE-003 based on preclinical data predicts that WVE-003 may attain sufficient concentrations to engage mHTT transcript in both the cortex and striatum and decrease expression of the mHTT protein.

The SELECT-HD trial is a multicenter, randomized, double-blind, placebo-controlled Phase 1b/2a clinical trial to assess the safety and tolerability of intrathecally administered WVE-003 for patients with early manifest HD. Additional objectives include measurement of mHTT and wtHTT protein and exploratory pharmacokinetic, pharmacodynamic, clinical and magnetic resonance imaging ("MRI") endpoints. The SELECT-HD trial is designed to be adaptive, with dose level and dosing frequency being guided by an independent committee. Preclinical models that have established pharmacologic activity have informed the starting dose for this trial. In September 2021, we announced the initiation of dosing in the SELECT-HD trial. We expect to share clinical data in 2022 to provide further insight into the clinical effects of PN chemistry and enable decision making for WVE-003.

WVE-N531: In DMD, we are advancing WVE-N531, which is designed to target exon 53 within the dystrophin gene. WVE-N531 is designed to cause the cellular splicing machinery to skip over this exon during pre-mRNA processing, which restores the dystrophin mRNA reading frame and enables production of truncated, but functional dystrophin protein. Exon-skipping produces dystrophin from the endogenous dystrophin gene (not micro or mini dystrophin expressed from a vector), under the control of native gene-regulatory elements, resulting in normal temporospatial expression. WVE-N531 is both our first splicing candidate and our first systemically administered candidate incorporating PN chemistry to be assessed in the clinic.

In September 2021, we announced the initiation of dosing in an open-label clinical trial evaluating WVE-N531 as a treatment for boys with DMD who are amenable to exon 53 skipping. We expect to share clinical data, including muscle biopsies, in 2022 to provide further insight into the clinical effects of PN chemistry and enable decision making for WVE-N531.

Hepatic

We are initially focused on developing AIMers to address genetic hepatic diseases. Our AIMers are relatively short and stable (fully chemically modified), which enables us to leverage clinically-proven N-acetyl galactosamine ("GalNAc")-mediated delivery to hepatocytes with subcutaneous dosing.

Alpha-1 antitrypsin deficiency ("AATD"): Our AATD program is the first to leverage our novel RNA editing capability that uses GalNAc-conjugated AIMers (RNA base editing oligonucleotides) and endogenous ADAR enzymes by correcting the single RNA base mutation, ADAR editing may provide an ideal approach for increasing circulating levels of wild-type AAT protein and reducing aggregation in the liver, thus simultaneously addressing both the lung and liver manifestations of the disease. We expect to select an AATD AIMer development candidate and initiate IND-enabling toxicology studies in the third quarter of 2022.

Continuing Impacts of COVID-19

We continue to closely monitor developments related to COVID-19, which was declared a pandemic by the World Health Organization on March 11, 2020. In response to this global pandemic, we have concentrated our efforts on the health and safety of our employees and patients, while maintaining business continuity and honoring our commitment to deliver life-changing treatments for people battling devastating diseases.

Our on-site activities continue with protocols for safely accessing and working within our facilities, including a mandatory COVID-19 vaccination policy that we implemented in October 2021. While we continue to conduct research and development activities, including our ongoing clinical trials, the COVID-19 pandemic has impacted, and may continue to impact, certain of our early-stage discovery efforts and clinical trials. We are working with our clinical investigators, research and development vendors, and supply chain vendors to continually assess and take steps to mitigate the potential impact of COVID-19 on our manufacturing operations and research and development activities.

We will continue to closely monitor the COVID-19 situation as we evolve our business continuity plans. Given the global risks and uncertainties associated with COVID-19, our business, results of operations, and prospects could be materially adversely affected. For additional information, see "Item 1A. Risk Factors" in the 2021 Annual Report on Form 10-K.

Financial Operations Overview

We have never been profitable, and since our inception, we have incurred significant operating losses. Our net loss was $37.8 million and $42.5 million for the three months ended March 31, 2022 and 2021, respectively. As of March 31, 2022 and December 31, 2021, we had an accumulated deficit of $843.3 million and $805.5 million, respectively. We expect to incur significant expenses and operating losses for the foreseeable future.

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. Under the revenue recognition standard, we recognize collaboration revenue under the Takeda Collaboration Agreement (as defined in Note 5 in the notes to the unaudited consolidated financial statements appearing elsewhere in this Quarterly Report on Form 10-Q, "Note 5"), which became effective in April 2018.

Operating Expenses

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

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:

- compensation-related expenses, including employee salaries, bonuses, share-based compensation expense and other related benefits expenses for personnel in our research and development organization;
- expenses incurred under agreements with third parties, including contract research organizations ("CROs") that conduct research, preclinical and clinical activities on our behalf, as well as contract manufacturing organizations ("CMOs") that manufacture drug product for use in our preclinical studies and clinical trials;
- expenses incurred related to our internal manufacturing of drug substance for use in our preclinical studies and clinical trials;
- expenses related to compliance with regulatory requirements;
- expenses related to third-party consultants;
- research and development supplies and services expenses; and
- facility-related expenses, including rent, maintenance and other general operating expenses.

We recognize research and development costs as incurred. 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 expenses.

Our primary research and development focus since inception has been the development of our proprietary discovery and drug development platform, PRISM. We are using PRISM, which includes our novel PN backbone chemistry modifications, to design, develop and commercialize a broad pipeline of nucleic acid therapeutic candidates that target RNA using silencing, splicing, and ADAR editing.

Our research and development expenses consist primarily of expenses related to our CROs, CMOs, consultants, other external vendors and fees paid to global regulatory agencies to conduct our clinical trials, in addition to compensation-related expenses, internal manufacturing expenses, facility-related expenses and other general operating expenses. These expenses are incurred in connection with research and development efforts and our preclinical studies and clinical trials. We track certain external expenses on a program-by-program basis. However, we do not allocate compensation-related expenses, internal manufacturing expenses, equipment repairs and maintenance expense, facility-related expenses or other operating expenses to specific programs. These expenses, which are not allocated on a program-by-program basis, are included in the "PRISM (including ADAR editing) and other research and development expenses" category along with other external expenses related to our discovery and development programs, as well as platform development and identification of potential drug discovery candidates.

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 to continue to incur significant research and development expenses in the foreseeable future as we continue to manage our existing clinical trials, initiate additional clinical trials for certain product candidates, pursue later stages of clinical development for certain product candidates, maintain our manufacturing capabilities and continue to discover and develop additional product candidates in multiple therapeutic areas.

General and Administrative Expenses

General and administrative expenses consist primarily of compensation-related expenses, including salaries, bonuses, share-based compensation and other related benefits costs for personnel in our executive, finance, corporate, legal and administrative functions, as well as compensation-related expenses for our board of directors. General and administrative expenses also include legal fees; expenses associated with being a public company; professional fees for accounting, auditing, tax and consulting services; insurance costs; travel expenses; other operating costs; and facility-related expenses.

Other Income, Net

Other income, net consists primarily of refundable tax credits from tax authorities. We recognize refundable tax credits when there is reasonable assurance that we will comply with the requirements of the refundable tax credit and that the refundable tax credit will be received.

Income Taxes

We are a Singapore multi-national company subject to taxation in the United States and various other jurisdictions.

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. The preparation of our financial statements and related disclosures requires us to make estimates and assumptions that affect the reported amount of assets, liabilities, revenue, costs and expenses and related disclosures.

Our significant accounting policies, judgments and estimates are described in Note 2 in the notes to the audited consolidated financial statements included in the 2021 Annual Report on Form 10-K, as well as in Note 2 in the notes to the unaudited consolidated financial statements included in this Quarterly Report on Form 10-Q. We believe that our revenue recognition policy, particularly (a) assessing the number of performance obligations; (b) determining the transaction price; (c) allocating the transaction price to the performance obligations in the contract; and (d) determining the pattern over which performance obligations are satisfied, including estimates to complete performance obligations, and the assumptions and estimates used in our analysis of contracts with CROs and CMOs to estimate the contract expense, involve a greater degree of judgment, and therefore we consider them to be our critical accounting policies. We evaluate our estimates and assumptions on an ongoing basis. Our actual results may differ from these estimates under different assumptions and conditions.

Results of Operations

Comparison of the three months ended March 31, 2022 and 2021

	Three Months Ended March 31,		
	2022	2021	Change
		(in thousands)	
Revenue	$ 1,750	$ —	$ 1,750
Operating expenses:			
Research and development	27,470	33,393	(5,923)
General and administrative	12,374	10,078	2,296
Total operating expenses	39,844	43,471	(3,627)
Loss from operations	(38,094)	(43,471)	5,377
Total other income, net	280	1,007	(727)
Loss before income taxes	(37,814)	(42,464)	4,650
Income tax provision	—	—	—
Net loss	$ (37,814)	$ (42,464)	$ 4,650

Revenue

Revenue for the three months ended March 31, 2022 was $1.8 million, which was mainly due to revenue earned under the Takeda Collaboration Agreement (as defined in Note 5) for performing research and development services. No revenue was recognized under the Takeda Collaboration Agreement for the three months ended March 31, 2021, based on the revenue recognition standard.

Research and Development Expenses

	Three Months Ended March 31,		
	2022	2021	Change
		(in thousands)	
ALS and FTD programs	$ 1,739	$ 3,440	$ (1,701)
HD programs	2,193	8,450	(6,257)
DMD programs	425	(200)	625
PRISM (including ADAR editing) and other research and development expenses (1)	23,113	21,703	1,410
Total research and development expenses	$ 27,470	$ 33,393	$ (5,923)

(1) Includes expenses related to: discovery and development programs, identification of potential drug discovery candidates, compensation, internal manufacturing, equipment repairs and maintenance, facilities and other operating expenses, which are not allocated to specific programs.

Research and development expenses were $27.5 million for the three months ended March 31, 2022, compared to $33.4 million for the three months ended March 31, 2021. The decrease of $5.9 million was due to the following:

- a decrease of $1.7 million in external expenses related to our ALS and FTD programs, including our PN chemistry containing WVE-004 program;
- a decrease of approximately $6.3 million in external expenses related to our HD programs, driven by decreased external expenses related to our discontinued WVE-120101 and WVE-120102 programs, partially offset by continuing external expenses for our PN chemistry containing WVE-003 program;
- an increase of $0.6 million in external expenses related to our DMD programs, primarily due to increased expenses related to our PN chemistry containing WVE-N531 program; and
- an increase of $1.4 million in internal and external research and development expenses related to PRISM (including ADAR editing) and our other research and development activities that are not allocated on a program-by-program basis, primarily due to increases in other external research and development expenses, as well as increases in compensation-related expenses.

General and Administrative Expenses

General and administrative expenses were $12.4 million for the three months ended March 31, 2022, as compared to $10.1 million for the three months ended March 31, 2021. The increase of $2.3 million was primarily due to increases in compensation-related expenses, as well as increases in professional services expenses and other general and administrative operating expenses.

Other Income, Net

Other income, net for the three months ended March 31, 2022 and 2021, was $0.3 million and $1.0 million, respectively. Other income, net for both periods primarily consisted of income related to refundable tax credits from tax authorities.

Income Tax Provision

During the three months ended March 31, 2022 and 2021, we recorded no income tax provision. We maintained a full valuation allowance for the three months ended March 31, 2022 and 2021 in all jurisdictions due to uncertainty regarding future taxable income.

Liquidity and Capital Resources

Since our inception, we have not generated any product revenue and have incurred recurring net losses. To date, we have primarily funded our operations through public offerings of our ordinary shares, collaborations with third parties and private placements of debt and equity securities. Through March 31, 2022, we have received an aggregate of approximately $955.7 million in net proceeds from these transactions, consisting of $565.4 million in net proceeds from public offerings of our ordinary shares, $301.0 million from our collaborations and $89.3 million in net proceeds from private placements of our debt and equity securities.

As of March 31, 2022, we had cash, cash equivalents and short-term investments totaling $111.7 million, restricted cash of $3.7 million for our leased premises in Cambridge, Massachusetts and Lexington, Massachusetts, and an accumulated deficit of $843.3 million. Our operating lease commitments as of March 31, 2022 total $35.7 million, of which $5.4 million is related to payments in 2022 and $30.3 million is related to payments beyond 2022.

We expect that our existing cash, cash equivalents and short-term investments will be sufficient to fund our operations for at least the next twelve months. We have based this expectation on assumptions that may prove to be incorrect, and we may use our available capital resources sooner than we currently expect. In addition, we may elect to raise additional funds before we need them if the conditions for raising capital are favorable due to market conditions or strategic considerations, even if we expect we have sufficient funds for our current or future operating plans.

Until we can generate significant revenue from product sales, if ever, we expect to continue to finance our operations through a combination of public or private equity or debt financings or other sources, which may include collaborations with third parties. In May 2019, we filed a shelf registration statement on Form S-3ASR with the SEC pursuant to which we registered for sale an indeterminate amount of any combination of our ordinary shares, debt securities, warrants, rights and/or units from time to time and at prices and on terms that we may determine. Our shelf registration statement on Form S-3ASR also included a prospectus covering up to an aggregate of $250.0 million in ordinary shares that we may issue and sell from time to time, through Jefferies LLC (“Jefferies”) acting as our sales agent, pursuant to the open market sales agreement that we entered into with Jefferies in May 2019, as amended in March 2020 and March 2022 (the “Sales Agreement”), for our “at-the-market” equity program. Since we no longer qualified as a “well-known seasoned issuer” at the time of the filing of our Annual Report on Form 10-K for the year ended December 31, 2019, we previously amended the shelf registration statement to register for sale up to $500.0 million of any combination of our ordinary shares, debt securities, warrants, rights and/or units from time to time and at prices and on terms that we may determine, including the $250.0 million in ordinary shares that we may issue and sell from time to time pursuant to our “at-the-market” equity program. This registration statement, which we refer to as the “2019 Form S-3,” remained effective until our 2022 Form S-3 (as defined below) was declared effective on May 4, 2022, after which time we may no longer offer or sell any securities under the 2019 Form S-3. During the three months ended March 31, 2022, the Company sold 458,092 ordinary shares under its at-the-market equity program for aggregate net proceeds of $1.2 million.

On March 3, 2022, we filed a new universal shelf registration on Form S-3 with the SEC, which was declared effective by the SEC on May 4, 2022, pursuant to which we registered for sale up to $500.0 million of any combination of our ordinary shares, debt securities, warrants, rights and/or units from time to time and at prices and on terms that we may determine, which we refer to as the “2022 Form S-3.” The 2022 Form S-3 includes a prospectus covering up to approximately $132.0 million in ordinary shares that have not yet been issued or sold under our Sales Agreement with Jefferies. As of May 11, 2022, we have $500.0 million in securities available for issuance under the 2022 Form S-3, including approximately $132.0 million in ordinary shares available for issuance under our at-the-market equity program.

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 cash flow activity:

	Three Months Ended March 31,	
	2022	2021
	(in thousands)	
Net cash used in operating activities	$ (39,873)	$ (44,375)
Net cash used in investing activities	(50,208)	(108)
Net cash provided by financing activities	1,316	8,641
Effect of foreign exchange rates on cash, cash equivalents and restricted cash	(86)	(120)
Net decrease in cash, cash equivalents and restricted cash	$ (88,851)	$ (35,962)

Operating Activities

During the three months ended March 31, 2022, operating activities used $39.9 million of cash, primarily due to our net loss of $37.8 million.

During the three months ended March 31, 2021, operating activities used $44.4 million of cash, primarily due to our net loss of $42.5 million.

Investing Activities

During the three months ended March 31, 2022, investing activities used $50.2 million of cash, of which $50.0 million related to purchases of short-term investments and $0.2 million related to purchases of property and equipment.

During the three months ended March 31, 2021, investing activities used $0.1 million of cash, related to purchases of property and equipment.

Financing Activities

During the three months ended March 31, 2022, net cash provided by financing activities was $1.3 million, which was primarily due to the net proceeds from sales of ordinary shares under our at-the-market equity program.

During the three months ended March 31, 2021, net cash provided by financing activities was $8.6 million, which was primarily due to the net proceeds from sales of ordinary shares under our at-the-market equity program.

Funding Requirements

We expect to continue to incur significant expenses in connection with our ongoing research and development activities and our internal cGMP manufacturing activities. Furthermore, we anticipate that our expenses will continue to vary if and as we:

- continue to conduct our clinical trials evaluating our product candidates in patients;
- conduct research and preclinical development of discovery targets and advance additional programs into clinical development;
- file clinical trial applications with global regulatory agencies and conduct clinical trials for our programs;
- evaluate next steps for our programs in rare, inherited eye diseases;
- make strategic investments in continuing to innovate our research and development platform, PRISM, and in optimizing our manufacturing processes and formulations;
- maintain our manufacturing capabilities through our internal facility and our CMOs;
- maintain our intellectual property portfolio and consider the acquisition of complementary intellectual property;
- seek and obtain regulatory approvals for our product candidates;
- respond to the impacts of the COVID-19 global pandemic on our business; and
- establish and build capabilities to market, distribute and sell 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 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 future 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, results and costs of conducting research and continued preclinical and clinical development for our therapeutic programs and future potential pipeline candidates;
- the number and characteristics of product candidates and programs that we pursue;
- the cost of manufacturing clinical supplies of our product candidates;
- whether and to what extent milestone events are achieved under our collaboration with Takeda or any potential future licensee or collaborator;
- the costs, timing and outcome of regulatory review of our product candidates;
- our ability to obtain marketing approval for our product candidates;
- the impacts of the COVID-19 global pandemic on our business;
- 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;
- market acceptance of our product candidates, to the extent any are approved for commercial sale, and 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.

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 when we need them, or at all. We do not currently have any committed external source of funds, except for possible future payments from Takeda under the Takeda Collaboration Agreement. To the extent that we raise additional capital through the sale of equity or convertible debt securities, the ownership interest of our existing shareholders will be diluted, and the terms may include liquidation or other preferences that adversely affect the rights of our shareholders. 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.

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 and capital market risk.

Interest Rate Risk

We are exposed to interest rate risk in the ordinary course of our business. Our cash and cash equivalents are held in readily available checking and money market accounts. Our short-term investments are comprised of term deposits which have fixed interest rates.

Foreign Currency Exchange Rate Risk

Due to our operations outside of the United States, we are exposed to market risk related to changes in foreign currency exchange rates. Historically, we have not hedged our foreign currency exposure. For the three months ended March 31, 2022 and 2021, changes in foreign currency exchange rates did not have a material impact on our business, financial condition, results of operations or cash flows.

Inflation Risk

We do not believe that inflation had a material effect on our business, financial condition, results of operations or cash flows for the three months ended March 31, 2022 and 2021.

Capital Market Risk

We currently have no product revenues and depend on funds raised through other sources. One possible source of funding is through further equity offerings. Our ability to raise funds in this manner depends upon capital market forces affecting our share price, including impacts of the COVID-19 pandemic on the capital markets.

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, 2022. 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 (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, 2022, our principal executive officer and principal financial officer concluded that, as of such date, our disclosure controls and procedures were effective at the reasonable assurance level.

Changes in Internal Control over Financial Reporting

There were no changes in our internal control over financial reporting identified in connection with the evaluation of such internal control required by Rule 13a-15(d) and 15d-15(d) of the Exchange Act that occurred during the three months ended March 31, 2022 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" that appear in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2021, filed with the Securities and Exchange Commission on March 3, 2022, as amended.

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

Recent Sales of Unregistered Equity Securities

None.

Issuer Purchases of Equity Securities

We did not repurchase any of our equity securities during the three months ended March 31, 2022.

Item 3. Defaults Upon Senior Securities

None.

Item 4. Mine Safety Disclosures

Not applicable.

Item 5. Other Information

None.

Item 6. Exhibits

Exhibit Number	Exhibit Description	Filed with this Report	Incorporated by Reference herein from Form or Schedule	Filing Date	SEC File/Reg. Number
4.1	Description of Securities of the Registrant and Comparison of Shareholder Rights	X			
10.1	Amendment No. 2, dated March 3, 2022, to the Open Market Sale Agreement, dated as of May 10, 2019, by and between Wave Life Sciences Ltd. and Jefferies LLC.		Form 8-K (Exhibit 10.1)	03/03/2022	001-37627
10.2†	Collaboration and License Agreement by and between Wave Life Sciences USA, Inc., Wave Life Sciences UK Limited and Takeda Pharmaceutical Company Limited, dated as of February 19, 2018		Form 10-Q (Exhibit 10.1)	05/09/2018	001-37627
10.3	First Amendment to Collaboration and License Agreement by and between Wave Life Sciences USA, Inc., Wave Life Sciences UK Limited and Takeda Pharmaceutical Company Limited, dated as of August 4, 2020	X			
10.4††	Second Amendment to Collaboration and License Agreement by and between Wave Life Sciences USA, Inc., Wave Life Sciences UK Limited and Takeda Pharmaceutical Company Limited, dated as of October 15, 2021		Form 10-K (Exhibit 10.3.2)	03/03/2022	001-37627
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*	Section 1350 Certifications of Principal Executive Officer and Principal Financial Officer	X			
101.INS	Inline XBRL Instance Document – The instance document does not appear in the interactive data file because its Inline XBRL tags are embedded within the Inline XBRL document.	X			
101.SCH	Inline XBRL Taxonomy Extension Schema Document	X			
101.CAL	Inline XBRL Taxonomy Extension Calculation Linkbase Document	X			
101.DEF	Inline XBRL Taxonomy Extension Definition Linkbase Document	X			
101.LAB	Inline XBRL Taxonomy Extension Label Linkbase Document	X			
101.PRE	Inline XBRL Taxonomy Extension Presentation Linkbase Document	X			
104	Cover Page Interactive Data File (formatted in Inline XBRL and contained in Exhibit 101)	X			

(*) The certifications attached as Exhibit 32 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.

(†) Confidential treatment has been granted with respect to certain portions of this exhibit. Omitted portions have been filed separately with the Securities and Exchange Commission.

(††) Certain confidential portions of this Exhibit were omitted by means of marking such portions with brackets ("[***]") because the identified confidential portions (i) are not material and (ii) would be competitively harmful if publicly disclosed.

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.

WAVE LIFE SCIENCES LTD.

Date: May 12, 2022

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

Date: May 12, 2022

By: /s/ Kyle Moran
Kyle Moran
Chief Financial Officer (Principal Financial Officer and Principal Accounting Officer)

DESCRIPTION OF SECURITIES REGISTERED PURSUANT TO SECTION 12 OF THE SECURITIES EXCHANGE ACT OF 1934

Wave Life Sciences Ltd. (the "Company," "we," "us" or "our") has one class of securities registered under Section 12 of the Securities Exchange Act of 1934, as amended (the "Exchange Act"): our ordinary shares, no par value.

DESCRIPTION OF SHARE CAPITAL

General

The following description of our share capital and provisions of our constitution (formerly known as our memorandum and articles of association) are summaries and are qualified by reference to the Companies Act 1967 of Singapore ("Singapore Companies Act") and our constitution. A copy of our constitution has been filed with the Securities and Exchange Commission as an exhibit to our Annual Report on Form 10-K for the fiscal year ended December 31, 2021.

Ordinary Shares

As of March 31, 2022, our issued and paid-up ordinary share capital consists of 60,859,968 ordinary shares. We currently have only one class of issued ordinary shares, which have identical rights in all respects and rank equally with one another. Our ordinary shares have no par value and there is no authorized share capital under Singapore law. There is a provision in our constitution which provides that we may issue shares with such preferred, deferred or other special rights or such restrictions, whether in regard to dividend, voting, return of capital or otherwise as our board of directors may determine.

All of our shares presently issued are fully paid-up, and existing shareholders are not subject to any calls on these shares. Although Singapore law does not recognize the concept of "non-assessability" with respect to newly-issued shares, we note that any purchaser of our shares who has fully paid up all amounts due with respect to such shares will not be subject under Singapore law to any personal liability to contribute to the assets or liabilities of our company in such purchaser's capacity solely as a holder of such shares. We believe that this interpretation is substantively consistent with the concept of "non-assessability" under most, if not all, U.S. state corporations laws. All of our shares are in registered form. We cannot, except in the circumstances permitted by the Singapore Companies Act, grant any financial assistance for the acquisition or proposed acquisition of our own shares. Except as described below under "—Takeovers," there are no limitations imposed by the Singapore Companies Act or by our constitution on the right of shareholders not resident in Singapore to hold or vote ordinary shares.

Transfer Agent and Registrar

The transfer agent and registrar for our ordinary shares is Computershare Trust Company, N.A.

Nasdaq Global Market

Our ordinary shares are listed for quotation on The Nasdaq Global Market under the symbol "WVE."

New Shares

Under the Singapore Companies Act, new shares may be issued only with the prior approval of our shareholders in a general meeting. General approval may be sought from our shareholders in a general meeting for the issue of shares. Approval, if granted, will lapse at the earlier of:

- the conclusion of the next annual general meeting; or
- the expiration of the period within which the next annual general meeting is required by law to be held (i.e., within six months after the end of each financial year),

but any approval may be revoked or varied by the company in a general meeting.

Our shareholders have provided such general authority to issue new ordinary shares until the conclusion of our 2022 annual general meeting. Such approval will lapse in accordance with the preceding paragraph if our shareholders do not grant a new approval at our 2022 annual general meeting. Subject to this and the provisions of the Singapore Companies Act and our constitution, our board

of directors may allot and issue or grant options over or otherwise dispose of new ordinary shares to such persons on such terms and conditions and with the rights and restrictions as they may think fit to impose.

Preferred Shares

Series A Preferred Shares

As of March 31, 2022, we have 3,901,348 Series A preferred shares outstanding. These shares are currently held by one of our largest shareholders, Shin Nippon Biomedical Laboratories, Ltd. The terms of the Series A preferred shares as set out in our constitution include (1) no voting rights at any general meeting other than in limited circumstances, (2) a liquidation preference equal to $0.002 per Series A preferred share, (3) no entitlement to dividends and (4) the right to convert the Series A preferred shares at any time on a one-for-one basis into ordinary shares at the discretion of the holder in accordance with the constitution.

The holders of the Series A preferred shares are not entitled to vote at any general meeting. The only instances in which the holders of the Series A preferred shares are able to vote at a general meeting would be if (but only if) the matters to be discussed at the meeting relate to or there is intent to pass resolutions on (i) abrogating or changing the rights attached to the Series A preferred shares; and (ii) for the winding up of the Company. Such resolutions would require the unanimous approval of the holders of the Series A preferred shares.

Other Preferred Shares

Under the Singapore Companies Act, different classes of shares in a public company may be issued only if (a) the issue of the class or classes of shares is provided for in the constitution of the public company and (b) the constitution of the public company sets out in respect of each class of shares the rights attached to that class of shares. Our constitution provides that we may issue shares of a different class with preferred, deferred or other special rights, or such restrictions, whether in regard to dividend, voting, return of capital or otherwise as our board of directors may determine. Under Singapore law, our preferred shareholders will have the right to attend any general meeting and in a poll at such general meeting, to have at least one vote for every preferred share held:

- upon any resolution concerning the voluntary winding-up of our company under Section 160 of the Insolvency, Restructuring and Dissolution Act 2018;
- upon any resolution which varies the rights attached to such preferred shares; or
- in the case of preferred shares issued after August 15, 1984, but before the commencement of Section 96 of the Companies (Amendment) Act 2014, when the dividends to be paid on our preferred shares or any part thereof are more than twelve months in arrears and unpaid, for the period they remain in arrears and unpaid.

We may, subject to the Singapore Companies Act and the prior approval in a general meeting of our shareholders, issue preferred shares which are, or at our option or are to be, subject to redemption provided that such preferred shares may not be redeemed out of capital unless:

- all the directors have made a solvency statement in relation to such redemption; and
- we have lodged a copy of the statement with the Accounting and Corporate Regulatory Authority of Singapore.

Further, such shares must be fully paid-up before they are redeemed.

As of March 31, 2022, we have no preferred shares outstanding other than the Series A preferred shares described above. At present, we have no plans to issue additional preferred shares.

Registration Rights under our Share Purchase Agreement with Pfizer

Under the terms of our Share Purchase Agreement dated as of May 5, 2016 with an affiliate of Pfizer Inc., or the Pfizer Affiliate, under which the Pfizer Affiliate purchased 1,875,000 ordinary shares from, or the Pfizer Shares, subject to certain conditions and limitations, we agreed to provide certain demand registration rights to the Pfizer Affiliate in order to register all or a portion of the Pfizer Shares purchased by the Pfizer Affiliate. We also provided the Pfizer Affiliate with certain "piggyback" registration rights for a certain period of time, subject to certain conditions and limitations, such that when we propose to register our ordinary shares for our account, the Pfizer Affiliate will have the right to include some or all of the Pfizer Shares in such registration. The Share Purchase Agreement also contains other customary terms and conditions of the parties with respect to the registration of the Pfizer Shares.

Registration Rights under our Share Purchase Agreement with Takeda

On February 19, 2018, we entered into a Share Purchase Agreement with Takeda Pharmaceutical Company Limited ("Takeda"), pursuant to which Takeda purchased 1,096,892 of our ordinary shares (the "Takeda Shares"). In connection with the Share Purchase Agreement, Takeda and we agreed upon certain rights and restrictions as set forth in the Investor Agreement, dated as of April 2, 2018 (the "Investor Agreement"). The Takeda Shares are subject to a lock-up restriction, such that Takeda will not, and will also cause its affiliates not to, without our prior approval, sell, transfer or otherwise dispose of the Takeda Shares until certain specified periods of time after the effective date of the Investor Agreement. For a certain period following the expiration of the lock-up period, subject to certain conditions and limitations, we agreed to provide certain demand registration rights to Takeda in order to register all or a portion of the Takeda Shares purchased by Takeda. We also provided Takeda with certain "piggyback" registration rights for a certain period following the expiration of the lock-up period, subject to certain conditions and limitations, such that when we propose to register our ordinary shares for our account, Takeda will have the right to include some or all of the Takeda Shares in such registration. The Investor Agreement also contains other customary terms and conditions of the parties with respect to the registration of Takeda Shares.

Transfer of Ordinary Shares

Subject to applicable securities laws in relevant jurisdictions and our constitution, our ordinary shares are freely transferable. Our constitution provides that shares may be transferred by a duly signed instrument of transfer in any usual or common form or in a form approved by the directors and The Nasdaq Stock Market. The directors may decline to register any transfer unless, among other things, evidence of payment of any stamp duty payable with respect to the transfer is provided together with other evidence of ownership and title as the directors may reasonably require to show the right of the transferor to make the transfer. We will replace lost or destroyed certificates for shares upon notice to us and upon, among other things, the applicant furnishing evidence and indemnity as the directors may require and the payment of all applicable fees.

Election and Re-election of Directors

We may, by ordinary resolution, remove any director before the expiration of his or her period of office, notwithstanding anything in our constitution or in any agreement between us and such director. We may also, by an ordinary resolution, appoint another person in place of a director removed from office pursuant to the foregoing.

Under our constitution, subject to the Singapore Companies Act, any director shall retire at the next annual general meeting and shall then be eligible for re-election at that meeting.

Our board of directors shall have the power, at any time and from time to time, to appoint any person to be a director either to fill a casual vacancy or as an additional director so long as the total number of directors shall not at any time exceed the maximum number (if any) fixed by or in accordance with our constitution.

Shareholders' Meetings

We are required to hold an annual general meeting each calendar year and within six months after the end of each financial year. The directors may convene an extraordinary general meeting whenever they think fit and they must do so upon the written request of shareholders holding not less than 10% of the total number of paid-up shares as of the date of deposit of the requisition carrying the right to vote at a general meeting. In addition, two or more shareholders holding not less than 10% of our total number of issued shares (excluding our treasury shares) may call a meeting of our shareholders.

The Singapore Companies Act provides that a shareholder is entitled to attend any general meeting and speak on any resolution put before the general meeting. Unless otherwise required by law or by our constitution, resolutions put forth at general meetings may be decided by ordinary resolution, requiring the affirmative vote of a majority of the shareholders present in person or represented by proxy at the meeting and entitled to vote on the resolution. An ordinary resolution suffices, for example, for appointments of directors. A special resolution, requiring an affirmative vote of not less than three-fourths of the shareholders present in person or represented by proxy at the meeting and entitled to vote on the resolution, is necessary for certain matters under Singapore law, such as an alteration of our constitution. A shareholder entitled to attend and vote at a meeting of the company, or at a meeting of any class of shareholders of the company, is entitled to appoint another person or persons, whether a shareholder of the company or not, as the shareholder's proxy to attend and vote instead of the shareholder at the meeting. Under the Singapore Companies Act, a proxy appointed to attend and vote instead of the shareholder also has the same right as the shareholder to speak at the meeting, but unless the constitution of the company otherwise provides, (i) a proxy is not entitled to vote except on a poll, (ii) a shareholder is not entitled to appoint more than

two proxies to attend and vote at the same meeting and (iii) where a shareholder appoints two proxies the appointments are invalid unless the shareholder specifies the proportions of the shareholder's holdings to be represented by each proxy.

Notwithstanding the foregoing, a registered shareholder entitled to attend and vote at a meeting of the company held pursuant to an order of court under Section 210(1) of the Singapore Companies Act, or at any adjourned meeting under Section 210(3) of the Singapore Companies Act, is, unless the court orders otherwise, entitled to appoint only one proxy to attend and vote at the same meeting, and except where the aforementioned applies, a registered shareholder having a share capital who is a relevant intermediary (as defined under the Singapore Companies Act) may appoint more than two proxies in relation to a meeting to exercise all or any of the shareholder's rights to attend and to speak and vote at the meeting, but each proxy must be appointed to exercise the rights attached to a different share or shares held by the shareholder (which number and class of shares shall be specified), and at such meeting, the proxy has the right to vote on a show of hands.

Only registered shareholders of our company, and their proxies, will be entitled to attend, speak and vote at any meeting of shareholders. Under the Singapore Companies Act, public companies may issue non-voting shares and shares that confer special, limited or conditional voting rights, such that the holder of a share may vote on a resolution before a general meeting of the company if, in accordance with the provisions of Section 64A of the Singapore Companies Act, the share confers on the holder a right to vote on that resolution.

Voting Rights

As provided under our constitution and the Singapore Companies Act, voting at any meeting of shareholders is by show of hands unless a poll has been demanded prior to the declaration of the result of the show of hands by, among others, (i) the chairman or (ii) at least one shareholder present in person or by proxy or by attorney or, in the case of a corporation, by a representative entitled to vote thereat, in each case representing in the aggregate not less than 5% of the total voting rights of all shareholders having the right to vote at the general meeting, provided that no poll shall be demanded in respect of an election of a chairman or relating to any adjournment of such meeting. On a poll every shareholder who is present in person or by proxy or by attorney, or in the case of a corporation, by a representative, has one vote for every share held by such shareholder. Proxies need not be shareholders.

Only those shareholders who are registered in our register of members as holders of ordinary shares will be entitled to vote at any meeting of shareholders. Therefore, DTC, or its nominee, will grant an omnibus proxy to DTC participants holding our shares in book-entry form through a broker, bank, nominee, or other institution that is a direct or indirect participant in the DTC. Such shareholders will have the right to instruct their broker, bank, nominee or other institution holding these shares on how to vote such shares by completing the voting instruction form provided by the applicable broker, bank, nominee, or other institution. Whether voting is by a show of hands or by a poll, DTC’s vote will be voted by the chairman of the meeting according to the results of the DTC’s participants’ votes (which results will reflect the instructions received from shareholders that own our shares electronically in book-entry form).

Minority Rights

The rights of minority shareholders of Singapore companies are protected, among other things, under Section 216 of the Singapore Companies Act, which gives the Singapore courts a general power to make any order, upon application by any shareholder of a company, as they think fit to remedy any of the following situations:

- the affairs of a company are being conducted or the powers of the board of directors are being exercised in a manner oppressive to, or in disregard of the interests of, one or more of the shareholders, including the applicant; or
- a company takes an action, or threatens to take an action, or the shareholders pass a resolution, or propose to pass a resolution, which unfairly discriminates against, or is otherwise prejudicial to, one or more of the shareholders, including the applicant.

Singapore courts have wide discretion as to the remedy they may grant, and the remedies listed in the Singapore Companies Act itself are not exclusive. In general, Singapore courts may, with a view to bringing to an end or remedying the matters complained of:

- direct or prohibit any act or cancel or modify any transaction or resolution;
- regulate the conduct of the affairs of the company in the future;
- authorize civil proceedings to be brought in the name of, or on behalf of, the company by a person or persons and on such terms as the court may direct;

- provide for the purchase of a minority shareholder's shares by the other shareholders or by the company itself;
- in the case of a purchase of shares by the company provide for a reduction accordingly of the company's capital; or
- provide that the company be wound up.

Dividends

Subject to any preferential rights of holders of any outstanding preferred shares, holders of our ordinary shares will be entitled to receive dividends and other distributions in cash, shares or property as may be declared by our company from time to time. We may, by ordinary resolution, declare dividends at a general meeting of shareholders, but we are restricted from paying dividends in excess of the amount recommended by our board of directors. Pursuant to Singapore law and our constitution, no dividend may be paid except out of our profits. To date, we have not declared any cash dividends on our ordinary shares and have no current plans to pay cash dividends in the foreseeable future.

Bonus and Rights Issues

In a general meeting, our shareholders may, upon the recommendation of the directors, capitalize any reserves or profits and distribute them as bonus shares, credited as paid-up, to the shareholders in proportion to their shareholdings.

Subject to the provisions of the Singapore Companies Act and our constitution, our directors may also issue rights to take up additional ordinary shares to our shareholders in proportion to their respective ownership. Such rights are subject to any condition attached to such issue and the regulations of any stock exchange on which our shares are listed, as well as U.S. federal and blue sky securities laws applicable to such issue.

Takeovers

The Singapore Code on Take-overs and Mergers applies to, among other things, the acquisition of voting shares of Singapore-incorporated listed public companies or unlisted public companies with more than 50 shareholders and net tangible assets of S$5 million or more. Any person acquiring, whether by a series of transactions over a period of time or not, either on his or her own or together with parties acting in concert with such person, 30% or more of our voting shares, or, if such person holds, either on his or her own or together with parties acting in concert with such person, between 30% and 50% (both amounts inclusive) of our voting shares, and if such person (or parties acting in concert with such person) acquires additional voting shares representing more than 1% of our voting shares in any six-month period, must, except with the consent of the Securities Industry Council in Singapore, extend a mandatory takeover offer for the remaining voting shares in accordance with the provisions of the Singapore Code on Take-overs and Mergers. Responsibility for ensuring compliance with the Singapore Code on Take-overs and Mergers rests with parties (including company directors) to a take-over or merger and their advisors.

"Parties acting in concert" comprise individuals or companies who, pursuant to an agreement or understanding (whether formal or informal), cooperate, through the acquisition by any of them of shares in a company, to obtain or consolidate effective control of that company. Certain persons are presumed (unless the presumption is rebutted) to be acting in concert with each other. They are as follows:

- a company, its parent company, subsidiaries and fellow subsidiaries, the associated companies of any of the company and its related companies, subsidiaries and fellow subsidiaries, companies whose associated companies include any of these companies and any person who has provided financial assistance (other than a bank in the ordinary course of business) to any of the foregoing for the purchase of voting rights;
- a company with any of its directors (together with their close relatives, related trusts and companies controlled by any of the directors, their close relatives and related trusts);
- a company with any of its pension funds and employee share schemes;
- a person with any investment company, unit trust or other fund whose investment such person manages on a discretionary basis, but only in respect of the investment account which such person manages;
- a financial or other professional advisor, including a stockbroker, with its client in respect of the shareholdings of the advisor and persons controlling, controlled by or under the same control as the advisor;

- directors of a company (together with their close relatives, related trusts and companies controlled by any of such directors, their close relatives and related trusts) which is subject to an offer or where the directors have reason to believe a bona fide offer for their company may be imminent;
- partners; and
- an individual and (i) such person's close relatives, (ii) such person's related trusts, (iii) any person who is accustomed to act in accordance with such person's instructions, (iv) companies controlled by the individual, such person's close relatives, related trusts or any person who is accustomed to act in accordance with such person's instructions and (v) any person who has provided financial assistance (other than a bank in the ordinary course of business) to any of the foregoing for the purchase of voting rights.

Subject to certain exceptions, a mandatory offer must be in cash or be accompanied by a cash alternative at not less than the highest price paid by the offeror or parties acting in concert with the offeror during the offer period and within the six months prior to its commencement.

Under the Singapore Code on Take-overs and Mergers, where effective control of a company is acquired or consolidated by a person, or persons acting in concert, a general offer to all other shareholders is normally required. An offeror must treat all shareholders of the same class in an offeree company equally. A fundamental requirement is that shareholders in the company subject to the takeover offer must be given sufficient information, advice and time to consider and decide on the offer. These legal requirements may impede or delay a takeover of our company by a third-party.

We may submit an application to the Securities Industry Council of Singapore for a waiver from the Singapore Code on Take-overs and Mergers so that the Singapore Code on Take-overs and Mergers will not apply to our company for so long as we are not listed on a securities exchange in Singapore. We will make an appropriate announcement if we submit the application and when the result of the application is known.

Liquidation or Other Return of Capital

On a winding-up or other return of capital, subject to any special rights attaching to the Series A preferred shares or to any other class of shares, holders of ordinary shares will be entitled to participate in any surplus assets in proportion to their shareholdings.

COMPARISON OF SHAREHOLDER RIGHTS

We are incorporated under the laws of Singapore. The following discussion summarizes material differences between the rights of holders of our ordinary shares and the rights of holders of the common stock of a typical corporation incorporated under the laws of the state of Delaware which result from differences in governing documents and the laws of Singapore and Delaware.

This discussion does not purport to be a complete statement of the rights of holders of our ordinary shares under applicable law in Singapore and our constitution or the rights of holders of the common stock of a typical corporation under applicable Delaware law and a typical certificate of incorporation and bylaws.

Delaware	Singapore
Board of Directors	
A typical certificate of incorporation and bylaws provides that the number of directors on the board of directors will be fixed from time to time by a vote of the majority of the authorized directors. Under Delaware law, a board of directors can be divided into classes and cumulative voting in the election of directors is only permitted if expressly authorized in a corporation's certificate of incorporation.	The constitution of companies will typically state the minimum and maximum number of directors as well as provide that the number of directors may be increased or reduced by shareholders via ordinary resolution passed at a general meeting, provided that the number of directors following such increase or reduction is within the maximum (if any) and minimum number of directors provided in our constitution and the Singapore Companies Act, respectively.
Limitation on Personal Liability of Directors	
A typical certificate of incorporation provides for the elimination of personal monetary liability of directors for breach of fiduciary duties as directors to the fullest extent permissible under the laws of Delaware, except for liability (i) for any breach of a director's loyalty to the corporation or its stockholders, (ii) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (iii) under Section 174 of the Delaware General Corporation Law (relating to the liability of directors for unlawful payment of a dividend or an unlawful stock purchase or redemption) or (iv) for any transaction from which the director derived an improper personal benefit. A typical certificate of incorporation also provides that if the Delaware General Corporation Law is amended so as to allow further elimination of, or limitations on, director liability, then the liability of directors will be eliminated or limited to the fullest extent permitted by the Delaware General Corporation Law as so amended.	Pursuant to the Singapore Companies Act, any provision (whether in the constitution, a contract with the company or otherwise) exempting or indemnifying a director against any liability which by law would otherwise attach to him or her in respect of any negligence, default, breach of duty or breach of trust of which such director may be guilty in relation to the company is void. However, a company is not prohibited from (a) purchasing and maintaining for any such director insurance against any such liability, or (b) indemnifying such director against any liability incurred by him or her to a person other than the company except when the indemnity is against any liability (i) of the director to pay a fine in criminal proceedings, (ii) of the director to pay a penalty in respect of non-compliance with any regulatory requirements, (iii) incurred by the director in defending criminal proceedings in which he or she is convicted, (iv) incurred by the director in defending civil proceedings brought by the company or a related company in which judgment is given against him or her, or (v) incurred by the director in connection with an application for relief under Section 76A(13) or Section 391 of the Singapore Companies Act in which the court refuses to grant him or her relief. Nevertheless, a director can be released by the shareholders of a company for breaches of duty to a company except in the case of fraud, illegality, insolvency of the company and oppression or disregard of minority interests.

	Subject to the Singapore Companies Act and every other Singapore statute for the time being in force and affecting the Company, we may indemnify our directors against costs, charges, fees, and other expenses that may be incurred by any of them in defending any proceedings (whether civil or criminal) relating to anything done or omitted or alleged to be done or omitted by such person acting in his or her capacity as a director of our company, in which judgment is given in his or her favor, or in which he or she is acquitted or in which the courts have granted relief pursuant to the provisions of the Singapore Companies Act, provided that such indemnity shall not extend to any liability which by law would otherwise attach to him or her in respect of any negligence, default, breach of duty or breach of trust of which he may be guilty in relation to our company, or which would otherwise result in such indemnity being voided under applicable Singapore laws.
Interested Shareholders	
Section 203 of the Delaware General Corporation Law generally prohibits a Delaware corporation from engaging in specified corporate transactions (such as mergers, stock and asset sales, and loans) with an "interested stockholder" for three years following the time that the stockholder becomes an interested stockholder. Subject to specified exceptions, an "interested stockholder" is a person or group that owns 15% or more of the corporation's outstanding voting stock (including any rights to acquire stock pursuant to an option, warrant, agreement, arrangement or understanding, or upon the exercise of conversion or exchange rights, and stock with respect to which the person has voting rights only), or is an affiliate or associate of the corporation and was the owner of 15% or more of the voting stock at any time within the previous three years. A Delaware corporation may elect to "opt out" of, and not be governed by, Section 203 through a provision in either its original certificate of incorporation, or an amendment to its original certificate or bylaws that was approved by majority stockholder vote. With a limited exception, this amendment would not become effective until 12 months following its adoption.	There are no comparable provisions under the Singapore Companies Act with respect to public companies which are not listed on the Singapore Exchange Securities Trading Limited.
Removal of Directors	
A typical certificate of incorporation and bylaws provide that, subject to the rights of holders of any preferred stock, directors may be removed at any time by the affirmative vote of the holders of at least a majority, or in some instances a supermajority, of the voting power of all of the then outstanding shares entitled to vote generally in the election of directors, voting together as a single class. A certificate of incorporation could also provide that such a right is only exercisable when a director is being removed for cause (removal of a director only for cause is the default rule in the case of a classified board).	Under the Singapore Companies Act, directors of a public company may be removed before expiration of their term of office, despite anything in its constitution or in any agreement between the public company and such directors, by ordinary resolution (i.e., a resolution which is passed by a simple majority of those shareholders present and voting in person or by proxy). Notice of the intention to move such a resolution has to be given to the company not less than 28 days before the meeting at which it is moved. The company must then give notice of such resolution to its shareholders not less than 14 days before the meeting. Where any director removed in this manner was appointed to represent the interests of any particular class of shareholders or debenture holders, the resolution to remove the director does not take effect until the director's successor has been appointed.

Filling Vacancies on the Board of Directors

A typical certificate of incorporation and bylaws provide that, subject to the rights of the holders of any preferred stock, any vacancy, whether arising through death, resignation, retirement, disqualification, removal, an increase in the number of directors or any other reason, may be filled by a majority vote of the remaining directors, even if such directors remaining in office constitute less than a quorum, or by the sole remaining director. Any newly elected director usually holds office for the remainder of the full term expiring at the annual meeting of stockholders at which the term of the class of directors to which the newly elected director has been elected expires.

The constitution of a Singapore company typically provides that the directors have the power to appoint any person to be a director, either to fill a vacancy or as an addition to the existing directors, but so that the total number of directors shall not at any time exceed the maximum number (if any) fixed by or in accordance with the constitution. Any director so appointed shall hold office until the next following annual general meeting, where such director will then be eligible for re-election. Our constitution provides that the directors may appoint any person to be a director either to fill a casual vacancy or as an additional director but so that the total number of Directors shall not at any time exceed the maximum number fixed by or in accordance with the constitution.

Amendment of Governing Documents

Under the Delaware General Corporation Law, amendments to a corporation's certificate of incorporation require the approval of stockholders holding a majority of the outstanding shares entitled to vote on the amendment. If a class vote on the amendment is required by the Delaware General Corporation Law, a majority of the outstanding stock of the class is required, unless a greater proportion is specified in the certificate of incorporation or by other provisions of the Delaware General Corporation Law.

Under the Delaware General Corporation Law, the board of directors may amend bylaws if so authorized in the charter. The stockholders of a Delaware corporation also have the power to amend bylaws.

Our constitution may be altered by special resolution (i.e., a resolution passed by at least a three-fourths majority of the shareholders entitled to vote, present in person or by proxy at a meeting for which not less than 21 days' written notice is given). The board of directors has no right to amend the constitution.

Under the Singapore Companies Act, an entrenching provision may be included in the constitution with which a company is formed and may at any time be inserted into the constitution of a company only if all the shareholders of the company agree. An entrenching provision is a provision of the constitution of a company to the effect that other specified provisions of the constitution may not be altered in the manner provided by the Singapore Companies Act or may not be so altered except (i) by a resolution passed by a specified majority greater than 75% (the minimum majority required by the Singapore Companies Act for a special resolution) or (ii) where other specified conditions are met. The Singapore Companies Act provides that such entrenching provision may be removed or altered only if all the members of the company agree.

Meetings of Shareholders

Annual and Special Meetings

Typical bylaws provide that annual meetings of stockholders are to be held on a date and at a time fixed by the board of directors. Under the Delaware General Corporation Law, a special meeting of stockholders may be called by the board of directors or by any other person authorized to do so in the certificate of incorporation or the bylaws.

Annual General Meetings

All companies are required to hold an annual general meeting after the end of each financial year within either 4 months (in the case of a public company that is listed on an exchange in Singapore approved by the Monetary Authority of Singapore) or 6 months (in the case of any other company).

Extraordinary General Meetings

Any general meeting other than the annual general meeting is called an "extraordinary general meeting." Despite anything in the constitution, directors of a company must convene an extraordinary general meeting if required to do so by requisition (i.e. written notice, requiring that a meeting be called, given to the directors) by shareholder(s) holding not less than 10% of the total number of paid-up shares as at the date of the deposit of the requisition carrying the right of voting at general meetings of the company. In addition, the constitution usually also provides that general meetings may be convened in accordance with the Singapore Companies Act by the directors.

Quorum Requirements

Under the Delaware General Corporation Law, a corporation's certificate of incorporation or bylaws can specify the number of shares which constitute the quorum required to conduct business at a meeting, provided that in no event shall a quorum consist of less than one-third of the shares entitled to vote at a meeting.

Quorum Requirements

Our constitution provides that any two shareholders present in person or by proxy or by attorney or, in the case of a corporation, by a representative and entitled to vote thereat; in each case representing in aggregate not less than a majority of the total voting rights of all shareholders having the right to vote at a general meeting, shall constitute a quorum. In the event a quorum is not present, the meeting if not convened on the requisition of shareholders may be adjourned for one week. When reconvened, the quorum for the meeting will be the same and if at such adjourned meeting a quorum is not present, the meeting will be dissolved.

Shareholders' Rights at Meetings

The Singapore Companies Act provides that every member has, despite any provision in the constitution, a right to attend any general meeting of the company and to speak on any resolution before the meeting. The company's constitution may provide that a member shall not be entitled to vote unless all calls or other sums personally payable by the member in respect of shares in the company have been paid.

Public companies may issue non-voting shares and shares that confer special, limited and conditional voting rights, such that the holder of a share may vote on a resolution before a general meeting if, in accordance with the provisions of Section 64A of the Singapore Companies Act, the share confers on the holder a right to vote on the resolution.

Circulation of Shareholders' Resolutions

Under the Singapore Companies Act, (a) any number of shareholders representing not less than 5% of the total voting rights of all the shareholders having at the date of requisition a right to vote at a meeting to which the requisition relates or (b) not less than 100 shareholders holding shares on which there has been paid up an average sum, per shareholder, of not less than S$500, may requisition the company to give to shareholders notice of any resolution which may properly be moved and is intended to be moved at the next annual general meeting, and circulate to shareholders any statement of not more than 1,000 words with respect to the matter referred to in any proposed resolution or the business to be dealt with at that meeting.

Indemnification of Officers, Directors and Employees

Under the Delaware General Corporation Law, subject to specified limitations in the case of derivative suits brought by a corporation's stockholders in its name, a corporation may indemnify any person who is made a party to any third-party action, suit or proceeding on account of being a director, officer, employee or agent of the corporation (or was serving at the request of the corporation in such capacity for another corporation, partnership, joint venture, trust or other enterprise) against expenses, including attorney's fees, judgments, fines and amounts paid in settlement actually and reasonably incurred by him or her in connection with the action, suit or proceeding through, among other things, a majority vote of a quorum consisting of directors who were not parties to the suit or proceeding, if the person:

- acted in good faith and in a manner he or she reasonably believed to be in or not opposed to the best interests of the corporation or, in some circumstances, at least not opposed to its best interests; and
- in a criminal proceeding, had no reasonable cause to believe his or her conduct was unlawful.

Delaware corporate law permits indemnification by a corporation under similar circumstances for expenses (including attorneys' fees) actually and reasonably incurred by such persons in connection with the defense or settlement of a derivative action or suit, except that no indemnification may be made in respect of any claim, issue or matter as to which the person is adjudged to be liable to the corporation unless the Delaware Court of Chancery or the court in which the action or suit was brought determines upon application that the person is fairly and reasonably entitled to indemnity for the expenses which the court deems to be proper.

To the extent a director, officer, employee or agent is successful in the defense of such an action, suit or proceeding, the corporation is required by Delaware corporate law to indemnify such person for reasonable expenses incurred thereby. Expenses (including attorneys' fees) incurred by such persons in defending any action, suit or proceeding may be paid in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of that person to repay the amount if it is ultimately determined that that person is not entitled to be so indemnified.

Under Section 172 of the Singapore Companies Act, any provision exempting or indemnifying the officers of a company (including directors) against liability, which by law would otherwise attach to them in connection with any negligence, default, breach of duty or breach of trust in relation to the company is void.

However, the Singapore Companies Act allows a company to:

- purchase and maintain for any officer insurance against any liability which by law would otherwise attach to such officer in connection with any negligence, default, breach of duty or breach of trust in relation to the company;
- indemnify such officer against any liability incurred by him or her to a person other than the company except when the indemnity is against any liability (i) of the officer to pay a fine in criminal proceedings, (ii) of the officer to pay a penalty in respect of non-compliance with any regulatory requirements, (iii) incurred by the officer in defending criminal proceedings in which he or she is convicted, (iv) incurred by the officer in defending civil proceedings brought by the company or a related company in which judgment is given against him or her, or (v) incurred by the officer in connection with an application for relief under Section 76A(13) or Section 391 of the Singapore Companies Act in which the court refuses to grant him or her relief.

In cases where a director is sued by the company, the Singapore Companies Act gives the court the power to relieve directors either wholly or partially from their liability for their negligence, default, breach of duty or breach of trust. In order for relief to be obtained, it must be shown that (i) the director acted reasonably and honestly; and (ii) it is fair, having regard to all the circumstances of the case including those connected with such director's appointment, to excuse the director. However, Singapore case law has indicated that such relief will not be granted to a director who has benefited as a result of his or her breach of trust.

	Our constitution provides that subject to the provisions of the Singapore Companies Act and every other applicable statute for the time being in force concerning companies and affecting the company, the directors and officers are entitled to be indemnified against costs, charges, fees and other expenses that may be incurred by such person in defending any proceedings, whether civil or criminal, which relates to anything done or omitted or alleged to be done or omitted by such person as a director, officer or employee of the company and in which judgment is given in his or her favor or in which such person is acquitted or in which the courts have granted relief pursuant to the provisions of the Singapore Companies Act, provided that such indemnity shall not extend to any liability which by law would otherwise attach to him or her in respect of any negligence, default, breach of duty or breach of trust of which he or she may be guilty in relation to the company, or which would otherwise result in such indemnity being voided under applicable Singapore laws.
Shareholder Approval of Issuances of Shares	
Under Delaware law, the board of directors has the authority to issue, from time to time, capital stock in its sole discretion, as long the number the shares to be issued, together with those shares that are already issued and outstanding and those shares reserved to be issued, do not exceed the authorized capital for the corporation as previously approved by the stockholders and set forth in the corporation's certificate of incorporation. Under the foregoing circumstances, no additional stockholder approval is required for the issuance of capital stock. Under Delaware law, stockholder approval is required (i) for any amendment to the corporation's certificate of incorporation to increase the authorized capital and (ii) for the issuance of stock in a direct merger transaction where the number of shares exceeds 20% of the corporation's shares outstanding prior to the transaction, regardless of whether there is sufficient authorized capital.	Section 161 of the Singapore Companies Act provides that despite anything in the company's constitution, the directors must not exercise any power to issue shares without prior approval of Company's shareholders in a general meeting. The affirmative vote of shareholders holding at least a majority of the ordinary shares held by the shareholders present in person or represented by proxy at the annual general meeting and entitled to vote is required for this authorization. Once this shareholders' approval is obtained, unless previously revoked or varied by the company in general meeting, it continues in force until the conclusion of the next annual general meeting or the expiration of the period within which the next annual general meeting after that date is required by law to be held, whichever is earlier; but any approval may be revoked or varied by the company in general meeting. Notwithstanding this general authorization to allot and issue our ordinary shares, Wave will be required to seek shareholder approval with respect to future issuances of ordinary shares, where required under The Nasdaq Stock Market rules, such as if we were to propose an issuance of ordinary shares that would result in a change in control of Wave or in connection with a transaction involving the issuance of ordinary shares representing 20% or more of our outstanding ordinary shares.
Shareholder Approval of Business Combinations	
Generally, under the Delaware General Corporation Law, completion of a merger, consolidation, or the sale, lease or exchange of substantially all of a corporation's assets or dissolution requires approval by the board of directors and by a majority (unless the certificate of incorporation requires a higher percentage) of outstanding stock of the corporation entitled to vote.	The Singapore Companies Act and the Insolvency, Restructuring and Dissolution Act 2018 mandates that specified corporate actions require approval by the shareholders in a general meeting, notably: • despite anything in the company's constitution, directors must not carry into effect any proposals for disposing of the whole or substantially the whole of the company's undertaking or property unless those proposals have been approved by shareholders in a general meeting;

The Delaware General Corporation Law also requires a special vote of stockholders in connection with a business combination with an "interested stockholder" as defined in section 203 of the Delaware General Corporation Law. See "—Interested Shareholders" above.	• the company may by special resolution resolve that it be wound up voluntarily; • subject to the constitution of each amalgamating company, an amalgamation proposal must be approved by the shareholders of each amalgamating company via special resolution at a general meeting; • a compromise or arrangement proposed between a company and its shareholders, or any class of them, must, among other things, be approved by a majority in number representing three-fourths in value of the shareholders or class of shareholders present and voting either in person or by proxy at the meeting ordered by the court; and • despite anything in the company's constitution, the directors must not, without the prior approval of shareholders, issue shares, including shares being issued in connection with corporate actions.

Shareholder Action Without A Meeting

Under the Delaware General Corporation Law, unless otherwise provided in a corporation's certificate of incorporation, any action that may be taken at a meeting of stockholders may be taken without a meeting, without prior notice and without a vote if the holders of outstanding stock, having not less than the minimum number of votes that would be necessary to authorize such action, consent in writing. It is not uncommon for a corporation's certificate of incorporation to prohibit such action.	There are no equivalent provisions under the Singapore Companies Act in respect of public companies which are listed on a securities exchange, like our company.

Shareholder Suits

Under the Delaware General Corporation Law, a stockholder may bring a derivative action on behalf of the corporation to enforce the rights of the corporation. An individual also may commence a class action suit on behalf of himself or herself and other similarly situated stockholders where the requirements for maintaining a class action under the Delaware General Corporation Law have been met. A person may institute and maintain such a suit only if such person was a stockholder at the time of the transaction which is the subject of the suit or his or her shares thereafter devolved upon him or her by operation of law. Additionally, under Delaware case law, the plaintiff generally must be a stockholder not only at the time of the transaction which is the subject of the suit, but also through the duration of the derivative suit. The Delaware General Corporation Law also requires that the derivative plaintiff make a demand on the directors of the corporation to assert the corporate claim before the suit may be prosecuted by the derivative plaintiff, unless such demand would be futile.	*Standing* Only registered shareholders of our company reflected in our register of members are recognized under Singapore law as shareholders of our company. As a result, only registered shareholders have legal standing to institute shareholder actions against us or otherwise seek to enforce their rights as shareholders. Holders of book-entry interests in our shares will be required to exchange their book-entry interests for certificated shares and to be registered as shareholders in our shareholder register in order to institute or enforce any legal proceedings or claims against us, our directors or our executive officers relating to shareholder rights. A holder of book-entry interests may become a registered shareholder of our company by exchanging its interest in our shares for certificated shares and being registered in our shareholder register.

Personal remedies in cases of oppression or injustice

A shareholder may apply to the court for an order under Section 216 of the Singapore Companies Act to remedy situations where (i) the company's affairs are being conducted or the powers of the company's directors are being exercised in a manner oppressive to, or in disregard of the interests of one or more of the shareholders or holders of debentures of the company, including the applicant; or (ii) the company has done an act, or threatens to do an act, or the shareholders or holders of debentures have passed some resolution, which unfairly discriminates against, or is otherwise prejudicial to, one or more of the company's shareholders or holders of debentures, including the applicant.

Singapore courts have wide discretion as to the relief they may grant under such application, including, *inter alia*, directing or prohibiting any act or cancelling or varying any transaction or resolution, providing that the company be wound up, or authorizing civil proceedings to be brought in the name of or on behalf of the company by such person or persons and on such terms as the court directs.

Derivative actions and arbitrations

The Singapore Companies Act has a provision which provides a mechanism enabling shareholders to apply to the court for leave to bring a derivative action or commence an arbitration on behalf of the company. Derivative actions are also allowed as a common law action.

Applications are generally made by shareholders of the company, but courts are given the discretion to allow such persons as they deem proper to apply (e.g., beneficial owner of shares).

It should be noted that this provision of the Singapore Companies Act is primarily used by minority shareholders to bring an action or arbitration in the name and on behalf of the company or intervene in an action or arbitration to which the company is a party for the purpose of prosecuting, defending or discontinuing the action or arbitration on behalf of the company. Prior to commencing a derivative action or arbitration, the court must be satisfied that (i) 14 days' notice has been given to the directors of the company of the party's intention to commence such action or arbitration if the directors of the company do not bring, diligently prosecute or defend or discontinue the action, (ii) the party is acting in good faith and (iii) it appears to be prima facie in the interests of the company that the action be brought, prosecuted, defended or discontinued.

Class actions

The concept of class action suits in the United States, which allows individual shareholders to bring an action seeking to represent the class or classes of shareholders, does not exist in the same manner in Singapore. In Singapore, it is possible as a matter of procedure for a number of shareholders who have a common interest in any proceedings, to begin proceedings as a group with one or more of such shareholders representing the group.

Distributions and Dividends; Repurchases and Redemptions

The Delaware General Corporation Law permits a corporation to declare and pay dividends out of statutory surplus or, if there is no surplus, out of net profits for the fiscal year in which the dividend is declared and/or for the preceding fiscal year as long as the amount of capital of the corporation following the declaration and payment of the dividend is not less than the aggregate amount of the capital represented by the issued and outstanding stock of all classes having a preference upon the distribution of assets.

Under the Delaware General Corporation Law, any corporation may purchase or redeem its own shares, except that generally it may not purchase or redeem these shares if the capital of the corporation is impaired at the time or would become impaired as a result of the redemption. A corporation may, however, purchase or redeem out of capital shares that are entitled upon any distribution of its assets to a preference over another class or series of its shares if the shares are to be retired and the capital reduced.

The Singapore Companies Act provides that no dividend is payable to the shareholders of any company except out of profits.

The Singapore Companies Act does not provide a definition on when profits are deemed to be available for the purpose of paying dividends and this is accordingly governed by case law.

Our constitution provides that no dividend can be paid otherwise than out of profits.

Acquisition of a company's own shares

The Singapore Companies Act generally prohibits a company from acquiring its own shares or purporting to acquire the shares of its holding company or ultimate holding company, whether directly or indirectly, in any way, subject to certain exceptions. Any contract or transaction made or entered into in contravention of the aforementioned prohibition by which a company acquires or purports to acquire its own shares or shares in its holding company or ultimate holding company is void. However, provided that it is expressly permitted to do so by its constitution and subject to the special conditions of each permitted acquisition contained in the Singapore Companies Act, a company may:

- redeem redeemable preferred shares on such terms and in such manner as is provided by its constitution. Preferred shares may be redeemed out of capital only if all the directors make a solvency statement in relation to such redemption in accordance with the Singapore Companies Act, and the company lodges a copy of the statement with the Registrar of Companies;
- whether listed on an exchange in Singapore approved by the Monetary Authority of Singapore or any securities exchange outside Singapore, or not, make an off-market purchase of its own shares in accordance with an equal access scheme authorized in advance at a general meeting;
- make a selective off-market purchase of its own shares in accordance with an agreement authorized in advance at a general meeting by a special resolution where persons whose shares are to be acquired and their associated persons have abstained from voting; and
- whether listed on an exchange in Singapore approved by the Monetary Authority of Singapore or any securities exchange outside Singapore, or not, make an acquisition of its own shares under a contingent purchase contract which has been authorized in advance at a general meeting by a special resolution.

A company may also purchase its own shares by an order of a Singapore court.

- The total number of ordinary shares, stocks in any class and non-redeemable preferred shares that may be acquired by a company in a relevant period must not exceed 20% (or such other prescribed percentage) of the total number of ordinary shares, stocks in any class or non-redeemable preferred shares (as the case may be) as of the date of the resolution to acquire the shares. Where, however, a company has reduced its share capital by a special resolution or a Singapore court made an order to such effect, the total number of ordinary shares, stocks in any class or non-redeemable preferred shares shall be taken to be the total number of ordinary shares, stocks in any class or non-redeemable preferred shares (as the case may be) as altered by the special resolution or the order of the court. Payment, including any expenses (including brokerage or commission) incurred directly in the acquisition by the company of its own shares, may be made out of the company's profits or capital, provided that the company is solvent.

Financial assistance for the acquisition of shares

A public company or a company whose holding company or ultimate holding company is a public company must not give financial assistance to any person whether directly or indirectly for the purpose of or in connection with:

- the acquisition or proposed acquisition of shares in the company or units of such shares; or
- the acquisition or proposed acquisition of shares in its holding company or ultimate holding company, or units of such shares.

Financial assistance may take the form of a loan, the giving of a guarantee, the provision of security, the release of an obligation, the release of a debt or otherwise.

However, it should be noted that a company may provide financial assistance for the acquisition of its shares or shares in its holding company or ultimate holding company if it complies with the requirements (including approval by special resolution) set out in the Singapore Companies Act.

Our constitution provides that subject to the provisions of the Singapore Companies Act, we may purchase or otherwise acquire our own shares upon such terms and subject to such conditions as we may deem fit. We may deal with any such shares which is so purchased or acquired by us in such manner as may be permitted under the Singapore Companies Act (including, without limitation, hold such shares as treasury shares).

Transactions with Officers or Directors

Under the Delaware General Corporation Law, some contracts or transactions in which one or more of a corporation's directors has an interest are not void or voidable because of such interest provided that some conditions, such as obtaining the required approval and fulfilling the requirements of good faith and full disclosure, are met. Under the Delaware General Corporation Law, either (a) the stockholders or the board of directors of a corporation must approve in good faith any such contract or transaction after full disclosure of the material facts or (b) the contract or transaction must have been "fair" as to the corporation at the time it was approved. If board approval is sought, the contract or transaction must be approved in good faith by a majority of disinterested directors after full disclosure of material facts, even though less than a majority of a quorum.

Under the Singapore Companies Act, directors and the chief executive officer of the company are not prohibited from dealing with the company, but where they have an interest, whether directly or indirectly, in a transaction with the company, that interest must be disclosed to the board of directors. In particular, every director or chief executive officer who is in any way, whether directly or indirectly, interested in a transaction or proposed transaction with the company must, as soon as is practicable after the relevant facts have come to such director's or, as the case may be, the chief executive officer's knowledge, declare the nature of such interest at a meeting of the directors or send a written notice to the company detailing the nature, character and extent of the interest.

In addition, a director or chief executive officer who holds any office or possesses any property which directly or indirectly might create interests in conflict with such director's or, as the case may be, the chief executive officer's duties as director or chief executive officer is required to declare the fact and the nature, character and extent of the conflict at a meeting of directors or send a written notice to the company detailing the nature, character and extent of the conflict.

The Singapore Companies Act extends the scope of this statutory duty of a director and chief executive officer to disclose any interests by pronouncing that an interest of a member of a director's or, as the case may be, the chief executive officer's family (including spouse, son, adopted son, step-son, daughter, adopted daughter and step-daughter) will be treated as an interest of the director or chief executive officer (as the case may be).

A director or chief executive officer is not deemed to be interested or to have been at any time interested in any transaction or proposed transaction where the interest of the director or chief executive officer (as the case may be) consists only of being a member or creditor of a corporation which is interested in the transaction or proposed transaction with the company if the interest may properly be regarded as immaterial. Where the transaction or the proposed transaction relates to any loan to the company, no disclosure need be made where the director or chief executive officer (as the case may be) has only guaranteed the repayment of such loan, unless the constitution provides otherwise.

Further, where any transaction or proposed transaction has been or will be made with or for the benefit of a related corporation (i.e., the holding company, subsidiary or subsidiary of a common holding company), the director or chief executive officer is not deemed to be interested or to have been at any time interested in such transaction or proposed transaction by virtue of only being a director or chief executive officer (as the case may be) of the related corporation, unless the constitution provides otherwise.

Subject to specified exceptions, the Singapore Companies Act prohibits a company (other than an exempt private company) from, among others, (i) making a loan or a quasi-loan to its directors or to directors of a related corporation, or giving a guarantee or security in connection with such a loan or quasi-loan, (ii) entering into a credit transaction as creditor for the benefit of its directors or the directors of a related corporation, or giving a guarantee or any security in connection with such a credit transaction, (iii) arranging an assignment to or assumption by us of any rights, obligations or liabilities under a transaction which, if it had been entered into by us, would have been a restricted transaction, and (iv) taking part in an arrangement under which another person enters into a transaction which, if entered into by us, would have been a restricted transaction and such person obtains a benefit from us or our related corporation pursuant thereto. Companies are also prohibited from entering into any of these transactions with the spouse or children (whether adopted or natural or step-children) of its directors.

Subject to specified exceptions, the Singapore Companies Act prohibits a company (other than an exempt private company) from making a loan or a quasi-loan to another company or a limited liability partnership or entering into any guarantee or providing any security in connection with a loan or a quasi-loan made to another company or a limited liability partnership by a person other than the first-mentioned company, entering into a credit transaction as a creditor for the benefit of another company or a limited liability partnership, or entering into any guarantee or provide any security in connection with a credit transaction entered into by any person for the benefit of another company or a limited liability partnership if a director or directors of the first-mentioned company is or together are interested in 20% or more of the total voting power in the other company or the limited liability partnership (as the case may be).

Such prohibition also applies to a loan, quasi-loan, credit transaction made by a company (other than an exempt private company), a credit transaction made by a company (other than an exempt private company) for the benefit of another company or limited liability partnership and a guarantee or security provided by a company (other than an exempt private company) in connection with a loan or quasi-loan made by a person other than the first-mentioned company to another company or a limited liability partnership where such other company or limited liability partnership is incorporated or formed (as the case may be) outside Singapore, if a director or directors of the first-mentioned company (a) is or together are interested in 20% or more of the total voting power in the other company or limited liability partnership or (b) in a case where the other company does not have a share capital, exercises or together exercise control over the other company whether by reason of having the power to appoint directors or otherwise.

The Singapore Companies Act also provides that an interest of a member of a director’s family (including spouse, son, adopted son, step-son, daughter, adopted daughter and step-daughter) will be treated as an interest of the director.

Dissenters' Rights	
Under the Delaware General Corporation Law, a stockholder of a corporation participating in some types of major corporate transactions may, under varying circumstances, be entitled to appraisal rights pursuant to which the stockholder may receive cash in the amount of the fair market value of his or her shares in lieu of the consideration he or she would otherwise receive in the transaction.	There are no equivalent provisions in Singapore under the Singapore Companies Act.
Cumulative Voting	
Under the Delaware General Corporation Law, a corporation may adopt in its bylaws that its directors shall be elected by cumulative voting. When directors are elected by cumulative voting, a stockholder has the number of votes equal to the number of shares held by such stockholder times the number of directors nominated for election. The stockholder may cast all of such votes for one director or among the directors in any proportion.	There are no equivalent provisions in Singapore under the Singapore Companies Act.

Exhibit 10.3

First Amendment To
Collaboration and License Agreement

This First Amendment (the "**First Amendment**") to that certain Collaboration Agreement (as defined below) is entered into as of August 4, 2020 ("**First Amendment Effective Date**") by and among Wave Life Sciences USA, Inc., a corporation organized and existing under the Laws of the State of Delaware ("**Wave US**"), Wave Life Sciences UK Limited, a private limited company incorporated under the laws of England and Wales ("**Wave UK**", and together with Wave US, "**Wave**"), and Takeda Pharmaceutical Company Limited, a corporation organized and existing under the Laws of the Japan ("**Takeda**"). Wave and Takeda are referred to in this Agreement individually as a "**Party**" and collectively as the "**Parties**." Capitalized terms that are not defined herein shall have the meaning ascribed to them in the Collaboration Agreement.

RECITALS

WHEREAS, Wave and Takeda are Parties to that certain Collaboration and License Agreement executed as of February 19, 2018 (the "**Collaboration Agreement**");

WHEREAS, the Parties desire to amend the Collaboration Agreement.

NOW, THEREFORE, in consideration of the premises and the mutual promises and conditions set forth herein and other good and valuable consideration, the receipt and sufficiency are hereby acknowledged, the Parties, intending to be legally bound, do hereby agree as follows:

1. Amendment.

Section 5.2.3 of the Collaboration Agreement is hereby amended by deleting the fourth sentence thereof and replacing it with the following:

"The Licensed Category 2 Research Budget will be prepared by November 15th and approved by December 15th."

2. Miscellaneous.

2.1. Except as herein provided, the Collaboration Agreement and all of its terms remain in full force and effect. The Collaboration Agreement shall, together with this First Amendment, be read and construed as a single agreement.

2.2. This First Amendment, together with the Collaboration Agreement, Equity Agreements, Supply Agreements, and SDEA, contains the entire understanding of the Parties with respect to the subject matter hereof, and supersedes all previous arrangements with respect to the subject matter hereof, whether written or oral.

2.3. This First Amendment may be executed in two or more counterparts, including by facsimile or PDF signature pages, each of which will be deemed an original, but all of which together will constitute one and the same instrument.

[Remainder of this page is left intentionally blank.]

IN WITNESS WHEREOF, the Parties have caused this First Amendment to be executed by their duly authorized representatives as of the First Amendment Effective Date.

WAVE LIFE SCIENCES USA, INC.

BY: /s/ David Gaiero

NAME: David Gaiero

TITLE: Interim CFO

WAVE LIFE SCIENCES UK LIMITED

BY: /s/ Michael Panzara

NAME: Michael Panzara

TITLE: CMO, Head of Therapeutics Discovery and Development

TAKEDA PHARMACEUTICAL COMPANY LIMITED

BY: /s/ Ceri Davies

NAME: Ceri Davies

TITLE: Vice President, Head Neuroscience DDU

Exhibit 31.1

CERTIFICATIONS UNDER SECTION 302

I, Paul B. Bolno, M.D., MBA, 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(s) 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;
    c) 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
    d) 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(s) 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.

Dated: May 12, 2022

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

Exhibit 31.2

CERTIFICATIONS UNDER SECTION 302

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(s) 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)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)) 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) designed such internal control over financial reporting, or caused such internal control over financial reporting to be designed under our supervision, to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles;

   c) 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

   d) 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(s) 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.

Dated: May 12, 2022

By: /s/ Kyle Moran

Kyle Moran
Chief Financial Officer
(Principal Financial Officer)

Exhibit 32

CERTIFICATIONS UNDER SECTION 906

Pursuant to section 906 of the Sarbanes-Oxley Act of 2002 (subsections (a) and (b) of section 1350, chapter 63 of title 18, United States Code), each of the undersigned officers of Wave Life Sciences Ltd. (the "Company"), does hereby certify, to such officer's knowledge, that:

The Quarterly Report for the quarter ended March 31, 2022 (the "Form 10-Q") of the Company fully complies with the requirements of Section 13(a) or 15(d) of the Securities Exchange Act of 1934, and the information contained in the Form 10-Q fairly presents, in all material respects, the financial condition and results of operations of the Company.

Dated: May 12, 2022

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

Dated: May 12, 2022

/s/ Kyle Moran
Kyle Moran
Chief Financial Officer
(Principal Financial Officer)