

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

FORM 8-K

CURRENT REPORT

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

Date of Report (Date of earliest event reported): **October 6, 2021**

Osmotica Pharmaceuticals plc

(Exact name of registrant as specified in its charter)

Ireland
(State or other jurisdiction
of incorporation)

001-38709
(Commission File Number)

Not Applicable
(IRS Employer
Identification No.)

400 Crossing Boulevard
Bridgewater, NJ
(Address of principal executive offices)

08807
(Zip Code)

(Registrant's telephone number, including area code): **(908) 809-1300**

Not Applicable
(Former name or former address, if changed since last report)

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

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

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
Ordinary Shares	OSMT	Nasdaq Global Select Market

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

Emerging growth company

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

Item 2.03 Creation of a Direct Financial Obligation or an Obligation under an Off-Balance Sheet Arrangement of a Registrant.

On October 12, 2021, Osmotica Pharmaceuticals plc (the “Company”) issued \$55,000,000 of first tranche notes under the previously disclosed Note Purchase Agreement dated October 1, 2021 (the “Note Purchase Agreement”). A portion of the proceeds of the first tranche notes were used to repay in full the \$30.7 million outstanding under the Credit Agreement dated as of February 3, 2016 (as amended, restated or amended and restated from time to time) between the Company, CIT Bank, N.A. (as administrative agent and swingline lender) and the other parties thereto (the “Credit Agreement”). The aggregate proceeds to the Company after the repayment of the \$30.7 million outstanding under the Credit Agreement were \$22.7 million.

The description of the Note Purchase Agreement included in Item 1.01 of the Company’s [Current Report on Form 8-K filed with the Securities and Exchange Commission on October 6, 2021](#) is incorporated into this Item 2.03 by reference.

Item 3.02 Unregistered Sales of Equity Securities.

On October 12, 2021, the Company issued and allotted 6,148,832 of the Company’s ordinary shares, nominal value \$0.01 per share (the “Ordinary Shares”), to Athyrium Opportunities IV Acquisition 2 LP (“Athyrium”) for a price of \$0.01 per share, or an aggregate price of \$61,488.32, pursuant to the previously disclosed Share Subscription Agreement between the Company and Athyrium, dated October 1, 2021. The number of shares issued and allotted to Athyrium is equal to \$15,000,000 divided by the volume weighted average price per Ordinary Share in the 60 trading days ended October 8, 2021.

Item 8.01 Other Events.

On October 6, 2021, the Company entered into an Underwriting Agreement (the “Underwriting Agreement”) with H.C. Wainwright & Co., LLC (the “Underwriter”) relating to an underwritten public offering (the “Public Offering”) of 14,000,000 (the “Firm Shares”) of the Company’s Ordinary Shares, and warrants to purchase 14,000,000 Ordinary Shares (the “Firm Warrants”). In addition, the Company granted the Underwriter a 30-day option to purchase up to an additional 2,100,000 Ordinary Shares and/or warrants to purchase an additional 2,100,000 Ordinary Shares (the “Optional Warrants” and, together with the Firm Warrants, the “Warrants” and, together with the Firm Shares and Firm Warrants, the “Securities”) at the public offering price, less the underwriting discounts and commissions. On October 11, 2021, the Underwriter exercised its right to purchase the Optional Warrants. Each Ordinary Share was offered together with one Warrant at a combined public offering price of \$2.50 per Ordinary Share and accompanying Warrant, less underwriting discounts and commissions. The Warrants have an exercise price of \$3.10, are exercisable immediately, and will expire three and one half years following the date of issuance. The Underwriting Agreement contains customary representations, warranties and covenants of the Company and also provides for customary indemnification by each of the Company and the Underwriter against certain liabilities. The Public Offering was made pursuant to the Company’s effective registration statement on Form S-3 (File No. 333-236193), including the prospectus dated February 12, 2020, as supplemented by a prospectus supplement dated October 6, 2021.

The foregoing description of the Underwriting Agreement and the Warrants does not purport to be complete and is subject to and qualified in its entirety by reference to the full text of the Underwriting Agreement and the Form of the Warrant, copies of which are filed as Exhibit 1.1 and 4.1, respectively, hereto and are incorporated herein by reference.

The legal opinion of A&L Goodbody relating to the Securities is filed herewith as Exhibit 5.1.

In connection with the Public Offering, certain information relating to Part II, Item 14 of the above referenced registration statement under the heading “Other Expenses of Issuance and Distribution” is being filed as Exhibit 99.1 to this Current Report on Form 8-K to be incorporated by reference into such registration statement.

Item 9.01 Financial Statements and Exhibits.

(d) Exhibits.

Exhibit No.	Description
1.1	Underwriting Agreement, dated October 6, 2021, by and between Osmotica Pharmaceuticals plc and H.C. Wainwright & Co., LLC
4.1	Form of Warrant
5.1	Opinion of A&L Goodbody, dated October 12, 2021
23.1	Consent of A&L Goodbody (included in Exhibit 5.1)
99.1	Information relating to Part II, Item 14 “Other Expenses of Issuance and Distribution” of the Registration Statement on Form S-3 (File No. 333-236193)
104	Cover Page Interactive Data File (formatted as Inline XBRL)

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 hereunto duly authorized.

Dated: October 12, 2021

OSMOTICA PHARMACEUTICALS PLC

By: /s/ Brian Markison
Brian Markison
Chief Executive Officer

14,000,000 Ordinary Shares
Warrants to Purchase 14,000,000 Ordinary Shares

Osmotica Pharmaceuticals plc

UNDERWRITING AGREEMENT

October 6, 2021

H.C. Wainwright & Co., LLC
430 Park Avenue
New York, NY 10022

As Representative of the several Underwriters listed on Schedule A hereto

Ladies and Gentlemen:

Introductory. Osmotica Pharmaceuticals plc, an Irish public limited company (the “**Company**”), proposes to issue and allot to the several underwriters named in Schedule A (the “**Underwriters**”) an aggregate of 14,000,000 ordinary shares, nominal value \$0.01 per share (the “**Shares**”), and warrants to purchase up to 14,000,000 Shares in the form of Exhibit D hereto (the “**Warrants**” and the Shares issuable upon exercise of the Warrants, the “**Warrant Shares**”), which Warrants shall be exercisable immediately, have a term of exercise equal to three and one-half (3.5) years from the date of issuance and an exercise price of \$3.10 per Share, subject to adjustment as provided therein. The 14,000,000 Shares to be issued by the Company are called the “**Firm Shares**” and the Warrants to purchase 14,000,000 Shares to be issued by the Company are called the “**Firm Warrants**” and the Firm Shares and Firm Warrants are collectively called the “**Firm Securities**.” In addition, the Company has granted to the Underwriters an option to subscribe for up to an additional 2,100,000 Shares and an additional Warrants to purchase 2,100,000 Shares as provided in Section 2. The additional 2,100,000 Shares which may be issued by the Company pursuant to such option are collectively called the “**Optional Shares**” and the additional Warrants to purchase 2,100,000 Shares which may be issued pursuant to such option are collectively called the “**Optional Warrants**” and the Optional Shares and the Optional Warrants are collectively called the “**Optional Securities**.” The Firm Shares and, if and to the extent such option is exercised, the Optional Shares are collectively called the “**Offered Shares**” and the Firm Warrants and, if and to the extent such option is exercised, the Optional Warrants are collectively called the “**Offered Warrants**” and the Offered Shares and the Offered Warrants are collectively called the “**Offered Securities**”. H.C. Wainwright & Co., LLC (“**Wainwright**”) has agreed to act as representative of the several Underwriters (in such capacity, the “**Representative**”) in connection with the offering and sale of the Offered Securities. To the extent there are no additional underwriters listed on Schedule A, the term “Representative” as used herein shall mean you, as Underwriter, and the term “Underwriters” shall mean either the singular or the plural, as the context requires.

The Company has prepared and filed with the Securities and Exchange Commission (the “**Commission**”) a shelf registration statement on Form S-3, File No. 333-236193, including a base prospectus (“the **Base Prospectus**”) to be used in connection with the public offering and sale of the Offered Securities. Such registration statement, as amended, including the financial statements, exhibits and schedules thereto, in the form in which it became effective under the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder (collectively, the “**Securities Act**”), including all documents incorporated by reference therein and any information deemed to be a part thereof at the time of effectiveness pursuant to Rule 430A or 430B under the Securities Act, is called the “**Registration Statement**.” Any registration statement filed by the Company pursuant to Rule 462(b) under the Securities Act in connection with the offer and sale of the Offered Securities is called the “**Rule 462(b) Registration Statement**,” and from and after the date and time of filing of any such Rule 462(b) Registration Statement the term “Registration Statement” shall include the Rule 462(b) Registration Statement. The preliminary prospectus supplement dated October 6, 2021 describing the Offered Securities and the offering thereof (the “**Preliminary Prospectus Supplement**”), together with the Base Prospectus, is called the “**Preliminary Prospectus**.” As used herein, the term “**Prospectus**” shall mean the final prospectus supplement to the Base Prospectus that describes the Offered Securities and the offering thereof (the “**Final Prospectus Supplement**”), together with the Base Prospectus, in the form first used by the Underwriters to confirm sales of the Offered Securities or in the form first made available to the Underwriters by the Company to meet requests of purchasers pursuant to Rule 173 under the Securities Act. References herein to the Preliminary Prospectus and the Prospectus shall refer to both the prospectus supplement and the Base Prospectus components of such prospectus. As used herein, “**Applicable Time**” is 11:00 p.m. (New York City time) on October 6, 2021. As used herein, “**free writing prospectus**” has the meaning set forth in Rule 405 under the Securities Act, and “**Time of Sale Prospectus**” means the Preliminary Prospectus, as amended or supplemented immediately prior to the Applicable Time, together with the free writing prospectuses, if any, and pricing information identified in Schedule B hereto. As used herein, “**Road Show**” means a “road show” (as defined in Rule 433 under the Securities Act) relating to the offering of the Offered Securities contemplated hereby that is a “written communication” (as defined in Rule 405 under the Securities Act). As used herein, “**Section 5(d) Written Communication**” means each written communication (within the meaning of Rule 405 under the Securities Act) that is made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company to one or more potential investors that are qualified institutional buyers (“**QIBs**”) or institutions that are accredited investors (“**IAIs**”), as such terms are respectively defined in Rule 144A and Rule 501(a) under the Securities Act, to determine whether such investors might have an interest in the offering of the Offered Securities; “**Section 5(d) Oral Communication**” means each oral communication, if any, made in reliance on Section 5(d) of the Securities Act by the Company or any person authorized to act on behalf of the Company made to one or more QIBs or one or more IAIs to determine whether such investors might have an interest in the offering of the Offered Securities; “**Marketing Materials**” means any materials or information provided to investors by, or with the prior approval of, the Company in connection with the marketing of the offering of the Offered Securities, including any roadshow or investor presentations made to investors by the Company (whether in person or electronically); and “**Permitted Section 5(d) Communication**” means the Section 5(d) Written Communication(s) and Marketing Materials listed on Schedule C attached hereto.

All references in this Agreement to the Registration Statement, the Preliminary Prospectus, the Base Prospectus and the Prospectus shall include the documents incorporated by reference therein. All references in this Agreement to financial statements and schedules and other information which are “contained,” “included” or “stated” in, or “part of” the Registration Statement, the Rule 462(b) Registration Statement, the Preliminary Prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus, and all other references of like import, shall be deemed to mean and include all such financial statements and schedules and other information which is incorporated by reference in the Registration Statement, the Rule 462(b) Registration Statement, the Preliminary Prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus, as the case may be. All references in this Agreement to amendments or supplements to the Registration Statement, the Preliminary Prospectus, the Base Prospectus, the Time of Sale Prospectus or the Prospectus shall be deemed to mean and include the filing of any document under the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder (collectively, the “**Exchange Act**”) that is incorporated by reference in the Registration Statement, the Preliminary Prospectus, the Base Prospectus, or the Prospectus, as the case may be. All references in this Agreement to (i) the Registration Statement, the Preliminary Prospectus, the Base Prospectus or the Prospectus, or any amendments or supplements to any of the foregoing, or any free writing prospectus, shall include any copy thereof filed with the Commission pursuant to its Electronic Data Gathering, Analysis and Retrieval System (“**EDGAR**”) and (ii) the Prospectus shall be deemed to include any “electronic Prospectus” provided for use in connection with the offering of the Offered Securities as contemplated by Section 3(o) of this Agreement.

The Company hereby confirms its agreement with the Underwriters as follows:

Section 1. Representations and Warranties.

The Company hereby represents and warrants to each Underwriter, as of the date of this Agreement, as of the First Closing Date (as hereinafter defined) and as of each Option Closing Date (as hereinafter defined), if any, as follows:

(a) Compliance with Registration Requirements. The Registration Statement has become effective under the Securities Act. No stop order suspending the effectiveness of the Registration Statement is in effect and no proceedings for such purpose have been instituted or are pending or, to the knowledge of the Company, are contemplated or threatened by the Commission. At the time the Company's Annual Report on Form 10-K for the year ended December 31, 2020 (the "Annual Report") was filed with the Commission, or, if later, at the time the Registration Statement was originally filed with the Commission, the Company met the then-applicable requirements for use of Form S-3 under the Securities Act and the Company meets the transactional requirements as set forth in General Instruction I.B.1 of Form S-3. The documents incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus, at the time they were or hereafter are filed with the Commission, or became effective under the Exchange Act, as the case may be, complied or will comply, as applicable, in all material respects with the requirements of the Exchange Act at such time.

(b) Disclosure. The Preliminary Prospectus and the Prospectus when filed complied in all material respects with the Securities Act and, if filed by electronic transmission pursuant to EDGAR, was identical (except as may be permitted by Regulation S-T under the Securities Act) to the copy thereof delivered to the Underwriters for use in connection with the offer and sale of the Offered Securities. Each of the Registration Statement and any post-effective amendment thereto, at the time it became or becomes effective, complied or will comply, as the case may be, in all material respects with the Securities Act and did not or will not, as the case may be, contain any untrue statement of a material fact or omit to state a material fact required to be stated therein or necessary to make the statements therein not misleading. As of the Applicable Time, the Time of Sale Prospectus did not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading. The Prospectus, as of its date, did not, and at the First Closing Date and at each applicable Option Closing Date, will not, contain any untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The representations and warranties set forth in the three immediately preceding sentences do not apply to statements in or omissions from the Registration Statement or any post-effective amendment thereto, or the Prospectus or the Time of Sale Prospectus, or any amendments or supplements thereto, made in reliance upon and in conformity with written information furnished to the Company by or on behalf of any Underwriter or through the Representative expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b) below. There are no contracts or other documents required to be described in the Time of Sale Prospectus or the Prospectus or to be filed as an exhibit to the Registration Statement which have not been described or filed as required.

(c) Free Writing Prospectuses; Road Show. As of the determination date referenced in Rule 164(h) under the Securities Act, the Company was not, is not or will not be (as applicable) an “ineligible issuer” in connection with the offering of the Offered Securities pursuant to Rules 164, 405 and 433 under the Securities Act. Each free writing prospectus that the Company is required to file pursuant to Rule 433(d) under the Securities Act has been, or will be, filed with the Commission in accordance with the requirements of the Securities Act. Each free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) under the Securities Act or that was prepared by or on behalf of or used or referred to by the Company complies or will comply in all material respects with the requirements of Rule 433 under the Securities Act, including timely filing with the Commission or retention where required and legending, and each such free writing prospectus, as of its issue date and at all subsequent times through the completion of the public offer and sale of the Offered Securities did not, does not and will not include any information that conflicted, conflicts or will conflict with the information contained in the Registration Statement, the Prospectus or the Preliminary Prospectus and is not intended to supersede or modify such conflicting information. The representations and warranties set forth in the immediately preceding sentence do not apply to statements made in reliance upon and in conformity with written information furnished to the Company by or on behalf of any Underwriter or through the Representative expressly for use therein, it being understood and agreed that the only such information consists of the information described in Section 9(b) below. Except for the free writing prospectuses, if any, identified in Schedule B, and electronic road shows, if any, furnished to you before first use, the Company has not prepared, used or referred to, and will not, without your prior written consent (such consent not to be unreasonably withheld, conditioned or delayed) prepare, use or refer to, any free writing prospectus. Each Road Show, if any, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in the light of the circumstances under which they were made, not misleading.

(d) Distribution of Offering Material By the Company. Prior to the later of (i) the expiration or termination of the option granted to the several Underwriters in Section 2 and (ii) the completion of the Underwriters’ distribution of the Offered Securities, the Company has not distributed and will not distribute any offering material in connection with the offering and sale of the Offered Securities other than the Registration Statement, the Time of Sale Prospectus, the Prospectus or any free writing prospectus reviewed and consented to by the Representative, the free writing prospectuses, if any, identified on Schedule B hereto, and any Permitted Section 5(d) Communications.

(e) The Underwriting Agreement. This Agreement has been duly authorized, executed and delivered by the Company.

(f) Authorization of the Offered Securities; The Warrants. The Offered Shares have been duly authorized and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be validly issued, fully paid and not subject to calls for any additional payments (nonassessable), and the issuance and sale of the Offered Shares shall not violate any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase the Offered Shares. The Offered Warrants have been duly authorized and, when issued and delivered by the Company against payment therefor pursuant to this Agreement, will be validly issued. The Warrant Shares, when issued in accordance with the terms of the Warrants, will be validly issued, fully paid and not subject to calls for any additional payments (nonassessable). The Offered Warrants have been duly authorized, executed and delivered by the Company. At the First Closing Date (and, if applicable, at each Option Closing Date), the Offered Warrants have been duly authorized, executed and delivered by the Company.

(g) No Applicable Registration or Other Similar Rights. There are no persons with registration or other similar rights to have any equity or debt securities registered for sale under the Registration Statement or included in the offering contemplated by this Agreement that have not been complied with or waived, as applicable.

(h) No Material Adverse Change. Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, subsequent to the respective dates as of which information is given in the Registration Statement, the Time of Sale Prospectus and the Prospectus: (i) there has been no material adverse change, or any development that would reasonably be expected to result in a material adverse change, in the financial condition or in the earnings, business, properties, operations, assets, liabilities or prospects of the Company and its subsidiaries, considered as one entity (any such change being referred to herein as a “**Material Adverse Change**”); (ii) the Company and its subsidiaries, considered as one entity, have not incurred any material liability or obligations, indirect, direct or contingent, including without limitation any losses or interference with its business from fire, explosion, flood, earthquakes, accident or other calamity, whether or not covered by insurance, or from any strike, labor dispute or court or governmental action, order or decree, that are material, individually or in the aggregate, to the Company and its subsidiaries, considered as one entity, or has entered into any transactions not in the ordinary course of business; and (iii) there has not been any material decrease in the share capital or any material increase in any short-term or long-term indebtedness of the Company or its subsidiaries and there has been no dividend or distribution of any kind declared, paid or made by the Company or, except for dividends paid to the Company or other subsidiaries, by any of the Company’s subsidiaries on any class of share capital, or any repurchase or redemption by the Company or any of its subsidiaries of any class of share capital.

(i) Independent Accountants. Ernst & Young LLP, which has expressed its opinion with respect to certain of the financial statements (which term as used in this Agreement includes the related notes thereto) filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus, is an independent registered public accounting firm as required by the Securities Act, and the rules of the Public Company Accounting Oversight Board (“**PCAOB**”) on the basis disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(j) Financial Statements. The financial statements filed with the Commission as a part of the Registration Statement, the Time of Sale Prospectus and the Prospectus present fairly, in all material respects, the consolidated financial position of the Company and its subsidiaries as of the dates indicated and the results of their operations, changes in shareholders’ equity and cash flows for the periods specified. Such financial statements have been prepared, in all material respects, in conformity with generally accepted accounting principles as applied in the United States on a consistent basis throughout the periods involved, except as may be expressly stated in the related notes thereto. The interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement fairly presents the information called for in all material respects and has been prepared in accordance with the Commission’s rules and guidelines applicable thereto. Except for such requirements as have been waived in writing by the Commission, no other financial statements or supporting schedules are required to be included in the Registration Statement, the Time of Sale Prospectus or the Prospectus. The financial data set forth in each of the Registration Statement, the Time of Sale Prospectus and the Prospectus under the captions “Prospectus Summary—Summary Financial Data” and “Capitalization” fairly present, in all material respects, the information set forth therein on a basis consistent with that of the audited financial statements contained in the Registration Statement, the Time of Sale Prospectus and the Prospectus. All disclosures contained in the Registration Statement or the Prospectus and any free writing prospectus, that constitute non-GAAP financial measures (as defined by the rules and regulations under the Securities Act and the Exchange Act) comply with Regulation G under the Exchange Act and Item 10(e) of Regulation S-K under the Securities Act, as applicable.

(k) Company’s Accounting System. The Company and each of its subsidiaries make and keep books and records that are accurate in all material respects and maintain a system of internal accounting controls designed to, and which the Company believes is sufficient to, provide reasonable assurance that: (i) transactions are executed in accordance with management’s general or specific authorization; (ii) transactions are recorded as necessary to permit preparation of financial statements in conformity with generally accepted accounting principles as applied in the United States and to maintain accountability for assets; (iii) access to assets is permitted only in accordance with management’s general or specific authorization; (iv) the recorded accountability for assets is compared with existing assets at reasonable intervals and appropriate action is taken with respect to any differences; and (v) the interactive data in eXtensible Business Reporting Language included or incorporated by reference in the Registration Statement, the Time of Sale Prospectus and the Prospectus fairly presents the information called for in all material respects and is prepared in accordance with the Commission’s rules and guidelines applicable thereto.

(l) Disclosure Controls and Procedures; Deficiencies in or Changes to Internal Control Over Financial Reporting. The Company has established and maintains disclosure controls and procedures (as defined in Rules 13a-15 and 15d-15 under the Securities Exchange Act of 1934, as amended), which (i) are designed to ensure that material information relating to the Company, including its consolidated subsidiaries, is made known to the Company's principal executive officer and its principal financial officer by others within those entities; and (ii) are effective in all material respects to perform the functions for which they were established. Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, since the end of the Company's most recent audited fiscal year, there has been no material weakness in the Company's internal control over financial reporting (whether or not remediated) and there has been no change in the Company's internal control over financial reporting that has materially affected, or is reasonably likely to materially affect, the Company's internal control over financial reporting.

(m) Due Incorporation of the Company. The Company has been duly incorporated and is validly existing as a public limited company under the laws of Ireland and has the corporate power and authority to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus and to enter into and perform its obligations under this Agreement. The Company is duly qualified as a foreign corporation to transact business and is in good standing in each other jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or in good standing would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(n) Subsidiaries. Each of the Company's "subsidiaries" (for purposes of this Agreement, as defined in Rule 405 under the Securities Act) has been duly incorporated or organized, as the case may be, and is validly existing as a corporation, partnership or limited liability company, as applicable, in good standing under the laws of the jurisdiction of its incorporation or organization and has the power and authority (corporate or other) to own, lease and operate its properties and to conduct its business as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. Each of the Company's subsidiaries is duly qualified as a foreign corporation, partnership or limited liability company, as applicable, to transact business and is in good standing in each jurisdiction in which such qualification is required, whether by reason of the ownership or leasing of property or the conduct of business, except where the failure to be so qualified or to be in good standing would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect. All of the issued and outstanding share capital or other equity or ownership interests of each of the Company's subsidiaries have been duly authorized and validly issued, are fully paid and nonassessable (or equivalent in the applicable jurisdiction of organization) and are owned by the Company (other than any directors' qualifying shares where applicable), directly or through subsidiaries, free and clear of any security interest, mortgage, pledge, lien, encumbrance or adverse claim. The Company does not own or control, directly or indirectly, any corporation, association or other entity other than the subsidiaries listed in Exhibit 21 to the Registration Statement.

(o) Capitalization and Other Share Capital Matters. The authorized, issued and outstanding share capital of the Company is as set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption “Capitalization” (other than for subsequent issuances, if any, pursuant to employee benefit plans, or upon the exercise of outstanding options or warrants, in each case described in the Registration Statement, the Time of Sale Prospectus and the Prospectus). The Shares and the Warrants (including the Offered Shares and the Offered Warrants) conform in all material respects to the description thereof contained in the Time of Sale Prospectus. All of the issued and outstanding Shares have been duly authorized and validly issued, are fully paid and not subject to calls for any additional payments (nonassessable). None of the outstanding Shares was issued in violation of any preemptive rights, rights of first refusal or other similar rights to subscribe for or purchase securities of the Company. There are no authorized or outstanding options, warrants, preemptive rights, rights of first refusal or other rights to purchase, or equity or debt securities convertible into or exchangeable or exercisable for, any share capital of the Company or any of its subsidiaries other than those described in the Registration Statement, the Time of Sale Prospectus and the Prospectus. The descriptions of the Company’s share option, share bonus and other share plans or arrangements, and the options or other rights granted thereunder, set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus accurately and fairly presents, in all material respects, the information required to be shown with respect to such plans, arrangements, options and rights.

(p) Non-Contravention of Existing Instruments; No Further Authorizations or Approvals Required. Neither the Company nor any of its subsidiaries is in violation of its constitution, charter or by-laws, partnership agreement or operating agreement or similar organizational documents, as applicable, or is in default (or, with the giving of notice or lapse of time, would be in default) (“**Default**”) under any indenture, loan, credit agreement, note, lease, license agreement, contract, franchise or other instrument (including, without limitation, any pledge agreement, security agreement, mortgage or other instrument or agreement evidencing, guaranteeing, securing or relating to indebtedness) to which the Company or any of its subsidiaries is a party or by which it or any of them may be bound, or to which any of their respective properties or assets are subject (each, an “**Existing Instrument**”), except for such Defaults as would not reasonably be expected, individually or in the aggregate, to have a material adverse effect on the financial condition, earnings, business, properties, operations, assets, liabilities or prospects of the Company and its subsidiaries, considered as one entity (a “**Material Adverse Effect**”). The Company’s execution, delivery and performance of this Agreement and the Warrants, consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus and the issuance and sale of the Offered Securities (including the use of proceeds from the sale of the Offered Securities as described in the Registration Statement, the Time of Sale Prospectus and the Prospectus under the caption “Use of Proceeds”) (i) have been duly authorized by all necessary corporate action and will not result in any violation of the provisions of the constitution, charter or by-laws, partnership agreement or operating agreement or similar organizational documents, as applicable, of the Company or any of its subsidiaries, (ii) will not conflict with or constitute a breach of, or Default or a Debt Repayment Triggering Event (as defined below) under, or result in the creation or imposition of any lien, charge or encumbrance upon any property or assets of the Company or any of its subsidiaries pursuant to, or require the consent of any other party to, any Existing Instrument and (iii) will not result in any violation of any law, administrative regulation or administrative or court decree applicable to the Company or any of its subsidiaries, except, in the case of clauses (ii) and (iii) above, as would not reasonably be expected individually or in the aggregate, to have a Material Adverse Effect. No consent, approval, authorization or other order of, or registration or filing with, any court or other governmental or regulatory authority or agency, is required for the Company’s execution, delivery and performance of this Agreement and the Warrants and consummation of the transactions contemplated hereby and by the Registration Statement, the Time of Sale Prospectus and the Prospectus, except such as have been obtained or made by the Company and are in full force and effect under the Securities Act and such as may be required under applicable state securities or blue sky laws, the laws of the Republic of Ireland or FINRA. As used herein, a “**Debt Repayment Triggering Event**” means any event or condition which gives, or with the giving of notice or lapse of time would give, the holder of any note, debenture or other evidence of indebtedness (or any person acting on such holder’s behalf) the right to require the repurchase, redemption or repayment of all or a portion of such indebtedness by the Company or any of its subsidiaries.

(q) Compliance with Laws. The Company and its subsidiaries are in compliance with all applicable laws, rules and regulations, except where failure to be so in compliance would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect.

(r) No Material Actions or Proceedings. Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (i) there is no action, suit or proceeding brought by or before any governmental entity now pending or, to the knowledge of the Company, threatened, against the Company or any of its subsidiaries, which would reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect or materially and adversely affect the consummation of the transactions contemplated by this Agreement and the Warrants or the performance by the Company of its obligations hereunder, and (ii) the aggregate of all pending legal or governmental proceedings to which the Company or any such subsidiary is a party or of which any of their respective properties or assets is the subject, including ordinary routine litigation incidental to the business, if determined adversely to the Company, would not reasonably be expected to have a Material Adverse Effect. No material labor dispute with the employees of the Company or any of its subsidiaries exists or, to the knowledge of the Company, is threatened or imminent.

(s) Intellectual Property Rights. The Company or its subsidiaries own, or have obtained valid and enforceable licenses for, the inventions, patent applications, patents, trademarks, trade names, service names, copyrights, trade secrets and other intellectual property described in the Registration Statement, the Time of Sale Prospectus and the Prospectus as being owned or licensed by them and which, to the Company's knowledge, are necessary for the conduct of their respective businesses as currently conducted or as currently proposed to be conducted (collectively, "**Intellectual Property**"). Except as otherwise disclosed in the Registration Statement, Time of Sale Prospectus or the Prospectus, to the Company's knowledge, none of the Intellectual Property has been adjudged invalid or unenforceable in whole or in part, and the Company is unaware of any facts which would form a reasonable basis for a determination that any issued patent within the Intellectual Property is unenforceable or cannot be asserted in good faith. To the Company's knowledge: (i) there are no third parties who have rights to any Intellectual Property, except for the rights of third-party licensors, including customary reversionary rights, with respect to Intellectual Property that is licensed to the Company or one or more of its subsidiaries; and (ii) there is no infringement by third parties of any Intellectual Property. Except as otherwise disclosed in the Registration Statement, Time of Sale Prospectus or the Prospectus, to the Company's knowledge: (i) there is no pending or threatened action, suit, proceeding or claim by others: (A) challenging the Company's rights in or to any Intellectual Property (B) challenging the validity, enforceability or scope of any Intellectual Property; or (C) asserting that the Company or any of its subsidiaries infringes, misappropriates or otherwise violates, or would, upon the commercialization of any product or service described in the Registration Statement, the Time of Sale Prospectus or the Prospectus as under development, infringe, misappropriate or otherwise violate, any patent, trademark, trade name, service name, copyright, trade secret or other proprietary rights of others, and the Company is unaware of any facts which would form a reasonable basis for such others to bring and maintain any such action, suit, proceeding or claim, except as would not reasonably be expected to have a Material Adverse Effect; (ii) none of the technology employed by the Company and its subsidiaries has been obtained or is being used by the Company or its subsidiaries in violation of any contractual obligation binding on the Company or its subsidiaries or, to the Company's knowledge, upon any officers, directors or employees of the Company or its subsidiaries; and (iii) the Company and its subsidiaries have complied in all material respects with the terms of each agreement pursuant to which Intellectual Property has been licensed to the Company or any subsidiary, and all such agreements are in full force and effect.

(t) **All Necessary Permits, etc.** The Company and its subsidiaries possess such valid and current certificates, authorizations, exemptions, approvals, licenses, clearances or permits required by state, federal or foreign regulatory agencies or bodies to conduct their respective businesses as currently conducted and as described in the Registration Statement, the Time of Sale Prospectus or the Prospectus (“**Permits**”), except where the failure to possess such certificate, authorization or permit would not reasonably be expected, to have a Material Adverse Effect. Neither the Company nor any of its subsidiaries is in violation of, or in default under, any of the Permits or has received any notice of proceedings relating to the revocation or modification of, or non-compliance with, any such Permit, except where the failure to be in compliance would not reasonably be expected, to have a Material Adverse Effect.

(u) **Title to Properties.** The Company and its subsidiaries have good and marketable title to all of the real and personal property and other assets reflected as owned in the financial statements referred to in Section 1(j) above (or elsewhere in the Registration Statement, the Time of Sale Prospectus or the Prospectus), in each case free and clear of any security interests, mortgages, liens, encumbrances, equities, adverse claims and other defects, except as disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus or as would not reasonably be expected, individually or in the aggregate, to materially affect the value of such property or materially interfere with the use thereof. The real property, improvements, equipment and personal property held under lease by the Company or any of its subsidiaries are held under valid and enforceable leases, with such exceptions as are not material and do not materially interfere with the use made or proposed to be made of such real property, improvements, equipment or personal property by the Company or such subsidiary.

(v) **Tax Law Compliance.** The Company and its subsidiaries have filed all necessary federal, state and foreign tax returns or have properly requested extensions thereof, except where failure to file would not reasonably be expected to, individually or in the aggregate, result in a Material Adverse Change. All taxes that are due and payable by the Company and its subsidiaries, and any related or similar assessment, fine or penalty levied against any of them, have been paid other than those (i) currently payable without penalty or interest, (ii) being contested in good faith and by appropriate proceedings and for which adequate accruals have been established in accordance with generally accepted accounting principles of the United States (“**GAAP**”) or (iii) as would not reasonably be expected to, individually or in the aggregate, result in a Material Adverse Change. To the Company’s knowledge, the Company has made adequate charges, accruals and reserves in the applicable financial statements referred to in Section 1(j) above in respect of all federal, state and foreign income, franchise and other material taxes for all periods as to which the tax liability of the Company or any of its subsidiaries has not been finally determined.

(w) **Insurance.** Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, each of the Company and its subsidiaries are insured by recognized and reputable institutions with policies in such amounts and with such deductibles and covering such risks as the Company reasonably believes would generally be deemed adequate and customary for its businesses. The Company is not aware of a reason why it or any of its subsidiaries will not be able (i) to renew its existing insurance coverage as and when such policies expire or (ii) to obtain comparable coverage from similar institutions as may be necessary or appropriate to conduct its business as now conducted and at a cost that would not reasonably be expected to have a Material Adverse Effect.

(x) Compliance with Environmental Laws. Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect: (i) neither the Company nor any of its subsidiaries is in violation of any federal, state, local or foreign statute, law, rule, regulation, ordinance, code, policy or rule of common law or any judicial or administrative interpretation thereof, including any judicial or administrative order, consent, decree or judgment, relating to pollution or protection of human health, the environment (including, without limitation, ambient air, surface water, groundwater, land surface or subsurface strata) or wildlife, including, without limitation, laws and regulations relating to the release or threatened release of chemicals, pollutants, contaminants, wastes, toxic substances, hazardous substances, petroleum or petroleum products (collectively, “**Hazardous Materials**”) or to the manufacture, processing, distribution, use, treatment, storage, disposal, transport or handling of Hazardous Materials (collectively, “**Environmental Laws**”); (ii) there are no pending or, to the knowledge of the Company, threatened administrative, regulatory or judicial actions, suits, demands, demand letters, claims, liens, notices of noncompliance or violation, investigation or proceedings relating to any Environmental Law against the Company or any of its subsidiaries; and (iii) there are no orders for clean-up or remediation, or an action, suit or proceeding pending or, to the knowledge of the Company, threatened, by any private party or governmental body or agency, against or affecting the Company or any of its subsidiaries relating to Hazardous Materials or any Environmental Laws.

(y) ERISA Compliance. Except as would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect, (i) the Company and its subsidiaries have maintained each “employee benefit plan” (as defined under the Employee Retirement Income Security Act of 1974, as amended, and the regulations and published interpretations thereunder (collectively, “**ERISA**”)) that is established or maintained by the Company or its subsidiaries in compliance with ERISA, (ii) no “reportable event” (as defined under ERISA) has occurred or is reasonably expected to occur with respect to any “employee benefit plan” established or maintained by the Company or its subsidiaries, (iii) no “employee benefit plan” established or maintained by the Company or its subsidiaries, if such “employee benefit plan” were terminated, would have any “amount of unfunded benefit liabilities” (as defined under ERISA), and (iv) neither the Company nor its subsidiaries has incurred or reasonably expects to incur any liability under (x) Title IV of ERISA with respect to termination of, or withdrawal from, any “employee benefit plan” or (y) Sections 412, 4971 or 4975 of the Internal Revenue Code of 1986, as amended (the “**Code**”). Each employee benefit plan established or maintained by the Company or its subsidiaries that is intended to be qualified under Section 401(a) of the Code has been determined by the IRS to be so qualified and, to the knowledge of the Company, nothing has occurred since the date of such determination, whether by action or failure to act, which would reasonably be expected to cause the loss of such qualification.

(z) Company Not an “Investment Company.” The Company is not, and will not be, either after receipt of payment for the Offered Securities or after the application of the proceeds therefrom as described under “Use of Proceeds” in the Registration Statement, the Time of Sale Prospectus or the Prospectus, required to register as an “investment company” under the Investment Company Act of 1940, as amended (the “**Investment Company Act**”).

(aa) No Price Stabilization or Manipulation. Neither the Company nor any of its subsidiaries has taken, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or Warrants, whether to facilitate the sale or resale of the Offered Shares or Offered Warrants or otherwise.

(bb) Statistical and Market-Related Data. All statistical, demographic and market-related data included in the Registration Statement, the Time of Sale Prospectus or the Prospectus are based on or derived from sources that the Company believes to be reliable and accurate in all material respects. To the extent required, the Company has obtained the written consent to the use of such data from such sources.

(cc) No Unlawful Contributions or Other Payments. Neither the Company nor any of its subsidiaries nor, to the Company’s knowledge, any employee or agent of the Company or any subsidiary, has made any contribution or other payment to any official of, or candidate for, any federal, state or foreign office in violation of any applicable law.

(dd) Foreign Corrupt Practices Act. Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, controlled affiliate or other person acting on behalf of the Company or any of its subsidiaries has, in the course of its actions for, or on behalf of, the Company or any of its subsidiaries (i) used any corporate funds for any unlawful contribution, gift, entertainment or other unlawful expenses relating to political activity; (ii) made any direct or indirect unlawful payment to any domestic government official, “foreign official” (as defined in the U.S. Foreign Corrupt Practices Act of 1977, as amended, and the rules and regulations thereunder (collectively, the “FCPA”) or employee from corporate funds; (iii) violated or is in violation of any provision of the FCPA or any applicable non-U.S. anti-bribery statute or regulation; or (iv) made any unlawful bribe, rebate, payoff, influence payment, kickback or other unlawful payment to any such domestic government official, foreign official or employee; and the Company and its subsidiaries and, to the knowledge of the Company, the Company’s controlled affiliates have conducted their respective businesses in such a manner such that they are in compliance with the FCPA and have instituted and maintain policies and procedures designed to ensure, and which are reasonably expected to continue to ensure, continued compliance therewith.

(ee) Money Laundering Laws. The operations of the Company and its subsidiaries are, and have been conducted at all times, in compliance with applicable financial recordkeeping and reporting requirements of the Currency and Foreign Transactions Reporting Act of 1970, as amended, the money laundering statutes of all applicable jurisdictions, the rules and regulations thereunder and any related or similar applicable rules, regulations or guidelines, issued, administered or enforced by any governmental agency (collectively, the “Money Laundering Laws”) and no action, suit or proceeding by or before any court or governmental agency, authority or body or any arbitrator involving the Company or any of its subsidiaries with respect to the Money Laundering Laws is pending or, to the knowledge of the Company, threatened.

(ff) OFAC. Neither the Company nor any of its subsidiaries nor, to the knowledge of the Company, any director, officer, agent, employee, controlled affiliate or person acting on behalf of the Company or any of its subsidiaries is currently subject to any U.S. sanctions administered by the Office of Foreign Assets Control of the U.S. Treasury Department (“OFAC”); and the Company will not directly or indirectly knowingly use the proceeds of this offering, or lend, contribute or otherwise make available such proceeds to any subsidiary, or any joint venture partner or other person or entity, for the purpose of financing the activities of or business with any person, or in any country or territory, that currently is subject to any U.S. sanctions administered by OFAC or in any other manner that will result in a violation by any person (including any person participating in the transaction whether as underwriter, advisor, investor or otherwise) of U.S. sanctions administered by OFAC.

(gg) Brokers. Except pursuant to this Agreement, the Company has not entered into any written agreement with any broker, finder or other party that would entitle such party to receive from the Company any brokerage or finder’s fee or other fee or commission as a result of any transactions contemplated by this Agreement.

(hh) Emerging Growth Company Status. If applicable, from the first date on which the Company engaged in any Section 5(d) Written Communication or any Section 5(d) Oral Communication through the date hereof, the Company has been and is an “emerging growth company,” as defined in Section 2(a) of the Securities Act (an “Emerging Growth Company”).

(ii) Communications. The Company (i) has not alone engaged in communications with potential investors in reliance on Section 5(d) of the Securities Act other than Permitted Section 5(d) Communications with the consent of the Representative with entities that are QIBs or IAs and (ii) has not authorized anyone other than the Representative to engage in such communications; as of the Applicable Time, each Permitted Section 5(d) Communication, if any, when considered together with the Time of Sale Prospectus, did not, as of the Applicable Time, include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading; and each Permitted Section 5(d) Communication, if any, does not, as of the date hereof, conflict with the information contained in the Registration Statement, the Preliminary Prospectus and the Prospectus (except where such Permitted Section 5(d) Communication has been superseded by the information contained in the Registration Statement, the Preliminary Prospectus and the Prospectus).

(jj) Clinical Data and Regulatory Compliance. The preclinical tests and clinical trials, and other studies (collectively, “studies”) that are described in, or the results of which are referred to in, the Registration Statement, the Time of Sale Prospectus or the Prospectus were and, if still pending, are being conducted in all material respects in accordance with the protocols, procedures and controls designed and approved for such studies and with standard medical and scientific research procedures; each description of the results of such studies is accurate and complete in all material respects and fairly presents the data derived from such studies, and the Company and its subsidiaries have no knowledge of any other studies the results of which are inconsistent with, or otherwise call into question, the results described or referred to in the Registration Statement, the Time of Sale Prospectuses or the Prospectus; the Company and its subsidiaries have made all such filings and obtained all such Permits as may be required by the Food and Drug Administration of the U.S. Department of Health and Human Services or any committee thereof or from any other U.S. or foreign government or drug or medical device regulatory agency, or health care facility Institutional Review Board (collectively, the “**Regulatory Agencies**”), except where such failure or non-compliance would not reasonably be expected, individually or in the aggregate, to result in a Material Adverse Effect; neither the Company nor any of its subsidiaries has received any notice of, or correspondence from, any Regulatory Agency requiring the termination, suspension or modification of any clinical trials that are described or referred to in the Registration Statement, the Time of Sale Prospectus or the Prospectus; and the Company and its subsidiaries have each operated and currently are in compliance in all material respects with all applicable rules, regulations and policies of the Regulatory Agencies.

(kk) Compliance with Health Care Laws. The Company and its subsidiaries are, and at all times have been, in compliance with all applicable Health Care Laws, except where the failure to be in compliance would not reasonably be expected, individually or in the aggregate, to have a Material Adverse Effect. For purposes of this Agreement, “**Health Care Laws**” means: (i) the Federal Food, Drug, and Cosmetic Act (21 U.S.C. §§ 301 *et seq.*) and the regulations promulgated thereunder; (ii) all applicable federal, state, local and all applicable foreign health care related fraud and abuse laws, including, without limitation, the U.S. Anti-Kickback Statute (42 U.S.C. Section 1320a-7b(b)), the U.S. Physician Payment Sunshine Act (42 U.S.C. § 1320a-7h), the U.S. Civil False Claims Act (31 U.S.C. Section 3729 *et seq.*), the criminal False Claims Law (42 U.S.C. § 1320a-7b(a)), all criminal laws relating to health care fraud and abuse, including but not limited to 18 U.S.C. Sections 286 and 287, and the health care fraud criminal provisions under the U.S. Health Insurance Portability and Accountability Act of 1996 (“**HIPAA**”) (42 U.S.C. Section 1320d *et seq.*), the exclusion laws (42 U.S.C. § 1320a-7), the civil monetary penalties law (42 U.S.C. § 1320a-7a), HIPAA, as amended by the Health Information Technology for Economic and Clinical Health Act (42 U.S.C. Section 17921 *et seq.*), and the regulations promulgated pursuant to such statutes; (iii) Medicare (Title XVIII of the Social Security Act); (iv) Medicaid (Title XIX of the Social Security Act); (v) the Controlled Substances Act (21 U.S.C. §§ 801 *et seq.*) and the regulations promulgated thereunder; and (vi) any and all other applicable health care laws and regulations. Neither the Company nor, to the knowledge of the Company, any subsidiary has received written notice of any claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action from any court or arbitrator or governmental or regulatory authority or third party alleging that any product operation or activity is in material violation of any Health Care Laws, and, to the Company’s knowledge, no such claim, action, suit, proceeding, hearing, enforcement, investigation, arbitration or other action is threatened. Neither the Company nor, to the knowledge of the Company, any subsidiary is a party to or has any ongoing reporting obligations pursuant to any corporate integrity agreements, monitoring agreements, consent decrees, settlement orders, or similar agreements with or imposed by any Regulatory Agency or other governmental or regulatory authority. Additionally, neither the Company, its subsidiaries nor any of its respective employees, officers or directors has been excluded, suspended or debarred from participation in any U.S. federal health care program or human clinical research or, to the knowledge of the Company, is subject to a governmental inquiry, investigation, proceeding, or other similar action that would reasonably be expected to result in debarment, suspension, or exclusion.

(ll) Cybersecurity. Except as otherwise disclosed in the Registration Statement, the Time of Sale Prospectus and the Prospectus, (a)(i) there has been no security breach or other compromise of any of the Company's and its subsidiaries' information technology and computer systems, networks, hardware, software, data (including any third party data maintained on behalf of them), equipment or technology (collectively, "**IT Systems and Data**") (ii) the Company has not been notified of, and has no knowledge of any event or condition that would reasonably be expected to result in, any security breach or other compromise to its IT Systems and Data; (iii) the Company is presently in compliance with all applicable laws, statutes, rules or regulations relating to the privacy and security of IT Systems and Data and to the protection of such IT Systems and Data from unauthorized use, access, misappropriation or modification, except as would not, in the case of clauses (i), (ii) and (iii), individually or in the aggregate, reasonably be expected to have a Material Adverse Effect; and (b) the Company has implemented backup and disaster recovery technology consistent in all material respects with generally accepted industry standards and practices.

(mm) Dividend Restrictions. No subsidiary of the Company is prohibited or restricted, directly or indirectly, from paying dividends to the Company, or from making any other distribution with respect to such subsidiary's equity securities or from repaying to the Company or any other subsidiary of the Company any amounts that may from time to time become due under any loans or advances to such subsidiary from the Company or from transferring any property or assets to the Company or to any other subsidiary, except, in each case, pursuant to the Company's senior secured credit facilities or as otherwise described in or contemplated by the Registration Statement, Time of Sales Prospectus or Prospectus or as restricted or prohibited under applicable laws.

Any certificate signed by any officer of the Company or any of its subsidiaries and delivered to the Representative on behalf of the Underwriters in connection with the offering, or the purchase and sale, of the Offered Securities and as required by this Agreement shall be deemed a representation and warranty by the Company to each Underwriter as to the matters covered thereby.

The Company acknowledges that the Underwriters and, for purposes of the opinions to be delivered pursuant to Section 6 hereof, counsel to the Company and counsel to the Underwriters, will rely upon the accuracy and truthfulness of the foregoing representations and hereby consents to such reliance.

Section 2. Issuance, Sale and Delivery of the Offered Securities.

(a) The Firm Securities. Upon the terms herein set forth, the Company agrees to issue and allot to the several Underwriters an aggregate of 14,000,000 Firm Shares and 14,000,000 Firm Warrants. On the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Underwriters agree, severally and not jointly, to subscribe for the respective number of Firm Shares and Firm Warrants set forth opposite their names on Schedule A. The subscription price per combination of one Firm Share and one Firm Warrant to purchase one Warrant Share to be paid by the several Underwriters to the Company shall be \$2.35, which shall be allocated as \$2.3499906 per Firm Share ("**Share Purchase Price**") and \$0.0000094 per Firm Warrant ("**Warrant Purchase Price**").

(b) The First Closing Date. Delivery of (i) the Firm Shares to be subscribed for by the Underwriters via The Depository Trust Company Deposit or Withdrawal at Custodian system and (ii) the Firm Warrants in certificated form registered in the name or names and in such authorized denominations as the applicable Underwriter may request prior to the First Closing Date, and payment therefor shall be made at 10:00 a.m. New York City time, on October 12, 2021, or such later time and date not later than 1:30 p.m. New York City time, on October 19, 2021 as the Representative shall designate by notice to the Company (the time and date of such closing are called the “**First Closing Date**”). The Company hereby acknowledges that circumstances under which the Representative may provide notice to postpone the First Closing Date as originally scheduled include, but are not limited to, any determination by the Company or the Representative to recirculate to the public copies of an amended or supplemented Prospectus.

(c) The Optional Shares and Optional Warrants; Option Closing Date. In addition, on the basis of the representations, warranties and agreements herein contained, and upon the terms but subject to the conditions herein set forth, the Company hereby grants an option to the several Underwriters to subscribe for, severally and not jointly, up to an aggregate of 2,100,000 Optional Shares and/or an aggregate of 2,100,000 Optional Warrants, in any combination thereof, from the Company at the Share Purchase Price for each Optional Share, less an amount per share, if any, equal to any dividend or distribution declared by the Company and payable on the Firm Shares but not payable on Optional Shares, and the Warrant Purchase Price for each Optional Warrant, respectively. The option granted hereunder may be exercised at any time and from time to time in whole or in part upon notice by the Representative to the Company, which notice may be given at any time within 30 days from the date of this Agreement and may be exercised for Optional Shares and/or Optional Warrants in any combination thereof. Such notice shall set forth (i) the aggregate number of Optional Shares and Optional Warrants as to which the Underwriters are exercising the option and (ii) the time and date the Optional Shares and Optional Warrants will be delivered (which time and date may, by mutual consent of the Company and the Representative, be simultaneous with, but not earlier than the First Closing Date; and in the event that such time and date are simultaneous with the First Closing Date, the term “**First Closing Date**” shall refer to the time and date of delivery of the Firm Shares and Firm Warrants and such Optional Shares and/or Optional Warrants as applicable). Any such time and date of delivery, if subsequent to the First Closing Date, is called an “**Option Closing Date**,” shall be determined by the Representative and shall not be earlier than two or later than five full business days after delivery of such notice of exercise, unless otherwise agreed to by the Company and the Representative. If any Optional Shares and/or Optional Warrants are to be subscribed for, each Underwriter agrees, severally and not jointly, to subscribe for the number of Optional Shares and/or Optional Warrants (subject to such adjustments to eliminate fractional shares as the Representative may determine) that bears the same proportion to the total number of Optional Shares and/or Optional Warrants to be subscribed for as the number of Firm Shares and Firm Warrants set forth on Schedule A opposite the name of such Underwriter bears to the total number of Firm Shares and Firm Warrants. The Representative may cancel the option at any time prior to its expiration by giving written notice of such cancellation to the Company.

(d) Public Offering of the Offered Securities. The Representative hereby advises the Company that the Underwriters intend to offer for sale to the public, initially on the terms set forth in the Registration Statement, the Time of Sale Prospectus and the Prospectus, their respective portions of the Offered Securities as soon after this Agreement has been executed and the Registration Statement has been declared effective as the Representative, in its sole judgment, has determined is advisable and practicable.

(e) Payment for the Offered Securities. (i) Payment for the Offered Shares and Offered Warrants shall be made at the First Closing Date (and, if applicable, at each Option Closing Date) by wire transfer of immediately available funds to the order of the Company. Wainwright, individually and not as the Representative of the Underwriters, may (but shall not be obligated to) make payment for any Offered Shares and Offered Warrants to be subscribed for by any Underwriter whose funds shall not have been received by the Representative by the First Closing Date or the applicable Option Closing Date, as the case may be, for the account of such Underwriter, but any such payment shall not relieve such Underwriter from any of its obligations under this Agreement.

(ii) It is understood that the Representative has been authorized, for its own account and the accounts of the several Underwriters, to accept delivery of and receipt for, and make payment of the subscription price for, the Firm Securities and any Optional Securities the Underwriters have agreed to subscribe for.

(f) Delivery of the Offered Securities. The Company shall deliver, or cause to be delivered, to the Representative for the accounts of the several Underwriters, via The Depository Trust Company Deposit or Withdrawal at Custodian system, the Firm Shares at the First Closing Date, against release of a wire transfer of immediately available funds for the amount of the subscription price therefor. The Company shall also deliver, or cause to be delivered to the Representative for the accounts of the several Underwriters, the Optional Shares the Underwriters have agreed to subscribe for at the First Closing Date or the applicable Option Closing Date, as the case may be, against the release of a wire transfer of immediately available funds for the amount of the subscription price therefor. Delivery of the Firm Shares and the Optional Shares shall be made through the facilities of The Depository Trust Company unless the Representative shall otherwise instruct.

Section 3. Additional Covenants.

The Company further covenants and agrees with each Underwriter as follows:

(a) Delivery of Registration Statement, Time of Sale Prospectus and Prospectus. The Company shall furnish to you in New York City, without charge, prior to 10:00 a.m. New York City time on the second business day succeeding the date of this Agreement and during the period when a prospectus relating to the Offered Securities is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Offered Securities, as many copies of the Time of Sale Prospectus, the Prospectus and any supplements and amendments thereto or to the Registration Statement as you may reasonably request.

(b) Representative's Review of Proposed Amendments and Supplements. During the period when a prospectus relating to the Offered Securities is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule), the Company (i) will furnish to the Representative for review, a reasonable period of time prior to the proposed time of filing of any proposed amendment or supplement to the Registration Statement, a copy of each such amendment or supplement and (ii) will give reasonable consideration to any comments provided promptly by the Representative prior to amending or supplementing the Registration Statement. Prior to amending or supplementing the Preliminary Prospectus, the Time of Sale Prospectus or the Prospectus, the Company shall furnish to the Representative for review, a reasonable amount of time prior to the time of filing or use of the proposed amendment or supplement, a copy of each such proposed amendment or supplement. The Company shall give reasonable consideration to any comments provided promptly by the Representative prior to filing or using any such proposed amendment or supplement. The Company shall file with the Commission within the applicable period specified in Rule 424(b) under the Securities Act any prospectus required to be filed pursuant to such Rule.

(c) Free Writing Prospectuses. The Company shall furnish to the Representative for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of each proposed free writing prospectus or any amendment or supplement thereto prepared by or on behalf of, used by, or referred to by the Company, and the Company shall not file, use or refer to any proposed free writing prospectus or any amendment or supplement thereto without the Representative's prior written consent, such consent not to be unreasonably withheld, conditioned or delayed. The Company shall furnish to each Underwriter, without charge, as many copies of any free writing prospectus prepared by or on behalf of, used by or referred to by the Company as such Underwriter may reasonably request. If at any time when a prospectus is required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) in connection with sales of the Offered Securities (but in any event if at any time through and including the First Closing Date) there occurred or occurs an event or development as a result of which any free writing prospectus prepared by or on behalf of, used by, or referred to by the Company conflicted or would conflict with the information contained in the Registration Statement or included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, the Company shall promptly amend or supplement such free writing prospectus to eliminate or correct such conflict so that the statements in such free writing prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances prevailing at such time, not misleading, as the case may be; *provided, however*, that prior to amending or supplementing any such free writing prospectus, the Company shall furnish to the Representative for review, a reasonable amount of time prior to the proposed time of filing or use thereof, a copy of such proposed amended or supplemented free writing prospectus, and the Company shall give reasonable consideration to any comments provided promptly by the Representative prior to filing, using or referring to any such amended or supplemented free writing prospectus.

(d) Filing of Underwriter Free Writing Prospectuses. The Company shall not take any action that would result in an Underwriter or the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that such Underwriter otherwise would not have been required to file thereunder.

(e) Amendments and Supplements to Time of Sale Prospectus. If the Time of Sale Prospectus is being used to solicit offers to buy the Offered Securities at a time when the Prospectus is not yet available to prospective purchasers, and any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Time of Sale Prospectus so that the Time of Sale Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading, or if any event shall occur or condition exist as a result of which the Time of Sale Prospectus conflicts with the information contained in the Registration Statement, or if, in the reasonable opinion of counsel for the Underwriters, it is necessary to amend or supplement the Time of Sale Prospectus to comply with the Securities Act, the Company shall (subject to Section 3(b) and Section 3(c) hereof) promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, either amendments or supplements to the Time of Sale Prospectus so that the statements in the Time of Sale Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when delivered to a prospective purchaser, not misleading or so that the Time of Sale Prospectus, as amended or supplemented, will no longer conflict with the information contained in the Registration Statement, or so that the Time of Sale Prospectus, as amended or supplemented, will comply with the Securities Act.

(f) Certain Notifications and Required Actions. After the date of this Agreement and until such time as the Underwriters are no longer required to deliver a Prospectus in order to confirm sales of the Offered Securities, the Company shall promptly advise the Representative in writing (which may be by email) of: (i) the receipt of any comments of, or requests for additional or supplemental information from, the Commission relating to the Registration Statement; (ii) the time and date of any filing of any post-effective amendment to the Registration Statement or any amendment or supplement to the Preliminary Prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus; (iii) the time and date that any post-effective amendment to the Registration Statement becomes effective; and (iv) the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or any post-effective amendment thereto or any amendment or supplement to the Preliminary Prospectus, the Time of Sale Prospectus or the Prospectus or of any order preventing or suspending the use of the Preliminary Prospectus, the Time of Sale Prospectus, any free writing prospectus or the Prospectus, or of any proceedings to remove, suspend or terminate from listing or quotation the Shares from any securities exchange upon which they are listed for trading or included or designated for quotation, or of the threatening or initiation of any proceedings for any of such purposes. If the Commission shall enter any such stop order at any time, the Company will use its best efforts to obtain the lifting of such order as soon as reasonably practicable. Additionally, the Company agrees that it shall comply with all applicable provisions of Rule 424(b), Rule 433 and Rule 430A under the Securities Act and will use its reasonable efforts to confirm that any filings made by the Company under Rule 424(b) or Rule 433 were received in a timely manner by the Commission.

(g) Amendments and Supplements to the Prospectus and Other Securities Act Matters. If any event shall occur or condition exist as a result of which it is necessary to amend or supplement the Prospectus so that the Prospectus does not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading, or if in the reasonable opinion of the Representative or counsel for the Underwriters it is otherwise necessary to amend or supplement the Prospectus to comply with the Securities Act, the Company agrees (subject to Section 3(b) and Section 3(c) hereof) to promptly prepare, file with the Commission and furnish, at its own expense, to the Underwriters and to any dealer upon request, amendments or supplements to the Prospectus so that the statements in the Prospectus as so amended or supplemented will not include an untrue statement of a material fact or omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances when the Prospectus is delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) to a purchaser, not misleading or so that the Prospectus, as amended or supplemented, will comply with the Securities Act.

(h) Blue Sky Compliance. The Company shall cooperate with the Representative and counsel for the Underwriters to qualify or register the Offered Securities for sale under (or obtain exemptions from the application of) the state securities or blue sky laws of those jurisdictions reasonably designated by the Representative after consultation with the Company, shall use commercially reasonable efforts to comply with such laws and shall continue such qualifications, registrations and exemptions in effect so long as required for the distribution of the Offered Securities. The Company shall not be required to qualify as a foreign corporation or to take any action that would subject it to general service of process or taxation in any such jurisdiction where it is not presently qualified or so subject.

(i) Use of Proceeds. The Company shall apply the net proceeds from the sale of the Offered Securities sold by it in the manner described under the caption "Use of Proceeds" in the Registration Statement, the Time of Sale Prospectus and the Prospectus.

(j) Transfer Agent. The Company shall maintain, at its expense, a registrar and transfer agent for the Shares.

(k) Earnings Statement. The Company will make generally available to its security holders and to the Representative as soon as practicable an earnings statement (which need not be audited) covering a period of at least twelve months beginning with the first fiscal quarter of the Company commencing after the date of this Agreement that will satisfy the provisions of Section 11(a) of the Securities Act and the rules and regulations of the Commission thereunder, provided that such earnings statement shall be deemed to have been made generally available by the Company if the Company is in compliance with its reporting obligations pursuant to the Exchange Act, if such compliance satisfies the conditions of Rule 158, and if such earnings statement is made available on EDGAR.

(l) **Listing.** The Company will use its best efforts to list, subject to notice of issuance, the Offered Shares and the Warrant Shares underlying the Offered Warrants on the Nasdaq Global Select Market (“**Nasdaq**”).

(m) **Company to Provide Copy of the Prospectus in Form That May be Downloaded from the Internet.** If requested by the Representative, the Company shall cause to be prepared and delivered, at its expense, within two business days from the effective date of this Agreement, to the Representative an “**electronic Prospectus**” to be used by the Underwriters in connection with the offering and sale of the Offered Securities. As used herein, the term “**electronic Prospectus**” means a form of the Preliminary Prospectus, and any amendment or supplement thereto, that meets each of the following conditions: (i) it shall be encoded in an electronic format, reasonably satisfactory to the Representative, that may be transmitted electronically by the Representative and the other Underwriters to offerees and purchasers of the Offered Securities; (ii) it shall disclose the same information as the paper Preliminary Prospectus, except to the extent that graphic and image material cannot be disseminated electronically, in which case such graphic and image material shall be replaced in the electronic Preliminary Prospectus with a fair and accurate narrative description or tabular representation of such material, as appropriate; and (iii) it shall be in or convertible into a paper format or an electronic format, reasonably satisfactory to the Representative, that will allow investors to store and have continuously ready access to the Preliminary Prospectus at any future time, without charge to investors (other than any fee charged for subscription to the Internet as a whole and for on-line time).

(n) **Agreement Not to Offer or Sell Additional Shares.** During the period commencing on and including the date hereof and continuing through and including the sixtieth (60th) day following the date of the Prospectus (such period being referred to herein as the “**Lock-up Period**”), the Company will not, without the prior written consent of the Representative (which consent may be withheld in its sole discretion), directly or indirectly: (i) issue, offer to issue or contract to issue any Shares or Related Securities (as defined below); (ii) effect any short sale, or establish or increase any “put equivalent position” (as defined in Rule 16a-1(h) under the Exchange Act) or liquidate or decrease any “call equivalent position” (as defined in Rule 16a-1(b) under the Exchange Act) of any Shares or Related Securities; (iii) pledge, hypothecate or grant any security interest in any Shares or Related Securities; (iv) in any other way transfer, issue or dispose of any Shares or Related Securities; (v) enter into any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of any Shares or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise; (vi) announce the offering of any Shares or Related Securities; (vii) confidentially submit or file any registration statement under the Securities Act in respect of any Shares or Related Securities (other than as contemplated by this Agreement with respect to the Offered Securities); or (viii) publicly announce the intention to do any of the foregoing; *provided, however*, that the Company may (A) effect the transactions contemplated hereby; (B) issue Shares or Related Securities pursuant to any share option, share bonus, employee share purchase or other share plan or arrangement described in the Registration Statement, the Time of Sale Prospectus and the Prospectus; (C) issue Shares pursuant to the conversion or exchange of any Related Securities outstanding as of the First Closing Date, provided that such Related Securities have not been amended since the date of this Agreement to increase the number of such Related Securities or to decrease the exercise price, exchange price or conversion price of such Related Securities or to extend the term of such Related Securities; (D) file a registration statement on Form S-8 to register Shares or Related Securities issuable pursuant to the terms of a share option, share bonus, employee share purchase or other share incentive plan or arrangement described in the Registration Statement, the Time of Sale Prospectus or the Prospectus; (E) issue and allot ordinary shares to Athyrium Opportunities IV Acquisition LP (“**Athyrium**”) under the subscription agreement dated October 1, 2021 between the Company and Athyrium and file a registration statement under the Securities Act for the resale of such shares (provided that this registration statement shall not be declared effective prior to the sixtieth (60th) day following the date of the Prospectus); and (F) issue Shares or Related Securities in connection with any acquisition, strategic investment, joint venture, commercial or collaborative relationship or license; *provided, however*, that in the case of clause (F), (x) such issuance shall only be to a Person (or to the equity holders of a Person) which is, itself or through its subsidiaries, an operating company or an owner of an asset in a business synergistic with the business of the Company and shall provide to the Company additional benefits in addition to the investment of funds, but shall not include a transaction in which the Company is issuing securities primarily for the purpose of raising capital or to an entity whose primary business is investing in securities, (y) such Shares and Related Securities shall not in the aggregate exceed 5% of the Company’s outstanding Shares on a fully diluted basis after giving effect to the sale of the Offered Securities contemplated by this Agreement and (z) the recipients thereof provide to the Representative a signed Lock-Up Agreement in substantially the form attached as Exhibit B. For purposes of the foregoing, “**Related Securities**” shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for, or convertible into, Shares; and “**Person**” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

(o) Future Reports to the Representative. During the period of five years hereafter, the Company will furnish to the Representative: (i) as soon as practicable after the end of each fiscal year, copies of the Annual Report of the Company containing the balance sheet of the Company as of the close of such fiscal year and statements of income, shareholders' equity and cash flows for the year then ended and the opinion thereon of the Company's independent public or certified public accountants; (ii) as soon as practicable after the filing thereof, copies of each proxy statement, Annual Report on Form 10-K, Quarterly Report on Form 10-Q, Current Report on Form 8-K or other report filed by the Company with the Commission or any securities exchange; and (iii) as soon as available, copies of any report or communication of the Company furnished or made available generally to holders of its capital shares; *provided, however*, that the requirements of this Section 3(o) shall be satisfied to the extent that such reports, statement, communications, financial statements or other documents are available on EDGAR.

(p) No Stabilization or Manipulation. The Company will not take, and will ensure that no controlled affiliate of the Company will take, directly or indirectly, any action designed to or that would reasonably be expected to cause or result in stabilization or manipulation of the price of the Shares or Warrants or any reference security with respect to the Shares or Warrants, whether to facilitate the sale or resale of the Offered Shares or Offered Warrants or otherwise.

(q) Amendments and Supplements to Permitted Section 5(d) Communications. If at any time during the period when a prospectus relating to the Offered Securities is required to be delivered, there occurred or occurs an event or development as a result of which a Permitted Section 5(d) Communication included or would include an untrue statement of a material fact or omitted or would omit to state a material fact necessary in order to make the statements therein, in the light of the circumstances existing at that subsequent time, not misleading, the Company will promptly notify the Representative and will promptly amend or supplement, at its own expense, such Permitted Section 5(d) Communication to eliminate or correct such untrue statement or omission.

(r) Emerging Growth Company Status. The Company will promptly notify the Representative if the Company ceases to be an Emerging Growth Company at any time prior to the later of (i) the time when a prospectus relating to the Offered Securities is not required by the Securities Act to be delivered (whether physically or through compliance with Rule 172 under the Securities Act or any similar rule) and (ii) the expiration of the Lock-Up Period (as defined herein).

(s) Beneficial Ownership Certification. The Company will deliver to the Representative (or its agents), on the date of execution of this Agreement, a properly completed and executed Certification Regarding Beneficial Owners of Legal Entity Customers, together with copies of identifying documentation, and the Company undertakes to provide such additional supporting documentation as the Representative may reasonably request in connection with the verification of the foregoing certification.

The Representative, on behalf of the several Underwriters, may, in its sole discretion, waive in writing the performance by the Company of any one or more of the foregoing covenants or extend the time for their performance.

Section 4. Payment of Expenses. The Company agrees to pay, or procure the payment of, all costs, fees and expenses incurred by it in connection with the performance of its obligations hereunder, including without limitation (i) all expenses incident to the issuance and delivery of the Offered Securities to the Underwriters (including all printing and engraving costs), (ii) all fees and expenses of the registrar and transfer agent of the Shares, (iii) all necessary issue, transfer and other stamp taxes in connection with the issuance and delivery of the Offered Shares and Offered Warrants to the Underwriters, (iv) all fees and expenses of the Company's counsel, independent public or certified public accountants and other advisors, (v) all costs and expenses incurred in connection with the preparation, printing, filing, shipping and distribution of the Registration Statement (including financial statements, exhibits, schedules, consents and certificates of experts), the Time of Sale Prospectus, the Prospectus, each free writing prospectus prepared by or on behalf of, used by, or referred to by the Company, and the Preliminary Prospectus, each Permitted Section 5(d) Communication, and all amendments and supplements thereto, and this Agreement, (vi) all filing fees, reasonable and documented attorneys' fees and expenses incurred by the Company or the Underwriters in connection with qualifying or registering (or obtaining exemptions from the qualification or registration of) all or any part of the Offered Securities for offer and sale under the state securities or blue sky laws, and, if requested by the Representative, preparing and printing a "Blue Sky Survey" or memorandum, and any supplements thereto, advising the Underwriters of such qualifications, registrations and exemptions, (vii) the costs, fees and expenses incurred by the Underwriters in connection with determining their compliance with the rules and regulations of FINRA related to the Underwriters' participation in the offering and distribution of the Offered Securities, including any related filing fees and the reasonable and documented legal fees of, and disbursements by, counsel to the Underwriters associated therewith, (viii) the costs and expenses of the Company relating to investor presentations on any "road show", any Permitted Section 5(d) Communication or any Section 5(d) Oral Communication undertaken in connection with the offering of the Offered Securities, including, without limitation, expenses associated with the preparation or dissemination of any electronic road show, expenses associated with the production of road show slides and graphics, fees and expenses of any consultants engaged in connection with the road show presentations with the prior approval of the Company, travel expenses of the Representative, employees and officers of the Company and any such consultants, (ix) the fees and expenses associated with listing the Offered Shares and the Warrant Shares underlying the Offered Warrants on the Nasdaq and (x) up to \$15,950 with respect to the fees and expenses of the Representative's clearing firm; *provided, however*, that the costs, fees and expenses of counsel, consultants and any other third parties engaged by the Underwriters in clauses (vi) and (vii) shall in no event exceed \$10,000 in the aggregate. In addition, on the First Closing Date, the Company shall reimburse the Representative for its legal and other documented out-of-pocket expenses in an amount of up to an aggregate of \$75,000, which amount may be deducted by the Representative from the proceeds of the offering contemplated herein. Except as provided in this Section 4 or in Section 7, Section 9 or Section 10 hereof, the Underwriters shall pay their own expenses, including the fees and disbursements of their counsel and their own travel and lodging expenses.

Section 5. Covenant of the Underwriters. Each Underwriter severally and not jointly covenants with the Company not to take any action that would result in the Company being required to file with the Commission pursuant to Rule 433(d) under the Securities Act a free writing prospectus prepared by or on behalf of such Underwriter that otherwise would not, but for such actions, be required to be filed by the Company under Rule 433(d).

Section 6. Conditions of the Obligations of the Underwriters. The respective obligations of the several Underwriters hereunder to subscribe and pay for the Offered Shares and Offered Warrants as provided herein on the First Closing Date and, with respect to the Optional Shares and Optional Warrants, on each Option Closing Date, shall be subject to the accuracy of the representations and warranties on the part of the Company set forth in Section 1 hereof as of the date hereof and as of the First Closing Date as though then made and, with respect to the Optional Shares and Optional Warrants, as of each Option Closing Date as though then made, to the timely performance by the Company of its covenants and other obligations hereunder, and to each of the following additional conditions:

(a) Comfort Letter. On the date hereof, the Representative shall have received from Ernst & Young LLP, independent registered public accountants for the Company, letter dated the date hereof addressed to the Underwriters, in form and substance reasonably satisfactory to the Representative, containing statements and information of the type ordinarily included in accountant's "comfort letters" to underwriters, delivered according to Statement of Auditing Standards No. 72 (or any successor bulletin), with respect to, as applicable, the audited and unaudited financial statements and certain financial information contained in the Registration Statement, the Time of Sale Prospectus, and each free writing prospectus, if any.

(b) Compliance with Registration Requirements; No Stop Order; No Objection from FINRA.

(i) The Company shall have filed the Prospectus with the Commission (including the information required by Rule 430A under the Securities Act) in the manner and within the time period required by Rule 424(b) under the Securities Act; or the Company shall have filed a post-effective amendment to the Registration Statement containing the information required by such Rule 430A, and such post-effective amendment shall have become effective.

(ii) No stop order suspending the effectiveness of the Registration Statement or any post-effective amendment to the Registration Statement shall be in effect, and no proceedings for such purpose shall have been instituted or, to the knowledge of the Company, threatened by the Commission.

(iii) FINRA shall have raised no objection to the fairness and reasonableness of the underwriting terms and arrangements.

(c) No Material Adverse Change. For the period from and after the date of this Agreement and through and including the First Closing Date and, with respect to any Optional Securities subscribed for after the First Closing Date, each Option Closing Date, in the judgment of the Representative there shall not have occurred any Material Adverse Change.

(d) Opinion of Counsel for the Company. On each of the First Closing Date and each Option Closing Date the Representative shall have received the opinion of (i) Ropes & Gray LLP, U.S. counsel for the Company, dated as of such date, in the form attached hereto as Exhibit A-1A and (ii) A&L Goodbody, Irish counsel for the Company, dated as of such date, in the form attached hereto as Exhibit A-1B.

(e) Negative Assurance of Counsel for the Underwriters. On each of the First Closing Date and each Option Closing Date the Representative shall have received the negative assurance statement of Ellenoff Grossman & Schole LLP, counsel for the Underwriters in connection with the offer and sale of the Offered Shares, in form and substance reasonably satisfactory to the Underwriters, dated as of such date, with executed copies for each of the other Underwriters named on the Prospectus cover page.

(f) Officers' Certificate. On each of the First Closing Date and each Option Closing Date, the Representative shall have received a certificate executed by the Chief Executive Officer or President of the Company and the Chief Financial Officer of the Company, solely in their respective capacities as such, dated as of such date, to the effect that:

(i) for the period from and including the date of this Agreement through and including such date, there has not occurred any Material Adverse Change;

(ii) the representations, warranties and covenants of the Company set forth in Section 1 of this Agreement are true and correct with the same force and effect as though expressly made on and as of such date; and

(iii) the Company has complied in all material respects with all the agreements hereunder and satisfied in all material respects all the conditions on its part to be performed or satisfied hereunder at or prior to such date.

(g) Bring-down Comfort Letter. On each of the First Closing Date and each Option Closing Date the Representative shall have received from Ernst & Young LLP, independent registered public accountants for the Company, letter dated such date, in form and substance reasonably satisfactory to the Representative, which letter shall: (i) reaffirm the statements made in the letters furnished by them pursuant to Section 6(a), except that the specified date referred to therein for the carrying out of procedures shall be no more than two business days prior to the First Closing Date or the applicable Option Closing Date, as the case may be; and (ii) cover certain financial information contained in the Prospectus.

(h) Lock-Up Agreements. On or prior to the date hereof, the Company shall have furnished to the Representative an agreement in the form of Exhibit B hereto from each of the persons listed on Exhibit C hereto, and each such agreement shall be in full force and effect on each of the First Closing Date and each Option Closing Date.

(i) Rule 462(b) Registration Statement. In the event that a Rule 462(b) Registration Statement is filed in connection with the offering contemplated by this Agreement, such Rule 462(b) Registration Statement shall have been filed with the Commission on the date of this Agreement and shall have become effective automatically upon such filing.

(j) Approval of Listing. At the First Closing Date, the Offered Shares and Warrant Shares underlying the Offered Warrants shall have been duly listed on Nasdaq, subject only to official notice of issuance.

(k) Additional Documents. On or before each of the First Closing Date and each Option Closing Date, the Representative and counsel for the Underwriters shall have received such information, documents and opinions as they may reasonably request for the purposes of enabling them to pass upon the issuance and sale of the Offered Securities as contemplated herein.

If any condition specified in this Section 6 is not satisfied when and as required to be satisfied, this Agreement may be terminated by the Representative by notice from the Representative to the Company at any time on or prior to the First Closing Date and, with respect to the Optional Securities, at any time on or prior to the applicable Option Closing Date, which termination shall be without liability on the part of any party to any other party, except that Section 4, Section 7, Section 9 and Section 10 shall at all times be effective and shall survive such termination.

Section 7. Reimbursement of Underwriters' Expenses. If this Agreement is terminated by the Representative pursuant to Section 6 or Section 11(i), or if the sale to the Underwriters of the Offered Securities on the First Closing Date is not consummated because of any refusal, inability or failure on the part of the Company to perform any agreement herein or to comply with any provision hereof, the Company agrees to reimburse, or procure the reimbursement of, the Representative and the other Underwriters (or such Underwriters as have terminated this Agreement with respect to themselves), severally, upon demand for all out-of-pocket expenses that shall have been reasonably incurred by the Representative and the Underwriters in connection with the proposed subscription for and the offering and sale of the Offered Securities, including, but not limited to, reasonable and documented fees and disbursements of counsel, printing expenses, travel expenses and postage charges; *provided, however*, that in the event any such termination is effected after the First Closing Date but prior to any Option Closing Date with respect to the subscription for any Optional Securities, the Company shall only be obligated to reimburse the Underwriters for all such out-of-pocket expenses incurred after the First Closing Date in connection with the proposed subscription for any such Optional Shares.

Section 8. Effectiveness of this Agreement. This Agreement shall become effective upon the execution and delivery hereof by the parties hereto.

Section 9. Indemnification.

(a) Indemnification of the Underwriters. The Company agrees to indemnify and hold harmless each Underwriter, its affiliates, directors and officers, and each person, if any, who controls any Underwriter within the meaning of the Securities Act or the Exchange Act against any loss, claim, damage, liability or expense, as incurred, to which such Underwriter or such affiliate, director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, other federal or state statutory law or regulation, or the laws or regulations of foreign jurisdictions where Offered Securities have been offered or sold or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of the Company), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading; and (ii) any untrue statement or alleged untrue statement of a material fact included in the Preliminary Prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Marketing Material, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement to the foregoing), or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading; and to reimburse each Underwriter and each such affiliate, director, officer or controlling person for any and all reasonable and documented expenses (including the fees and disbursements of counsel) as such expenses are incurred by such Underwriter or such affiliate, director, officer, or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action; *provided, however*, that the foregoing indemnity agreement shall not apply to any loss, claim, damage, liability or expense to the extent, but only to the extent, arising out of or based upon any untrue statement or alleged untrue statement or omission or alleged omission made in reliance upon and in conformity with information relating to any Underwriter furnished to the Company by the Representative in writing expressly for use in the Registration Statement, the Preliminary Prospectus, the Time of Sale Prospectus, any such free writing prospectus, any Marketing Material, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement thereto), it being understood and agreed that the only such information consists of the information described in Section 9(b) below. The indemnity agreement set forth in this Section 9(a) shall be in addition to any liabilities that the Company may otherwise have.

(b) Indemnification of the Company, its Directors and Officers. Each Underwriter agrees, severally and not jointly, to indemnify and hold harmless the Company, each of its directors, each of its officers who signed the Registration Statement and each person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act, against any loss, claim, damage, liability or expense, as incurred, to which the Company, or any such director, officer or controlling person may become subject, under the Securities Act, the Exchange Act, or other federal or state statutory law or regulation, or at common law or otherwise (including in settlement of any litigation, if such settlement is effected with the written consent of such Underwriter), insofar as such loss, claim, damage, liability or expense (or actions in respect thereof as contemplated below) arises out of or is based upon (i) any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement, or any amendment thereto, or any omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading or (ii) any untrue statement or alleged untrue statement of a material fact included in the Preliminary Prospectus, the Time of Sale Prospectus, any free writing prospectus, that the Company has used, referred to or filed, or is required to file, pursuant to Rule 433 of the Securities Act, any Section 5(d) Written Communication or the Prospectus (or any such amendment or supplement) or the omission or alleged omission to state therein a material fact necessary in order to make the statements, in the light of the circumstances under which they were made, not misleading, in each case to the extent, but only to the extent, that such untrue statement or alleged untrue statement or omission or alleged omission was made in the Registration Statement, such Preliminary Prospectus, the Time of Sale Prospectus, such free writing prospectus, such Section 5(d) Written Communication or the Prospectus (or any such amendment or supplement), in reliance upon and in conformity with information furnished to the Company by the Representative in writing expressly for use therein; and to reimburse the Company, or any such director, officer or controlling person for any and all expenses (including the fees and disbursements of counsel) as such expenses are incurred by the Company, or any such director, officer or controlling person in connection with investigating, defending, settling, compromising or paying any such loss, claim, damage, liability, expense or action. The Company hereby acknowledges that the only information that the Representative has furnished to the Company expressly for use in the Registration Statement, the Preliminary Prospectus, the Time of Sale Prospectus, any free writing prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) of the Securities Act, any Section 5(d) Written Communication or the Prospectus (or any amendment or supplement to the foregoing) are the statements set forth in the last sentence of the first paragraph under the caption “Underwriting—Commission and Expenses,” and the first sentence under the caption “Underwriting—Stabilization,” in the Preliminary Prospectus Supplement and the Prospectus Supplement. The indemnity agreement set forth in this Section 9(b) shall be in addition to any liabilities that each Underwriter may otherwise have. Notwithstanding the provisions of this Section 9(b), no Underwriter shall be required to indemnify the Company or its directors or officers who signed the Registration Statement or any person, if any, who controls the Company within the meaning of the Securities Act or the Exchange Act, for any amount in excess of the underwriting discounts and commissions received by such Underwriter in connection with the Offered Shares underwritten by it and distributed to the public.

(c) Notifications and Other Indemnification Procedures. Promptly after receipt by an indemnified party under this Section 9 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against an indemnifying party under this Section 9, notify the indemnifying party in writing of the commencement thereof, but the omission so to notify the indemnifying party will not relieve the indemnifying party from any liability which it may have to any indemnified party to the extent the indemnifying party is not materially prejudiced as a proximate result of such failure and shall not in any event relieve the indemnifying party from any liability that it may have otherwise than on account of this indemnity agreement. In case any such action is brought against any indemnified party and such indemnified party seeks or intends to seek indemnity from an indemnifying party, the indemnifying party will be entitled to participate in, and, to the extent that it shall elect, jointly with all other indemnifying parties similarly notified, by written notice delivered to the indemnified party promptly after receiving the aforesaid notice from such indemnified party, to assume the defense thereof with counsel reasonably satisfactory to such indemnified party; *provided, however*, that if the defendants in any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded based upon advice of counsel that a conflict may arise between the positions of the indemnifying party and the indemnified party in conducting the defense of any such action or that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, the indemnified party or parties shall have the right to select separate counsel to assume such legal defenses and to otherwise participate in the defense of such action on behalf of such indemnified party or parties. Upon receipt of notice from the indemnifying party to such indemnified party of such indemnifying party's election so to assume the defense of such action and approval by the indemnified party of counsel, such approval not to be unreasonably withheld, delayed or conditioned, the indemnifying party will not be liable to such indemnified party under this Section 9 for any legal or other expenses subsequently incurred by such indemnified party in connection with the defense thereof unless (i) the indemnified party shall have employed separate counsel in accordance with the proviso to the preceding sentence (it being understood, however, that the indemnifying party shall not be liable for the fees and expenses of more than one separate counsel (together with one local counsel for each applicable jurisdiction), representing the indemnified parties who are parties to such action), which counsel (together with any such local counsel) for the indemnified parties shall be selected by the Representative (in the case of counsel for the indemnified parties referred to in Section 9(a) above) or by the Company (in the case of counsel for the indemnified parties referred to in Section 9(b) above) or (ii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of commencement of the action or (iii) the indemnifying party has authorized in writing the employment of counsel for the indemnified party at the expense of the indemnifying party, in each of which cases the fees and expenses of such counsel shall be at the expense of the indemnifying party and shall be paid as they are incurred.

(d) Settlements. The indemnifying party under this Section 9 shall not be liable for any settlement of any proceeding effected without its written consent, but if settled with such consent or if there be a final judgment for the plaintiff, the indemnifying party agrees to indemnify the indemnified party against any loss, claim, damage, liability or expense by reason of such settlement or judgment. No indemnifying party shall, without the prior written consent of the indemnified party, effect any settlement, compromise or consent to the entry of judgment in any pending or threatened action, suit or proceeding in respect of which any indemnified party is or could have been a party and indemnity was or could have been sought hereunder by such indemnified party, unless such settlement, compromise or consent includes an unconditional release of such indemnified party from all liability on claims that are the subject matter of such action, suit or proceeding and does not include an admission of fault or culpability or a failure to act by or on behalf of such indemnified party.

Section 10. Contribution. If the indemnification provided for in Section 9 is for any reason held to be unavailable to or otherwise insufficient to hold harmless an indemnified party in respect of any losses, claims, damages, liabilities or expenses referred to therein (other than as a result of the limitations or indemnification provided for therein), then each indemnifying party shall contribute to the aggregate amount paid or payable by such indemnified party, as incurred, as a result of any losses, claims, damages, liabilities or expenses referred to therein (i) in such proportion as is appropriate to reflect the relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, from the offering of the Offered Securities pursuant to this Agreement or (ii) if the allocation provided by clause (i) above is not permitted by applicable law, in such proportion as is appropriate to reflect not only the relative benefits referred to in clause (i) above but also the relative fault of the Company, on the one hand, and the Underwriters, on the other hand, in connection with the statements or omissions which resulted in such losses, claims, damages, liabilities or expenses, as well as any other relevant equitable considerations. The relative benefits received by the Company, on the one hand, and the Underwriters, on the other hand, in connection with the offering of the Offered Shares pursuant to this Agreement shall be deemed to be in the same respective proportions as the total proceeds from the offering of the Offered Securities pursuant to this Agreement received by the Company, and the total underwriting discounts and commissions received by the Underwriters, in each case as set forth on the front cover page of the Prospectus, bear to the aggregate initial public offering price of the Offered Securities as set forth on such cover. The relative fault of the Company, on the one hand, and the Underwriters, on the other hand, shall be determined by reference to, among other things, whether any such untrue or alleged untrue statement of a material fact or omission or alleged omission to state a material fact relates to information supplied by the Company, on the one hand, or the Underwriters, on the other hand, and the parties' relative intent, knowledge, access to information and opportunity to correct or prevent such untrue statement or omission.

The amount paid or payable by a party as a result of the losses, claims, damages, liabilities and expenses referred to above shall be deemed to include, subject to the limitations set forth in Section 9(c), reasonable and documented legal or other fees or expenses reasonably incurred by such party in connection with investigating or defending any action or claim. The provisions set forth in Section 9(c) with respect to notice of commencement of any action shall apply if a claim for contribution is to be made under this Section 10; *provided, however*, that no additional notice shall be required with respect to any action for which notice has been given under Section 9(c) for purposes of indemnification.

The Company and the Underwriters agree that it would not be just and equitable if contribution pursuant to this Section 10 were determined by pro rata allocation (even if the Underwriters were treated as one entity for such purpose) or by any other method of allocation which does not take account of the equitable considerations referred to in this Section 10.

Notwithstanding the provisions of this Section 10, no Underwriter shall be required to contribute any amount in excess of the underwriting discounts and commissions received by such Underwriter in connection with the Offered Securities underwritten by it and distributed to the public. No person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Securities Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. The Underwriters' obligations to contribute pursuant to this Section 10 are several, and not joint, in proportion to their respective underwriting commitments as set forth opposite their respective names on Schedule A. For purposes of this Section 10, each affiliate, director and officer of an Underwriter and each person, if any, who controls an Underwriter within the meaning of the Securities Act or the Exchange Act shall have the same rights to contribution as such Underwriter, and each director of the Company, each officer of the Company who signed the Registration Statement, and each person, if any, who controls the Company within the meaning of the Securities Act and the Exchange Act shall have the same rights to contribution as the Company.

Section 11. Termination of this Agreement. Prior to the subscription for the Firm Securities by the Underwriters on the First Closing Date, this Agreement may be terminated by the Representative by notice given to the Company if at any time: (i) trading in any of the Company's securities shall have been suspended or materially limited by the Commission or by the Nasdaq, (ii) trading in securities generally on either the Nasdaq or the NYSE shall have been suspended or materially limited, or minimum or maximum prices shall have been generally established on any of such stock exchanges; (iii) a general banking moratorium shall have been declared by any of federal or New York authorities; (iv) there shall have occurred any outbreak or escalation of national or international hostilities or any crisis or calamity affecting United States or international financial markets, or any substantial change or development involving a prospective substantial change in United States' or international political, financial or economic conditions, in any such case as in the judgment of the Representative is material and adverse and makes it impracticable to market the Offered Securities in the manner and on the terms described in the Time of Sale Prospectus or the Prospectus or to enforce contracts for the sale of securities; (v) in the judgment of the Representative there shall have occurred any Material Adverse Change; or (vi) the Company shall have sustained a loss by strike, fire, flood, earthquake, accident or other calamity of such character as in the judgment of the Representative may interfere materially with the conduct of the business and operations of the Company regardless of whether or not such loss shall have been insured. Any termination pursuant to this Section 11 shall be without liability on the part of (a) the Company to any Underwriter, except to the extent that the Company is obligated to reimburse the expenses of the Representative and the Underwriters pursuant to Section 4 or Section 7 hereof or (b) any Underwriter to the Company; *provided, however*, that the provisions of Section 9 and Section 10 shall at all times be effective and shall survive such termination.

Section 12. No Advisory or Fiduciary Relationship. The Company acknowledges and agrees that (a) the subscription for and sale of the Offered Securities pursuant to this Agreement, including the determination of the public offering price of the Offered Shares and any related discounts and commissions, is an arm's-length commercial transaction between the Company, on the one hand, and the several Underwriters, on the other hand, (b) in connection with the offering contemplated hereby and the process leading to such transaction, each Underwriter is and has been acting solely as a principal and is not the agent or fiduciary of the Company, or its shareholders, creditors, employees or any other party, (c) no Underwriter has assumed or will assume an advisory or fiduciary responsibility in favor of the Company with respect to the offering contemplated hereby or the process leading thereto (irrespective of whether such Underwriter has advised or is currently advising the Company on other matters) and no Underwriter has any obligation to the Company with respect to the offering contemplated hereby except the obligations expressly set forth in this Agreement, (d) the Underwriters and their respective affiliates may be engaged in a broad range of transactions that involve interests that differ from those of the Company, and (e) the Underwriters have not provided any legal, accounting, regulatory or tax advice with respect to the offering contemplated hereby and the Company has consulted its own legal, accounting, regulatory and tax advisors to the extent it deemed appropriate.

Section 13. Representations and Indemnities to Survive Delivery. The respective indemnities, agreements, representations, warranties and other statements of the Company and of the several Underwriters set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by or on behalf of any Underwriter or the Company or any of its or their partners, officers or directors or any controlling person, as the case may be, and, anything herein to the contrary notwithstanding, will survive delivery of and payment for the Offered Securities issued and sold hereunder and any termination of this Agreement.

Section 14. Notices. All communications hereunder shall be in writing and shall be mailed, hand delivered or emailed or telecopied and confirmed to the parties hereto as follows:

If to the Representative:

H.C. Wainwright & Co., LLC
430 Park Avenue
New York, NY 10022
Email: notices@hcwco.com
Attention: Chief Executive Officer

with a copy to:

Ellenoff Grossman & Schole LLP
1345 Avenue of the Americas;
New York, NY 10105-02032,
Attention: John J. Hart, Esq
Email: jhart@egsllp.com

If to the Company:

Osmotica Pharmaceuticals plc
400 Crossing Boulevard
Bridgewater, NJ 08807
Attention: Chris Klein
Attention: Chief Executive Officer
Email: cklein@rvlpharma.com

with a copy to:

Ropes & Gray LLP
Prudential Tower
800 Boylston Street
Boston, MA 02199-3600
Attention: Craig E. Marcus
Attention: William J. Michener
Email: craig.marcus@ropesgray.com and
William.michener@ropesgray.com

Any party hereto may change the address for receipt of communications by giving written notice to the others.

Section 15. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto, and to the benefit of the affiliates, directors, officers and controlling persons referred to in Section 9 and Section 10, and in each case their respective successors, and no other person will have any right or obligation hereunder. The term “**successors**” shall not include any purchaser of the Offered Securities as such from any of the Underwriters merely by reason of such purchase.

Section 16. Partial Unenforceability. The invalidity or unenforceability of any section, paragraph or provision of this Agreement shall not affect the validity or enforceability of any other section, paragraph or provision hereof. If any section, paragraph or provision of this Agreement is for any reason determined to be invalid or unenforceable, there shall be deemed to be made such minor changes (and only such minor changes) as are necessary to make it valid and enforceable and to give effect, as closely as possible, to the intended meaning thereof.

Section 17. Recognition of the U.S. Special Resolution Regimes.

(a) In the event that any Underwriter that is a Covered Entity becomes subject to a proceeding under a U.S. Special Resolution Regime, the transfer from such Underwriter of this Agreement, and any interest and obligation in or under this Agreement, will be effective to the same extent as the transfer would be effective under the U.S. Special Resolution Regime if this Agreement, and any such interest and obligation, were governed by the laws of the United States or a state of the United States.

(b) In the event that any Underwriter that is a Covered Entity or a BHC Act Affiliate of such Underwriter becomes subject to a proceeding under a U.S. Special Resolution Regime, Default Rights under this Agreement that may be exercised against such Underwriter are permitted to be exercised to no greater extent than such Default Rights could be exercised under the U.S. Special Resolution Regime if this Agreement were governed by the laws of the United States or a state of the United States.

For purposes of this Agreement, (A) “**BHC Act Affiliate**” has the meaning assigned to the term “affiliate” in, and shall be interpreted in accordance with, 12 U.S.C. § 1841(k); (B) “**Covered Entity**” means any of the following: (i) a “covered entity” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 252.82(b); (ii) a “covered bank” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 47.3(b); or (iii) a “covered FSI” as that term is defined in, and interpreted in accordance with, 12 C.F.R. § 382.2(b); (C) “**Default Right**” has the meaning assigned to that term in, and shall be interpreted in accordance with, 12 C.F.R. §§ 252.81, 47.2 or 382.1, as applicable; and (D) “**U.S. Special Resolution Regime**” means each of (i) the Federal Deposit Insurance Act and the regulations promulgated thereunder and (ii) Title II of the Dodd-Frank Wall Street Reform and Consumer Protection Act and the regulations promulgated thereunder.

Section 18. Governing Law Provisions. This Agreement shall be governed by and construed in accordance with the internal laws of the State of New York applicable to agreements made and to be performed in such state. Any legal suit, action or proceeding arising out of or based upon this Agreement or the transactions contemplated hereby (“**Related Proceedings**”) may be instituted in the federal courts of the United States of America located in the Borough of Manhattan in the City of New York or the courts of the State of New York in each case located in the Borough of Manhattan in the City of New York (collectively, the “**Specified Courts**”), and each party irrevocably submits to the exclusive jurisdiction (except for proceedings instituted in regard to the enforcement of a judgment of any such court (a “**Related Judgment**”), as to which such jurisdiction is non-exclusive) of such courts in any such suit, action or proceeding. Service of any process, summons, notice or document by mail to such party’s address set forth above shall be effective service of process for any suit, action or other proceeding brought in any such court. The parties irrevocably and unconditionally waive any objection to the laying of venue of any suit, action or other proceeding in the Specified Courts and irrevocably and unconditionally waive and agree not to plead or claim in any such court that any such suit, action or other proceeding brought in any such court has been brought in an inconvenient forum.

With respect to any Related Proceeding, each party irrevocably waives, to the fullest extent permitted by applicable law, all immunity (whether on the basis of sovereignty or otherwise) from jurisdiction, service of process, attachment (both before and after judgment) and execution to which it might otherwise be entitled in the Specified Courts, and with respect to any Related Judgment, each party waives any such immunity in the Specified Courts or any other court of competent jurisdiction, and will not raise or claim or cause to be pleaded any such immunity at or in respect of any such Related Proceeding or Related Judgment, including, without limitation, any immunity pursuant to the United States Foreign Sovereign Immunities Act of 1976, as amended.

Section 19. General Provisions. This Agreement constitutes the entire agreement of the parties to this Agreement and supersedes all prior written or oral and all contemporaneous oral agreements, understandings and negotiations with respect to the subject matter hereof; provided, however, that, notwithstanding anything herein to the contrary, the Engagement Agreement, dated September 29, 2021 (“**Engagement Agreement**”), by and between the Company and Wainwright, shall continue to be effective and the terms therein, including, without limitation, Section A.3 with respect to any future offerings, shall continue to survive and be enforceable by Wainwright in accordance with its terms, provided that, in the event of a conflict between the terms of the Engagement Agreement and this Agreement, the terms of this Agreement shall prevail. This Agreement may be executed in two or more counterparts, each one of which shall be an original, with the same effect as if the signatures thereto and hereto were upon the same instrument. This Agreement may not be amended or modified unless in writing by all of the parties hereto, and no condition herein (express or implied) may be waived unless waived in writing by each party whom the condition is meant to benefit. The section headings herein are for the convenience of the parties only and shall not affect the construction or interpretation of this Agreement.

Each of the parties hereto acknowledges that it is a sophisticated business person who was adequately represented by counsel during negotiations regarding the provisions hereof, including, without limitation, the indemnification provisions of Section 9 and the contribution provisions of Section 10, and is fully informed regarding said provisions. Each of the parties hereto further acknowledges that the provisions of Section 9 and Section 10 hereof fairly allocate the risks in light of the ability of the parties to investigate the Company, its affairs and its business in order to assure that adequate disclosure has been made in the Registration Statement, the Preliminary Prospectus, the Time of Sale Prospectus, each free writing prospectus and the Prospectus (and any amendments and supplements to the foregoing), as contemplated by the Securities Act.

If the foregoing is in accordance with your understanding of our agreement, kindly sign and return to the Company the enclosed copies hereof, whereupon this instrument, along with all counterparts hereof, shall become a binding agreement in accordance with its terms.

Very truly yours,

OSMOTICA PHARMACEUTICALS PLC

By: /s/Brian Markison

Name: Brian Markison

Title: Chief Executive Officer

The foregoing Underwriting Agreement is hereby confirmed and accepted by the Representative in New York, New York as of the date first above written.

H.C. Wainwright & Co., LLC

Acting individually and as Representative
of the several Underwriters named in
the attached Schedule A.

H.C. WAINWRIGHT & CO., LLC

By: /s/ Edward D. Silvera

Name: Edward D. Silvera

Title: Chief Operating Officer

Underwriters	Number of Firm Shares to be Subscribed for	Number of Firm Warrants to be Subscribed for
H.C. Wainwright & Co., LLC	14,000,000	14,000,000
Total		

1. Free Writing Prospectuses Included in the Time of Sale Prospectus

None.

2. Pricing Information

Number of Firm Shares: 14,000,000

Number of Firm Warrants: 14,000,000

Number of Optional Shares: 2,100,000

Number of Optional Warrants: 2,100,000

Public Offering Price per combination of one Share and one Warrant: \$2.50

Exercise Price of Warrant: \$3.10

Permitted Section 5(d) Communications

None.

EXHIBIT A-1A

Exhibit A-1B

Form of Lock-up Agreement

October 6, 2021

H.C. Wainwright & Co., LLC
 430 Park Avenue
 New York, NY 10022
 As Representative of the several Underwriters

RE: Osmotica Pharmaceuticals plc (the “**Company**”)

Ladies & Gentlemen:

The Company proposes to conduct a public offering (the “**Offering**”) of ordinary shares, nominal value \$0.01 (the “**Shares**”), of the Company for which H.C. Wainwright & Co., LLC will act as the Representative of the underwriters. The undersigned recognizes that the Offering will benefit each of the Company and the undersigned. The undersigned acknowledges that the underwriters are relying on the representations and agreements of the undersigned contained in this letter agreement in conducting the Offering and, at a subsequent date, in entering into an underwriting agreement (the “**Underwriting Agreement**”) and other underwriting arrangements with the Company with respect to the Offering.

Annex A sets forth definitions for capitalized terms used in this letter agreement that are not defined in the body of this agreement. Those definitions are a part of this agreement.

In consideration of the foregoing, and for other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the undersigned hereby agrees that, during the Lock-up Period, subject to the exceptions set forth in this letter agreement, the undersigned will not (and will cause any Family Member not to), without the prior written consent of the Representative, which may withhold its consent in its sole discretion:

- Sell or Offer to Sell any Shares or Related Securities currently or hereafter owned either of record or beneficially (as defined in Rule 13d-3 under the Exchange Act) by the undersigned or such Family Member,
- enter into any Swap,
- make any demand for, or exercise any right with respect to, the registration under the Securities Act of the offer and sale of any Shares or Related Securities, or cause to be filed a registration statement, prospectus or prospectus supplement (or an amendment or supplement thereto) with respect to any such registration, or
- publicly announce any intention to do any of the foregoing.

The foregoing will not apply to the registration of the offer and sale of the Shares, and the sale of the Shares to the underwriters, in each case as contemplated by the Underwriting Agreement, if applicable. In addition, the foregoing restrictions shall not apply to: (i) sales of Shares acquired in the Offering or in open market transactions after the completion of the Offering; (ii) the transfer of Shares or Related Securities by gift; (iii) the transfer of Shares or Related Securities by will or intestate succession to a Family Member or the legal representative, heir or beneficiary of the undersigned; (iv) the transfer of Shares or Related Securities to a Family Member or a trust whose beneficiaries consist exclusively of one or more of the undersigned and/or a Family Member; (v) transfers or dispositions of the undersigned’s Shares or Related Securities to any corporation, partnership, limited liability company or other entity all of the beneficial ownership interests of which are held by the undersigned or any Family Member; (vi) distributions of the undersigned’s Shares or Related Securities to limited partners, general partners, members, shareholders, other equityholders or any Beneficial Owners of the undersigned; (vii) transfers or dispositions to a nominee or custodian of a person or entity to whom a disposition or transfer would be permissible under clauses (ii) to (vi); (viii) transfers by operation of law, including pursuant to a domestic order or negotiated divorce settlement; (ix) transfers pursuant to an order of a court or regulatory agency or to comply with any regulations related to the undersigned’s ownership of Shares; (x) transfers to the Company or its affiliates upon death, disability or termination of employment of the undersigned; or (xi) if the undersigned is a corporation, partnership, limited liability company, trust or other business entity, the transfer of Shares or Related Securities to another corporation, partnership, limited liability company, trust or other business entity that is a direct or indirect affiliate (as defined in Rule 405 promulgated under the Securities Act) of the undersigned or to any investment fund or other entity controlled or managed by, or under common control or management as, the undersigned; *provided, however*, that in any such case set forth in (ii) through (vii) and (xi) above, it shall be a condition to such transfer that each transferee executes and delivers to the Representative an agreement in form and substance reasonably satisfactory to the Representative stating that such transferee is receiving and holding such Shares and/or Related Securities subject to the provisions of this letter agreement and agrees not to Sell or Offer to Sell such Shares and/or Related Securities, engage in any Swap or engage in any other activities restricted under this letter agreement except in accordance with this letter agreement (as if such transferee had been an original signatory hereto); *provided further* that in any such case set forth in (i) above, it shall be a condition to such transfer that prior to the expiration of the Lock-up Period, no filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of Shares compared to the amount disclosed in the undersigned’s Form 3 under Section 16(a) of the Exchange Act, shall be required or shall be voluntarily made; and provided further that in any such case set forth in (ii), (iv) through (vii) and (xi) above, it shall be a condition to such transfer that prior to the expiration of the Lock-up Period, no filing under Section 16(a) of the Exchange Act (other than a filing on Form 5) reporting a reduction in beneficial ownership of Shares, shall be required or shall be voluntarily made unless such filing indicates in the footnotes thereto that the filing relates to a gift, estate planning transaction, distribution to limited partners, general partners, members, shareholders, other equityholders or any Beneficial Owners of the undersigned, or a transfer to an affiliated entity, as applicable, and that no Shares were sold to the public by the reporting person and the Shares remain subject to a lock-up agreement with the underwriters of the Offering.

Furthermore, notwithstanding the restrictions imposed by this letter agreement, the undersigned may (i) exercise an option to subscribe for Shares granted under any share option, share bonus, employee share purchase or other share incentive plan of the Company, *provided* that the Shares issued upon such exercise shall continue to be subject to the restrictions on transfer set forth in this letter agreement, (ii) establish a trading plan pursuant to Rule 10b5-1 under the Exchange Act for the transfer of Shares, *provided* that such plan does not provide for any transfers of Shares or Related Securities during the Lock-up Period, (iii) sell, transfer or dispose of Shares or Related Securities during the Lock-up Period in accordance with a trading plan pursuant to Rule 10b5-1 that has been entered into by the undersigned prior to the date hereof, *provided* that such plan has been provided or made available to the Representative and any filing under Section 16(a) of the Exchange Act as a result of such sales, transfers or dispositions will contain a footnote disclosing that such sales, transfers or dispositions were made in accordance with a trading plan pursuant to Rule 10b5-1 or (iv) transfer Shares or Related Securities (A) as forfeitures to satisfy tax withholding obligations of the undersigned in connection with the vesting or exercise of equity awards by the undersigned pursuant to any share option, share bonus, employee share purchase or other share incentive plan of the Company, (B) pursuant to a net exercise or cashless exercise by the undersigned of outstanding equity awards pursuant to any share option, share bonus, employee share purchase or other share incentive plan of the Company, *provided* that any Shares acquired upon the net exercise or cashless exercise of equity awards described in this clause (B) shall be subject to the restrictions set forth in this letter agreement, or (C) pursuant to a bona fide third-party tender offer for all outstanding shares of the Company, merger, consolidation or other similar transaction made to all holders of the Company's securities involving a change of control of the Company (including, without limitation, the entering into any lock-up, voting or similar agreement pursuant to which the undersigned may agree to transfer, sell, tender or otherwise dispose of any Shares or other such securities in connection with such transaction, or vote any Shares or other such securities in favor of any transaction); *provided* that in the event that such tender offer, merger, consolidation or other such transaction is not completed, such securities held by the undersigned shall remain subject to the provisions of this letter agreement; *provided further* that, in the case of a transfer pursuant to clause (A) or (B) above, if the undersigned is required to make a filing under Section 16(a) of the Exchange Act reporting a reduction in beneficial ownership of Shares during the Lock-up Period, the undersigned shall include a statement in such report to the effect that the purpose of such transfer was to cover tax or strike price obligations of the undersigned in connection with such exercise.

The undersigned also agrees and consents to the entry of stop transfer instructions with the Company's transfer agent and registrar against the transfer of Shares or Related Securities held by the undersigned, if any, except in compliance with the foregoing restrictions.

With respect to the Offering only, the undersigned waives any registration rights relating to registration under the Securities Act of the offer and sale of any Shares and/or any Related Securities owned either of record or beneficially by the undersigned, including any rights to receive notice of the Offering.

Whether or not the Offering occurs as currently contemplated or at all depends on market conditions and other factors. The Offering will only be made pursuant to the Underwriting Agreement, the terms of which are subject to negotiation between the Company and the underwriters.

The undersigned hereby represents and warrants that the undersigned has full power, capacity and authority to enter into this letter agreement. This letter agreement is irrevocable and will be binding on the undersigned and the successors, heirs, personal representatives and assigns of the undersigned.

Notwithstanding anything herein to the contrary, if (a) the initial closing of the Offering has not occurred prior to November 13, 2021, (b) after being executed, the Underwriting Agreement (other than the provisions thereof that survive termination) shall terminate or be terminated prior to payment for and delivery of the Shares to be issued thereunder, (c) the Company notifies the underwriters in writing that it does not intend to proceed with the Offering, or (d) the Company withdraws the Registration Statement related to the Offering, then this letter agreement shall terminate and the undersigned shall be released from all obligations hereunder upon the earliest to occur of the events specified above.

This letter agreement shall be governed by, and construed in accordance with, the laws of the State of New York, without regard to its conflicts of law provisions other than New York General Obligations Laws Sections 5-1401 and 5-1402.

Signature

Printed Name of Person Signing

*(Indicate capacity of person signing if
signing as custodian or trustee, or on behalf of an entity)*

Certain Defined Terms
Used in Lock-up Agreement

For purposes of the letter agreement to which this Annex A is attached and of which it is made a part:

- “**Beneficial Owner**” shall have the meaning set forth in Rule 13d-3 of the Exchange Act.
- “**Call Equivalent Position**” shall have the meaning set forth in Rule 16a-1(b) under the Exchange Act.
- “**Exchange Act**” shall mean the Securities Exchange Act of 1934, as amended.
- “**Family Member**” shall mean the spouse of the undersigned, an immediate family member of the undersigned or an immediate family member of the undersigned’s spouse, in each case living in the undersigned’s household or whose principal residence is the undersigned’s household (regardless of whether such spouse or family member may at the time be living elsewhere due to educational activities, health care treatment, military service, temporary internship or employment or otherwise). “**Immediate family member**” as used above shall have the meaning set forth in Rule 16a-1(e) under the Exchange Act.
- “**Lock-up Period**” shall mean the period beginning on the date hereof and continuing through the close of trading on the date that is sixtieth (60th) days after the date of the Prospectus (as defined in the Underwriting Agreement).
- “**Put Equivalent Position**” shall have the meaning set forth in Rule 16a-1(h) under the Exchange Act.
- “**Related Securities**” shall mean any options or warrants or other rights to acquire Shares or any securities exchangeable or exercisable for or convertible into Shares, or to acquire other securities or rights ultimately exchangeable or exercisable for or convertible into Shares.
- “**Securities Act**” shall mean the Securities Act of 1933, as amended.
- “**Sell or Offer to Sell**” shall mean to:
 - sell, offer to sell or contract to sell,
 - effect any short sale or establish or increase a Put Equivalent Position or liquidate or decrease any Call Equivalent Position,
 - pledge, hypothecate or grant any security interest in, or
 - in any other way transfer or dispose of,in each case whether effected directly or indirectly.
- “**Swap**” shall mean any swap, hedge or similar arrangement or agreement that transfers, in whole or in part, the economic risk of ownership of Shares or Related Securities, regardless of whether any such transaction is to be settled in securities, in cash or otherwise.

Capitalized terms not defined in this Annex A shall have the meanings given to them in the body of this lock-up agreement.

**Directors, Executive Officers and Others
Signing Lock-up Agreement**

Directors:

Brian Markison
David Burgstahler
Gregory L. Cowan
Michael DeBiasi
Sriram Venkataraman
Juan Vergez
Fred G. Weiss
Joachim Benes

Executive Officers:

Tina Marie deVries, Ph.D.
Andrew Einhorn
Christopher Klein
James Schaub

Others:

Altchem Limited
Avista Healthcare Partners, L.P.
Orbit Co-Invest III, LLC
Orbit Co-Invest A-I LLC
Harpua, L.L.C.

ORDINARY SHARE PURCHASE WARRANT

OSMOTICA PHARMACEUTICALS PLC

Warrant Shares: _____

Initial Exercise Date: October 12, 2021

THIS ORDINARY SHARE PURCHASE WARRANT (the “Warrant”) certifies that, for value received, _____ or its assigns (the “Holder”) is entitled, upon the terms and subject to the limitations on exercise and the conditions hereinafter set forth, at any time on or after the date hereof (the “Initial Exercise Date”) and on or prior to 5:00 p.m. (New York City time) on April 14, 2025 (the “Termination Date”) but not thereafter, to subscribe for and purchase from Osmotica Pharmaceuticals plc, an Irish incorporated public limited company (the “Company”), up to _____ Ordinary Shares (as subject to adjustment hereunder, the “Warrant Shares”), provided that, if there is no effective registration statement registering, or the prospectus contained therein is not available for, the issuance of the Warrant Shares to the Holder (“Registration Statement Unavailability”) at any time during the term of this Warrant (the aggregate number of days on which the Registration Statement Unavailability occurs, the “Applicable Days”), the new Termination Date of this Warrant shall be the Termination Date as of the Initial Exercise Date hereof plus the number of Applicable Days. The purchase price of one Ordinary Share under this Warrant shall be equal to the Exercise Price, as defined in Section 2(b).

Section 1. Definitions. In addition to the terms defined elsewhere in this Warrant, the following terms have the meanings indicated in this Section 1:

“Affiliate” means any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 405 under the Securities Act.

“Bid Price” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the bid price of the Ordinary Shares for the time in question (or the nearest preceding date) on the Trading Market on which the Ordinary Shares are then listed or quoted as reported by Bloomberg L.P. (“Bloomberg”) (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Ordinary Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Ordinary Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Ordinary Shares are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Ordinary Share so reported, or (d) in all other cases, the fair market value of an Ordinary Share as determined by an independent appraiser selected in good faith by the Holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Board of Directors” means the board of directors of the Company.

“Business Day” means any day other than Saturday, Sunday or other day on which commercial banks in The City of New York are authorized or required by law to remain closed; provided, however, for clarification, commercial banks shall not be deemed to be authorized or required by law to remain closed due to “stay at home”, “shelter-in-place”, “non-essential employee” or any other similar orders or restrictions or the closure of any physical branch locations at the direction of any governmental authority so long as the electronic funds transfer systems (including for wire transfers) of commercial banks in The City of New York generally are open for use by customers on such day.

“Commission” means the United States Securities and Exchange Commission.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, and the rules and regulations promulgated thereunder.

“Ordinary Share” means the ordinary shares of the Company, nominal value \$0.01 per share, and any other class of securities into which such securities may hereafter be reclassified or changed.

“Ordinary Share Equivalents” means any securities of the Company or the Subsidiaries which would entitle the holder thereof to acquire at any time Ordinary Shares, including, without limitation, any debt, preferred share, right, option, warrant or other instrument that is at any time convertible into or exercisable or exchangeable for, or otherwise entitles the holder thereof to receive, Ordinary Shares.

“Person” means an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind.

“Registration Statement” means the Company’s registration statement on Form S-3 (File No. 333-236193), including the prospectus supplement filed in connection with the transactions contemplated by the Underwriting Agreement.

“Securities Act” means the Securities Act of 1933, as amended, and the rules and regulations promulgated thereunder.

“Subsidiary” means any subsidiary of the Company and shall, where applicable, also include any direct or indirect subsidiary of the Company formed or acquired after the date hereof.

“Trading Day” means a day on which the Ordinary Shares are traded on a Trading Market.

“Trading Market” means any of the following markets or exchanges on which the Ordinary Shares are listed or quoted for trading on the date in question: the NYSE American, the Nasdaq Capital Market, the Nasdaq Global Market, the Nasdaq Global Select Market, the New York Stock Exchange (or any successors to any of the foregoing).

“Transfer Agent” means Computershare Trust Company, N.A., the current transfer agent of the Company, and any successor transfer agent of the Company.

“Underwriting Agreement” means the underwriting agreement, dated as of October 6, 2021, among the Company and H.C. Wainwright & Co., LLC as representative of the underwriters named therein, as amended, modified or supplemented from time to time in accordance with its terms.

“VWAP” means, for any date, the price determined by the first of the following clauses that applies: (a) if the Ordinary Shares are then listed or quoted on a Trading Market, the daily volume weighted average price of the Ordinary Shares for such date (or the nearest preceding date) on the Trading Market on which the Ordinary Shares are then listed or quoted as reported by Bloomberg L.P. (based on a Trading Day from 9:30 a.m. (New York City time) to 4:02 p.m. (New York City time)), (b) if OTCQB or OTCQX is not a Trading Market, the volume weighted average price of the Ordinary Shares for such date (or the nearest preceding date) on OTCQB or OTCQX as applicable, (c) if the Ordinary Shares are not then listed or quoted for trading on OTCQB or OTCQX and if prices for the Ordinary Shares are then reported on the Pink Open Market (or a similar organization or agency succeeding to its functions of reporting prices), the most recent bid price per Ordinary Share so reported, or (d) in all other cases, the fair market value of an Ordinary Share as determined by an independent appraiser selected in good faith by the holders of a majority in interest of the Warrants then outstanding and reasonably acceptable to the Company, the fees and expenses of which shall be paid by the Company.

“Warrants” means this Warrant and other Ordinary Share purchase warrants issued by the Company pursuant to the Underwriting Agreement and the Registration Statement.

Section 2. Exercise.

a) Exercise of Warrant. Exercise of the purchase rights represented by this Warrant may be made, in whole or in part, at any time or times on or after the Initial Exercise Date and on or before the Termination Date by delivery to the Company of a duly executed facsimile copy or PDF copy submitted by e-mail (or e-mail attachment) of the Notice of Exercise in the form annexed hereto (the "Notice of Exercise"). Within the earlier of (i) two (2) Trading Days and (ii) the number of Trading Days comprising the Standard Settlement Period (as defined in Section 2(d) (i) herein) following the date of exercise as aforesaid, the Holder shall deliver the aggregate Exercise Price for the Ordinary Shares specified in the applicable Notice of Exercise by wire transfer or cashier's check drawn on a United States bank. No ink-original Notice of Exercise shall be required, nor shall any medallion guarantee (or other type of guarantee or notarization) of any Notice of Exercise be required. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company until the Holder has purchased all of the Warrant Shares available hereunder and the Warrant has been exercised in full, in which case, the Holder shall surrender this Warrant to the Company for cancellation within three (3) Trading Days of the date on which the final Notice of Exercise is delivered to the Company. Partial exercises of this Warrant resulting in purchases of a portion of the total number of Warrant Shares available hereunder shall have the effect of lowering the outstanding number of Warrant Shares purchasable hereunder in an amount equal to the applicable number of Warrant Shares purchased. The Holder and the Company shall maintain records showing the number of Warrant Shares purchased and the date of such purchases. The Company shall deliver any objection to any Notice of Exercise within one (1) Trading Day of receipt of such notice. **The Holder and any assignee, by acceptance of this Warrant, acknowledge and agree that, by reason of the provisions of this paragraph, following the purchase of a portion of the Warrant Shares hereunder, the number of Warrant Shares available for purchase hereunder at any given time may be less than the amount stated on the face hereof.**

b) Exercise Price. The exercise price per Ordinary Share under this Warrant shall be **\$3.10**, subject to adjustment hereunder (the "Exercise Price").

c) [RESERVED]

d) Mechanics of Exercise.

i. Delivery of Warrant Shares Upon Exercise. The Company shall cause the Warrant Shares purchased hereunder to be transmitted by the Transfer Agent to the Holder by crediting the account of the Holder's or its designee's balance account with The Depository Trust Company through its Deposit or Withdrawal at Custodian system ("DWAC") if the Company is then a participant in such system and there is an effective registration statement permitting the issuance of the Warrant Shares to or resale of the Warrant Shares by the Holder, and otherwise by physical delivery of a certificate, registered in the Company's share register in the name of the Holder or its designee, for the number of Warrant Shares to which the Holder is entitled pursuant to such exercise to the address specified by the Holder in the Notice of Exercise by the date that is the earlier of (A) the earlier of (i) two (2) Trading Days after the delivery to the Company of the Notice of Exercise and (ii) the number of Trading Days comprising the Standard Settlement Period after the delivery to the Company of the Notice of Exercise and (B) one (1) Trading Day after delivery of the aggregate Exercise Price to the Company (such date, the "Warrant Share Delivery Date"). For purposes of Regulation SHO under the Exchange Act, upon delivery of the Notice of Exercise, the Holder shall be deemed for all corporate purposes to have become the holder of record of the Warrant Shares with respect to which this Warrant has been exercised, irrespective of the date of delivery of the Warrant Shares, provided that payment of the aggregate Exercise Price is received by the Warrant Share Delivery Date. If the Company fails for any reason to deliver to the Holder the Warrant Shares subject to a Notice of Exercise by the Warrant Share Delivery Date, the Company shall pay to the Holder, in cash, as liquidated damages and not as a penalty, for each \$1,000 of Warrant Shares subject to such exercise (based on the VWAP of the Ordinary Shares on the date of the applicable Notice of Exercise), \$10 per Trading Day (increasing to \$20 per Trading Day on the third Trading Day after the Warrant Share Delivery Date) for each Trading Day after such Warrant Share Delivery Date until such Warrant Shares are delivered or Holder rescinds such exercise. The Company agrees to maintain a transfer agent that is a participant in the FAST program so long as this Warrant remains outstanding and exercisable. As used herein, "Standard Settlement Period" means the standard settlement period, expressed in a number of Trading Days, on the Company's primary Trading Market with respect to the Ordinary Shares as in effect on the date of delivery of the Notice of Exercise. Notwithstanding the foregoing, with respect to any Notice(s) of Exercise delivered on or prior to 10:00 a.m. (New York City time) on the Initial Exercise Date, which Notice(s) of Exercise may be delivered at any time after the time of execution of the Underwriting Agreement, the Company agrees to deliver the Warrant Shares subject to such notice(s) by 4:00 p.m. (New York City time) on the Initial Exercise Date and the Initial Exercise Date shall be the Warrant Share Delivery Date for purposes hereunder, provided that payment of the aggregate Exercise Price is received by such Warrant Share Delivery Date.

ii. Delivery of New Warrants Upon Exercise. If this Warrant shall have been exercised in part, the Company shall, at the request of a Holder and upon surrender of this Warrant certificate, at the time of delivery of the Warrant Shares, deliver to the Holder a new Warrant evidencing the rights of the Holder to purchase the unpurchased Warrant Shares called for by this Warrant, which new Warrant shall in all other respects be identical with this Warrant.

iii. Rescission Rights. If the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares pursuant to Section 2(d)(i) by the Warrant Share Delivery Date, then the Holder will have the right to rescind such exercise.

iv. Compensation for Buy-In on Failure to Timely Deliver Warrant Shares Upon Exercise. In addition to any other rights available to the Holder, if the Company fails to cause the Transfer Agent to transmit to the Holder the Warrant Shares in accordance with the provisions of Section 2(d)(i) above pursuant to an exercise on or before the Warrant Share Delivery Date (other than a failure solely caused by incorrect or incomplete information provided by the Holder to the Company), and if after such date the Holder is required by its broker to purchase (in an open market transaction or otherwise) or the Holder's brokerage firm otherwise purchases, Ordinary Shares to deliver in satisfaction of a sale by the Holder of the Warrant Shares which the Holder anticipated receiving upon such exercise (a "Buy-In"), then the Company shall (A) pay in cash to the Holder the amount, if any, by which (x) the Holder's total purchase price (including brokerage commissions, if any) for the Ordinary Shares so purchased exceeds (y) the amount obtained by multiplying (1) the number of Warrant Shares that the Company was required to deliver to the Holder in connection with the exercise at issue times (2) the price at which the sell order giving rise to such purchase obligation was executed, and (B) at the option of the Holder, either reinstate the portion of the Warrant and equivalent number of Warrant Shares for which such exercise was not honored (in which case such exercise shall be deemed rescinded) or deliver to the Holder the number of Ordinary Shares that would have been issued had the Company timely complied with its exercise and delivery obligations hereunder. For example, if the Holder purchases Ordinary Shares having a total purchase price of \$11,000 to cover a Buy-In with respect to an attempted exercise of Ordinary Shares with an aggregate sale price giving rise to such purchase obligation of \$10,000, under clause (A) of the immediately preceding sentence the Company shall be required to pay the Holder \$1,000. The Holder shall provide the Company written notice indicating the amounts payable to the Holder in respect of the Buy-In and, upon request of the Company, evidence of the amount of such loss. Nothing herein shall limit a Holder's right to pursue any other remedies available to it hereunder, at law or in equity including, without limitation, a decree of specific performance and/or injunctive relief with respect to the Company's failure to timely deliver Ordinary Shares upon exercise of the Warrant as required pursuant to the terms hereof.

v. No Fractional Shares or Scrip. No fractional shares or scrip representing fractional shares shall be issued upon the exercise of this Warrant. As to any fraction of a share which the Holder would otherwise be entitled to purchase upon such exercise, the Company shall, at its election, either pay a cash adjustment in respect of such final fraction in an amount equal to such fraction multiplied by the Exercise Price or round down to the next whole share.

vi. Charges, Taxes and Expenses. Issuance of Warrant Shares shall be made without charge to the Holder for any issue or transfer tax (other than any tax or taxes which may be payable as a result of the issuance or delivery of the Warrant Shares in a name other than the name of the Holder) or other incidental expense in respect of the issuance of such Warrant Shares, all of which taxes and expenses shall be paid by the Company, and such Warrant Shares shall be issued in the name of the Holder or in such name or names as may be directed by the Holder; provided, however, that (i) in the event that Warrant Shares are to be issued in a name other than the name of the Holder, this Warrant when surrendered for exercise shall be accompanied by the Assignment Form attached hereto duly executed by the Holder and the Company may require, as a condition thereto, the payment of a sum sufficient to reimburse it for any transfer tax incidental thereto and (ii) the Company shall use its best efforts to pay, or procure payment of, issue or stamp taxes levied in connection with the issuance of the Warrants and Warrant Shares to the Holder if and only if the Holder voluntarily provides all necessary information and documentation to the Company with 15 Business Days to enable the Company to procure payment of such taxes and facilitate the making of the filings by the Company in respect of such taxes. The Company shall pay all Transfer Agent fees required for same-day processing of any Notice of Exercise and all fees to the Depository Trust Company (or another established clearing corporation performing similar functions) required for same-day electronic delivery of the Warrant Shares.

vii. Closing of Books. The Company will not close its shareholder books or records in any manner which prevents the timely exercise of this Warrant, pursuant to the terms hereof.

e) [RESERVED]

f) Holder's Exercise Limitations. The Company shall not effect any exercise of this Warrant, and a Holder shall not have the right to exercise any portion of this Warrant, pursuant to Section 2 or otherwise, to the extent that after giving effect to such issuance after exercise as set forth on the applicable Notice of Exercise, the Holder (together with the Holder's Affiliates, and any other Persons acting as a group together with the Holder or any of the Holder's Affiliates (such Persons, "Attribution Parties")), would beneficially own in excess of the Beneficial Ownership Limitation (as defined below). For purposes of the foregoing sentence, the number of Ordinary Shares beneficially owned by the Holder and its Affiliates and Attribution Parties shall include the number of Ordinary Shares issuable upon exercise of this Warrant with respect to which such determination is being made, but shall exclude the number of Ordinary Shares which would be issuable upon (i) exercise of the remaining, nonexercised portion of this Warrant beneficially owned by the Holder or any of its Affiliates or Attribution Parties and (ii) exercise or conversion of the unexercised or nonconverted portion of any other securities of the Company (including, without limitation, any other Ordinary Share Equivalents) subject to a limitation on conversion or exercise analogous to the limitation contained herein beneficially owned by the Holder or any of its Affiliates or Attribution Parties. Except as set forth in the preceding sentence, for purposes of this Section 2(f), beneficial ownership shall be calculated in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder, it being acknowledged by the Holder that the Company is not representing to the Holder that such calculation is in compliance with Section 13(d) of the Exchange Act and the Holder is solely responsible for any schedules required to be filed in accordance therewith. To the extent that the limitation contained in this Section 2(f) applies, the determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable shall be in the sole discretion of the Holder, and the submission of a Notice of Exercise shall be deemed to be the Holder's determination of whether this Warrant is exercisable (in relation to other securities owned by the Holder together with any Affiliates and Attribution Parties) and of which portion of this Warrant is exercisable, in each case subject to the Beneficial Ownership Limitation, and the Company shall have no obligation to verify or confirm the accuracy of such determination. In addition, a determination as to any group status as contemplated above shall be determined in accordance with Section 13(d) of the Exchange Act and the rules and regulations promulgated thereunder. For purposes of this Section 2(f), in determining the number of outstanding Ordinary Shares, a Holder may rely on the number of outstanding Ordinary Shares as reflected in (A) the Company's most recent periodic or annual report filed with the Commission, as the case may be, (B) a more recent public announcement by the Company or (C) a more recent written notice by the Company or the Transfer Agent setting forth the number of Ordinary Shares outstanding. Upon the written or oral request of a Holder, the Company shall within one Trading Day confirm orally and in writing to the Holder the number of Ordinary Shares then outstanding. In any case, the number of outstanding Ordinary Shares shall be determined after giving effect to the conversion or exercise of securities of the Company, including this Warrant, by the Holder or its Affiliates or Attribution Parties since the date as of which such number of outstanding Ordinary Shares was reported. The "Beneficial Ownership Limitation" shall be 4.99% (or, upon election by a Holder prior to the issuance of any Warrants, 9.99%) of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares issuable upon exercise of this Warrant. The Holder, upon notice to the Company, may increase or decrease the Beneficial Ownership Limitation provisions of this Section 2(f), provided that the Beneficial Ownership Limitation in no event exceeds 9.99% of the number of Ordinary Shares outstanding immediately after giving effect to the issuance of Ordinary Shares upon exercise of this Warrant held by the Holder and the provisions of this Section 2(f) shall continue to apply. Any increase in the Beneficial Ownership Limitation will not be effective until the 61st day after such notice is delivered to the Company. The provisions of this paragraph shall be construed and implemented in a manner otherwise than in strict conformity with the terms of this Section 2(f) to correct this paragraph (or any portion hereof) which may be defective or inconsistent with the intended Beneficial Ownership Limitation herein contained or to make changes or supplements necessary or desirable to properly give effect to such limitation. The limitations contained in this paragraph shall apply to a successor holder of this Warrant.

Section 3. Certain Adjustments.

a) Share Dividends and Splits. If the Company, at any time while this Warrant is outstanding: (i) pays a share dividend or otherwise makes a distribution or distributions on Ordinary Shares or any other equity or equity equivalent securities payable in Ordinary Shares (which, for avoidance of doubt, shall not include any Ordinary Shares issued by the Company upon exercise of this Warrant), (ii) subdivides outstanding Ordinary Shares into a larger number of shares, (iii) combines (including by way of reverse stock split) outstanding Ordinary Shares into a smaller number of shares, or (iv) issues by reclassification of Ordinary Shares into any other shares in the capital of the Company, then in each case the Exercise Price shall be multiplied by a fraction of which the numerator shall be the number of Ordinary Shares (excluding treasury shares, if any) outstanding immediately before such event and of which the denominator shall be the number of Ordinary Shares outstanding immediately after such event, and the number of shares issuable upon exercise of this Warrant shall be proportionately adjusted such that the aggregate Exercise Price of this Warrant shall remain unchanged. Any adjustment made pursuant to this Section 3(a) shall become effective immediately after the record date for the determination of shareholders entitled to receive such dividend or distribution and shall become effective immediately after the effective date in the case of a subdivision, combination or re-classification.

b) [RESERVED]

c) Subsequent Rights Offerings. In addition to any adjustments pursuant to Section 3(a) above, if at any time the Company grants, issues or sells any Ordinary Share Equivalents or rights to purchase stock, warrants, securities or other property pro rata to the record holders of any class of Ordinary Shares (the "Purchase Rights"), then the Holder will be entitled to acquire, upon the terms applicable to such Purchase Rights, the aggregate Purchase Rights which the Holder could have acquired if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date on which a record is taken for the grant, issuance or sale of such Purchase Rights, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the grant, issue or sale of such Purchase Rights (provided, however, that, to the extent that the Holder's right to participate in any such Purchase Right would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Purchase Right to such extent (or beneficial ownership of such Ordinary Shares as a result of such Purchase Right to such extent) and such Purchase Right to such extent shall be held in abeyance for the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

d) Pro Rata Distributions. During such time as this Warrant is outstanding, if the Company shall declare or make any dividend or other distribution of its assets (or rights to acquire its assets) to holders of Ordinary Shares, by way of return of capital or otherwise (including, without limitation, any distribution of cash, stock or other securities, property or options by way of a dividend, spin off, reclassification, corporate rearrangement, scheme of arrangement or other similar transaction) (a "Distribution"), at any time after the issuance of this Warrant, then, in each such case, the Holder shall be entitled to participate in such Distribution to the same extent that the Holder would have participated therein if the Holder had held the number of Ordinary Shares acquirable upon complete exercise of this Warrant (without regard to any limitations on exercise hereof, including without limitation, the Beneficial Ownership Limitation) immediately before the date of which a record is taken for such Distribution, or, if no such record is taken, the date as of which the record holders of Ordinary Shares are to be determined for the participation in such Distribution (provided, however, that, to the extent that the Holder's right to participate in any such Distribution would result in the Holder exceeding the Beneficial Ownership Limitation, then the Holder shall not be entitled to participate in such Distribution to such extent (or in the beneficial ownership of any Ordinary Shares as a result of such Distribution to such extent) and the portion of such Distribution shall be held in abeyance for the benefit of the Holder until such time, if ever, as its right thereto would not result in the Holder exceeding the Beneficial Ownership Limitation).

e) Fundamental Transaction. If, at any time while this Warrant is outstanding, (i) the Company, directly or indirectly, in one or more related transactions effects any merger or consolidation of the Company with or into another Person, (ii) the Company (and all Subsidiaries, taken as a whole), directly or indirectly, effects any sale, lease, license, assignment, transfer, conveyance or other disposition of all or substantially all of its assets in one or a series of related transactions, (iii) any, direct or indirect, purchase offer, tender offer or exchange offer (whether by the Company or another Person) is completed pursuant to which holders of Ordinary Shares are permitted to sell, tender or exchange their shares for other securities, cash or property and has been accepted by the holders of 50% or more of the outstanding Ordinary Shares, (iv) the Company, directly or indirectly, in one or more related transactions effects any reclassification, reorganization or recapitalization of the Ordinary Shares or any compulsory share exchange pursuant to which the Ordinary Shares are effectively converted into or exchanged for other securities, cash or property, or (v) the Company, directly or indirectly, in one or more related transactions consummates a stock or share purchase agreement or other business combination (including, without limitation, a reorganization, recapitalization, spin-off, merger or scheme of arrangement) with another Person or group of Persons whereby such other Person or group acquires more than 50% of the outstanding Ordinary Shares (not including any Ordinary Shares held by the other Person or other Persons making or party to, or associated or affiliated with the other Persons making or party to, such stock or share purchase agreement or other business combination) (each a “Fundamental Transaction”), then, upon any subsequent exercise of this Warrant, the Holder shall have the right to receive, for each Warrant Share that would have been issuable upon such exercise immediately prior to the occurrence of such Fundamental Transaction, at the option of the Holder (without regard to any limitation in Section 2(f) on the exercise of this Warrant), the number of Ordinary Shares of the successor or acquiring corporation or of the Company, if it is the surviving corporation, and any additional consideration (the “Alternate Consideration”) receivable as a result of such Fundamental Transaction by a holder of the number of Ordinary Shares for which this Warrant is exercisable immediately prior to such Fundamental Transaction (without regard to any limitation in Section 2(f) on the exercise of this Warrant). For purposes of any such exercise, the determination of the Exercise Price shall be appropriately adjusted to apply to such Alternate Consideration based on the amount of Alternate Consideration issuable in respect of one Ordinary Share in such Fundamental Transaction, and the Company shall apportion the Exercise Price among the Alternate Consideration in a reasonable manner reflecting the relative value of any different components of the Alternate Consideration. If holders of Ordinary Shares are given any choice as to the securities, cash or property to be received in a Fundamental Transaction, then the Holder shall be given the same choice as to the Alternate Consideration it receives upon any exercise of this Warrant following such Fundamental Transaction. Notwithstanding anything to the contrary, in the event of a Fundamental Transaction, the Company or any Successor Entity (as defined below) shall, at the Holder’s option, exercisable at any time concurrently with, or within 30 days after, the consummation of the Fundamental Transaction (or, if later, the date of the public announcement of the applicable Fundamental Transaction), purchase this Warrant from the Holder by paying to the Holder an amount of cash equal to the Black Scholes Value (as defined below) of the remaining unexercised portion of this Warrant on the date of the consummation of such Fundamental Transaction; provided, however, that, if the Fundamental Transaction is not within the Company’s control, including not approved by the Company’s Board of Directors, Holder shall only be entitled to receive from the Company or any Successor Entity the same type or form of consideration (and in the same proportion), at the Black Scholes Value of the unexercised portion of this Warrant, that is being offered and paid to the holders of Ordinary Shares of the Company in connection with the Fundamental Transaction, whether that consideration be in the form of cash, stock or any combination thereof, or whether the holders of Ordinary Shares are given the choice to receive from among alternative forms of consideration in connection with the Fundamental Transaction; provided, further, that if holders of Ordinary Shares of the Company are not offered or paid any consideration in such Fundamental Transaction, such holders of Ordinary Shares will be deemed to have received common stock of the Successor Entity (which Entity may be the Company following such Fundamental Transaction) in such Fundamental Transaction. “Black Scholes Value” means the value of this Warrant based on the Black-Scholes Option Pricing Model obtained from the “OV” function on Bloomberg determined as of the day of consummation of the applicable Fundamental Transaction for pricing purposes and reflecting (A) a risk-free interest rate corresponding to the U.S. Treasury rate for a period equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date, (B) an expected volatility equal to the greater of 100% and the 100 day volatility obtained from the HVT function on Bloomberg (determined utilizing a 365 day annualization factor) as of the Trading Day immediately following the public announcement of the applicable Fundamental Transaction, (C) the underlying price per share used in such calculation shall be the greater of (i) the sum of the price per share being offered in cash, if any, plus the value of any non-cash consideration, if any, being offered in such Fundamental Transaction and (ii) the highest VWAP during the period beginning on the Trading Day immediately preceding the announcement of the applicable Fundamental Transaction (or the consummation of the applicable Fundamental Transaction, if earlier) and ending on the Trading Day of the Holder’s request pursuant to this Section 3(e) and (D) a remaining option time equal to the time between the date of the public announcement of the applicable Fundamental Transaction and the Termination Date and (E) a zero cost of borrow. The payment of the Black Scholes Value will be made by wire transfer of immediately available funds (or such other consideration) within five Trading Days of the Holder’s election (or, if later, on the date of consummation of the Fundamental Transaction). The Company shall cause any successor entity in a Fundamental Transaction in which the Company is not the survivor (the “Successor Entity”) to assume in writing all of the obligations of the Company under this Warrant in accordance with the provisions of this Section 3(e) pursuant to written agreements in form and substance reasonably satisfactory to the Holder and approved by the Holder (without unreasonable delay) prior to such Fundamental Transaction and shall, at the option of the Holder, deliver to the Holder in exchange for this Warrant a security of the Successor Entity evidenced by a written instrument substantially similar in form and substance to this Warrant which is exercisable for a corresponding number of shares of capital stock of such Successor Entity (or its parent entity) equivalent to the Ordinary Shares acquirable and receivable upon exercise of this Warrant (without regard to any limitations on the exercise of this Warrant) prior to such Fundamental Transaction, and with an exercise price which applies the exercise price hereunder to such shares of capital stock (but taking into account the relative value of the Ordinary Shares pursuant to such Fundamental Transaction and the value of such shares of capital stock, such number of shares of capital stock and such exercise price being for the purpose of protecting the economic value of this Warrant immediately prior to the consummation of such Fundamental Transaction), and which is reasonably satisfactory in form and substance to the Holder. Upon the occurrence of any such Fundamental Transaction, the Successor Entity shall succeed to, and be substituted for (so that from and after the date of such Fundamental Transaction, the provisions of this Warrant referring to the “Company” shall refer instead to the Successor Entity), and may exercise every right and power of the Company and shall assume all of the obligations of the Company under this Warrant with the same effect as if such Successor Entity had been named as the Company herein.

f) Calculations. All calculations under this Section 3 shall be made to the nearest cent or the nearest 1/100th of a share, as the case may be. For purposes of this Section 3, the number of Ordinary Shares deemed to be issued and outstanding as of a given date shall be the sum of the number of Ordinary Shares (excluding treasury shares, if any) issued and outstanding.

g) Notice to Holder.

i. Adjustment to Exercise Price. Whenever the Exercise Price is adjusted pursuant to any provision of this Section 3, the Company shall promptly deliver to the Holder by facsimile or email a notice setting forth the Exercise Price after such adjustment and any resulting adjustment to the number of Warrant Shares and setting forth a brief statement of the facts requiring such adjustment.

ii. Notice to Allow Exercise by Holder. If (A) the Company shall declare a dividend (or any other distribution in whatever form) on the Ordinary Shares, (B) the Company shall declare a special nonrecurring cash dividend on or a redemption of the Ordinary Shares, (C) the Company shall authorize the granting to all holders of the Ordinary Shares rights or warrants to subscribe for or purchase any shares of capital stock of any class or of any rights, (D) the approval of any shareholders of the Company shall be required in connection with any reclassification of the Ordinary Shares, any consolidation or merger to which the Company (or any of its material Subsidiaries) is a party, any sale or transfer of all or substantially all of its assets, or any compulsory share exchange whereby the Ordinary Shares are converted into other securities, cash or property, or (E) the Company shall authorize the voluntary or involuntary dissolution, liquidation or winding up of the affairs of the Company, then, in each case, the Company shall cause to be delivered by facsimile or email to the Holder at its last facsimile number or email address as it shall appear upon the Warrant Register of the Company, at least 20 calendar days prior to the applicable record or effective date hereinafter specified, a notice stating (x) the date on which a record is to be taken for the purpose of such dividend, distribution, redemption, rights or warrants, or if a record is not to be taken, the date as of which the holders of the Ordinary Shares of record to be entitled to such dividend, distributions, redemption, rights or warrants are to be determined or (y) the date on which such reclassification, consolidation, merger, sale, transfer or share exchange is expected to become effective or close, and the date as of which it is expected that holders of the Ordinary Shares of record shall be entitled to exchange their Ordinary Shares for securities, cash or other property deliverable upon such reclassification, consolidation, merger, sale, transfer or share exchange; provided that the failure to deliver such notice or any defect therein or in the delivery thereof shall not affect the validity of the corporate action required to be specified in such notice. To the extent that any notice provided in this Warrant constitutes, or contains, material, non-public information regarding the Company or any of the Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K. The Holder shall remain entitled to exercise this Warrant during the period commencing on the date of such notice to the effective date of the event triggering such notice except as may otherwise be expressly set forth herein.

h) Voluntary Adjustment By Company. Subject to the rules and regulations of the Trading Market, the Company may at any time during the term of this Warrant, subject to the prior written consent of the Holder, reduce the then current Exercise Price to any amount and for any period of time deemed appropriate by the board of directors of the Company.

Section 4. Transfer of Warrant.

a) Transferability. This Warrant and all rights hereunder (including, without limitation, any registration rights) are transferable, in whole or in part, upon surrender of this Warrant at the principal office of the Company or its designated agent, together with a written assignment of this Warrant substantially in the form attached hereto duly executed by the Holder or its agent or attorney and funds sufficient to pay any transfer taxes payable upon the making of such transfer. Upon such surrender and, if required, such payment, the Company shall execute and deliver a new Warrant or Warrants in the name of the assignee or assignees, as applicable, and in the denomination or denominations specified in such instrument of assignment, and shall issue to the assignor a new Warrant evidencing the portion of this Warrant not so assigned, and this Warrant shall promptly be cancelled. Notwithstanding anything herein to the contrary, the Holder shall not be required to physically surrender this Warrant to the Company unless the Holder has assigned this Warrant in full, in which case, the Holder shall surrender this Warrant to the Company within three (3) Trading Days of the date on which the Holder delivers an assignment form to the Company assigning this Warrant in full. The Warrant, if properly assigned in accordance herewith, may be exercised by a new holder for the purchase of Warrant Shares without having a new Warrant issued.

b) New Warrants. This Warrant may be divided or combined with other Warrants upon presentation hereof at the aforesaid office of the Company, together with a written notice specifying the names and denominations in which new Warrants are to be issued, signed by the Holder or its agent or attorney. Subject to compliance with Section 4(a), as to any transfer which may be involved in such division or combination, the Company shall execute and deliver a new Warrant or Warrants in exchange for the Warrant or Warrants to be divided or combined in accordance with such notice. All Warrants issued on transfers or exchanges shall be dated the initial issuance date of this Warrant and shall be identical with this Warrant except as to the number of Warrant Shares issuable pursuant thereto.

c) Warrant Register. The Company shall register this Warrant, upon records to be maintained by the Company for that purpose (the “Warrant Register”), in the name of the record Holder hereof from time to time. The Company may deem and treat the registered Holder of this Warrant as the absolute owner hereof for the purpose of any exercise hereof or any distribution to the Holder, and for all other purposes, absent actual notice to the contrary.

Section 5. Miscellaneous.

a) No Rights as Shareholder Until Exercise; No Settlement in Cash. This Warrant does not entitle the Holder to any voting rights, dividends or other rights as a shareholder of the Company prior to the exercise hereof as set forth in Section 2(d)(i), except as expressly set forth in Section 3. Without limiting any rights of a Holder to receive cash payments pursuant to Section 2(d)(i) and Section 2(d)(iv) herein, in no event shall the Company be required to net cash settle an exercise of this Warrant.

b) Loss, Theft, Destruction or Mutilation of Warrant. The Company covenants that upon receipt by the Company of evidence reasonably satisfactory to it of the loss, theft, destruction or mutilation of this Warrant or any share certificate relating to the Warrant Shares, and in case of loss, theft or destruction, of indemnity or security reasonably satisfactory to it (which, in the case of the Warrant, shall not include the posting of any bond), and upon surrender and cancellation of such Warrant or share certificate, if mutilated, the Company will make and deliver a new Warrant or share certificate of like tenor and dated as of such cancellation, in lieu of such Warrant or share certificate.

c) Saturdays, Sundays, Holidays, etc. If the last or appointed day for the taking of any action or the expiration of any right required or granted herein shall not be a Business Day, then such action may be taken or such right may be exercised on the next succeeding Business Day.

d) Authorized Shares.

The Company covenants that, during the period the Warrant is outstanding, it will reserve from its authorized and unissued Ordinary Shares a sufficient number of shares to provide for the issuance of the Warrant Shares upon the exercise of any purchase rights under this Warrant. The Company further covenants that its issuance of this Warrant shall constitute full authority to its officers who are charged with the duty of issuing the necessary Warrant Shares upon the exercise of the purchase rights under this Warrant. The Company will take all such reasonable action as may be necessary to assure that such Warrant Shares may be issued as provided herein without violation of any applicable law or regulation, or of any requirements of the Trading Market upon which the Ordinary Shares may be listed. The Company covenants that all Warrant Shares which may be issued upon the exercise of the purchase rights represented by this Warrant will, upon exercise of the purchase rights represented by this Warrant and payment for such Warrant Shares in accordance herewith, be duly authorized, validly issued, fully paid and not subject to calls for any additional payments (nonassessable) and free from all taxes, liens and charges created by the Company in respect of the issue thereof (other than taxes in respect of any transfer occurring contemporaneously with such issue).

Except and to the extent as waived or consented to by the Holder, the Company shall not by any action, including, without limitation, amending its articles of association or through any reorganization, transfer of assets, consolidation, merger, dissolution, issue or sale of securities or any other voluntary action, avoid or seek to avoid the observance or performance of any of the terms of this Warrant, but will at all times in good faith assist in the carrying out of all such terms and in the taking of all such actions as may be necessary or appropriate to protect the rights of Holder as set forth in this Warrant against impairment. Without limiting the generality of the foregoing, the Company will (i) not increase the nominal value of any Warrant Shares above the amount payable therefor upon such exercise of this Warrant immediately prior to such increase in nominal value, (ii) take all such action as may be necessary or appropriate in order that the Company may validly and legally issue fully paid and nonassessable Warrant Shares upon the exercise of this Warrant and (iii) use commercially reasonable efforts to obtain all such authorizations, exemptions or consents from any public regulatory body having jurisdiction thereof, as may be, necessary to enable the Company to perform its obligations under this Warrant.

Before taking any action which would result in an adjustment in the number of Warrant Shares for which this Warrant is exercisable or in the Exercise Price, the Company shall obtain all such authorizations or exemptions thereof, or consents thereto, as may be necessary from any public regulatory body or bodies having jurisdiction thereof.

e) Governing Law. All questions concerning the construction, validity, enforcement and interpretation of this Warrant shall be governed by and construed and enforced in accordance with the internal laws of the State of New York, without regard to the principles of conflicts of law thereof. Each party agrees that all legal proceedings concerning the interpretations, enforcement and defense of the transactions contemplated by this Warrant (whether brought against a party hereto or their respective affiliates, directors, officers, shareholders, partners, members, employees or agents) shall be commenced exclusively in the state and federal courts sitting in the City of New York, Borough of Manhattan for the adjudication of any dispute hereunder or in connection herewith or with any transaction contemplated hereby or discussed herein, and hereby irrevocably waives, and agrees not to assert in any suit, action or proceeding, any claim that it is not personally subject to the jurisdiction of any such court, that such suit, action or proceeding is improper or is an inconvenient venue for such proceeding. Each party hereby irrevocably waives personal service of process and consents to process being served in any such suit, action or proceeding by mailing a copy thereof via registered or certified mail or overnight delivery (with evidence of delivery) to such party at the address in effect for notices to it under this Warrant and agrees that such service shall constitute good and sufficient service of process and notice thereof. Nothing contained herein shall be deemed to limit in any way any right to serve process in any other manner permitted by law. If either party shall commence an action, suit or proceeding to enforce any provisions of this Warrant, the prevailing party in such action, suit or proceeding shall be reimbursed by the other party for their reasonable attorneys' fees and other costs and expenses incurred with the investigation, preparation and prosecution of such action or proceeding.

f) Restrictions. The Holder acknowledges that the Warrant Shares acquired upon the exercise of this Warrant, if not registered, will have restrictions upon resale imposed by state and federal securities laws.

g) Nonwaiver and Expenses. No course of dealing or any delay or failure to exercise any right hereunder on the part of Holder shall operate as a waiver of such right or otherwise prejudice the Holder's rights, powers or remedies. Without limiting any other provision of this Warrant, if the Company willfully and knowingly fails to comply with any provision of this Warrant, which results in any material damages to the Holder, the Company shall pay to the Holder such amounts as shall be sufficient to cover any costs and expenses including, but not limited to, reasonable attorneys' fees, including those of appellate proceedings, incurred by the Holder in collecting any amounts due pursuant hereto or in otherwise enforcing any of its rights, powers or remedies hereunder.

h) Notices. Any and all notices or other communications or deliveries to be provided by the Holders hereunder including, without limitation, any Notice of Exercise, shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service, addressed to the Company, at 400 Crossing Boulevard, Bridgewater, NJ 08807, Attention: General Counsel, email address: legal@rvlpharma.com, facsimile number: (908) 809-1301, or such other facsimile number, email address or address as the Company may specify for such purposes by notice to the Holders. Any and all notices or other communications or deliveries to be provided by the Company hereunder shall be in writing and delivered personally, by facsimile or e-mail, or sent by a nationally recognized overnight courier service addressed to each Holder at the facsimile number, e-mail address or address of such Holder appearing on the books of the Company. Any notice or other communication or deliveries hereunder shall be deemed given and effective on the earliest of (i) the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section prior to 5:30 p.m. (New York City time) on any date, (ii) the next Trading Day after the time of transmission, if such notice or communication is delivered via facsimile at the facsimile number or via e-mail at the e-mail address set forth in this Section on a day that is not a Trading Day or later than 5:30 p.m. (New York City time) on any Trading Day, (iii) the second Trading Day following the date of mailing, if sent by U.S. nationally recognized overnight courier service, or (iv) upon actual receipt by the party to whom such notice is required to be given. To the extent that any notice provided hereunder constitutes, or contains, material, non-public information regarding the Company or any Subsidiaries, the Company shall simultaneously file such notice with the Commission pursuant to a Current Report on Form 8-K.

i) Limitation of Liability. No provision hereof, in the absence of any affirmative action by the Holder to exercise this Warrant to purchase Warrant Shares, and no enumeration herein of the rights or privileges of the Holder, shall give rise to any liability of the Holder for the purchase price of any Ordinary Shares or as a shareholder of the Company, whether such liability is asserted by the Company or by creditors of the Company.

j) Remedies. The Holder, in addition to being entitled to exercise all rights granted by law, including recovery of damages, will be entitled to specific performance of its rights under this Warrant. The Company agrees that monetary damages would not be adequate compensation for any loss incurred by reason of a breach by it of the provisions of this Warrant and hereby agrees to waive and not to assert the defense in any action for specific performance that a remedy at law would be adequate.

k) Successors and Assigns. Subject to applicable securities laws, this Warrant and the rights and obligations evidenced hereby shall inure to the benefit of and be binding upon the successors and permitted assigns of the Company and the successors and permitted assigns of Holder. The provisions of this Warrant are intended to be for the benefit of any Holder from time to time of this Warrant and shall be enforceable by the Holder or holder of Warrant Shares.

l) Amendment. This Warrant may be modified or amended or the provisions hereof waived with the written consent of the Company, on the one hand, and the Holder, on the other hand.

m) Severability. Wherever possible, each provision of this Warrant shall be interpreted in such manner as to be effective and valid under applicable law, but if any provision of this Warrant shall be prohibited by or invalid under applicable law, such provision shall be ineffective to the extent of such prohibition or invalidity, without invalidating the remainder of such provisions or the remaining provisions of this Warrant.

n) Headings. The headings used in this Warrant are for the convenience of reference only and shall not, for any purpose, be deemed a part of this Warrant.

(Signature Page Follows)

IN WITNESS WHEREOF, the Company has caused this Warrant to be executed by its officer thereunto duly authorized as of the date first above indicated.

OSMOTICA PHARMACEUTICALS PLC

By: _____
Name:
Title:

NOTICE OF EXERCISE

TO: **OSMOTICA PHARMACEUTICALS PLC**

(1) The undersigned hereby elects to subscribe for and purchase _____ Warrant Shares of the Company pursuant to the terms of the attached Warrant (only if exercised in full), and tenders herewith payment of the exercise price in full, together with all applicable transfer taxes, if any.

(2) Payment shall take the form of lawful money of the United States.

(3) Please issue said Warrant Shares in the name of the undersigned or in such other name as is specified below:

The Warrant Shares shall be delivered to the following DWAC Account Number:

[SIGNATURE OF HOLDER]

Name of Investing Entity: _____

Signature of Authorized Signatory of Investing Entity: _____

Name of Authorized

Signatory: _____

Title of Authorized Signatory: _____

Date: _____

ASSIGNMENT FORM

(To assign the foregoing Warrant, execute this form and supply required information. Do not use this form to purchase shares.)

FOR VALUE RECEIVED, the foregoing Warrant and all rights evidenced thereby are hereby assigned to

Name: _____
(Please Print)

Address: _____
(Please Print)

Phone Number: _____

Email Address: _____

Dated: _____, ____

Holder's Signature: _____

Holder's Address: _____



A&L Goodbody
 International Financial Services Centre
 25-28 North Wall Quay, Dublin 1
 D01 H104
 T: +353 1 649 2000
 DX: 29 Dublin | www.algoodbody.com

Dublin
 Belfast
 London
 New York
 San Francisco
 Palo Alto

Date | 12 October 2021
 Our ref | 01427724
 Your ref |

Osmotica Pharmaceuticals plc
 25-28 North Wall Quay
 Dublin 1
 Ireland

Re: Osmotica Pharmaceuticals plc (the **Company**)

Dear Sirs

We are acting as Irish counsel to the Company, a public limited company incorporated under the laws of Ireland (registered number 607944), in connection with the issuance by the Company of up to 14,000,000 ordinary shares, par value \$0.01 per share (the **Shares**) and 16,100,000 warrants to purchase ordinary shares, which include 2,100,000 warrants pursuant to H.C. Wainwright & Co., LLC's partial exercise of its option to purchase additional warrants (the **Warrants** and the ordinary shares issuable upon exercise of the Warrants, the **Warrant Shares**) pursuant to (i) a registration statement on Form S-3 (File No. 333-236193) filed by the Company, on 31 January 2020, with the U.S. Securities and Exchange Commission (the **SEC**) under the Securities Act of 1933, as amended (the **Securities Act**) (the **Registration Statement**) and the prospectus contained therein (the **Base Prospectus**) for the registration of, among other things, ordinary shares, nominal value \$0.01 per share, of the Company, which may be issued from time to time on a delayed or continuous basis pursuant to Rule 415 under the Securities Act at an initial aggregate offering price not to exceed \$200,000,000; and (ii) the prospectus supplement dated 6 October 2021 (the **Prospectus Supplement**, and together with the Base Prospectus, the **Prospectus**) relating to the issuance by the Company of the Shares, the Warrants and the Warrant Shares.

H.C. Wainwright & Co., LLC (the **Underwriters**) have acted as underwriters to this proposed equity offering, as documented in an underwriting agreement between the Company and H.C. Wainwright & Co., LLC (for itself and as representative of the Underwriters) dated 6 October 2021 (the **Underwriting Agreement**). The Company has entered into ordinary share purchase warrants dated 12 October 2021 in connection with the issue of the Warrants (the **Ordinary Share Purchase Warrants**, together with the Underwriting Agreement, the **Securities Purchase Agreements**).

- 1 In connection with this Opinion, we have examined and relied upon copies of:
 - 1.1 the Registration Statement;
 - 1.2 the Prospectus; and
 - 1.3 copies of such corporate records of the Company as we have deemed necessary as a basis for the opinions hereinafter expressed.

CE Gill • JG Grennan • PD White • VJ Power • LA Kennedy • SM Doggett • B McDermott • PV Maher • S O'Riordan • MP McKenna • KA Feeney • M Sherlock • E MacNeill • KP Allen EA Roberts • C Rogers • G O'Toole • JN Kelly • N O'Sullivan • MJ Ward • AC Burke • D Widger • C Christle • S O'Croinin • JW Yarr • DR Baxter • A McCarthy • JF Whelan • JB Somerville MF Barr • AM Curran • A Roberts • RM Moore • D Main • J Cahir • M Traynor • PM Murray • P Walker • K Furlong • PT Fahy • D Inverarity • M Coghlan • DR Francis • A Casey • B Hosty M O'Brien • L Mulleady • K Ryan • E Hurley • G Stanley • D Dagostino • R Grey • R Lyons • J Sheehy • C Carroll • SE Carson • P Diggin • J Williams • A O'Beirne • J Dallas SM Lynch • M McElhinney • C Owens • AD Ion • K O'Connor • JH Milne • T Casey • M Doyle • CJ Comerford • R Marron • D Berkery • K O'Shaughnessy • S O'Connor SE Murphy • D Nangle • L Butler • A Lawler • C Ó Conluain • N McMahon • HP Brandt • A Sheridan • LM Byrne • N Cole • M Devane • D Fitzgerald • G McDonald • N Meehan R O'Driscoll • B O'Malley

Consultants: SW Haughey • Professor JCW Wylie • AF Browne • MA Greene • AV Fanagan • C Duffy

In rendering this Opinion, we have examined, and have assumed the truth and accuracy of the contents of, such documents and certificates of officers of the Company and of public officials as to factual matters and have conducted such searches, as of the date hereof, in public registries in Ireland as we have deemed necessary or appropriate for the purposes of this Opinion but have made no independent investigation regarding such factual matters. In our examination we have assumed the (continued) truth and accuracy of the information contained in such documents, the genuineness of all signatures (electronic or otherwise), that any signatures (electronic or otherwise) are the signatures of the persons who they purport to be, the authenticity of all documents submitted to us as originals, the conformity to original documents of all documents submitted to us as certified or photostatic copies and the authenticity of the originals of such documents.

2 We have further assumed:

- 2.1 that the constitution of the Company which became effective on 17 October 2018, and as is available in the Irish Companies Registration Office (the **CRO**), is correct and up to date;
- 2.2 that there are no agreements or arrangements in existence which in any way amend or vary the terms of the Securities Purchase Agreements;
- 2.3 Where a Securities Purchase Agreement has been executed on behalf of the Company using a software platform that enables an advanced electronic signature or a qualified electronic signature to be applied to that agreement, that each such signature was applied under the authority and control of the relevant signatory;
- 2.4 the accuracy and completeness of all information appearing on public records;
- 2.5 none of the resolutions and authorities of the board of directors, any committee of the board of directors or shareholders of the Company upon which we have relied have been or will be varied, amended or revoked in any respect or have expired and that the Shares, the Warrants and the Warrant Shares will be issued in accordance with such resolutions and authorities;
- 2.6 that any issue of Shares and Warrant Shares will be paid up in consideration of the receipt by the Company prior to, or simultaneously with, the issue of such Shares and Warrant Shares of cash at least equal to the nominal value of such Shares and/or Warrant Shares;
- 2.7 that, at the time of issuance of any of the Warrant Shares, the Company will have sufficient authorised but unissued share capital to issue the Warrant Shares;
- 2.8 the Shares and/or the Warrants have not been offered to investors in the European Economic Area; and
- 2.9 the absence of fraud on the part of the Company and its respective officers, employees, agents and advisers and that the Company will issue the Shares, the Warrants and the Warrant Shares in good faith, for its legitimate and bona fide business purposes. We have further assumed that: (i) the Company will be fully solvent at the time of and immediately following the issue of any Shares, Warrants and Warrant Shares; (ii) no resolution or petition for the appointment of a liquidator or examiner will be passed or presented prior to the issue of any Shares, Warrants and Warrant Shares; (iii) no receiver will have been appointed in relation to any of the assets or undertaking of the Company prior to the issue of any Shares, Warrants and Warrant Shares; and (iv) no composition in satisfaction of debts, scheme of arrangement, or compromise or arrangement with creditors or members (or any class of creditors or members) will be proposed, sanctioned or approved in relation to the Company prior to the issue of any Shares, the Warrants and the Warrant Shares.

3 Subject to the foregoing and to the within additional qualifications and assumptions, we are of the opinion that the Shares and the Warrant Shares, when issued in accordance with the terms and conditions of the Securities Purchase Agreements, will be duly authorised, validly issued, fully paid and will not be subject to calls for any additional payments (non-assessable).

In rendering this Opinion we have confined ourselves to matters of Irish law. We express no opinion on any laws other than the laws of Ireland (and the interpretation thereof) in force as at the date hereof. This Opinion speaks only as of its date. We are not under any obligation to update this Opinion from time to time, nor to notify you of any change of law, facts or circumstances referred to or relied upon in the giving of this Opinion.

This Opinion is given solely for the benefit of the addressee of this Opinion and may not be relied upon by any other person without our prior written consent, provided, however, that it may be relied upon by persons entitled to rely on it pursuant to applicable provisions of US federal securities laws.

This Opinion is also strictly confined to the matters expressly stated herein and is not to be read as extending by implication or otherwise to any other matter.

We hereby consent to the filing of this Opinion with the SEC as an exhibit to the Company's Current Report on Form 8-K filed with the SEC on 12 October 2021 and to the use of our name therein and in the related Prospectus Supplement under the caption "Legal Matters".

The Opinion is governed by and construed in accordance with the laws of Ireland.

Yours faithfully

/s/ **A&L Goodbody**

A&L Goodbody

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other Expenses of Issuance and Distribution.

Set forth below is an estimate of the amount of fees and expenses to be incurred in connection with the issuance and distribution of the offered securities registered hereby, incurred in connection with the sale of the Company's ordinary shares. All such amounts will be borne by Osmotica Pharmaceuticals plc.

Legal fees and expenses	\$	527,000
Accounting fees and expenses	\$	75,000
Printing expenses	\$	25,000
Miscellaneous fees and expenses	\$	37,500
Total	\$	664,500
