SECURITIES AND EXCHANGE COMMISSION
Washington D.C. 20549

FORM 6-K

Report of Foreign Private Issuer

Pursuant to Rule 13a-16 or 15d-16
of the Securities Exchange Act of 1934

For the month of December 2020

Alterity Therapeutics Limited
(Name of Registrant)

Level 3, 460 Bourke Street, Melbourne, VIC 3000, Australia
(Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover of Form 20-F or Form 40-F.

Form 20-F ☒ Form 40-F ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1): ☐

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7): ☐

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes ☐ No ☒

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b): 82- _____

This Form 6-K is being incorporated by reference into our Registration Statements on Form S-8 (Files No. 333-251073, 333-248980 and 333-228671) and our Registration Statements on Form F-3 (Files No. 333-249311, 333-231417 and 333-250076).

Alterity Therapeutics Limited
(a development stage enterprise)

EXPLANATORY NOTE

On December 16, 2020 the Company entered into an amendment to the At Market Issuance Sales Agreement, dated October 16, 2016, as amended on November 8, 2017 with B. Riley Securities, Inc. (formerly B. Riley FBR, Inc.), or B. Riley Securities, and JonesTrading Institutional Services LLC, or JonesTrading, or the Sales Agreement, under which the Company may issue and sell American Depositary Shares (the "ADSs") for up to $50,000,000 of its ordinary shares (the "Shares") from time to time pursuant to a Prospectus Supplement through B. Riley Securities and JonesTrading acting as Agents.

Subject to the terms and conditions of the Sales Agreement, the Agents will use their commercially reasonable efforts to sell the ADSs from time to time, based upon the Company's instructions. The Company has provided the Agents with customary indemnification rights and the Agents will be entitled to a commission at a fixed commission rate of up to 3.0% of the gross sales price per shares sold.

Sales of the ADSs under the Sales Agreement may be made by any method permitted by law deemed to be an "at the market offering" as defined in Rule 415 of the Securities Act Regulations.

The Shares will be issued pursuant to the Company's previously filed and effective Registration Statement on Form F-3 (File No. 333-249311). On October 5, 2020, the Company filed a base Prospectus (which became effective on October 9, 2020) and on December 16, 2020, the Company filed a Prospectus Supplement relating to the offering of up to US$50,000,000 in ADSs with the Securities and Exchange Commission. This Report shall not constitute an offer to sell or the solicitation of an offer to buy nor shall there be any sale of the Shares or the ADSs in any state in which such offer, solicitation or sale would be unlawful prior to registration or qualification under the securities laws of any such state.

Amendment No. 2 to At Market Issuance Sales Agreement is filed as Exhibit 1.3 to this Report. The description of the Sales Agreement does not purport to be complete and is qualified in its entirety by reference to the Sales Agreement filed herewith as an exhibit to this Report.

The opinion of the Company's counsel regarding the validity of the Shares that will be issued pursuant to the Prospectus Supplement is filed herewith as Exhibit 5.1.

Exhibits

1.1	At Market Issuance Sales Agreement dated October 13, 2016 among Prana Biotechnology Limited, FBR Capital Markets & Co. and JonesTrading Institutional Services LLC. (incorporated by reference to Exhibit 1.1. of the Company's Report on Form 6-K dated October 13, 2016)
1.2	Amendment No. 1 to At Market Issuance Sales Agreement dated November 8, 2017. (incorporated by reference to Exhibit 1.2 of the Company's Report on Form 6-K dated November 8, 2017)
1.3	Amendment No. 2 to At Market Issuance Sales Agreement dated December 16, 2020.
5.1	Opinion of Quinert Rodda & Associates Pty Ltd.

SIGNATURE

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

Alterity Therapeutics Limited

/s/Geoffrey P. Kempler

By: Geoffrey P. Kempler
Executive Chairman

Date: December 16, 2020

Exhibit 1.3

AMENDMENT NO. 2 TO AT MARKET ISSUANCE SALES AGREEMENT

December 16, 2020

Ladies and Gentlemen:

Alterity Therapeutics Limited (formerly Prana Biotechnology Ltd) (the "Company"), B. Riley Securities, Inc. (formerly B. Riley FBR, Inc. (successor by merger to FBR Capital Markets & Co.)) ("B. Riley") and JonesTrading Institutional Services LLC ("JonesTrading" and together with B. Riley, the "Agents") are parties to that certain At Market Issuance Sales Agreement dated October 13, 2016, as amended on November 8, 2017 (the "Original Agreement"). All capitalized terms not defined herein shall have the meanings ascribed to them in the Original Agreement. The parties, intending to be legally bound, hereby amend the Original Agreement as follows:

1. Paragraph 1 of Section 1 of the Original Agreement is hereby amended to replace:

"The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through the Agents, American Depositary Shares (the "**ADSs**"), each representing sixty (60) fully paid ordinary shares in the capital of the Company (the "**Ordinary Shares**"), for up to an aggregate of $44,460,787 (the "**Placement Shares**") *provided however*, that in no event shall the Company issue or sell through the Agents such number of Placement Shares that (a) would cause the Company to not satisfy the eligibility requirements for use of Form F-3 (including Instruction I.B.5. thereof), (b) would cause the Company to breach the Listing Rules of the Australian Securities Exchange ("**ASX**") or (c) for which the aggregate offering price exceeds the aggregate dollar amount of ADSs registered on the effective Registration Statement (as defined below) pursuant to which the offering is being made, (the lesser of (a), (b) and (c), the "**Maximum Amount**")."

With

"The Company agrees that, from time to time during the term of this Agreement, on the terms and subject to the conditions set forth herein, it may issue and sell through the Agents, American Depositary Shares (the "**ADSs**"), each representing sixty (60) fully paid ordinary shares in the capital of the Company (the "**Ordinary Shares**"), for up to an aggregate of $55,124,764 (the "**Placement Shares**"), inclusive of the $5,124,764 previously sold pursuant to this Agreement, *provided however*, that in no event shall the Company issue or sell through the Agents such number of Placement Shares that (a) would cause the Company to not satisfy the eligibility requirements for use of Form F-3 (including Instruction I.B.5. thereof), (b) would cause the Company to breach the Listing Rules of the Australian Securities Exchange ("**ASX**") or (c) for which the aggregate offering price exceeds the aggregate dollar amount of ADSs registered on the effective Registration Statement (as defined below) pursuant to which the offering is being made, (the lesser of (a), (b) and (c), the "**Maximum Amount**")."

2. Paragraph 2 of Section 1 of the Original Agreement is hereby amended to replace:

"The Company has filed, in accordance with the provisions of the United States Securities Act of 1933, as amended (the "**Securities Act**") and the rules and regulations thereunder (the "**Securities Act Regulations**"), with the Commission a registration statement on Form F-3 (File No. 333-220886), including a base prospectus, relating to certain securities, including the Placement Shares to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and the rules and regulations thereunder (the "**Exchange Act Regulations**"). The Company has prepared a prospectus supplement specifically relating to the Placement Shares (the "**Prospectus Supplement**") to the base prospectus included as part of such registration statement. The Company will furnish to the Agents, for use by the Agents, copies of the prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement, relating to the Placement Shares. Except where the context otherwise requires, such registration statement, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act Regulations or deemed to be a part of such registration statement pursuant to Rule 430B of the Securities Act Regulations, is herein called the "**Registration Statement**.""

With,

"The Company has filed, in accordance with the provisions of the United States Securities Act of 1933, as amended (the "**Securities Act**") and the rules and regulations thereunder (the "**Securities Act Regulations**"), with the Commission a registration statement on Form F-3 (File No. 333-249311), including a base prospectus, relating to certain securities, including the Placement Shares to be issued from time to time by the Company, and which incorporates by reference documents that the Company has filed or will file in accordance with the provisions of the Securities Exchange Act of 1934, as amended (the "**Exchange Act**"), and the rules and regulations thereunder (the "**Exchange Act Regulations**"). The Company has prepared a prospectus supplement specifically relating to the Placement Shares (the "**Prospectus Supplement**") to the base prospectus included as part of such registration statement. The Company will furnish to the Agents, for use by the Agents, copies of the prospectus included as part of such registration statement, as supplemented by the Prospectus Supplement, relating to the Placement Shares. Except where the context otherwise requires, such registration statement, including all documents filed as part thereof or incorporated by reference therein, and including any information contained in a Prospectus (as defined below) subsequently filed with the Commission pursuant to Rule 424(b) under the Securities Act Regulations or deemed to be a part of such registration statement pursuant to Rule 430B of the Securities Act Regulations, or any subsequent registration statement on Form F-3 filed pursuant to Rule 415(a)(6) under the Securities Act by the Company to cover any Placement Shares, is herein called the "**Registration Statement**.""

3. Section 6(v) is deleted in its entirety and replaced with the following:

"(i) At the time of filing the Registration Statement and (ii) at the time of the most recent amendment thereto for the purposes of complying with Section 10(a)(3) of the Securities Act (whether such amendment was by post-effective amendment, incorporated report filed pursuant to Section 13 or 15(d) of the Exchange Act or form of prospectus), the Company met the then applicable requirements for use of Form F-3 under the Securities Act, including compliance with General Instruction I.B.5 of Form F-3. As of the close of trading on the Exchange on November 16, 2020, the aggregate market value of the notional number of ADSs representing the number of the outstanding voting and non-voting common equity (as defined in Rule 405) of the Company held by persons other than affiliates of the Company (pursuant to Rule 144 of the Securities Act, those that directly, or indirectly through one or more intermediaries, control, or are controlled by, or are under common control with, the Company) (the "**Non-Affiliate Shares**"), was approximately $82,188,297 (calculated by multiplying (x) the price at which the ADSs of the Company were last sold on the Exchange on November 16, 2020) times (y) the number of Non-Affiliate Shares). The Company is not a shell company (as defined in Rule 405 under the Securities Act) and has not been a shell company for at least 12 calendar months previously and if it has been a shell company at any time previously, has filed current Form 10 information (as defined in Instruction I.B.5 of Form F-3) with the Commission at least 12 calendar months previously reflecting its status as an entity that is not a shell company."

4. All references to "October 13, 2016 (as amended by Amendment No. 1 to At Market Issuance Sales Agreement, dated November 8, 2017)" set forth in Schedule 1 and Exhibit 7(l) of the Original Agreement are revised to read "October 13, 2016 (as amended by Amendment No. 1, dated November 8, 2017, and Amendment No. 2, dated December 16, 2020)".

5. Except as specifically set forth herein, all other provisions of the Original Agreement shall remain in full force and effect.

6. Entire Agreement; Amendment; Severability. This Amendment No. 2 to the Original Agreement together with the Original Agreement (including all schedules and exhibits attached hereto and thereto and Placement Notices issued pursuant hereto and thereto) constitutes the entire agreement and supersedes all other prior and contemporaneous agreements and undertakings, both written and oral, among the parties hereto with regard to the subject matter hereof. All references in the Original Agreement to the "Agreement" shall mean the Original Agreement as amended by this Amendment No. 2; *provided, however*, that all references to "date of this Agreement" in the Original Agreement shall continue to refer to the date of the Original Agreement, and the reference to "time of execution of this Agreement" set forth in Section 13(a) shall continue to refer to the time of execution of the Original Agreement.

7. Applicable Law; Consent to Jurisdiction. This amendment shall be governed by, and construed in accordance with, the internal laws of the State of New York without regard to the principles of conflicts of laws. Each party hereby irrevocably submits to the non-exclusive jurisdiction of 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 with any transaction contemplated hereby, 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 brought in an inconvenient forum or that the venue of such suit, action or proceeding is improper. 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 (certified or registered mail, return receipt requested) to such party at the address in effect for notices to it under this amendment 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 manner permitted by law.

8. Waiver of Jury Trial. The Company and the Agents each hereby irrevocably waives any right it may have to a trial by jury in respect of any claim based upon or arising out of this amendment or any transaction contemplated hereby.

9. Counterparts. This amendment may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument. Delivery of an executed amendment by one party to the other may be made by facsimile transmission.

10. Notices. All notices or other communications required or permitted to be given by any party to any other party pursuant to the terms of this Agreement shall be in writing, unless otherwise specified, and if sent to the Agents, shall be delivered to:

B. Riley Securities, Inc.
299 Park Avenue
New York, NY 10171
Attention: General Counsel
Telephone: (212) 457-9947
Email: atmdesk@brileyfin.com

and

JonesTrading Institutional Services LLC
900 Island Park Drive, Suite 160
Daniel Island, SC 29492
Attn: Burke Cook
Email: burke@jonestrading.com

with a copy to:

Duane Morris, LLP
1540 Broadway
New York, NY 10036
Attention: Dean M. Colucci
Telephone: (973) 424-2020
Email: dmcolucci@duanemorris.com

and if to the Company, shall be delivered to:

Alterity Therapeutics Limited
Level 3, 460 Bourke Street
Melbourne, VIC 3000, Australia
Attention: Kathryn Andrews
Telephone: 011-61-3-9349-4906
Email: KAndrews@alteritytherapeutics.com

with a copy to:

Carter Ledyard & Milburn LLP
2 Wall Street
New York, NY 10005
Attention: Steven J. Glusband, Esq.
Telephone: 212-238-8605
Email: glusband@clm.com

[Remainder of Page Intentionally Blank]

If the foregoing correctly sets forth the understanding among the Company and the Agents, please so indicate in the space provided below for that purpose, whereupon this letter shall constitute a binding amendment to the Original Agreement between the Company and the Agents.

Very truly yours,

Executed by **Alterity Therapeutics Limited ACN 080 699 065** acting by the following persons:

/s/ Geoffrey Kempler
Chairman and CEO
Geoffrey Kempler

/s/ Kathryn Andrews
Chief Financial Officer
Kathryn Andrews

B. RILEY SECURITIES, INC.

By: /s/ Patrice McNicoll
Name: Patrice McNicoll
Title: Co-Head of Investment Banking

JONESTRADING INSTITUTIONAL SERVICES LLC

By: /s/ Trent McNair
Name: Trent McNair
Title: Chief Financial Officer

[Signature page to Amendment No. 2 to At Market Issuance Sales Agreement]

Exhibit 5.1

Level 6, 400 Collins Street, Melbourne VIC 3000 Australia
PO Box 16109, Collins Street West VIC 8007
Telephone: +61 3 8692 9000
Fax: +61 3 8692 9040
enquiries@qrlawyers.com.au
www.qrlawyers.com.au

Our Ref: 013501-26

16 December 2020

Alterity Therapeutics Limited Level 3, 460 Bourke Street
Melbourne, Victoria 3000 Australia

Dear Sirs and Madam

RE: PROSPECTUS SUPPLEMENT TO REGISTRATION STATEMENT ON FORM F-3

We are acting as Australian counsel to Alterity Therapeutics Limited ACN 080 699 065, an Australian company (the "Company") in connection with the filing with the Securities and Exchange Commission (the "Commission") of a prospectus supplement (the "Prospectus Supplement") to the Company's Registration Statement on Form F-3 (File No. 333-249311) (the "Registration Statement"), under the Securities Act of 1933, as amended.

The Prospectus Supplement relates to the issuance and sale from time to time by the Company of up to $50,000,000 of ordinary shares, no par value per share (the "Ordinary Shares"), represented by American Depositary Shares (the "Placement Shares"), of the Company pursuant to the At Market Issuance Sales Agreement, dated as of October 13, 2016, as amended by Amendment No. 1 dated November 8, 2017 and Amendment No. 2 dated December 16, 2020 (together, the "Sales Agreement"), by and between the Company, B. Riley Securities, Inc. (formerly B. Riley FBR, Inc.) and JonesTrading Institutional Services LLC. Each Placement Share represents sixty (60) Ordinary Shares. The transactions contemplated by the Sales Agreement are referred to in this opinion letter as the "Offering."

We have examined the Registration Statement, the base prospectus included in the Registration Statement, as supplemented by the Prospectus Supplement, and the Sales Agreement. In our examination we have assumed with your permission and without independent verification:

a) the genuineness of all signatures and the authenticity of all documents, instruments and certificates submitted to us as originals and the exact conformity with the authentic originals of all documents, instruments and certificates submitted to us as copies or forms or originals;

b) that each party to each document has all the requisite power and authority (corporate and otherwise) to execute and deliver and perform its obligations thereunder;

c) that any documents which purport to be governed by the law of any jurisdiction other than the law of Victoria, Australia are legal, valid and binding obligations on all of the parties thereto and under the applicable law and that none of the execution, delivery or performance of any document by any party thereto violates or contravenes or is rendered invalid, not binding or unenforceable under any applicable law under any jurisdiction other than the law of Victoria, Australia;

d) that each party to each document, other than the Company, is duly organized validly existing and in good standing under the laws of its jurisdiction of incorporation; and

e) that the execution and delivery by each party of each document and the performance by each party of its obligations under each document to which it is a party has been duly authorized by all necessary corporate and other actions.

As to various questions of fact relevant to this opinion, we have relied upon and assumed the accuracy of, without independent verification, certificates and oral or written statements or the information of or from public officials, officers or representatives of the Company and others.

We have relied conclusively upon certified copies of the Company's Constitution, certificates of officers of the Company, the contents of the minute books and other records of corporate proceedings of the Company, as to various factual matters. We have relied as to matters of fact, without independent verification, upon certificates of officers of the Company.

This opinion which shall be governed by and construed in accordance with the laws of Victoria, Australia, is given only with respect to Australian law that is in effect on the date of this opinion. We have not investigated the laws of any jurisdiction other than Australia. We express no opinion as to tax law or international law. We have assumed that any applicable law (other than Australian law) does not affect this opinion.

We are qualified to practice law in Victoria, Australia and do not express any opinions in this letter concerning any laws other than the laws of Australia to the extent necessary to render the opinions set forth herein. We are not opining on, and we assume no responsibility as to the applicability to or effect on any of the matters covered herein of the laws of any jurisdiction.

Based on and subject to the foregoing and in reliance thereof, in our opinion, the Placement Shares when sold as described in the Prospectus Supplement, will be validly issued, fully paid and non- assessable.

This opinion speaks solely as of its date and we undertake no obligation to advise you of any changes (including but not limited to any subsequently enacted, published or reported laws, regulations or individual decisions) that may occur or come to our attention after the date hereof.

This opinion letter is furnished at your request and is solely for your benefit and may not be used, circulated, quoted or referred to by you or by any other person or entity or for any other purpose without our express prior written consent.

We hereby consent to the filing of this opinion.

Yours faithfully

QUINERT RODDA & ASSOCIATES PTY LTD

/s/ David Rodda

DAVID RODDA