

Bionomics Limited
200 Greenhill Road
Eastwood, SA 5063
Australia

June 24, 2024

via EDGAR

Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street, N.E.
Washington, DC 20549
Attention: Chris Edwards

Re: Bionomics Limited
Registration Statement on Form F-1
Filed June 18, 2024
Securities Act File No. 333-280288

Request for Acceleration of Effectiveness

Dear Mr. Edwards:

Pursuant to Rule 461 of Regulation C under the Securities Act of 1933, as amended, Bionomics Limited (the "Registrant") respectfully requests acceleration of its Registration Statement on Form F-1 (File No. 333-280288), filed on June 18, 2024, so that it will become effective at 9:00 a.m. (Eastern time) on June 26, 2024, or as soon as practicable thereafter.

If you have any questions, or require any additional information, please do not hesitate to email Theodore Ghorra, the Registrant's outside counsel, at theodore.ghorra@rimonlaw.com or by phone at 212-515-9979.

The Registrant acknowledges that, if the Securities and Exchange Commission (or its staff, acting pursuant to delegated authority) (the "Commission") declares the filing effective, such action:

- (i) does not foreclose the Commission from taking any action with respect to the filing;
- (ii) does not relieve the Registrant from its full responsibility for the adequacy and accuracy of the disclosure in the filing; and
- (iii) may not be asserted by the Registrant as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

Very truly yours,

Bionomics Limited

By: /s/ Spyridon Papapetropoulos
Spyridon Papapetropoulos, M.D.
Chief Executive Officer

cc: Theodore J. Ghorra, Esq., Rimon P.C.
Andrew Reilly, Esq., Rimon P.C.