

Bionomics Limited
200 Greenhill Road
Eastwood SA 5063
Australia

May 15, 2023

VIA EDGAR

U.S. Securities and Exchange Commission
Division of Corporation Finance
Office of Life Sciences
100 F Street N.E.
Washington, D.C. 20549
Attention: Tyler Howes

Re: Bionomics Limited
Registration Statement on Form F-3
File No. 333-271696

Dear Mr. Howes:

Pursuant to Rule 461 of Regulation C of the General Rules and Regulations under the Securities Act of 1933, as amended, the undersigned, on behalf of Bionomics Limited (the "**Company**"), respectfully requests that the effective date of the Registration Statement on Form F-3 referred to above be accelerated so that it will become effective at 4:00 P.M. Eastern Time on May 17, 2023, or as soon as practicable thereafter.

Please contact Michael E. Sullivan of Latham & Watkins LLP, counsel to the Company, at (858) 523-3959, to provide notice of effectiveness, or if you have any questions or require additional information regarding this matter. Thank you for your assistance and cooperation in this matter.

Very truly yours,

BIONOMICS LIMITED

By: /s/ Spyridon "Spyros" Papapetropoulos
Spyridon "Spyros" Papapetropoulos
President, Chief Executive Officer and Director

cc: Michael E. Sullivan, Latham & Watkins LLP
Nathaniel Ajiashvili, Latham & Watkins LLP