

December 3, 2021

Errol De Souza
Executive Chairman
Bionomics Limited/FI
200 Greenhill Road
Eastwood SA 5063
Australia

Re: Bionomics Limited/
Registration
Filed November 22,
File No. 333-261280

FI
Statement on Form F-1
2021

Dear Mr. Souza:

We have reviewed your amended registration statement and have the following comments. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter by amending your registration statement and providing the requested information. If you do not believe our comments apply to your facts and circumstances or do not believe an amendment is appropriate, please tell us why in your response.

After reviewing any amendment to your registration statement and the information you provide in response to these comments, we may have additional comments. Unless we note otherwise, our references to prior comments are to comments in our November 12, 2021 letter.

Form F-1 filed November 22, 2021

Potential Advantages of BNC210 for the Treatment of Anxiety and Stressor-Related Disorders,
page 114

1. We note your response to our prior comment 4. By including the table containing the attributes of SSRIs and benzodiazepines below the text describing BNC210's advantageous attributes on page 115, your disclosure still inappropriately invites direct comparison between BNC210 and SSRIs and benzodiazepines. Please either remove the table, or include balancing disclosure that clearly states that no head-to-head trials have compared BNC210 to these current treatments and that you cannot guarantee that such a trial would produce these results.

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Legacy Oncology Programs, page 125

2. We note your response to our prior comment 6 and reissue. We understand your response that the combination therapy is material to the Company that its inclusion in the Company's pipeline will be material to an investor's understanding of the Company's programs in development. To the extent the combination therapy relating to your memorandum of understanding with EmpathBio is material, the collaboration

agreement supporting the development of this product candidate is material and should be filed as an exhibit. Additionally, we note your statement that your intention to enter a definitive agreement with EmpathBio depends on the results of the preclinical feasibility studies regarding this product candidate. If the product candidate is not material given its early stage of development, then please remove the references to these product candidates from your pipeline table and your summary. You may continue to include the EmpathBio collaboration in the table on page 106. You may contact Christie Wong at 202-551-3684 or Kevin Vaughn at 202-551-3494 if you have questions regarding comments on the financial statements and related matters. Please contact Jordan Nimitz at 202-551-5831 or Christopher Edwards at 202-551-6761 with any other questions.

FirstName LastNameErrol De Souza
Corporation Finance
Comapany NameBionomics Limited/FI
Sciences
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cc: Nathan Ajiashvili, Esq.
FirstName LastName

Sincerely,
Division of
Office of Life