24 July 2020

Dear Shareholder

**GENERAL MEETING**

On behalf of the Directors of Bionomics Limited (ASX:BNO) (the **Company**), I am pleased to invite you to attend a General Meeting of Shareholders to be held virtually at 9.00am on Wednesday 26 August 2020 (**Meeting**).

On 2 June 2020, Bionomics announced that it had entered into a subscription agreement with Apeiron Investment Group Ltd. (**Apeiron**), the family office of entrepreneur and investor Christian Angermayer, to recapitalise the Company and assist in securing further equity capital (**Subscription Agreement**).

Under the Subscription Agreement, the Company will conduct a number of capital raisings which it expects will raise a minimum of $20.4 million in aggregate over a number of tranches. These transactions are to proceed with two placements of fully paid ordinary shares (**Shares**) to Apeiron to raise $5,433,320 in aggregate followed by a pro rata offer to Shareholders to raise up to $2,173,320.

As part of these capital raising activities, within 15 months of the Meeting, the Company may then offer up to an additional 250,000,000 Shares to eligible investors at a price of no less than $0.06 per share to raise up to $15,000,000 (**Further Offers**). Apeiron will underwrite the Further Offers at $0.06 per share (**Underwriting Obligation**), subject to obtaining Foreign Investment Review Board clearance.

Upon satisfaction of the Underwriting Obligation, and subject to the Company raising the additional $15,000,000 under the Further Offers, the Company will grant Apeiron 150,000,000 warrants (**Warrants**). Every one Warrant grants Apeiron the right to be issued one further share at an exercise price of $0.06 within 36 months of the date of the Meeting.

As a result of these transactions (together the **Proposed Transaction**), Apeiron's voting power in the Company may increase (subject to a number of assumptions and variables) to up to a maximum of 52.004%.

The capital raised will be used to fund the Company's BNC210 Phase 2b Clinical trial for the treatment of post-traumatic stress disorder (**PTSD**), which recently received Fast Track Designation from the U.S. Food and Drug Administration for the treatment of PTSD. Without this equity funding from Apeiron, the Company cannot continue to fund its operations going forward or ensure that the value of its assets is maximized for the benefit of shareholders.

The funds raised from the Proposed Transaction are at a premium to Bionomics' recent market trading price with the collapse of equity markets as a result of COVID-19 and much better than recent capital raisings by other ASX listed companies at significant discounts to recent trading prices. Since the Proposed Transaction was announced to the market, the price of Bionomics shares has increased.

Over the last two years the Board committed extensive resources seeking to raise non-dilutive financing through partnering its drug candidates or monetizing its assets, but to date without success. The opportunity presented by the Proposed Transaction is, in the view of Directors, in the long term interests of the Company and its shareholders.

The Board will be strengthened through the knowledge and experience gained by Apeiron through investing in several European and U.S. based biotech companies with a special focus on the development of novel treatments for various mental health disorders like treatment-resistant depression, anxiety and PTSD, all diseases with a high unmet medical need. Under the Subscription Agreement, Apeiron may appoint up to two directors to the Company's board, provided that it meets and continues to maintain certain minimum shareholding thresholds.

Under the Subscription Agreement, the Company is required to call the Meeting to approve Resolutions 1 to 5 (**Subscription Resolutions**) in the Notice of Meeting (**Notice**), which give effect to the Proposed Transaction with Apeiron. The Notice also includes Resolutions relating to an increase in fees payable to Non-Executive Directors (Resolution 6) and to approve the grant of options to the Company's Executive Chairman Dr Errol De Souza, as announced on 22 June 2020 (Resolution 7).

One of the Subscription Resolutions to be considered relates to the increase in Apeiron's voting power under the Proposed Transaction. The Company engaged Leadenhall Corporate Advisory Pty Ltd (**Independent Expert**) as the independent expert to prepare a report expressing its opinion as to whether or not the Proposed Transaction is fair and/or reasonable to the shareholders who are entitled to vote on the resolutions.

The Independent Expert has concluded in its report that the Proposed Transaction (when assessed on a control basis) is not fair but reasonable to shareholders of the Company who are not associated with Apeiron, because, in the Independent Expert's opinion, **the position of Shareholders if the Proposed Transaction is approved is more advantageous than their position if the Proposed Transaction is not approved.**

In concluding that the Proposed Transaction is reasonable, the Independent Expert considered both:

- advantages and disadvantages of the Proposed Transaction; and
- other considerations, including the position of shareholders if the Proposed Transaction does not proceed and the consequences of not approving the Proposed Transaction.

Shareholders are encouraged to read the Notice, Explanatory Statement, and Independent Expert's Report in full before making a decision in respect of how to vote on the Resolutions.

The Directors believe that the transactions which are part of the Subscription Agreement (including the Proposed Transaction) are in the best interests of the Company and provide shareholders the best prospects to realize value in the Company.

The Directors recommend that you vote in favour of the Subscription Resolutions. The Directors also recommend you vote in favour of the other Resolutions included in the Notice. These recommendations are subject to any abstentions stated in the Notice.

The Company is closely monitoring the impact of the COVID-19 virus in South Australia and following guidance from the Federal and State Governments - the meeting will be held virtually. **There will not be a physical meeting where shareholders can attend in person.**

In accordance with temporary modifications to the *Corporations Act 2001* under the *Corporations (Coronavirus Economic Response) Determination (No. 1) 2020*, the Company is not sending hard copies of Notice of Meeting to shareholders.

The Company's Notice of Meeting is available on our website to view and download at: https://www.bionomics.com.au

The Notice of Meeting provides instructions on how to join the meeting online, view the webcast, submit questions and vote in real time during the meeting.

Even if you plan to attend the virtual meeting, we encourage shareholders to cast proxy votes and lodge questions ahead of the meeting by visiting www.investorvote.com.**au by no later than 9.00am (Adelaide time) 24 August 2020**. In order to access this site, you will need to enter the Control Number and your holder number (SRN/HIN) printed on this letter. Lodging questions and casting your proxy vote ahead of the meeting will not prevent you from attending online.

We encourage you to submit questions to the Company in advance of the meeting and ask that you email your questions to the company, jmoschakis@bionomics.com.au by 9.00am (Adelaide time) on 24 August 2020.

On behalf of the Directors, I would like to take this opportunity to thank you for your continued support of the Company.

Yours faithfully

**Dr Errol De Souza**
**Executive Chairman**
**Bionomics Limited**

# BIONOMICS LIMITED

# ACN 075 582 740

# NOTICE OF GENERAL MEETING

| | |
|---|---|
| **TIME:** | 9.00am (ACST) |
| **DATE:** | Wednesday, 26 August 2020 |
| **PLACE:** | Due to Federal and State Government restrictions regarding gatherings and COVID-19 the meeting will be held virtually via an online platform at https://web.lumiagm.com with meeting ID 395-495-309 |

**Independent Expert's Report:** Shareholders should carefully consider the Independent Expert's Report, which is attached to this Notice of General Meeting as Annexure A. The Independent Expert has concluded that the Proposed Transaction, as set out in the Explanatory Statement, is not fair but reasonable to Non-Associated Shareholders for the reasons set out in its report.

**Important Notes:** This document, which includes the Notice of General Meeting and Independent Expert's Report, is important and should be read in its entirety.

This Notice does not take into account the individual investment objectives, financial situation or particular needs of any person. Shareholders should seek professional advice from a licensed financial adviser, accountant, stockbroker, lawyer or other professional adviser before deciding whether or not to approve the Resolutions set out in this Notice.

# NOTICE OF GENERAL MEETING

Notice is hereby given that a General Meeting (**Meeting**) of Shareholders of Bionomics Limited (ACN 075 582 740) (**Company**) will be held virtually on an online platform at https://web.lumiagm.com at 9.00 am (ACST) on Wednesday, 26 August 2020 to consider and vote on the Resolutions set out below.

The Explanatory Statement, which accompanies and forms part of this Notice, describes the matters to be considered at the Meeting. Terms used in this Notice and the accompanying Explanatory Statement are defined in the glossary to this document on page 29.

**IMPORTANT NOTICE REGARDING ATTENDANCE, COVID-19 AND THE VIRTUAL MEETING**

Due to the global COVID-19 pandemic, the Company has taken steps to ensure all Shareholders can participate in the Meeting virtually online while maintaining their health and safety, and abiding by Federal and State Government requirements and guidelines regarding COVID-19. Shareholders will not be able to attend the Meeting in person.

Shareholders do not need to attend the Meeting physically in order to cast their votes or to participate in the Meeting. Accordingly, the Company strongly encourages all Shareholders who wish to vote to do so by:

(1) participating in the virtual Meeting and casting a vote online;
(2) appointing the Chair as their proxy (and where desired, direct the Chair how to vote on a Resolution) by completing and returning the proxy form; or
(3) lodging their votes online at www.investorvote.com.au.

Further details on the virtual Meeting and appointment of proxies are set out below.

**Virtual Meeting**

To enable participation by Shareholders in the Meeting without physical attendance, the Company will hold the Meeting virtually online via the Lumi platform at https://web.lumiagm.com with meeting ID 395-495-309.

Shareholders can access this platform by navigating to https://web.lumiagm.com on any internet browser. Alternatively, the Lumi AGM app can be downloaded for free from the Apple or Google Play stores.

Upon entering the meeting ID into the Lumi platform, Shareholders should then log in to the virtual Meeting using their SRN/HIN and postcode (Australian resident) or their SRN/HIN and three letter country code (overseas resident). Any appointed third party proxies should contact the Company's share registry, Computershare Investor Services, on +61 3 9415 4024 to receive their login information.

Shareholders attending the Meeting virtually will be able to ask questions in writing and vote during the Meeting via the Lumi platform.

All Resolutions will be conducted by poll. More information regarding virtual attendance at the Meeting (including how to vote, comment and ask questions virtually during the Meeting) is available in the virtual meeting guide, which is attached at Annexure B.

## BUSINESS OF THE MEETING

### *Resolution 1: Ratification of the prior issue of 81,500,000 Shares under First Placement*

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

> *"That, for the purposes of Listing Rule 7.4, and for all other purposes, Shareholders ratify the issue of 81,500,000 Shares to Apeiron Investment Group Ltd on the terms and conditions set out in the Explanatory Statement accompanying the Notice."*

Further information in relation to this Resolution is set out in Section 3.1 of the Explanatory Statement which accompanies and forms part of this Notice.

**Voting Exclusion Statement for Resolution 1**

The Company will disregard any votes cast in favour of this Resolution by or on behalf of:

- Apeiron Investment Group Ltd (**Apeiron**); and
- any Associate of Apeiron.

However, this does not apply to a vote cast in favour of this Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with the directions given to the proxy or attorney to vote on this Resolution in that way; or
- the Chair as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with a direction given to the Chair to vote on this Resolution as the Chair decides; or
- a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:
    - the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an Associate of a person excluded from voting, on this Resolution; and
    - the holder votes on this Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

## *Resolution 2: Approval for the issue of 54,333,000 Shares under Second Placement*

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

> *"That, subject to the passing of the Subscription Resolutions (other than Resolution 1), for the purposes of Listing Rules 7.1, 10.11 and for all other purposes, Shareholders approve the issue of 54,333,000 Shares to Apeiron Investment Group Ltd or its nominees (who must be Exempt Investors) on the terms and conditions set out in the Explanatory Statement accompanying the Notice."*

Resolution 2 is subject to the passing of Resolutions 3, 4 and 5.

Further information in relation to Resolution 2 is set out in Section 3.2 of the Explanatory Statement which accompanies and forms part of this Notice.

**Voting Exclusion Statement for Resolution 2**

The Company will disregard any votes cast in favour of this Resolution by or on behalf of:

- Apeiron and any person who is expected to participate in, or who will obtain a material benefit as a result of, the proposed issue (except a benefit solely by reason of being a holder of ordinary securities in the entity); and
- any Associate of those persons.

However, this does not apply to a vote cast in favour of this Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with the directions given to the proxy or attorney to vote on this Resolution in that way; or
- the Chair as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with a direction given to the Chair to vote on this Resolution as the Chair decides; or
- a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:

- the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an Associate of a person excluded from voting, on this Resolution; and
- the holder votes on this Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

### *Resolution 3: Approval for the acquisition of a Relevant Interest by Apeiron and Christian Angermayer of up to 52%*

To consider and, if thought fit, to pass the following Resolution as an ordinary resolution:

> *"That, subject to the passing of the Subscription Resolutions (other than Resolution 1), for the purposes of item 7 of section 611 of the Corporations Act and for all other purposes, approval is given for the Company to issue to Aperion Investment Group Ltd up to:*
>
> *(a) 54,330,000 Shares under the Entitlement Offer;*
>
> *(b) 250,000,000 Shares under the Underwriting Obligations; and*
>
> *(c) 150,000,000 Warrants, and up to 150,000,000 Shares upon exercise of those Warrants,*
>
> *as summarised, and on the terms set out, in the Explanatory Statement accompanying the Notice, which may result in Apeiron Investment Group Ltd and Mr. Christian Angermayer's voting power in the Company increasing from 13.015% to up to 52.004%."*

**Independent Expert's Report:** Shareholders should carefully consider the Independent Expert's Report prepared for the purposes of Shareholder approval required under item 7 of section 611 of the Corporations Act for this Resolution. The Independent Expert's Report comments on the fairness and reasonableness of the Proposed Transaction to Non-Associated Shareholders. The Independent Expert has concluded that the Proposed Transaction, as set out in the Explanatory Statement and in the Independent Expert's Report annexed to this Notice, is not fair but reasonable to Non-Associated Shareholders.

Resolution 3 is subject to the passing of Resolutions 2, 4 and 5.

Further information in relation to Resolution 3 is set out in Section 3.3 of the Explanatory Statement which accompanies and forms part of this Notice.

**Voting Exclusion Statement for Resolution 3**

Pursuant to item 7 of section 611 of the Corporations Act, no votes may be cast in favour of this Resolution by:

- the person proposing to make the acquisition and their associates; or
- the persons (if any) from whom the acquisition is to be made and their associates.

Accordingly, the Company will disregard any votes cast in favour of this Resolution by Apeiron or its associates.

### *Resolution 4: Approval for the issue of up to 250,000,000 Shares under further offer underwriting arrangements*

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

> *"That, subject to the passing of the Subscription Resolutions (other than Resolution 1), for the purposes of Listing Rule 7.1 and for all other purposes, Shareholders approve the issue of up to 250,000,000 Shares to Exempt Investors nominated by Apeiron Investment Group Ltd on the terms and conditions set out in the Explanatory Statement accompanying the Notice."*

Resolution 4 is subject to the passing of Resolutions 2, 3 and 5.

Further information in relation to Resolution 4 is set out in Section 3.4 of the Explanatory Statement which accompanies and forms part of this Notice.

**Voting Exclusion Statement for Resolution 4**

The Company will disregard any votes cast in favour of this Resolution by or on behalf of:

- Apeiron and any person who is expected to participate in, or who will obtain a material benefit as a result of, the proposed issue (except a benefit solely by reason of being a holder of ordinary securities in the entity); and
- any Associate of those persons.

However, this does not apply to a vote cast in favour of this Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with the directions given to the proxy or attorney to vote on this Resolution in that way; or
- the Chair as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with a direction given to the Chair to vote on this Resolution as the Chair decides; or
- a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:
    - the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an Associate of a person excluded from voting, on this Resolution; and
    - the holder votes on this Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

### *Resolution 5: Confirm appointment of Director – Mr Aaron Weaver*

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

> *"That, for the purposes of clause 47.1 of the Company's Constitution and for all other purposes, Mr Aaron Weaver, a Director who was appointed as an additional director from 6 July 2020, retires and being eligible, is re-appointed as a Director."*

Further information in relation to Resolution 5 is set out in Section 3.5 of the Explanatory Statement which accompanies and forms part of this Notice.

### *Resolution 6: Fees to Non-Executive Directors*

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

> *"That, subject to the passing of the Subscription Resolutions, for the purposes of clause 50.2 of the Company's Constitution and Listing Rule 10.17 and all other purposes, the maximum aggregate amount of directors' fees that may be paid to the Company's Non-Executive Directors per annum is increased by $250,000, from $500,000 per annum to $750,000 per annum."*

Resolution 6 is subject to the passing of Resolutions 2, 3, and 4.

Further information in relation to Resolution 6 is set out in Section 3.6 of the Explanatory Statement which accompanies and forms part of this Notice.

**Voting Exclusion Statement for Resolution 6**

The Company will disregard any votes cast in favour of this Resolution by or on behalf of:

- any Directors; and
- any Associate of a Director.

However, this does not apply to a vote cast in favour of this Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on the Resolution, in accordance with directions given to the proxy or attorney to vote on the resolution in that way; or
- the Chair as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with a direction given to the Chair to vote on this Resolution as the Chair decides; or
- by a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:
    - the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an associate or a person excluded from voting, on the Resolution; and
    - the holder votes on the Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

**Voting restriction pursuant to Section 250BD of the Corporations Act:**

In accordance with section 250BD of the Corporations Act, a person appointed as a proxy must not vote, on the basis of that appointment, on Resolution 6 if the proxy is either a member of the Key Management Personnel of the Company or a closely related party of such member and in each case the appointment does not specify the way the proxy is to vote on Resolution 6.

However, for the purposes of section 250BD of the Corporations Act, the above prohibition does not apply if:

- the proxy is the Chair of the Meeting; and
- the appointment expressly authorises the Chair to exercise the proxy even if the resolution is connected directly or indirectly with the remuneration of a member of the Key Management Personnel for the Company or, if the Company is part of a consolidated entity, for the entity.

### *Resolution 7: Approval of proposed issue of Options to Dr Errol De Souza*

To consider and, if thought fit, to pass the following resolution as an ordinary resolution:

> *"That, for the purposes of Listing Rule 10.14 and for all other purposes, Shareholders approve the issue to Dr Errol De Souza of 12,000,000 Options in the Company pursuant to the Employee Equity Plan on the terms and conditions set out in the Explanatory Statement accompanying the Notice."*

Further information in relation to Resolution 7 is set out in Section 3.7 of the Explanatory Statement which accompanies and forms part of this Notice.

**Voting Exclusion Statement for Resolution 7**

The Company will disregard any votes cast in favour of this Resolution by or on behalf of:

- a Director who is entitled to participate in the Employee Equity Plan; and
- any Associate of a Director who is entitled to participate in the Employee Equity Plan.

However, this does not apply to a vote cast in favour of this Resolution by:

- a person as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with the directions given to the proxy or attorney to vote on this Resolution in that way; or
- the Chair as proxy or attorney for a person who is entitled to vote on this Resolution, in accordance with a direction given to the Chair to vote on this Resolution as the Chair decides; or
- a holder acting solely in a nominee, trustee, custodial or other fiduciary capacity on behalf of a beneficiary provided the following conditions are met:

- the beneficiary provides written confirmation to the holder that the beneficiary is not excluded from voting, and is not an Associate of a person excluded from voting, on this Resolution; and

- the holder votes on this Resolution in accordance with directions given by the beneficiary to the holder to vote in that way.

**Voting restriction pursuant to Section 250BD of the Corporations Act:**

In accordance with section 250BD of the Corporations Act, a person appointed as a proxy must not vote, on the basis of that appointment, on Resolution 7 if the proxy is either a member of the Key Management Personnel of the Company or a closely related party of such member and in each case the appointment does not specify the way the proxy is to vote on Resolution 7.

However, for the purposes of section 250BD of the Corporations Act, the above prohibition does not apply if:

- the proxy is the Chair of the Meeting; and

- the appointment expressly authorises the Chair to exercise the proxy even if the resolution is connected directly or indirectly with the remuneration of a member of the Key Management Personnel for the Company or, if the Company is part of a consolidated entity, for the entity

### *Determination of entitlement to attend and vote*

For the purpose of the Corporations Act, the Company has determined that all securities of the Company that are quoted securities at 6.30pm (ACST), on Monday, 24 August 2020 will be taken, for the purpose of the Meeting, to be held by the persons who held them at that time and those persons will be entitled to attend and vote at the Meeting as a shareholder.

### *Proxies, Powers of Attorney and Corporate Representatives*

A Shareholder who is entitled to attend and vote at the Meeting may appoint a proxy to attend and vote for the Shareholder at the Meeting. The proxy need not be a Shareholder of the Company and may be an individual or a body corporate.

A Shareholder who is entitled to cast more than one vote at the meeting may appoint up to two separate proxies to vote on their behalf. Where two proxies are appointed, the Shareholder may specify the proportion or number of votes each proxy is appointed to exercise. If a Shareholder does not specify the proportion or number of votes each proxy may exercise, each proxy may exercise half of the Shareholder's votes.

An appointed proxy has the same rights as the Shareholder to speak at the meeting and to join in a demand for a poll.

In order to lodge a valid vote, members must ensure the electronic proxy appointment (and the power of attorney or other authority under which it is signed, if any) is received by Computershare, no later than 9.00am (ACST) on Monday 24 August 2020.

Shareholders can arrange to receive a hard copy of the proxy form by contacting Computershare Investor Services on 1300 556 161 (within Australia) or +61 3 9415 4000 (outside Australia) and follow the instructions on the form. For the vote to be valid the proxy form must be received by Computershare, no later than 10.00am (Sydney time) on Monday 24 August 2020.

A Shareholder who is a body corporate may appoint an individual as a representative to exercise the Shareholder's voting rights at the Meeting pursuant to section 250D of the Corporations Act. Representatives will be required to present documentary evidence of their appointment on the day of the meeting.

A Shareholder may appoint the Chair as its proxy. If a Shareholder directs the Chair how to vote on a Resolution, the Chair must vote in accordance with the direction. For proxies without voting instructions that are exercisable by the Chair, the Chair intends to vote all available proxies in favour of each Resolution.

Shareholders may also cast their vote online by visiting www.investorvote.com.au (and by following the instructions set out on the website). Shareholders who elected to receive their notice of meeting and proxy

form electronically or have provided the Company with their email address will have received an e-mail with a link to the Computershare site.

Shareholders will need a specific six digit Control Number to vote online. This number is located on the front of the letter sent to Shareholders who were not included in the email broadcast.

For custodian voting for Intermediary Online subscribers only (custodians), please visit www.intermediaryonline.com to submit your voting intentions.

### *Directors' Recommendation*

For the reasons given on pages 12 - 25 of the Explanatory Statement, the Directors unanimously recommend the approval of Resolutions 1 – 5 (**Subscription Resolutions**) and encourage Non-Associated Shareholders to vote in favour of the Subscription Resolutions, other than Mr Aaron Weaver who gives no recommendation.

For the reasons given on pages 25 - 26 of the Explanatory Statement, the Directors unanimously recommend the approval of Resolution 6 and encourage Non-Associated Shareholders to vote in favour of Resolution 6.

For the reasons given on page 26 - 28 of the Explanatory Statement, the Directors unanimously recommend the approval of Resolution 7 and encourage Non-Associated Shareholders to vote in favour of Resolution 7, other than Dr Errol De Souza who given no recommendation.

The Board advises that the Directors, where entitled to vote, each intend to vote all Shares held or controlled by them in favour of the Resolutions in respect of which they are providing a recommendation as noted above.

By Order of the Board.

**Jack Moschakis**
**Company Secretary**
24 July 2020

# EXPLANATORY STATEMENT

## 1 INTRODUCTION

### *1.1 Important information*

This Explanatory Statement has been prepared for the information of Shareholders in connection with the business to be conducted at the Meeting to be held virtually on an online platform at https://web.lumiagm.com on Wednesday, 26 August 2020 at 9.00 am (ACST).

The purpose of this Explanatory Statement is to provide Shareholders with information known to the Company that is material to a decision on how to vote on the Resolutions in the accompanying Notice.

The Independent Expert's Report, which includes the Independent Expert's opinion that the Proposed Transaction is not fair but reasonable to Non-Associated Shareholders of the Company is attached as **Annexure A** and forms part of and should be read together with this Explanatory Statement.

This Notice and Explanatory Statement should be read in its entirety. If Shareholders are in doubt as to how to vote, they should seek advice from their professional advisor prior to voting.

### *1.2 Interpretation*

All capitalised terms used in this Explanatory Statement have the meanings set out in the Glossary located at page 29 or as otherwise defined in this Explanatory Statement. References to "$" and "A$" in this Notice and Explanatory Statement are references to Australian currency unless otherwise stated. References to time in this Notice and Explanatory Statement are references to the time in Adelaide, South Australia.

### *1.3 Voting exclusion statements*

Certain voting restrictions apply to the Resolutions as detailed beneath the applicable Resolutions in the Notice.

## 2 THE SUBSCRIPTION AGREEMENT

### *2.1 Overview*

On 2 June 2020, the Company announced on ASX that it had entered into a subscription agreement with Apeiron Investment Group Ltd. (**Apeiron**), the family office of entrepreneur and investor Christian Angermayer, to recapitalise the Company and assist in securing further equity capital (**Subscription Agreement**).

Under the Subscription Agreement:

(a) Apeiron agrees to subscribe or procure subscriptions[1] for 135,833,000 Shares at an issue price of $0.04 per Share to raise $5,433,320, to proceed in two tranches of 81,500,000 Shares (**First Placement**) and 54,333,000 Shares (**Second Placement**), the Second Placement being subject to shareholder approval. The First Placement completed on 30 June 2020, and subject to the passing of the Subscription Resolutions, the Second Placement is expected to complete on or about 2 September 2020.

(b) Following completion of the Second Placement, the Company may conduct an entitlement offer in favour of eligible Shareholders (including eligible retail Shareholders) providing the opportunity to purchase in pro rata up to 54,333,000 Shares at $0.04 per Share (being the same price as the First Placement and Second Placement) (**Entitlement Offer**). Apeiron

[1] Apeiron may procure other persons who are Exempt Investors to subscribe for part of its subscription obligation with Bionomics' prior consent. References in this Notice to Apeiron subscriptions include subscriptions by such persons.

is under no obligation to subscribe (in part or in full) for its pro rata entitlement to the Shares offered under the Entitlement Offer, although as a Shareholder, it would be entitled to.

(c) Following completion of the Second Placement, the Company may also offer up to an additional 250,000,000 Shares pursuant to one or more offers of a nature to be determined by the Company in its discretion (after consultation in good faith with Apeiron), but one of which must include a pro rata issue (such as an entitlement offer) or security purchase plan offer (**Further Offers**).

(d) Apeiron has agreed, subject to Shareholder and Foreign Investment Review Board (**FIRB**) approvals, to underwrite the issue of Shares under any Further Offers (**Underwritten Shares**) provided that the price at which Shares are offered under the Further Offer is equal to or greater than $0.06 per Share and that the total amount of funds raised by the Company under Further Offers will not exceed $15,000,000 (**Underwriting Obligation**). The Company may call on this obligation:

(i) within a prescribed period after each applicable Further Offer by providing a 'shortfall notice' to Apeiron setting out the number of Shares not validly subscribed for under that Further Offer; or

(ii) if by the date that is 15 months after the date of the Meeting, the Company has not raised at least $15,000,000 from eligible Further Offers, by providing a notice setting out the number of Shares equal to 250,000,000 less those issued under eligible Further Offers during that time.

Apeiron's obligation to subscribe for Underwritten Shares is subject to Apeiron obtaining a FIRB clearance. If this clearance is not obtained and Apeiron is prohibited at law from subscribing for any of the Underwritten Shares, then its obligation with respect to those Underwritten Shares in respect of which it is so prohibited will be limited to using its reasonable endeavors to procure subscriptions from Exempt Investors for those Underwritten Shares.

(e) Upon satisfaction of the Underwriting Obligation, and subject to the Company raising the additional $15,000,000 under the Further Offers, Apeiron will be granted 150,000,000 warrants (**Warrants**). Every one Warrant grants Apeiron the right to be issued one further Share in the Company at an exercise price of $0.06. The Warrants may be exercised by Apeiron within 36 months of the date of the Meeting. Apeiron's ability to exercise the Warrants is subject to Apeiron obtaining a FIRB clearance.

If the required Shareholder approvals and FIRB clearance are received, the Company expects to raise a minimum of $20.4 million in aggregate across the above fundraising activities, which would ensure that the Company has significant funds to progress Phase 2 clinical trials for the treatment of post traumatic stress disorder (**PTSD**) and other anxiety and stress-related disorders for its lead compound, BNC210 which recently received Fast Track Designation from the U.S. Food and Drug Administration for the treatment of PTSD.

### *2.2 Conditions*

(a) Shareholder Approvals

Under the Subscription Agreement, the Company is required to call a general meeting of Shareholders following the completion of the First Placement, to approve Resolutions 1 to 5 (**Subscription Resolutions**) and together the **Shareholder Approval Condition**.

Resolutions 2, 3 and 4 are subject to each of the other Subscription Resolutions (other than Resolution 1) being passed at the Meeting. Accordingly, the Subscription Resolutions should be considered collectively as well as individually.

If the Shareholder Approval Condition has not been satisfied by, or has become incapable of being satisfied before, the date that is three months after the completion of the First Placement, then either party may terminate the Subscription Agreement, unless the Shareholder Approval Condition has not been satisfied, or is incapable of being satisfied,

as a direct result of a failure by the Company to comply with its obligations under the Subscription Agreement in which case the Company may not terminate the Subscription Agreement.

(b) FIRB Condition

As noted in Section 2.1 above, Apeiron's obligation to subscribe for Underwritten Shares and its ability to exercise the Warrants is subject to Apeiron obtaining a FIRB clearance. Apeiron submitted this application on 12 June 2020.

### *2.3 Other material terms*

(a) Board Representation

(i) First Placement

Under the Subscription Agreement, on and from completion of the First Placement, Apeiron may from time to time nominate one person to be appointed as a director of the Company (**First Apeiron Nominee**). Where Apeiron has nominated the First Apeiron Nominee, the Board must resolve to appoint the First Apeiron Nominee as a Director as well as supporting the nomination and re-election or appointment of the First Apeiron Nominee at the first general meeting of the Company following such appointment.

If a First Apeiron Nominee fails to be re-elected or appointed as a Director at the Meeting or is otherwise removed by the Board, Apeiron may repeat the process set out above until there is a First Apeiron Nominee appointed to the Board.

If Apeiron (and any subscribers it procures) fails to continue to hold a beneficial interest in at least 10% of the Shares, Apeiron's right to have a First Apeiron Nominee on the Board shall cease, and if the First Apeiron Nominee is a Director, Apeiron must procure that they retire immediately.

The Company, Apeiron and the First Apeiron Nominee have entered into a protocol which sets out principles governing the provision of confidential information to the First Apeiron Nominee, and certain other customary matters for nominee director appointments (**Nominee Protocols**).

(ii) Second Placement

Under the Subscription Agreement, on and from completion of the Second Placement, Apeiron may from time to time nominate a further person to be appointed as a director of the Company (**Second Apeiron Nominee**). The Second Apeiron Nominee is to be nominated and appointed to the Board in the same manner as the First Apeiron Nominee as described in Section 2.3(a)(i) above.

If Apeiron (and any subscribers it procures) ceases to hold to a beneficial interest in at least:

(1) 17.5% of the Shares after the completion of the Second Placement until the date set out in (2) below; and

(2) 20% of the Shares on and from the date that is 15 months and 40 business days the date of the Meeting.

then Apeiron's right to have the Second Apeiron Nominee on the Board will cease and Apeiron must procure that any Second Apeiron Nominee on the Board retires immediately.

### *2.4 About Apeiron and Mr Angermayer*

Apeiron operates as an investment company, investing in financial services (in particular, fintech and crypto assets), deep tech (AI, space-tech, cybersecurity), life sciences, media and entertainment, and real estate and prop-tech (real estate start-ups).

Apeiron is an experienced investor into biotechnology companies that develop therapeutics focused on mental health disorders. Apeiron has made significant investments in several European and US based biotech companies over the last few years, with a special focus on the development of novel treatments for various mental health disorders like treatment-resistant depression, anxiety and PTSD, all diseases with a high unmet medical need.

Apeiron is the family office of Christian Angermayer, a serial entrepreneur with over 20 years of relevant market experience and a strong track record. Apeiron has founded several successful companies, such as ATAI Life Sciences AG and Rejuveron Life Sciences AG and invested early stage in prominent companies such as FinLab AG, Mynaric AG and Cyan AG. Apeiron is known as a very significant investor towards companies and modalities that promote relieving and curative effects to severe mental health disorders.

## 3 RESOLUTIONS

### *3.1 Resolution 1 – Ratification of the prior issue of 81,500,000 Shares pursuant to the First Placement*

(a) Background to the First Placement

The Company issued 81,500,000 Shares (**First Placement Shares**) to Apeiron on 30 June 2020 (**First Placement Issue Date**). The First Placement Shares were issued within the Company's 15% placement capacity available under ASX Listing Rule 7.1. Following the issue of the First Placement Shares, Apeiron holds 13.015% of the Shares in the Company.

(b) Why shareholder approval is required for the First Placement

Under Chapter 7 of the ASX Listing Rules, subject to a number of exceptions, there are limitations on the capacity of a listed company to enlarge its capital by the issue of equity securities without shareholder approval.

Listing Rule 7.1 provides that a listed company must not, subject to certain exceptions, issue during any 12 month period any equity securities, including securities with rights of conversion to equity, if the number of those securities exceeds 15% of the total number of equity securities on issue at the commencement of that 12 month period.

The First Placement Shares comprised 14.96% of the Company's total number of Shares on issue at the commencement of the 12 month period from the First Placement Issue Date. As the First Placement does not fit within any of the exceptions in Listing Rule 7.2 and it has not been approved by the Company's shareholders prior to the issue, it effectively uses up the Company's Listing Rule 7.1 Share issue capacity.

Accordingly, the Company's capacity to issue further equity securities without shareholder approval for the 12 month period following First Placement Issue Date has been effectively exhausted.

Listing Rule 7.4 provides that an issue under Listing Rule 7.1 is treated as having been made with shareholder approval if the issue did not breach Listing Rule 7.1 and shareholders of the company subsequently approve it. If they do, the issue is taken to have been approved under Listing Rule 7.1 and so does not reduce the company's capacity to issue further equity securities without shareholder approval under that rule. The Company wishes to retain as much flexibility as possible to complete the remaining capital raisings contemplated by, and on the terms and conditions set out in, the Subscription Agreement (and any other capital raisings) without having to obtain further shareholder approval for such issues under Listing Rule 7.1.

Accordingly, Shareholder approval under Listing Rule 7.4 to ratify the issue of the First Placement Shares is now being sought in order to reinstate the 15% placement capacity. Resolution 1 is an ordinary resolution.

If Resolution 1 is passed, the First Placement will be excluded in calculating the Company's 15% limit in Listing Rule 7.1, effectively increasing the number of equity securities it can issue without Shareholder approval over the 12 month period following the First Placement Issue Date.

If Resolution 1 is not passed, the First Placement will be included in calculating the Company's 15% limit in Listing Rule 7.1, effectively decreasing the number of equity securities it can issue without Shareholder approval over the 12 month period following the First Placement Issue Date.

(c) Additional information

In accordance with Listing Rule 7.5, the following information is provided in relation to Resolution 1:

- The First Placement Shares were issued to Apeiron pursuant to the Subscription Agreement. A summary of the material terms of the Subscription Agreement is set out at Section 2 of this Explanatory Statement.
- The issue consisted of 81,500,000 Shares.
- The First Placement Shares are fully paid ordinary shares and rank equally with other fully paid ordinary shares in the Company on issue.
- The First Placement Shares were issued on 30 June 2020.
- The consideration paid for the First Placement Shares was $3,260,000, being $0.04 per Share.
- The purpose of the issue was to raise funds to contribute towards progressing a second Phase 2 clinical trial for the treatment of PTSD for the Company's lead compound, BNC210.
- A summary of the material terms of the Subscription Agreement is set out at Section 2 of this Explanatory Statement.
- A voting exclusion statement is included in the Notice.

The Directors unanimously recommend that Shareholders vote in favour of this Resolution, other than Mr Aaron Weaver who has been appointed to the Board at Apeiron's nomination and makes no recommendation.

### *3.2 Resolution 2 – Approval for the issue of 54,333,000 Shares pursuant to the Second Placement*

(a) Background to the Second Placement

Pursuant to the Subscription Agreement, the Company has agreed to issue 54,333,000 Shares to Apeiron and Exempt Investors procured by it under the Second Placement (**Second Placement Shares**), subject to Shareholder approval. A summary of the Subscription Agreement is set out in Section 2 of this Explanatory Statement.

Resolution 2 is an ordinary resolution which seeks Shareholder approval for the issue of the Second Placement Shares under ASX Listing Rules 7.1 and 10.11.

(b) Why shareholder approval is required for the Second Placement: Listing Rule 7.1

A summary of Listing Rule 7.1 is set out in Section 3.1(b) above. The Second Placement Shares comprise approximately 8.68% of the Company's total number of Shares on issue.

The Second Placement does not fit within any of the exceptions under Chapter 7 of the ASX Listing Rules. It is noted that if Resolution 1 is passed and the First Placement is ratified for the purpose of Listing Rule 7.1, the Second Placement could be undertaken within the Company's 15% placement

capacity in the 12 month period following the First Placement Issue Date. Therefore, while the Second Placement can be made without breaching Listing Rule 7.1, the Company wishes to retain as much flexibility as possible to issue additional equity securities in the future without having to obtain Shareholder approval under Listing Rule 7.1.

To do this, the Company is asking Shareholders to approve the Second Placement under Listing Rule 7.1 so that it does not use up any of the 15% limit on issuing equity securities without Shareholder approval set out in Listing Rule 7.1.

Accordingly, Shareholder approval under Listing Rule 7.1 for the issue of the Second Placement Shares to Apeiron and Exempt Investors nominated by Apeiron is being sought.

(c) Why shareholder approval is required for the Second Placement: Listing Rule 10.11

ASX Listing Rule 10.11 provides that unless one of the exceptions in Listing Rule 10.12 applies, a company must not issue or agree to issue equity securities to:

- a related party (Listing Rule 10.11.1);
- a person who is, or was at any time in the six months before the issue or agreement, a substantial (30%+) holder in the company (Listing Rule 10.11.2);
- a person who is, or was at any time in the six months before the proposed issue, a substantial (10%+) holder in the company and who has nominated a director to the board of the company pursuant to a relevant agreement which gives them a right or expectation to do so (Listing Rule 10.11.3);
- a person who is an Associate of a person referred to in Listing Rules 10.11.1 to 10.11.3 (Listing Rule 10.11.4); or
- a person whose relationship with the company or a person referred to in Listing Rules 10.11.1 to 10.11.4 is such that, in ASX's opinion, the issue or agreement should be approved by its shareholders (Listing Rule 10.11.5),

unless it obtains the approval of its shareholders.

A person is a "**substantial (10%+) holder**" if they hold, or held at any time in the six months before the relevant transaction or agreement, more than 10% of the total number of votes attached to voting shares in the entity.

The issue of the Second Placement Shares may require approval from Shareholders as:

- Apeiron currently holds approximately 13.015% (through its nominee, the Custodian) of the total number of votes attached to voting shares in the Company, deeming it a Substantial (10%+) Holder; and
- pursuant to the Subscription Agreement, Apeiron was granted rights to nominate the First Apeiron Nominee to the Board.

The issue of the Second Placement Shares therefore falls within Listing Rule 10.11.3. As Apeiron was not a Substantial (10%+) Holder at the time the Subscription Agreement was entered into and the Company complied with the Listing Rules at the that time, the issue of Shares to Apeiron under the Second Placement may be exempt from Listing Rule 10.11 under Listing Rule 10.12 Exception 10. The Company nevertheless proposes to seek the approval of the Company's Shareholders under Listing Rule 10.11.

Accordingly, Shareholder approval under Listing Rule 10.11 for the issue of the Second Placement Shares to Apeiron is being sought.

If Resolution 2 is passed, the Second Placement can proceed without using up any of the Company's 15% limit on issuing securities without Shareholder approval set out in Listing Rule 7.1.

Approval of Resolution 2 is subject to the passing of the other Subscription Resolutions at the Meeting (other than Resolution 1). The approval of the Subscription Resolutions at the Meeting will satisfy the Shareholder Approval Condition. Accordingly, the Subscription Resolutions should be considered collectively as well as individually. If Resolution 2 is not passed, the Company will not have satisfied the Shareholder Approval Condition and Apeiron may terminate the Subscription Agreement.

(d) Additional information

In accordance with Listing Rule 7.3 and 10.13 the following information is provided in relation to Resolution 2:

- The Second Placement Shares will be issued to Apeiron (or a nominee of Apeiron) and any Exempt Investors procured by it.
- Apeiron falls under category 10.11.3 of the Listing Rules, for the reasons set out at Section 3.2(c) above.
- The maximum number of Second Placement Shares to be issued is 54,333,000.
- The Second Placement Shares will be issued as fully paid ordinary shares and will rank equally with other fully paid ordinary shares in the Company on issue.
- The Second Placement Shares will be issued on the date that is five Business Days after the date of this Meeting (or such other date agreed to by the Company and Apeiron in writing, provided such date is no later than one month after the date of this Meeting, as required by Listing Rule 10.13.5).
- The subscription amount for the Second Placement Shares is $2,173,320, being $0.04 per Share.
- The purpose of the issue of the Second Placement Shares is contribute towards progressing a second Phase 2 clinical trial for the treatment of PTSD for the Company's lead compound, BNC210.
- A summary of the material terms of the Subscription Agreement is set out at Section 2 of this Explanatory Statement.
- A voting exclusion statement is included in the Notice of Meeting.

The Directors unanimously recommend that Shareholders vote in favour of this Resolution, other than Mr Aaron Weaver who has been appointed to the Board at Apeiron's nomination and makes no recommendation.

### *3.3 Resolution 3 – Approval for Apeiron to acquire a Relevant Interest in the Company of up to 52%*

Resolution 3 is an ordinary resolution which seeks Shareholder approval for Apeiron to increase its voting power in the Company from a point that is below 20% to a point that is above 20% that would have otherwise been in breach of section 606 of the Corporations Act, as a result of Apeiron:

- being issued Shares for its participation in the Entitlement Offer;
- subscriptions for Shares as part of its obligation to underwrite the Further Offers; and
- being issued the Warrants, and the issue of Shares upon exercise of the Warrants,

(together, the **Proposed Transaction**) for the purposes of item 7 of section 611 of the Corporations Act, and for all other purposes.

(a) Takeover prohibitions under section 606 of the Corporations Act

Under section 606(1) of the Corporations Act, unless certain exemptions apply, a person must not acquire a relevant interest in the issued voting shares of a listed company if, as a result of that transaction, that person's (or another person's) voting power in the company increases:

- from 20% or below to more than 20%; or
- from a starting point that is above 20% and below 90%.

(b) Voting Power

The voting power of a person in a company is determined in accordance with section 610 of the Corporations Act. The calculation of a person's voting power in a company involves determining the voting shares in the company in which the person and the person's associates have a relevant interest.

(c) Relevant Interests

Under section 608(1) of the Corporations Act, a person has a **Relevant Interest** in securities if they are the holder of the securities, have the power to exercise, or control the exercise of, a right to vote attached to the securities, or have power to dispose of, or control the exercise of a power to dispose of, the securities.

(d) Associates

For the purposes of determining voting power under the Corporations Act, a person (**second person**) is an "associate" of the other person (**first person**) if:

- the first person is a body corporate and the second person is:
  - a body corporate the first person controls;
  - a body corporate that controls the first person; or
  - a body corporate that is controlled by an entity that controls the person;
- the second person has entered or proposes to enter into a relevant agreement with the first person for the purpose of controlling or influencing the composition of the company's board or the conduct of the company's affairs; or
- the second person is a person with whom the first person is acting or proposes to act, in concert in relation to the company's affairs.

Associates are, therefore, determined as a matter of fact. For example, where a person controls or influences the board or the conduct of a company's business affairs, or acts in concert with a person in relation to the entity's business affairs.

If the Subscription Resolutions are approved and the Proposed Transaction completes, Apeiron may obtain a Relevant Interest in the Shares. Consequently, the voting power of Apeiron may exceed 20% of the voting shares in the Company, which would breach the prohibition under section 606 of the Corporations Act unless a relevant exception applies.

(e) Item 7 exception

Item 7 of section 611 of the Corporations Act provides an exception to the prohibition in section 606 of the Corporations Act. The exception provides that a person may acquire a Relevant Interest in a company's voting shares that would otherwise be a breach of section 606 of the Corporations Act if shareholders of the company approve the transaction, provided that:

- no votes are cast in favour of the resolution by the person proposing to make the acquisition or their associates; and

- shareholders are given all information known to the acquirer or the company that was material to the decision on how to vote.

The completion of the Proposed Transaction may result in Apeiron acquiring a Relevant Interest in the Company's Shares which will potentially increase its voting power in the Company from 20% or below to more than 20%. Shareholder approval under item 7 of section 611 of the Corporations Act is being sought for the Proposed Transaction that will result in Apeiron acquiring a Relevant Interest in the Company's issued share capital in excess of the limits prescribed in section 606 of the Corporations Act as described above.

Accordingly, the Company is seeking approval of its Shareholders under this Resolution 3 to allow the Company to issue, in accordance with the terms of the Subscription Agreement, the Shares and Warrants, and the Shares that may be issued to Apeiron on the exercise of the Warrants, under the Proposed Transaction, irrespective of whether these issues will result in an increase in Apeiron's voting power in the Company above the 20% threshold.

(f) Information relating to the Proposed Transaction

The following information is required to be provided to Shareholders under the Corporations Act and ASIC Regulatory Guide 74 in respect of obtaining approval for Item 7 of section 611 of the Corporations Act. Shareholders are also referred to the Independent Expert's Report annexed to this Explanatory Statement.

(i) Identity of the Acquirer and its Associates

It is proposed that Apeiron will be issued the Shares and Warrants in accordance with the terms of the Subscription Agreement, as summarised in Section 2 of this Explanatory Statement.

Mr. Christian Angermayer holds approximately 99.9% of the issued capital in Apeiron and holds all the voting and dividend rights in that company. Mr Angermayer therefore holds a Relevant Interest in all shares held by Apeiron.

No associates of Apeiron or Christian Angermeyer currently have or will have a relevant interest in the Company.

(ii) Relevant Interest and Voting Power

(A) Relevant Interest

The Relevant Interests of Apeiron in the voting shares in the capital of the Company (both current, and following the issue of the Shares and Warrants to Apeiron pursuant to the Proposed Transaction) are set out in the table below.

| **Date** | **Apeiron Relevant Interest in Shares*** |
|---|---|
| **As at the date of this Notice** | 81,500,000 |
| **As at completion of the Second Placement** | 135,833,000 |
| **As at completion of the Entitlement Offer if Apeiron took up all of its entitlement and oversubscribed for all Shares not taken up by other Shareholders, and no other Shareholders took up any entitlement** | 190,166,000 |
| **As at completion of the Underwriting Obligations, if Apeiron was required to subscribe for all of the Underwritten Shares** | 440,166,000 |
| **As at exercise of all of the Warrants** | 590,166,000 |

The Subscription Agreement and the Nominee Protocols are the only agreements between the Company and Apeiron. As described at 2.3(a), subject to Apeiron meeting and continuing to maintain certain minimum shareholding thresholds, up to two nominees of Apeiron may be appointed as Directors of the Company.

(B) Voting Power

The voting power of Apeiron (both current, and following the issue of the Shares and Warrants to Apeiron pursuant to the Proposed Transaction) is set out in the table below:

| Date | Apeiron Relevant Interest in Shares* | Apeiron voting power |
|---|---|---|
| **As at the date of this Notice** | 81,500,000 | 13.015% |
| **As at completion of the Second Placement** | 135,833,000 | 19.960% |
| **As at completion of the Entitlement Offer if Apeiron took up all of its entitlement and oversubscribed for all Shares not taken up by other Shareholders, and no other Shareholders took up any entitlement** | 190,166,000 | 25.878% |
| **As at completion of the Underwriting Obligations, if Apeiron was required to subscribe for all of the Underwritten Shares** | 440,166,000 | 44.694% |
| **As at exercise of all of the Warrants** | 590,166,000 | 52.004% |

Further details on the voting power of Apeiron are set out in the Independent Expert's Report.

The maximum Relevant Interest that Apeiron and its associates will hold after completion of the Proposed Transaction is 590,166,000 Shares, and the maximum voting power that Apeiron will hold is 52.004%. This figure represents a maximum increase in voting power of 39.989% (being the difference between 13.015% and 52.004%).

The above calculations show the maximum potential increase in Aperion's voting power as a result of the Proposed Transaction. The calculations assume that Apeiron will subscribe for all the Second Placement Shares and Shares under its Underwriting Obligations personally. As noted in Section 2 of this Explanatory Statement, Apeiron's obligation to subscribe for such Shares may be satisfied by Apeiron procuring subscriptions from Exempt Investors. To the extent that Apeiron satisfies any such obligations in that manner, Apeiron may not acquire a Relevant Interest in those Shares.

The above calculations also assume that no Shareholders other than Apeiron will take up their entitlement under the Entitlement Offer and that Apeiron will take up its full entitlement and subscribe for, and be issued, all Shares not taken up by other Shareholders. Similarly, they assume that Aperion will be required to subscribe for all of the

Underwritten Shares, that is to say that no other Shareholders or other investors take up any Shares under the Entitlement Offer or under any Further Offer.

To the extent that any of these assumptions are not made out, then Apeiron's voting power in the Company will be lower than that described in the above table. In this regard, the Company intends to structure those offers in a manner that encourages Shareholder participation where reasonably practicable. Further, in the opinion of the Company, it is unlikely that no Shareholders will take up their entitlement under the Entitlement Offer or subscribe for Shares under the Further Offers. To the extent that Shareholders do take up their entitlement or subscribe for Shares under such offers, the Shares issued to Apeiron, and therefore the extent of increase in its voting power, will be reduced.

Note that the following other assumptions have been made in calculating the above:

- the Company has 626,185,872 Shares on issue as at the date of this Notice of Meeting;
- the Company does not otherwise issue any additional Shares other than those contemplated under this Notice;
- Apeiron or any of its associates do not acquire any additional Shares, other than those contemplated under this Notice; and
- Apeiron is granted FIRB clearance to acquire the Shares contemplated by this Resolution.

(iii) Reason for the Proposed Transaction

The reason for the Proposed Transaction, along with the other proposed Share issues contemplated by the Subscription Agreement, is set out in Section 2.1 of this Explanatory Statement, being for the purpose of raising funds to contribute towards progressing a second Phase 2 clinical trial for the treatment of PTSD for the Company's lead compound, BNC210. Please refer to Sections 3.3(f)(x) and (xi) of this Explanatory Statement for a summary of advantages and disadvantages of the Proposed Transaction.

(iv) Date of proposed issue of securities

The Shares and Warrants to be issued pursuant to Resolution 3 will be issued to Apeiron pursuant to the timings set out in Section 2.1 of this Explanatory Statement.

(v) Material terms of Proposed Transaction

The material terms of the Subscription Agreement (of which the Proposed Transaction forms part) are set out in Sections 2.1 - 2.3 of this Explanatory Statement.

(vi) Other relevant agreements

The First Apeiron Nominee and Second Apeiron Nominee have entered, or will enter, into the Nominee Protocols referred to in Section 2.3(a)(i).

(vii) Apeiron's Intentions

Other than as disclosed elsewhere in this Explanatory Statement, Apeiron has informed the Company that Apeiron:

- has no present intention of making any significant changes to the business of the Company;
- has no present intention to inject further capital into the Company, other than as obliged under the Subscription Agreement;
- has no present intention of making changes regarding the future employment of the present employees of the Company;
- does not intend to redeploy any fixed assets of the Company;
- does not intend to transfer any property between the Company and Apeiron;
- has no intention to change the Company's existing policies in relation to financial matters or dividends; and
- intends to nominate the Second Apeiron Nominee to be appointed to the Board, in addition to the First Apeiron Nominee who is a Director at the date of this Notice, as set out at paragraph 2.3(a).

These intentions are based on information concerning the Company, its business and the business environment which is known to Apeiron at the date of this Notice.

These present intentions may change as new information becomes available, as circumstances change or in the light of all material information, facts and circumstances necessary to assess the operational, commercial, taxation and financial implications of those decisions at the relevant time.

(viii) Interests of Directors

Mr Aaron Weaver, the Apeiron nominee to the Board and a Managing Director at Apeiron was involved in the negotiation of the Subscription Agreement between the Company and Apeiron.

Mr Aaron Weaver has a material interest in the Subscription Agreement and Nominee Protocol as the First Apeiron Nominee (as described at paragraph 2.3(a) above).

Further details relating to Mr Aaron Weaver are set out in Section 3.5 below.

(ix) Alternatives considered

The Company considered raising equity in the United States and, with investment bankers, undertook a non-deal roadshow to assess interest. However, the collapse of equity markets in the US as a result of COVID-19 meant this was no longer feasible. The Company also considered raising capital in Asia (predominantly China), Hong Kong and Singapore, but the transaction costs, fees to bankers and the share price discount required to attract this capital investment, assuming it was available, would, in the opinion of the Directors, be inferior to the transaction with Apeiron.

In addition, the Company considered raising non-dilutive funding for its ongoing operations through partnering deals for its various compounds and monetisation of its assets, but to date no transactions have been able to be concluded.

The Company considered raising funds from existing shareholders, but without a new cornerstone investor, such a raise would necessitate issuing Shares at a substantial discount be unlikely to have generated sufficient funds for a second Phase 2 clinical trial for the treatment of PTSD for the Company's lead compound, BNC210.

(x) Advantages of the Proposed Transaction

The Directors are of the view that the following non-exhaustive list of advantages may be relevant to a Non-Associated Shareholder's decision on how to vote on this Resolution 3:

(A) Pursuant to the Proposed Transaction, the Company expects to raise a minimum of $15 million to contribute towards progressing Phase 2 clinical trials for the treatment of PTSD for the Company's lead compound, BNC210. If the Proposed Transaction is not approved, the Company will not be able to rely on Apeiron's Underwriting Obligations and may not be able to raise funds necessary to fund a second Phase 2 clinical trial for the treatment of PTSD for the Company's lead compound, BNC210.

(B) **The Independent Expert has concluded that the Proposed Transaction is not fair (when assessed on a control basis) but reasonable to Non-Associated Shareholders**. **In the Independent Expert's opinion, the position of Shareholders if the Proposed Transaction is approved is more advantageous than their position if the Proposed Transaction is not approved**;

(C) Approval of Resolution 3 is subject to the passing of the other Subscription Resolutions at this Meeting (other than Resolution 1). The approval of the Subscription Resolutions at this Meeting will satisfy the Shareholder Approval Condition. Accordingly, the Subscription Resolutions should be considered collectively as well as individually. If Resolution 3 is not passed, the Company will not have satisfied the Shareholder Approval Condition and Apeiron may terminate the Subscription Agreement.

(D) The Proposed Transaction gives the Company the ability to raise at least $15,000,000 at a minimum price of $0.06 per Share subject to the terms of the Subscription Agreement. However, if the Company's Share price materially exceeds the underwritten price of $0.06 per Share, the Company may not need to rely on Apeiron's underwriting obligations.

(E) See the further advantages of the Proposed Transaction listed on page 4 of the Independent Expert's Report.

(xi) Disadvantages of the Proposed Transaction

The Directors are of the view that the following non-exhaustive list of disadvantages may be relevant to a Shareholder's decision on how to vote on this Resolution 3:

(A) the issue of Shares pursuant to the Proposed Transaction will dilute the interests of Shareholders, with the voting power of Shareholders not associated with Apeiron potentially decreasing from 81.04% to 55.31% if all 250,000,000 Shares are issued, and decreasing further to 48% if all 150,000,000 Warrants are exercised.

(B) The underwritten price of $0.06 for Shares to be issued to Apeiron (or its nominees) may have an effect on the price at which the Company may raise capital from Shareholders or other investors.

(C) Apeiron could acquire a majority interest in the Company, and is likely to acquire effective control of the Company with voting power in excess of 20%, and potentially well in excess of 20%. This could dissuade a potential acquirer of the Company from making a takeover offer or other control proposal in the future. This could adversely affect the Company's Share price and reduce the opportunity to obtain a control

premium in future. Apeiron's large potential shareholding might also reduce the liquidity in the Company's Shares.

(D) See the further disadvantages of the Proposed Transaction listed on page 5 of the Independent Expert's Report.

(xii) Director Recommendations

All of the Directors (other than Mr Aaron Weaver, who has abstained from making a recommendation) are of the opinion that the Subscription Agreement, and accordingly the Proposed Transaction, is in the best interest of Non-Associated Shareholders, and accordingly, the Directors unanimously recommend that Shareholders vote in favour of Resolution 3.

The above Directors' recommendations are based on the reasons set out above at paragraphs 3.3(f)(x) - (xi).

Mr Weaver, as the First Apeiron Nominee (a representative of Apeiron on the Board) has not participated in any consideration, assessment or approval of the Proposed Transaction and has abstained from making a recommendation. None of the other Directors or their Associates hold any ownership interest in Apeiron.

(g) No additional approval under Listing Rule 7.1 or Listing Rule 10.11

As noted above, Listing Rule 7.1 provides that a listed company must not, subject to certain exceptions, issue during any 12 month period any equity securities, including securities with rights of conversion to equity, if the number of those securities exceeds 15% of the total number of equity securities on issue at the commencement of that 12 month period and ASX Listing Rule 10.11 states that entities must not, subject to certain exceptions, issue or agree to issue equity securities to certain persons without the approval of its shareholders, these persons include "related parties" as defined and a Substantial (10%+) Holder.

These restrictions do not apply in certain circumstances, including in relation to an issue of securities approved for the purposes of item 7 of section 611 of the Corporations Act.

If Shareholders approve Resolution 3, separate approval will not be required under Listing Rule 7.1 or 10.11 for the issue of shares to Apeiron.

### *3.4 Resolution 4: Approval for the issue of the Further Offer (FO) Shortfall Shares*

(a) Background to the Further Offers

Pursuant to the Subscription Agreement, the Company may issue Shares under Further Offers up to the date which is 15 months after the date of this Meeting (**FO Backstop Date**). Under its Underwriting Obligation, Apeiron must subscribe for, or procure subscriptions from Exempt Investors, and pay or procure payment to the Company:

(i) for Shares that the Company has not received valid applications for under a Further Offer by the applicable closing date for that Further Offer, provided that the price at which Shares are offered under the Further Offer is equal to or greater than $0.06 per Share and that the total amount of funds raised by the Company under all Further Offers will not exceed $15,000,000; or

(ii) if for any reason, the Company has not received subscription funds of at least $15,000,000 by the FO Backstop Date, for the number of Shares calculated as follows:

$$\frac{(\$15{,}000{,}000 - \text{FO Subscription Funds})}{\$0.06}$$

in each case, the Shares to be issued to Apeiron and/or the Exempt Investors, are the **FO Shortfall Shares**. For this purpose, 'FO Subscription Funds' means the funds received by the Company under all Further Offers, including as a result of Apeiron complying with its Underwriting Obligations.

In the case of the FO Shortfall Shares being issued pursuant to paragraph 3.4(a)(i) above, the Company must allot and issue the FO Shortfall Shares to Apeiron and/or the Exempt Investors on the allotment date specified in the offer document for that Further Offer.

In the case of the FO Shortfall Shares being issued pursuant to paragraph 3.4(a)(ii) above, the Company may give Apeiron a notice in respect of such obligation within 20 business days of the FO Backstop Date. Apeiron's obligation to subscribe, or procure subscriptions, for the FO Shortfall Shares, and the Company's obligation to issue those Shares, are then to be completed within 8 business days of the date the Company gives notice to Apeiron.

This Resolution 4 seeks Shareholder approval for the issue of the FO Shortfall Shares to each Exempt Investor from whom Apeiron procures subscriptions for the purposes of Listing Rule 7.1. As explained in Section 3.3(g) of this Explanatory Statement if Resolution 3 is passed, FO Shortfall Shares issued to Apeiron approved under Resolution 3 will be subject to an exception to Listing Rule 7.1. However, any Shares issued to persons other than Apeiron, being Exempt Investors from whom Apeiron procures subscriptions, will not be subject to such an exception. In the absence of a separate approval under Listing Rule 7.1, the Company would have to ensure that it has capacity under its then Listing Rule 7.1 15% placement capacity to issue FO Shortfall Shares to such other persons, or that they are otherwise subject to another exception to Listing Rule 7.1 (for example pursuant to underwriting or sub-underwriting of a pro rata offer or as making up part of a shortfall under a pro rata offer, in each case subject to compliance with any applicable conditions).

It is noted that any specific capital raising undertaken by the Company to which Apeiron's Underwriting Obligations may apply would need to be permitted by Listing Rule 7.1, and any issue of Shares to Apeiron would be permitted due to the effect of Resolution 3 (as noted above). Accordingly, the principal effect of an approval under Resolution 4 would be on the Company's ability to rely on Apeiron's backstop underwriting commitment in relation to subscriptions procured from Exempt Investors by Apeiron referred to in Section 2.1(d)(ii) above if the Company has not raised $15,000,000 by the end of the 15 month period referred to in that Section.

The Company currently intends to seek to raise at least $15,000,000 from the issue of new Shares under one or more Further Offers during the relevant 15 month period and if necessary call on Apeiron to subscribe, or procure subscriptions from Exempt Investors, for any shortfall under such Further Offers.

(b) Listing Rule Requirements: Rule 7.3.4

Listing Rule 7.3 sets out the specific details required in a notice of meeting which includes a resolution seeking shareholder approval for an issue of ordinary securities under Listing Rule 7.1. Listing Rule 7.3.4 requires that the notice of meeting must specify the date or dates on or by which the entity will issue such securities. Unless the type of issue fits into certain exempt categories, the securities must be issued by a date no later than three months after the meeting during which such issue was approved.

As noted in Section 3.4(a) above, the Subscription Agreement provides that FO Shortfall Shares may, in some cases, be issued up to 15 months and 28 business days after this Meeting. This is outside the three month deadline specified under Listing Rule 7.3.4. Accordingly, any FO Shortfall Shares issued to persons other than Apeiron, being Exempt Investors from whom Apeiron procures subscriptions, more than three months after the date of this Meeting will not fall within the Listing Rule 7.1 exemption sought by this Resolution 4. In these circumstances the Company would have to ensure that it has capacity under its then Listing Rule 7.1 15% placement capacity to issue FO Shortfall Shares to such persons, or that they are otherwise subject to another exception to Listing Rule 7.1.

If no FO Shortfall Shares are issued to persons other than Apeiron within three months of the date of this Meeting then the approval sought by this Resolution 4 will not apply to any issue of FO Shortfall Shares.

(c) Listing Rule Requirements: Rule 7.1

A summary of Listing Rule 7.1, which applies to issues of ordinary securities, is set out in Section 3.1(b). The Company wishes to retain as much flexibility as possible to undertake the capital raisings proposed under the Subscription Agreement without having to obtain shareholder approval for such issues under Listing Rule 7.1. Accordingly, Shareholder approval under Listing Rule 7.1 for the issue of the FO Shortfall Shares is being sought.

If Resolution 4 is passed, the issue of the FO Shortfall Shares can proceed without using up any of the Company's 15% limit on issuing securities without Shareholder approval set out in Listing Rule 7.1.

Approval of Resolution 4 is subject to the passing of the other Subscription Resolutions (other than Resolution 1) at this Meeting. The approval of the Subscription Resolutions at this Meeting will satisfy the Shareholder Approval Condition. Accordingly, the Subscription Resolutions should be considered collectively as well as individually. If Resolution 4 is not passed, the Company will not have satisfied the Shareholder Approval Condition and Apeiron may terminate the Subscription Agreement.

(d) Additional information

In accordance with Listing Rule 7.3, the following information is provided in relation to Resolution 4:

- The FO Shortfall Shares will be issued Exempt Investors that have been nominated by Apeiron.
- The maximum number of FO Shortfall Shares to be issued is 250,000,000.
- The FO Shortfall Shares will be issued as fully paid ordinary shares and will rank equally with other fully paid ordinary shares in the Company on issue.
- Any FO Shortfall Shares to which the approval sought by this Resolution 4 relates will be issued within three months of the date of this Meeting. If no such Shares are issued then the approval sought by this Resolution 4 will not apply to any issue of FO Shortfall Shares.
- The consideration for the FO Shortfall Shares will be $0.06 per Share, unless otherwise agreed to by the Company and Apeiron.
- The purpose of the issue of the FO Shortfall Shares is to continue funding for a second BNC210 Phase 2 clinical trial for the treatment of PTSD.
- A summary of the material terms of the Subscription Agreement is set out at Section 2 of this Explanatory Statement.
- A voting exclusion statement is included in the Notice of Meeting.

The Directors unanimously recommend that Shareholders vote in favour of this Resolution, other than Mr Aaron Weaver who has been appointed to the Board at Apeiron's nomination and makes no recommendation.

### *3.5 Resolution 5: Confirm appointment of Director – Mr Aaron Weaver*

Pursuant to clause 44.3 of the Company's constitution, the Board is able to appoint at any time a person to be a Director either to fill a casual vacancy or as an addition to the existing Directors, but only where the total number of Directors does not exceed twelve.

As set out paragraph 2.3(a)(i) above, following completion of the First Placement, Apeiron was invited to nominate a director to the Board of the company. Accordingly, Mr Aaron Weaver, as the First Apeiron Nominee, was appointed a Director of the Company by the Board from 6 July 2020.

Pursuant to clause 44.3 of the Constitution, and ASX Listing Rule 14.4, any Director so appointed holds office only until the next following annual general meeting and is then eligible for re-election by Shareholders but shall not be taken into account in determining the Directors who are to retire by rotation (if any) at that meeting.

Clause 47.1 of the Company's constitution provides that if a director retires at a general meeting, the Company may, by ordinary resolution elect a person to fill the vacated office.

So that Mr Weaver is not required to stand for re-election at the Company's annual general meeting to be held in November 2020, Mr Weaver proposes to retire at the general meeting and stand for re-election.

Mr Weaver therefore retires in accordance with clause 47.1 of the Company's constitution and, being eligible, seeks re-election from Shareholders.

(a) Qualifications, experience and other material directorships

Mr Aaron Weaver is a Managing Director at Apeiron Investments focused on the life sciences sector. He also serves as Senior General Counsel and supports fundraising and investor relations activities at ATAI Life Sciences AG, a clinical stage biopharmaceutical company focused on the development of therapeutics for the treatment of mood disorders, addiction and anxiety. He is a Chartered Financial Analyst (CFA) and a registered solicitor in the United Kingdom. From 2013 – 2017, he was an investment banker at Credit Suisse in London within the Capital Markets Solutions team, advising on capital structuring and issuances for a full spectrum of corporate issuers from pre-revenue companies to public listed companies. He was a capital markets solicitor at Allen & Overy LLP, London from 2007 – 2013. He holds a Masters of Law from the Queensland University of Technology and a Bachelor of Business Administration from the University of Queensland.

Other than as set out in this Section and Section 3.3(f)(viii) above, Mr Weaver has no other association with Apeiron or their associates, nor any interest in the acquisition of Shares by Apeiron or any agreement between Apeiron and the Company.

The Directors unanimously recommend that Shareholders vote in favour of this Resolution, other than Mr Aaron Weaver who makes no recommendation.

### *3.6 Resolution 6: Fees to Non-Executive Directors*

(a) General

The Board recommends to Shareholders that the maximum annual remuneration payable to all Non-Executive Directors of the Company taken together be increased from the current level of $500,000 to $750,000. This reflects a total increase of $250,000 to the current approved maximum annual remuneration.

As set out at section 2.3(a), under the Subscription Agreement, Apeiron may nominate up to two representatives (the First Apeiron Nominee and Second Apeiron Nominee) to be appointed to the Board of the Company provided that certain minimum shareholding thresholds are met and continue to be maintained. One such nominee was appointed as a Director from 6 July 2020.

The $250,000 increase reflects that the Board may comprise an additional two Non-Executive directors, bringing the total number of Non-Executive Directors on the Board from four to six. The Board also includes an Executive Chairman.

Clause 50.2 of the Company's Constitution provides that the aggregate of all remuneration paid by the Company to Non-Executive Directors must not exceed a maximum sum as determined by the Company in general meeting. The maximum director remuneration pool as previously approved by the Company in general meeting on 14 November 2012 is $500,000.

In accordance with Listing Rule 10.17, the following information is provided in relation to Resolution 6:

- The amount of the increase is $250,000.
- The maximum aggregate amount of directors' fees that may be paid to all of the Company's Non-Executive Directors is $750,000.
- The Company has not issued any securities to a Non-Executive Director under Listing Rule 10.11 or 10.14 with the approval of Shareholders at any time within the preceding three years.
- A voting exclusion statement is included in the Notice of Meeting.

Resolution 6 is subject to the passing of the Subscription Resolutions. Accordingly, if any of those resolutions are not be passed, then Resolution 6 will not be passed.

If Resolution 6 is passed, the maximum annual remuneration payable to all Non-Executive Directors taken together will be increased from the current level of $500,000 to $750,000.

If this Resolution 6 is not passed, the maximum annual remuneration payable to all Non-Executive Directors taken together will remain at $500,000.

The Directors unanimously recommend that Shareholders vote in favour of this Resolution.

### *3.7 Resolution 7: Approval of proposed issue of Options to Dr Errol De Souza*

(a) General

The Company is seeking to issue Options to the Company's Executive Chairman, Dr Errol De Souza, as a component of his remuneration, in order to keep cash payments to a minimum and to provide incentives linked to the performance of the Company.

In accordance with Listing Rule 10.14, Shareholder approval is required for the issue of Options to a Director or any of their associates under an employee incentive scheme. At the Company's 2017 annual general meeting held on 15 November 2017, Shareholders approved the Employee Equity Plan.

(b) Why shareholder approval is required: Listing Rule 10.14

Listing Rule 10.14 provides that a listed company must not permit any of the following persons to acquire equity securities under an employee incentive scheme:

- a director of the company;
- an associate of a director of the company; or
- a person whose relationship with the company or a person referred to in Listing Rule 10.14.1 or 10.14.2 is such that, in ASX's opinion, the acquisition should be approved by its security holders,

unless it obtains the approval of its security holders.

The proposed issue of Options requires approval by Shareholders under Listing Rule 10.14 as Dr De Souza is a Director of the Company.

If Resolution 7 is passed, the Company will be able to proceed with the proposed issue of Options to Dr De Souza providing him with incentives linked to the performance of the Company.

If Resolution 7 is not passed, the Company will not be able to proceed with the proposed issue of Options and may need to consider other methods (such as cash payments) to remunerate and incentivise Dr De Souza.

Pursuant to Listing Rule 7.2 exception 14, as Shareholder approval is sought under Listing Rule 10.14, approval for the issue of the Options under Listing Rule 7.1 is not required and such issue will not count towards the Company's 15% placement capacity available under Listing Rule 7.1.

(c) Additional information

In accordance with Listing Rule 10.15 the following information is provided in relation to Resolution 7:

- Dr Errol De Souza (or his nominee) is the proposed recipient of the Options and is a Director.
- The maximum number of Options to be issued to Dr De Souza is 12,000,000.
- The current total remuneration package from the Company to Dr De Souza (excluding the proposed Options and his fee as a Director of $154,000 per annum) which is to apply from 22 June 2020 to 30 June 2021 under the terms of a Consultancy Agreement to provide executive services announced on 22 June 2020 is as follows:
    - Fixed remuneration: US$21,000 per month and reimbursement of up to US$18,000 for the cost of procuring health benefits in the United States.
    - Short Term Incentive: bonus potential of 70% of fixed remuneration up to US$176,400 over the term of the Consultancy Agreement, as assessed by the independent non-executive directors against agreed financial, strategic and operational targets.
- No securities have previously been issued to Dr De Souza under the Employee Equity Plan.
- The material terms of the Options are as follows:
    - 6,000,000 Options will vest and become exercisable upon the price of the Company's Shares reaching $0.14 per Share and the remaining 6,000,000 Options will vest and become exercisable upon the price of the Company's Shares reaching $0.24 per Share.
    - Each Option is exercisable at a price of $0.04 per Option, each on or before the date that is 5 years from the date of their grant.
    - Each Option entitles the holder to one Share upon exercise.
    - The Options will not be quoted on ASX.
    - The Options will vest upon a change of control of the Company and be adjusted proportionately in the event of a Share consolidation or Share subdivision.
    - The Options are otherwise issued on the terms of the Employee Equity Plan, the material terms of which are set out in Annexure C
- The value attributed to the Options by the Company is post completion of the Proposed Transaction and accompanying dilution of the share price is approximately $158,400. The Company received guidance from independent remuneration consultants on the structure of Dr De Souza's total remuneration package.
- The offer of Options to Dr De Souza forms part of the Company's long term incentive plan to encourage Dr De Souza to achieve the Company's objectives and to provide an incentive to strive to that end. The grant of Options is viewed as a cost effective and efficient reward and incentive as opposed to alternative forms of incentives, such as the payment of additional cash compensation, being of benefit to the recipient if the Company's Share price appreciates through good performance.

- The Options will be issued as soon as practicable after the Meeting, and in any event, no later than 12 months after the date of the Meeting.
- A summary of the material terms of the Employee Equity Plan are set out in Annexure C.
- No loan is being offered in relation to the issue of the Options.
- Details of any Options issued under the Employee Equity Plan will be published in the Company's annual report relating to the period in which they were issued, along with a statement that approval for the issue was obtained under Listing Rule 10.14.
- Any additional persons covered by Listing Rule 10.14 who become entitled to participate in an issue of securities under the Employee Equity Plan after the resolution is approved at the Meeting and who were not named in the Notice of Meeting will not participate until approval is obtained under Listing Rule 10.14.
- A voting exclusion statement is included in the Notice of Meeting.

The number of Options was calculated taking into consideration De Souza's knowledge, experience and skills for ensuring the Company's survival and ongoing sustainability, the market price of Shares, the vesting conditions to be achieved and benchmarking of other equity-based incentive structures. The Directors (excluding Dr De Souza), therefore, believe that the grant of the Options would constitute reasonable remuneration for the purposes of section 211 of the Corporations Act and no separate approval is being sought under Chapter 2E of the Corporations Act in relation to the grant of the Options to Dr De Souza.

The Directors unanimously recommend that Shareholders vote in favour of this Resolution, other than Dr Errol De Souza who makes no recommendation. The Directors (excluding Dr De Souza) consider that the issue of the Options to Dr De Souza is an appropriate form of remuneration for Dr De Souza and is part of a reasonable remuneration package (taking into account the Company's and Dr De Souza's circumstances).

## GLOSSARY

In this Notice of General Meeting and Explanatory Statement, the following terms have the following meaning unless the context or subject matter otherwise requires:

| | |
|---|---|
| **ACST** | means Australian Central Standard Time. |
| **Apeiron** | means Apeiron Investment Group Ltd |
| **Associate** | has the meaning given in the ASX Listing Rules. |
| **ASX** | means ASX Limited (ABN 98 008 624 691) or the securities market it operates, as the context requires. |
| **ASX Listing Rules** or **Listing Rules** | means the listing rules of the ASX, as amended from time to time. |
| **Bionomics Limited** | means the Company and its controlled entities. |
| **Board** | means the board of Directors of the Company. |
| **Chair** | means the chair of the General Meeting. |
| **Company** | means Bionomics Limited (ACN 075 852 740). |
| **Corporations Act** | means the *Corporations Act 2001* (Cth). |
| **Custodian** | means HSBC Custody Nominees (Australia) Limited (ACN 003 094 568). |
| **Directors** | means directors of the Company. |
| **Employee Equity Plan** or **Plan** | means the Company's employee equity plan which was approved by Shareholders at the Company's annual general meeting held on 15 November 2017, a summary of the material terms of which is set out at Annexure C. |
| **Exempt Investor** | means a sophisticated or professional investor (as those terms are defined in Chapter 6D of the Corporations Act) or other person to whom an offer or issue of Shares can be made without a disclosure document under section 708 of the Corporations Act and who is exempt from any additional disclosure, registration or other similar applicable requirements under the law applicable in the place in which the offer, issue or subscription is received or made. |
| **Explanatory Statement** | means the explanatory statement accompanying this Notice of General Meeting. |
| **General Meeting** | means the general meeting of the Company to be held at the time and place specified in this Notice of General Meeting. |
| **Independent Expert** | means Leadenhall Corporate Advisory Pty Ltd (ACN 114 534 619). |
| **Independent Expert's Report** | means the report of the Independent Expert commissioned by the Board and accompanying the Notice of General Meeting at Annexure A. |
| **Key Management Personnel** | means those persons having authority and responsibility for planning, directing and controlling the activities of the entity, directly or indirectly, including any director (whether executive or otherwise) of that entity. |
| **Non-Associated Shareholders** | means those Shareholders who are not Associates of Apeiron. |
| **Notice of General Meeting** or **Notice** | means the notice calling a general meeting of Shareholders, of which the Explanatory Statement forms a part. |
| **Option** | means an option to be issued a Share. |

| | |
|---|---|
| **Proposed Transaction** | means the transactions the subject of Resolution 3, as described in Section 3.3 of the Explanatory Statement. |
| **Resolutions** | means the resolutions to be considered by Shareholders at the General Meeting, as set out in the Notice of General Meeting. |
| **Shares** | means fully paid ordinary shares in the capital of the Company. |
| **Shareholder** | means a holder of one or more Shares in the Company. |
| **Subscription Resolutions** | has the meaning given in Section 2.2(a) of the Explanatory Statement. |
| **Substantial (10%+) Holder** | has the meaning set out in Section 3.2(c) of the Explanatory Statement. |

Now you know
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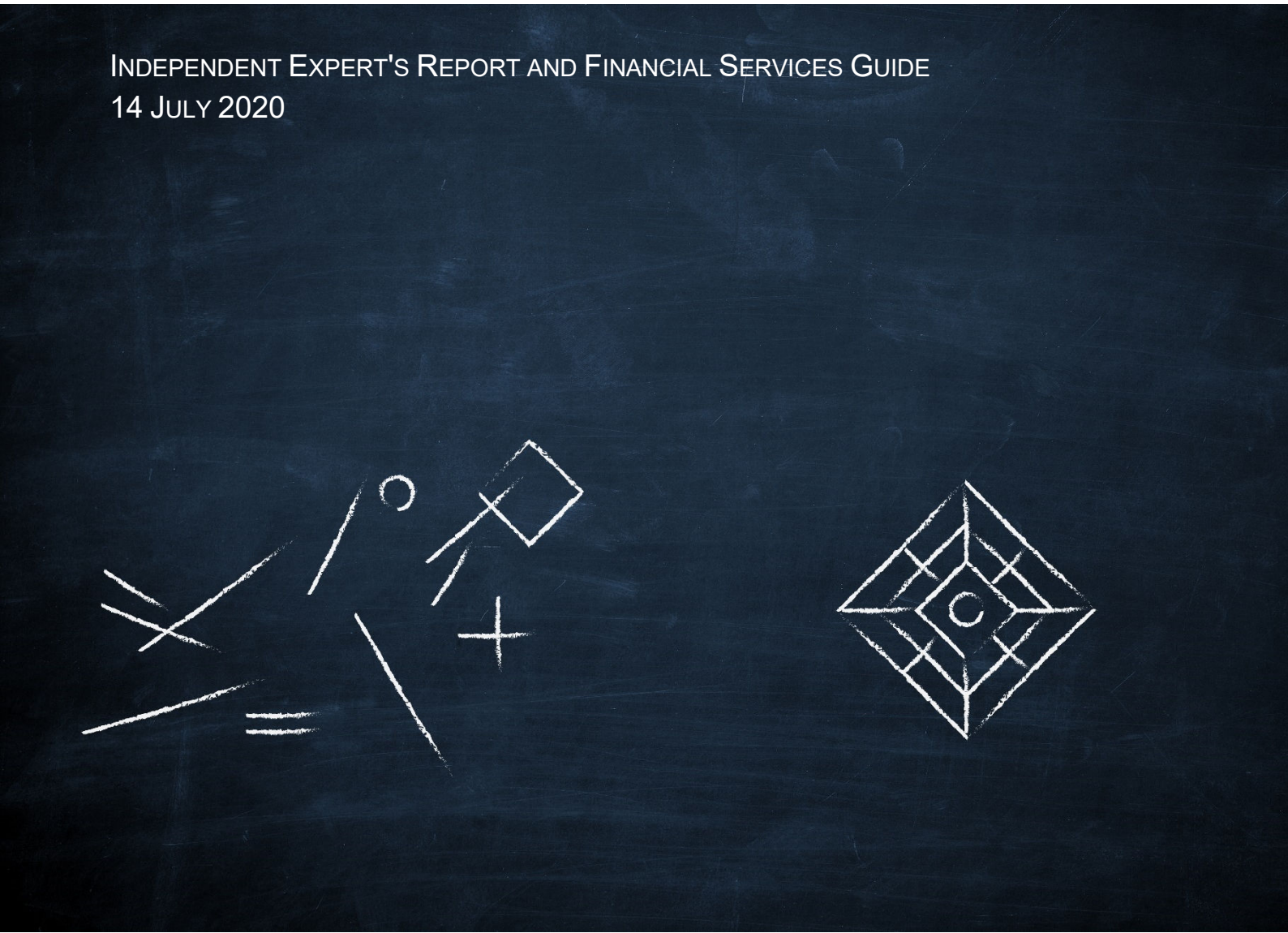
# BIONOMICS LIMITED

## PROPOSED ISSUE OF SHARES TO APEIRON INVESTMENT GROUP LTD

INDEPENDENT EXPERT'S REPORT AND FINANCIAL SERVICES GUIDE
14 JULY 2020



Now you know LEADENHALL

14 July 2020

Alan Fisher
Independent Director
Bionomics Limited
31 Dalgleish Street
Thebarton SA 5031

Dear Mr Fisher,

# Independent Expert's Report for Bionomics Limited

## 1. Introduction

Bionomics Limited ("**Bionomics**") is an ASX listed biopharmaceutical company that has a portfolio of drug candidates targeting central nervous system ("**CNS**") disorders and cancer. As at 1 June 2020 Bionomics had a market capitalisation of approximately A$28 million.

Bionomics' board expects the company to experience cash outflows for some time due to:

- ongoing overhead expenses of approximately A$6.4 million per year.
- repayment of a US$6.8 million debt on which principal repayments are due to recommence in November 2020.
- the cost of clinical trials for Bionomics' leading compound BNC210 which targets post-traumatic stress disorder ("**PTSD**"). At present clinical trials estimated to cost approximately US$14 million (A$21 million) are planned over the next three years.

After an extensive search for a funding partner by the board, on 1 June 2020 Bionomics entered a subscription agreement with Apeiron Investment Group Ltd ("**Apeiron**") under which Bionomics expects to receive between A$20.4 million to A$22.6 million in a number of tranches (the "**Proposed Transaction**").

Further information regarding the Proposed Transaction is set out in Section 1 of our detailed report.

## 2. Purpose of report

The Proposed Transaction is structured in a number of tranches including a pro-rata offer to existing shareholders and a further issue to existing shareholders, and potentially new investors, underwritten by Apeiron. As consideration for the underwriting, Apeiron will be issued 150 million warrants to subscribe for Bionomics shares.

Depending on the uptake of the pro-rata issue and underwritten issue by investors other than Apeiron, the acquisition of Bionomics shares as part of the underwriting, or upon the exercise of the warrants, may lead to Apeiron holding in excess of 20% of the Bionomics shares on issue.

An acquisition of securities that enables a shareholder to increase its relevant interests in a listed company from below 20% to above 20% is prohibited, except in certain circumstances. One of the exceptions is if the acquisition is approved at a general meeting of the company. The approval of the Proposed Transaction is therefore being sought at a general meeting of Bionomics' shareholders.

In order to assist shareholders evaluate the Proposed Transaction, the directors of Bionomics have engaged Leadenhall Corporate Advisory Pty Ltd ("**Leadenhall**") to prepare an independent expert's report assessing whether the Proposed Transaction is fair and reasonable to Bionomics' shareholders not associated with Apeiron ("**Shareholders**"). This report is to be included in the notice of meeting regarding the Proposed Transaction.

Further information regarding our scope and purpose is set out in Section 2 of our detailed report.

## 3. Basis of evaluation

In accordance with *Regulatory Guide 111: Content of Expert Reports* ("**RG111**") issued by the Australian Securities and Investments Commission ("**ASIC**") we have assessed the Proposed Transaction as if it was a takeover offer for Bionomics. Accordingly, we have assessed it as fair if the value of a Bionomics share after the Proposed Transaction is greater than or equal to the value of a Bionomics share before the Proposed Transaction. Our valuation before the Proposed Transaction has been undertaken on a control basis whereas our valuation after the Proposed Transaction has been undertaken on a minority basis.

We have assessed the Proposed Transaction as reasonable if it is fair, or despite not being fair, the advantages to Shareholders outweigh the disadvantages.

Further details of the basis of evaluation are provided in Section 2 of our detailed report.

## 4. The Proposed Transaction is not fair

### Value of Bionomics before the Proposed Transaction

We assessed the value of a Bionomics share using the discounted cash flow approach. Our valuation is summarised in the following table:

**Table 1: Assessed value of a Bionomics share before the Proposed Transaction**

| $'000 | Low | High |
|---|---|---|
| Enterprise value | 71,354 | 87,966 |
| Net debt | (6,938) | (6,938) |
| Surplus assets | 1,579 | 1,579 |
| **Equity value** | **65,994** | **82,607** |
| Ordinary shares on issue ('000) | 626,186 | 626,186 |
| **Assessed value per share on a control basis ($)** | **0.105** | **0.132** |

*Source: Leadenhall analysis*

The enterprise value is based on a cash flow model prepared by Bionomics management and approved by its board. We reviewed the assumptions for reasonableness and confirmed they are appropriate for our purpose. We applied a discount rate of 16% to 18% to the projected cash flows to obtain the enterprise value.

We undertook a sensitivity analysis to highlight which assumptions had the greatest impact on the valuation conclusion. The assumption with the greatest impact is the assessed probability of clinical success from future clinical trials. The assumptions made surrounding this were compared to a number of independent studies and we consider them to be reasonable assumptions based on this comparison. In addition, no alternative, reasonable set of assumptions would alter our opinion on the fairness of the Proposed Transaction.

Further details of our valuation of Bionomics before the Proposed Transaction are provided in Section 6 of our detailed report.

### Value of Bionomics after the Proposed Transaction

Our assessment of the value of a Bionomics share after the Proposed Transaction was based on the same discounted cash flow analysis and is summarised below:

**Table 2: Value of a Bionomics share after the Proposed Transaction**

| $'000 | Low | High |
|---|---|---|
| Equity value of Bionomics on a control basis | 65,994 | 82,607 |
| Cash proceeds from Proposed Transaction | 28,347 | 28,347 |
| **Total equity value after Proposed Transaction** | **94,341** | **110,954** |
| Total number of shares after the Proposed Transaction (millions) | 1,135 | 1,135 |
| **Value per share after Proposed Transaction on a control basis ($)** | **0.083** | **0.098** |
| DLOC at 20% to 25% | (0.02) | (0.02) |
| **Value per share after Proposed Transaction on a liquid minority basis ($)** | **0.062** | **0.078** |

*Source: Leadenhall analysis*

The key differences relate to the shares to be issued and cash to be received from the Proposed Transaction as well as a discount for lack of control ("**DLOC**") to reflect that market trading in Bionomics shares after the Proposed Transaction would be on a non-controlling basis.

Further details of our valuation of Bionomics after the Proposed Transaction are provided in Section 7 of our detailed report.

### Conclusion on fairness

As the value of a Bionomics share after the Proposed Transaction is less than the assessed value of a Bionomics share before the Proposed Transaction, we have assessed the Proposed Transaction as being not fair.

## 5. The Proposed Transaction is reasonable

### Advantages

The main advantages of the Proposed Transaction are:

- ***Avoids likely insolvency:*** In the absence of a significant injection of cash, Bionomics would likely be unable to continue to meet its obligations as they fall due. In this scenario it is likely that Shareholders would receive zero value for their Bionomics shares.
- ***Capital raising above recent market price:*** The Proposed Transaction allows Bionomics to raise capital at a premium to its recent market trading price. This is in comparison to a number of recent capital raisings by other listed companies at significant discounts to recent trading prices.
- ***Best alternative available:*** Bionomics' board has conducted an extensive exercise seeking to raise capital for Bionomics in order to repay debt and fund future clinical trials. This has included seeking partnering deals for various compounds owned by Bionomics, seeking to sell potential future cash flows from BNC375 (a drug targeting Alzheimer's Disease which Bionomics has partnered with Merck & Co., Inc. ("**Merck**") to develop), and seeking additional capital from current shareholders. We have been advised that the Proposed Transaction is the only potential transaction arising from this exercise that is sufficiently developed to be put to Shareholders and no alternative more compelling transactions are close to completion.
- ***Impact on share price:*** Since the Proposed Transaction was announced market trading in Bionomics shares increased. If the Proposed Transaction is not approved, we consider it likely the Bionomics share price would fall below current levels and if alternative sources of funds are not secured may fall to zero.

### Disadvantages

- ***Loss of control:*** After the Proposed Transaction, Apeiron would have the ability to appoint two directors as well as holding up to 52% of the shares in Bionomics (assuming the warrants are exercised and the underwritten issue is almost entirely taken up by Apeiron which we understand is not the expected outcome). This would not provide absolute control to Apeiron, but it would provide a significant ability to influence the operations of Bionomics. Apeiron may not always act in the best interests of Bionomics' other shareholders, subject to compliance with relevant laws and regulations and may be able to block another party making a bid and obtaining control of the company.

### Conclusion on reasonableness

Bionomics needs a cash injection in the near term and the Proposed Transaction provides an opportunity for this to occur. While Apeiron is not paying a control premium for Bionomics, we do not consider this to be unreasonable as Apeiron will not be obtaining full control of Bionomics from the Proposed Transaction.

In our opinion, the position of Shareholders if the Proposed Transaction is approved is more advantageous than their position if the Proposed Transaction is not approved.

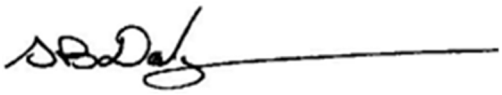
We have therefore assessed the Proposed Transaction as being reasonable.

## 6. Opinion

The Proposed Transaction is not fair but reasonable to Shareholders.

This opinion should be read in conjunction with our detailed report which sets out our scope, analysis and findings in more detail.

Yours faithfully



Richard Norris
**Director**

Simon Dalgarno
**Director**

*Note: All amounts stated in this report are in Australian dollars unless otherwise stated.*

*Tables in this report may not add due to rounding.*

**LEADENHALL CORPORATE ADVISORY PTY LTD**

**ABN 11 114 534 619**

**Australian Financial Services Licence No: 293586**

# *FINANCIAL SERVICES GUIDE*

Leadenhall Corporate Advisory Pty Ltd ("**Leadenhall**" or "**we**" or "**us**" or "**our**" as appropriate) has been engaged to issue general financial product advice in the form of a report to be provided to you.

## Financial Services Guide

In providing this report, we are required to issue this Financial Services Guide ("**FSG**") to retail clients. This FSG is designed to help you to make a decision as to how you might use this general financial product advice and to ensure that we comply with our obligations as a financial services licensee.

## Financial Services We are Licensed to Provide

We hold Australian Financial Services Licence 293586 which authorises us to provide financial product advice in relation to securities (such as shares and debentures), managed investment schemes and derivatives.

We provide financial product advice by virtue of an engagement to issue a report in connection with a financial product. Our report will include a description of the circumstances of our engagement and the party who has engaged us. You will not have engaged us directly but will be provided with a copy of the report because of your connection to the matters in respect of which we have been engaged to report.

Any report we provide is provided on our own behalf as a financial service licensee authorised to provide the financial product advice contained in that report.

## General Financial Product Advice

The advice produced in our report is general financial product advice, not personal financial product advice, because it has been prepared without taking into account your personal objectives, financial situation or needs. You should consider the appropriateness of this general advice having regard to your own objectives, financial situation and needs before you act on the advice. Where the advice relates to the acquisition or possible acquisition of a financial product, you should also obtain a product disclosure statement relating to the product and consider that statement before making any decision about whether to acquire the product.

## Benefits that We May Receive

We charge fees for providing reports. These fees will be agreed with the person who engages us to provide the report. Fees will be agreed on either a fixed fee or time cost basis. Leadenhall is entitled to receive a fixed fee of $65,000 (excl. GST) for preparing this report. This fee is not contingent upon the outcome of the Proposed Transaction.

Except for the fees referred to above, neither Leadenhall, nor any of its directors, consultants, employees or related entities, receive any pecuniary or other benefit, directly or indirectly, for or in connection with the provision of this report.

## Remuneration or Other Benefits Received by our Employees, Directors and Consultants

All our employees receive a salary. Our employees are eligible for bonuses which are not based on the outcomes of any specific engagement or directly linked to the provision of this report. Our directors and consultants receive remuneration based on time spent on matters.

### Referrals

We do not pay commissions or provide any other benefits to any person for referring clients to us in connection with the reports that we are licensed to provide.

### Complaints Resolution

As the holder of an Australian Financial Services Licence, we are required to have a system in place for handling complaints from persons to whom we have provided reports. All complaints must be in writing, to the following address:

Leadenhall Corporate Advisory Pty Ltd
GPO Box 1572
Adelaide SA 5001

Email: office@leadenhall.com.au

We will try to resolve your complaint quickly and fairly and will endeavour to settle the matter within 14 days from the time the matter is brought to our attention.

If you do not get a satisfactory outcome, you have the option of contacting the Financial Ombudsman Service ("**FOS**"). The FOS will then be able to advise you as to whether or not they can assist in this matter. The FOS can be contacted at the following address:

Financial Ombudsman Service
GPO Box 3
Melbourne VIC 3001

Telephone: 1300 780 808
Email: info@fos.org.au

### Compensation Arrangements

Leadenhall holds professional indemnity insurance in relation to the services we provide. The insurance cover satisfies the compensation requirements of the Corporations Act 2001.

14 July 2020

# CONTENTS

# 1 TRANSACTION SUMMARY

## 1.1 Background

Bionomics is an ASX listed biopharmaceutical company. The company has a portfolio of drug candidates which target the treatment of serious conditions with significant unmet clinical need. Each of the drug candidates is described in more detail in Section 4.3.

Apeiron is a Malta based family office investment business. One of Apeiron's focus areas is investing in life sciences businesses with a focus on treatment of mental health disorders.

## 1.2 Proposed Transaction

On 1 June 2020 Bionomics and Apeiron entered into an agreement whereby:

- **First Apeiron Subscription** – Apeiron agreed to subscribe for 81.5 million Bionomics shares at A$0.04 per share (or A$3.26 million in total). This has now been received by Bionomics and will result in Apeiron having a 13.0% interest in Bionomics.
- **Second Apeiron Subscription** – Apeiron agreed to subscribe for a further 54.3 million Bionomics shares, also at A$0.04 per share (or A$2.17 million in total). This will occur shortly after shareholder approval for the Proposed Transaction.
- **Pro-rata Issue** – After completion of the Second Apeiron Subscription Bionomics will offer a further 54.3 million shares to existing shareholders on a pro-rata basis at A$0.04 per share (or A$2.17 million in total).
- **Underwritten Issue –** Within 15 months of shareholder approval for the Proposed Transaction, Bionomics may offer up to 250 million shares pursuant to one or more offers (one of which must include a pro-rata or share purchase plan offer) at no less than A$0.06 per share to raise at least A$15 million. Apeiron will underwrite this issue (subject to FIRB and ASX approval).
- **Apeiron Warrants –** As consideration for underwriting the Underwritten Issue and following Apeiron discharging those obligations in full, Apeiron will be issued 150 million warrants to subscribe for Bionomics shares at A$0.06 at any time (subject to FIRB approval) within 36 months of shareholder approval of the Proposed Transaction.

If the Proposed Transaction proceeds and assuming the Underwritten Issue is A$15.0 million and the Pro-rata Issue is fully subscribed, Bionomics will raise between A$20.4 million to A$22.6 million, of which Apeiron will invest between A$5.4 million to A$20.4 million (depending on the shares take up by investors other than Apeiron) for a diluted interest in Bionomics of between 25% to 52%.

Other than the First Apeiron Subscription, all of the issues of shares and warrants to Apeiron outlined above are subject to approval by Bionomics' shareholders.

## 1.3 Board composition

As a result of the Proposed Transaction, Apeiron will have the right to appoint two non-executive directors to the Bionomics Board at which point there would be seven directors in total (assuming no other changes in board composition).

# 2 SCOPE

## 2.1 Purpose of the report

An acquisition of securities that enables a shareholder to increase its relevant interests in a listed company from below 20% to above 20%, or increase to a greater than 20% holding, is prohibited under Section 606 of the Corporations Act 2001 ("**s606**"), except in certain circumstances. The following components of the Proposed Transaction could lead to Apeiron's interest in Bionomics increasing above 20% or increasing from a holding already greater than 20%:

- Apeiron taking up any shares under the Underwritten Issue
- The exercise of the Apeiron Warrants.

One of the exceptions to s606 is where the acquisition is approved at a general meeting of the target company in accordance with item 7 ("**Item 7**") of Section 611 of the Corporations Act 2001 ("**s611**"). Approval for the components of the Proposed Transaction that would otherwise breach s606 is therefore being sought at a general meeting of Bionomics' shareholders in accordance with Item 7.

Item 7 requires shareholders to be provided with all of the information known to the company and to the potential acquirer that is material to the shareholders' decision. *Regulatory Guide 74: Acquisitions Approved by Members* ("**RG74**") issued by the ASIC provides additional guidance on the information to be provided to shareholders. RG74 states that the directors of the target company should provide shareholders with an independent expert's report or a detailed directors' report in relation to transactions to be approved under Item 7. RG111 requires an independent expert assessing a transaction that has a similar effect to a takeover bid to assess whether the transaction is fair and reasonable.

The directors of Bionomics have therefore requested Leadenhall to prepare an independent expert's report assessing whether the Proposed Transaction is fair and reasonable to Bionomics' shareholders not associated with Apeiron.

## 2.2 Basis of evaluation

RG111.25 requires an independent expert to evaluate an issue of securities under s611 that has a similar effect to a takeover offer as if it was a takeover offer. As the Proposed Transaction would lead to Apeiron holding greater than 20% of Bionomics, we have assessed it as a control transaction. RG111 requires a separate assessment of whether a control transaction under s611 is '*fair*' and whether it is '*reasonable*'. We have therefore considered the concepts of '*fairness*' and '*reasonableness*' separately. The basis of assessment selected and the reasons for that basis are discussed below.

### Fairness

RG111.11 defines a takeover offer as being fair if the value of the consideration is equal to, or greater than, the value of the securities subject to the offer. Accordingly, we have assessed whether the Proposed Transaction is fair by comparing the value of a Bionomics share before the Proposed Transaction with the consideration offered to Shareholders. As Shareholders would retain their Bionomics shares if the Proposed Transaction proceeds (as opposed to exchanging them for cash or the acquirer's scrip as in a takeover offer) the effective consideration is the continued ownership of a Bionomics share, after the additional capital has been raised.

The value of a Bionomics share before the Proposed Transaction has been determined on a control basis (i.e. including a control premium). This is consistent with the requirement of RG111.11 that the comparison for a takeover must be made assuming a 100% interest in the target company.

The value of a Bionomics share after the Proposed Transaction has been assessed on a minority interest basis (i.e. excluding a control premium) as Shareholders would own a minority stake in Bionomics should the Proposed Transaction occur.

### Reasonableness

In accordance with RG111, we have defined the Proposed Transaction as being reasonable if it is fair, or if, despite not being fair, Leadenhall believes that there are sufficient reasons for Shareholders to vote for the proposal. We have therefore considered whether the advantages to Shareholders of the Proposed Transaction outweigh the disadvantages. To assess the reasonableness of the Proposed Transaction we have considered the following significant factors recommended by RG111.13:

- The liquidity of the market in Bionomics' shares
- Any special value of Bionomics to Apeiron
- The likely market price of Bionomics shares if the Proposed Transaction is rejected
- The value of Bionomics to an alternative bidder and the likelihood of an alternative offer.

We have also considered other significant advantages and disadvantages to Shareholders of the Proposed Transaction.

## 2.3 Basis of valuation

We have assessed the value of a Bionomics share at fair market value, which is defined by the International Glossary of Business Valuation Terms as:

> *The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arm's length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts.*

While there is no explicit definition of value in RG111, this definition of fair market value is consistent with basis of value described at RG111.11 and common market practice.

Special value is defined as the amount a specific purchaser is willing to pay in excess of fair market value. A specific purchaser may be willing to pay a premium over fair market value as a result of potential economies of scale, reduction in competition or other synergies they may enjoy arising from the acquisition of the asset. However, to the extent a pool of hypothetical purchasers could all achieve the same level of synergies the value of those synergies may be included in fair market value. Special value is typically not considered in forming an opinion on the fair market value of an asset. Our valuations do not include any special value.

## 2.4 Individual circumstances

We have evaluated the Proposed Transaction for Shareholders as a whole. We have not considered its effect on the particular circumstances of individual investors. Due to their personal circumstances, individual investors may place a different emphasis on various aspects of the Proposed Transaction from the one adopted in this report. Accordingly, individuals may reach a different conclusion to ours on whether the Proposed Transaction is fair and reasonable. If in doubt investors should consult an independent financial adviser about the impact of the Proposed Transaction on their specific financial circumstances.

# 3 BIOPHARMACEUTICAL RESEARCH INDUSTRY

## 3.1 Overview

Bionomics operates in the biopharmaceutical research industry which focusses on the discovery, development and commercialisation of new drugs and therapies for the treatment of disease.

### Structure of Industry

The industry is comprised of a combination of large, global pharmaceutical companies and a large number of small research and development ("**R&D**") focussed firms which often license technologies or develop products in conjunction with larger companies due to the significant costs associated with late stage clinical trials and successful commercialisation of new drugs. Major pharmaceutical companies that operate in this industry include Pfizer Inc, Novartis International AG, Merck, GlaxoSmithKline plc, Bristol-Myers Squibb and Bayer AG.

Biopharmaceutical products are generally marketed globally. This results in a large number of cross-border research partnerships, particularly with global pharmaceutical companies possessing the financial capital to fund the biopharmaceutical research of smaller players.

The US is the largest pharmaceutical market in the world, holding approximately 45% of the global market. The US also has some of the most stringent regulations on medical drug and device development and marketing with the Food and Drug Administration ("**FDA**") being one of the largest consumer safety agencies in the world. Its European counterpart is the European Medicines Agency ("**EMA**"). The role of these agencies in the pharmaceutical market is to protect public health by ensuring the safety and efficacy of prescription drugs. All new prescription drugs require FDA approval prior to marketing in the US. A joint study by the two agencies showed a high degree (over 90%) of alignment in marketing authorisations for new prescription drugs.

### Industry Trends

The industry is characterised by long lead times for drug development, high R&D costs coupled with low probabilities of successful development and commercialisation of new drugs. However, returns from a single successful drug often subsidise the development costs of other failed compounds. Over the past decade, there has been a decline in R&D productivity (increasing the average cost to develop an asset) and a decline in expected sales for pharmaceutical products. In addition, the industry has gradually moved away from traditional blockbuster drugs (drugs which generate $1 billion or more in annual sales) targeting large patient populations towards niche medicines which target rare diseases or specific forms of widespread diseases, which often have smaller patient populations but still have the capacity to generate blockbuster-level sales due to higher prices.

The industry has also been moving towards biological medicines or biopharmaceuticals (often referred to as "biologics"). Biologics are drugs manufactured in, extracted from, or semi-synthesised from biological sources whereas traditional small molecule drugs are mainly chemically synthesised. Between 2010 and 2017, the FDA approved 63 biologics compared to 199 small molecules. However, by 2019, the proportion of approved small molecules had fallen to 43% (from 76%).

Competition in the industry is intensifying due to growing calls for lower drug prices along with rising development costs and increased cost of researching and developing new potential drugs. In addition, low cost generic drugs and biosimilars (a biologic which is highly similar to an existing, approved biologic) continue to take market share with generics in 2018 making up more than 80% of the volume of drugs dispersed around the world. This trend is tempered by the challenges in manufacturing of biologics which are more complex to produce at large-scale as well as the more stringent approval process for biologics in comparison to generic drugs.

## 3.2 Drug Development Process

The development of a new drug progresses through a number of stages from the laboratory to approval by the FDA and finally market launch. For a new drug, these stages take between 10 and 15 years, have low probabilities of successful development and can involve expenditure in excess of US$1 billion dollars.

The key stages of the development of a drug are as follows:

- **Preclinical Testing**

  Laboratory research may lead to the identification of a potential compound. Preclinical studies involve *in vitro* and *in vivo* studies to determine the efficacy and safety of the proposed drugs in cellular and animal models. If successful, this stage may conclude with an application for an investigational new drug ("**IND**") from the FDA.

  The following clinical trials (Phases 1 to 3) establish the safety, efficacy and effectiveness of new drugs.

- **Phase 1 Clinical Trials – Initial safety testing**
  Phase 1 trials are small trials involving 20 to 100 healthy volunteers to determine toxicity and safety. Single dose trials (Phase 1a) are followed by multiple ascending dose trials (Phase 1b).
  These trials last several months and the FDA report approximately 70% of drugs progress to Phase 2.
- **Phase 2 Clinical Trials – Assess safety and efficacy in a small group of patients**
  Phase 2 trials are trials involving several hundred subjects with the targeted medical condition to explore efficacy and less common side effects. These tests are often conducted in comparison to placebo and with escalating doses.
  These trials may last up to two years and the FDA reports approximately 33% of drugs progress to the next phase.
- **Phase 3 Clinical Trials – Assess safety and efficacy in a large group of patients**
  These are large studies involving between 300 and 3,000 subjects with the targeted medical condition to confirm clinical safety and efficacy. Phase 3 trials also compare the drug with commonly used alternative treatments which may represent the standard of care.
  These trials generally last between one and four years and the FDA report approximately 25 to 33% of drugs progress to the next phase.
- **NDA/BLA Approval – Application for approval by the FDA**
  Upon successful completion of Phase 3 trials, a new drug application ("**NDA**") or biologics license application ("**BLA**") can be submitted to the FDA for review and approval. The purpose of this document is to demonstrate the clinical trials have proven the safety and efficacy of the drug in a sufficient number of recipients and that it is qualified to go to market. The review can be between six to ten months or longer with success rates at this phase of approximately 85%.
- **Phase 4 Trial – Post Approval Surveillance**
  These are any trials conducted after FDA approval of the drug.

## 3.3 Target Markets

Bionomics' drugs broadly target the psychiatry, neurology and oncology drug markets. Within CNS disorders, Bionomics' BNC375 program targets cognitive impairment in Alzheimer's disease while BNC210 targets PTSD and other stress and anxiety disorders more broadly. Bionomics' oncology-related compounds are BNC101, which is being assessed for the treatment of colorectal cancer by targeting cancer stem cells, and BNC105 which targets the treatment of various solid tumours and blood cancers.

### PTSD

PTSD is a complex mental health condition that some people develop after experiencing or witnessing a violent or life threating event. People with PTSD experience symptoms of reexperiencing, avoidance, depression and hyperarousal. The World Health Organization ("**WHO**") found a lifetime prevalence of PTSD in upper-middle income and lower-middle income countries to be 2.3% and 2.1% respectively whereas studies in the US and Canada indicated lifetime prevalence of 6.1% to 9.2% in the general adult population. Lifetime prevalence is the proportion of a population that has, at some point in their life, experienced PTSD. Market Research Future estimated the global PTSD market at US$7.3 billion in 2018 while Credence Research, Inc expects the PTSD market to reach $10.7 billion by 2026, growing at 4.5% per annum from 2018.

BNC210 is being developed by Bionomics and targets PTSD and other anxiety disorders.

### Alzheimer's disease

Alzheimer's disease is an irreversible, progressive neurodegenerative disease. It is the most common cause of dementia among the elderly, accounting for between 60% and 80% of cases in the US, Japan, the United Kingdom, Germany, France, Italy, and Spain. The WHO estimates that of 50 million people worldwide with dementia, 60% to 70% are affected by Alzheimer's disease. The Alzheimer's disease treatment market is expected to reach $17.7 billion by 2025, growing at 12.3% per annum according to iHealthcareAnalyst, Inc. Whereas GlobalData plc forecasts the market to reach $14.8 billion by 2026.

Bionomics partnered with Merck on the BNC375 program and this collaboration yielded clinical candidates for the treatment of cognitive dysfunction in Alzheimer's disease.

### Colorectal cancer

Colorectal cancer occurs in the large intestine or large bowel and is the third most common cancer globally. In the US, approximately 147,950 new cases are diagnosed annually with approximately 53,200 patient deaths yearly. Fortune Business Insights estimated the global colorectal cancer drug market in 2018 at US$9.3 billion.

BNC105 is a small molecule vascular disrupting agent and BNC101 is a monoclonal antibody targeting the cancer stem cell receptor LGR5. Both therapeutics have potential application in the treatment of colorectal cancer when used in combination with another anti-cancer therapy (BNC105) or when targeting the cancer stem cells (BNC101).

### Chronic lymphocytic leukaemia

BNC105 is a vascular disrupting agent which is a class of anti-cancer agents that has the potential to treat multiple indications. One indication which Bionomics considers to be promising for treatment using BNC105 is chronic lymphocytic leukaemia ("**CLL**"). CLL is the most prevalent adult lymphoid malignant cancer in the US with an estimated 20,940 new cases in 2018. The global CLL market was estimated to be US$7.7 billion in 2017 according to GlobalData plc.

# 4 PROFILE OF BIONOMICS

## 4.1 Background

Bionomics is an Australian listed biopharmaceutical company that was founded in 1996. It specialises in ion channel drug discovery and development for the treatment of CNS disorders (such as PTSD and Alzheimer's disease) and cancer. The company operates in Australia. Bionomics offers partnership and licensing arrangements to industry to enable the development and commercialisation of its therapeutics.

The current strategic focus of the company is on its CNS programs, particularly the development of its PTSD candidate, BNC210, and maximizing the value of its oncology programs through sale and/or out-licensing with external partners which fully fund the cost of clinical development.

## 4.2 Corporate history

A brief history of Bionomics is set out in the table below:

| Year | Event |
|---|---|
| 1996 | ♦ Incorporation |
| 2000 | ♦ Listed on the ASX |
| 2004 | ♦ Acquisition of Neurofit SAS, a French contract research business, for €1.25 million |
| 2005 | ♦ Acquisition of Iliad Chemicals Pty Ltd for $12 million (including contingent payment). Iliad owned the MultiCore Chemistry technology platform and Kv1.3 and BNC105 programs |
| 2008 | ♦ Partnership with Merck Serono S.A. ("**Merck Serono**") for treatment of multiple sclerosis based on KV1.3 compounds |
| 2012 | ♦ Partnership with Ironwood for worldwide development and commercialisation of BNC210<br>♦ Termination of agreement with Merck Serono to develop compounds from the Kv1.3 program<br>♦ Acquisition of Eclipse Therapeutics, Inc. (bringing BNC101 program) for US$10 million |
| 2013 | ♦ Partnership with Merck for chronic and neuropathic pain program |
| 2014 | ♦ Partnership with Merck for the development and commercial rights of the BNC375 program<br>♦ Acquisition of the business assets of Prestwick Chemical, a French provider of medicinal chemistry services and smart screening libraries (which became PC SAS), for €270,000<br>♦ Termination of partnership with Ironwood for BNC210 |
| 2015 | ♦ Positive data from BNC210 Phase 1 multiple ascending dose trial for anxiety and depression |
| 2016 | ♦ Announcement of positive results from Phase 2 trial of BNC210 in Generalised Anxiety Disorder |
| 2017 | ♦ Initiation of Phase 1 clinical trials with the Bionomics-Merck clinical candidate for the treatment of cognitive dysfunction in Alzheimer's disease |
| 2018 | ♦ Initiation of oncology assets (BNC101 and BNC105) monetisation<br>♦ Release of BNC210 Phase 2 PTSD trial result |
| 2019 | ♦ Announcement of Phase 2 trial of BNC105 in combination with nivolumab for the treatment of metastatic colorectal cancer<br>♦ Pharmacometric analysis of BNC210 Phase 2 PTSD trial data shows potential for patient benefit in treatment of PTSD symptoms when drug exposure is adequate<br>♦ Release of BNC210 exploratory Phase 2 Agitation in the Elderly study result<br>♦ Release of BNC210 solid dose formulation study results<br>♦ BNC210 was granted Fast Track designation by FDA for the treatment of PTSD |
| 2020 | ♦ Sale of Neurofit SAS and PC SAS through re-assignment of €1.8 million in debt<br>♦ Proposed recapitalisation led by Apeiron |

## 4.3 Development Pipeline

At present, Bionomics has six programs in the pipeline under two broad categories, CNS and oncology/cancer. Two of these programs (Nav 1.7/1.8 and Kv 3.1/3.2) are currently at very early stages of development (preclinical).

### CNS

*BNC210*

BNC210 is a small molecule that binds to an allosteric site of the alpha7 nicotine acetylcholine receptor, a protein that has been linked to stress responses. The molecule restricts the opening of the receptor and hence reduces the probability of the receptor being activated by acetylcholine.

Extensive studies have been conducted on the compound for the treatment of PTSD. Following the failure of the Phase 2 PTSD trial in 2018, Bionomics developed a tablet formulation to address the issue of under-exposure from the liquid suspension formulation which had a requirement to be administered with food. Pharmacokinetic clinical trials established that the tablet formulation of the drug can be administered without food and achieve the blood levels predicted, by an external pharmacometrics analysis, as necessary to meet primary endpoints for effectiveness in future clinical trials with PTSD patients. In 2019, the U.S. FDA granted Fast Track designation to the PTSD program. Fast Track designation is a scheme designed to facilitate and expedite development and review of new drugs to address unmet medical needs. Bionomics is now seeking funding for a second Phase 2 PTSD trial using the novel solid dose tablet formulation.

BNC210 has also been evaluated for other indications including anxiety, panic and agitation in the elderly. It has proven to be effective in suppressing panic symptoms in healthy volunteers and reducing brain reactivity and threat avoidance in patients with Generalised Anxiety Disorder in a Phase 2a clinical trial. So far, three clinical trials have been completed in patients in respect of BNC210 and none of these indications has been progressed beyond Phase 2 at this stage.

*BNC375 Program*

Compounds from this program are small molecule, positive allosteric modulators of the alpha7 nicotine acetylcholine receptor in the brain for the treatment of cognitive impairment in Alzheimer's disease and other conditions. Early studies showed the candidate to have memory enhancing properties in animals.

In 2014, Bionomics entered into an agreement with Merck for its BNC375 research program targeting cognitive dysfunction associated with Alzheimer's disease and other CNS conditions. Merck provided funding for the collaborative research which led to the identification of the clinical candidate and they are responsible for all clinical development of this and any associated compounds. Merck will also manage the global commercialisation of any products developed in the program including exclusive licensing. In return, Bionomics received an upfront payment of US$20 million, a milestone payment of US$10 million in 2017 for the first human dosed and is entitled to payments of up to US$506 million for specified milestones and additional royalties on any future product sales.

The therapeutic candidate is undergoing Phase 1 trials as Merck continues its evaluation. No information is currently available to Bionomics regarding the progress of this research.

*Nav1.7/1.8 Inhibitor Program*

The Nav1.7/1.8 Inhibitor program is Bionomics' ion channel program targeting chronic and neuropathic pain through suppression of Nav 1.7/Nav 1.8 voltage-gated sodium channels in neurons which are associated with normal and pathological pain states. The program is at preclinical stage and a lead candidate compound has been identified.

*Kv3.1/3.2 Activators Program*

The Kv3.1/3.2 activators program is an early-stage program focusing on cognitive dysfunction and social withdrawal in schizophrenia, autism and Alzheimer's disease by stimulating Kv3.1/Kv3.2 potassium ion channels in the pre-frontal cortex. Bionomics is currently conducting lead optimization and no candidate compound has been identified at this stage.

## Oncology/Cancer

### *BNC101*

BNC101 is a monoclonal antibody that targets the cancer stem cell receptor, LGR5, which is overexpressed in most solid tumours, including colorectal, breast and lung. Binding to the LGR5 receptor causes internalization. Bionomics acquired this candidate through the acquisition of Eclipse Therapeutics in 2013.

It has been assessed for the treatment of metastatic colorectal cancer (CRC). Preclinical studies indicated a high level of effectiveness at targeting and reducing cancer stem cell count and a better safety profile compared to rival compounds in development. The completion of a Phase 1 CRC trial established the recommended clinical dose for a Phase 2 trial which has yet to be commenced.

Other preclinical studies using BNC101 are being conducted by industry partners and academics.

### *BNC105*

BNC105 is a small molecule vasculature disrupting agent for the treatment of solid tumours and blood cancers which demonstrates multiple anti-cancer capabilities including disruption of blood vessels that nourish the tumours, upregulation of self-destructing proteins in cancer cells and suppression of tumour growth by inhibiting cancer cell proliferation.

This candidate has been assessed for 7 types of cancer. A summary of these trials is as follows:

| Indication | Status | Indication | Status |
|---|---|---|---|
| **Solid tumours** | | **Blood cancers** | |
| Renal cell cancer | Phase 2 Completed | Chronic lymphocytic leukaemia | Phase 1 Initiated |
| Mesothelioma | Phase 2 Completed | Acute myeloid leukaemia | Preclinical |
| Ovarian cancer | Phase 1 Completed | | |
| Colorectal cancer | Phase 2 Initiated | | |
| Melanoma | Phase 1/2 In planning | | |

Bionomics has stopped investing in the oncology programs to align with its strategic focus on treating CNS disorders. Continued development will occur through divestment and/or out-licensing of the oncology programs. Ongoing studies in relation to colorectal cancer, CLL and melanoma are funded by external parties such as Bristol-Myers Squibb (colorectal cancer), Leukaemia & Lymphoma Society (CLL) and the Victorian Cancer Agency (Melanoma). No data is currently available to Bionomics in relation to the ongoing studies.

## 4.4 Key personnel

The current board of directors of Bionomics comprises:

**Table 3: Bionomics Board**

| Directors | Experience |
|---|---|
| **Dr Errol De Souza**<br>Executive Chairman | Dr De Souza was appointed as Executive Chairman at Bionomics in November 2018. He previously served as Senior Vice President and Site Head of US Drug Innovation and Approval (R&D) at Aventis Pharmaceuticals, Inc. (now Sanofi) where he was responsible for the discovery and development of drug candidates through Phase 2a clinical trials for Central Nervous System and inflammatory disorders. He is currently a non-executive director of several public and private companies. He also served on multiple editorial boards, National Institutes of Health (NIH) Committees. |
| **Peter Turner**<br>Non-executive Director | Mr Turner is a board member of BioCSL Inc, a non-executive director of Virtus Health and the Chairman of NPS MedicineWise. He previously served as Chief Operating Officer in CSL Limited. Mr Turner has experience in commercialisation initiatives, R&D program management and risk management at an international level. |
| **David Wilson**<br>Non-executive Director | Mr Wilson has over 30 years' experience in global investment banking specialising in life sciences financing and M&A. He is currently the Executive Chairman and CEO of WG Partners, a specialist global life sciences corporate advisory firm based in London. |
| **Alan Fisher**<br>Non-executive Director | Mr Fisher has over 40 years in corporate finance specialising in M&A, business restructurings, strategic advice and capital raisings for small cap companies. He currently holds Chairman or non-executive director positions in various listed companies. |
| **Mitchell Kaye**<br>Non-executive Director | Mr Kaye joined Bionomics in November 2018. He is BVF Partners' ("**BVF**") nominee to the Board of Directors of Bionomics. Prior to BVF, he was the Managing Director at Navigant Capital Advisors, a financial and strategic advisory services firm and Head of Navigant's Financial Institutions Restructuring Solutions Team. He also served on the boards of several private and public companies including New York Alzheimer's Association. |

*Source: Bionomics*

## 4.5 Financial performance

The following analysis of Bionomics' financial performance is based on the audited statements of financial performance for the full years ended 30 June 2018 and 30 June 2019 and the reviewed financial performance for the six months to 31 December 2019.

**Table 4: Bionomics' financial performance**

| $'000 | FY18 | FY19 | 31-Dec-19 |
|---|---|---|---|
| **Revenue** | | | |
| Revenue | 200 | 906 | 100 |
| Other income | 6,569 | 6,458 | 1,677 |
| **Total revenue** | **6,769** | **7,364** | **1,777** |
| **Operating expenses** | | | |
| R&D | (20,576) | (10,558) | (3,168) |
| Administration | (9,292) | (7,506) | (1,760) |
| Occupancy | (1,417) | (1,886) | (549) |
| Compliance | (713) | (852) | (735) |
| **EBITDA** | **(25,229)** | **(13,438)** | **(4,434)** |
| Depreciation and amortisation expense | (1,413) | (1,571) | (1,089) |
| **EBIT** | **(26,642)** | **(15,009)** | **(5,523)** |
| Interest income | 575 | 283 | 54 |
| Interest expenses | (2,542) | (3,018) | (1,137) |
| Gain on contingent consideration | - | 7,170 | - |
| **Loss before tax** | **(28,609)** | **(10,575)** | **(6,606)** |
| Income tax benefit | 1,094 | 173 | 99 |
| **Loss from continuing operations** | **(27,515)** | **(10,402)** | **(6,507)** |
| Profit/(loss) from discontinued operations | 1,922 | 41 | (193) |
| **Loss after tax** | **(25,593)** | **(10,361)** | **(6,700)** |

*Source: Bionomics*
*Note: FY18 and FY19 figures have been adjusted to present profit/(loss) from discontinued operations separately and to adjust the US bank loan facility as discussed further below.*

In relation to the historical financial performance of Bionomics set out above:

- Bionomics has sustained operating losses in each of the periods presented above. This is consistent with the R&D-intensive nature of the industry which requires a high level of upfront investment in R&D and has long lead times to commercialisation.
- Profit and losses from discontinued operations relate to Bionomics' wholly owned French subsidiaries, Neurofit SAS and PC SAS, which were sold in the second half of FY20.
- Revenue consists of licensing revenue and rent (from sub-leasing parts of its facility). The slight increase in FY19 is attributable to licence revenue from Bionomics' participation in the Cancer Therapeutics Co-operative Research Centre (approx. $0.65 million) which licensed two targets to Pfizer Inc.
- Other income is primarily made up of foreign government grants and government research and development incentives which has declined due to reduced R&D activity as discussed below.
- R&D expenses comprise the largest cost for Bionomics. The noticeable decline in FY19 is due to completion of the Phase 2 PTSD trial. The low level of R&D spending in FY20 reflects the restructure of the company's operations and reduction in costs associated with the closure of its research facilities in Adelaide and the company's priority to restrict spending to CNS programs with ongoing oncology programs being funded externally.
- FY19 results included a $7.2 million non-recurring gain in relation to a reduction in the potential earn-out payable to the vendors of Eclipse Therapeutics, Inc. Without this adjustment the loss for FY19 would have been $7.2 million greater than presented above.
- Depreciation and amortisation expenses mainly pertain to the amortisation of acquired intellectual property including the MultiCore technology, the BNC101 drug candidate and the BNC105 drug

candidate. The six months to 31 December 2019 includes amortisation of a right-of-use asset following the adoption of AASB16 Leases from 1 July 2019.

- Following the amendment to the US Bank Loan facility that occurred during May 2020, Bionomics' management became aware that the final payment had not been accounted for appropriately, resulting in an understatement of the liability. Interest expense in FY18, FY19 and 31 December 19 has been increased by $507,000, $692,000, and $290,000 respectively.

## 4.6 Financial position

The audited statements of financial position as at 30 June 2018 and 30 June 2019 and the reviewed statement of financial position as at 31 December 2019 are set out below.

**Table 5: Bionomics' financial position**

| $'000 | 30-Jun-18 | 30-Jun-19 | 31-Dec-19 |
|---|---|---|---|
| **Current assets** | | | |
| Cash and cash equivalents | 24,930 | 13,985 | 8,611 |
| Trade and other receivables | 713 | 887 | 42 |
| Other financial assets | 550 | 550 | - |
| Inventories | 490 | 665 | - |
| R&D incentives receivable | 8,269 | 7,835 | 1,579 |
| Other assets | 968 | 1,210 | 326 |
| Assets classified as held for sale | - | - | 6,617 |
| **Total current assets** | **35,920** | **25,132** | **17,174** |
| **Non-current assets** | | | |
| Property, plant and equipment | 2,744 | 2,507 | 423 |
| Right-of-use assets | - | - | 1,145 |
| Goodwill | 12,470 | 12,761 | 12,774 |
| Other intangible assets | 13,548 | 12,874 | 12,213 |
| Other financial assets | 384 | 384 | 436 |
| **Total non-current assets** | **29,146** | **28,527** | **26,991** |
| **Total assets** | **65,066** | **53,659** | **44,166** |
| **Current liabilities** | | | |
| Trade and other payables | (5,860) | (4,191) | (1,068) |
| Borrowings | (5,696) | (8,452) | (7,888) |
| Lease liabilities | - | - | (747) |
| Provisions | (1,504) | (934) | (495) |
| Other financial liabilities | (138) | - | - |
| Other liabilities | (87) | (226) | - |
| Liabilities directly associated with assets classified as held for sale | - | - | (5,339) |
| **Total current liabilities** | **(13,285)** | **(13,802)** | **(15,537)** |
| **Non-current liabilities** | | | |
| Other payables | (364) | (742) | - |
| Borrowings | (16,243) | (9,847) | (6,203) |
| Lease liabilities | - | - | (415) |
| Provisions | (38) | (32) | (39) |
| Deferred tax liabilities | (3,003) | (2,938) | (2,266) |
| Contingent consideration | (15,682) | (9,799) | (9,909) |
| **Total non-current liabilities** | **(35,330)** | **(23,359)** | **(18,831)** |
| **Total liabilities** | **(48,615)** | **(37,161)** | **(34,368)** |
| **Net assets** | **16,451** | **16,498** | **9,798** |

*Source: Bionomics*
*Note: FY18, FY19 and 31 December 2019 figures have been adjusted for the change in the US bank loan facility as discussed further below.*

In relation to the historical financial position of Bionomics set out above, we note the following:

- Cash and cash equivalents decreased year on year to support ongoing R&D activities and fulfil repayment obligation on borrowings.
- Assets classified as held for sale and associated liabilities relate to Bionomics' wholly owned subsidiaries in France, which previously carried out all contract services. The sale was completed in March 2020. This is in line with the change in strategy to focus on its ion channel drug discovery programs targeting CNS deficits.
- Property, plant and equipment is made up of land, building, plant and equipment. The significant reduction in the first half of FY20 is a result of the reclassification of the fixed assets of Bionomics' French subsidiaries to assets classified as held for sale in anticipation of the divestment of the subsidiaries.
- Bionomics adopted AASB 16 Leases as at 1 July 2019. Right-of-use assets and corresponding lease liabilities are recognised for business premises leases.
- Other intangible assets include acquired intellectual property namely the MultiCore technology, the BNC101 drug candidate and the BNC105 drug candidate which are being amortised over their remaining useful lives of between 5 and 20 years.
- Other financial assets relate to two restricted term deposits held as security for a bank loan and bank guarantee.
- Total borrowings as at 31 December 2019 comprise:
  - Secured equipment mortgage loans of A$0.29 million, at an interest rate of between 5.2% and 5.55% with terms of three to five years.
  - A US Bank Loan facility of A$13.8 million (denominated in US$), at an effective interest rate of 12.95%. The loan is secured by Bionomics Group's assets. In May 2020, the loan terms were amended to defer principal repayment until November 2020 and extend final maturity until 1 January 2022. Following the amendment to the facility Bionomics' management became aware that the final payment had not been accounted for appropriately, resulting in an understatement of non-current borrowings. FY18, FY19 and 31 December 19 non-current borrowings have been increased (and net assets decreased) by $507,000, $1,199,000, and $1,489,000 respectively.
- Contingent consideration pertains to the potential cash earn-outs payable to the shareholders of Eclipse Therapeutics, Inc. which Bionomics acquired in FY13. The reduction in FY19 is the result of a change in revenue projections. The appreciation of US dollar against AU dollar led to the rise observed in the first half of FY20.

**Going concern risks**

In consideration of Bionomics' high debt to equity ratio and historical losses which are expected to persist in the near-term, Bionomics' auditors raised concerns in their review report for the half-year ended 31 December 2019 that Bionomics may not be able to meet its financial obligations without raising additional capital. The auditors also raised similar concerns on Bionomics' ability to continue as a going concern in their audit report included in the FY19 annual report.

We note that the Board of Directors has evaluated and pursued various capital raising alternatives.

## 4.7 Capital structure and shareholders

After the issue of shares to Apeiron as part of the First Apeiron Subscription, Bionomics will have a total of 626,185,872 ordinary shares on issue. The following table sets out the details of Bionomics' shareholders as at that date:

**Table 6: Bionomics' shareholders**

| Shareholder | Shares held | % Total shares |
|---|---|---|
| BVF Partners | 108,537,206 | 17.33% |
| Apeiron Investment Group Ltd | 81,500,000 | 13.02% |
| Merck Sharp & Dohme | 21,755,178 | 3.47% |
| Mr Archibald G Loudon | 20,000,000 | 3.19% |
| Mr & Mrs Anthony N Wales | 19,942,085 | 3.18% |
| Credit Suisse | 14,571,715 | 2.33% |
| Australian National University Investment Board | 9,142,425 | 1.46% |
| M&G Investments | 7,530,829 | 1.20% |
| Mr & Mrs Mark R Potter | 6,500,000 | 1.04% |
| Messrs Lyle R Holmes & Michael R Plisowsky | 6,426,293 | 1.03% |
| Messrs Stephen D A Carter & Peter S Hopkinson | 5,520,000 | 0.88% |
| Other shareholders | 324,760,141 | 51.86% |
| **Total** | **626,185,872** | **100.0%** |

*Source: Bionomics*

As at 23 June 2020, Bionomics had a total of 6.9 million options issued under its employee share option plan and employee equity plan. These share options have a weighted average exercise price of $0.41 with grant dates of between July 2010 and October 2017. The options vest equally over a five-year period from their grant dates, expiring between July 2020 and October 2027.

Bionomics also has a total of 40.6 million warrants on issue, 40.2 million of which were issued to four US institutional investors as part of a private placement in December 2015. These warrants have an exercise price of $0.59 expiring in December 2020. The remaining warrants were issued in relation to a secured bank loan with an exercise price of $0.53 or a lower number of shares for nil consideration, with the number of shares calculated based on a formula which takes into account the movement in the share price of the company from the date of issue to date of exercise of the warrant. These warrants will expire in October 2020.

## 4.8 Share price performance

The following chart shows the share market trading of Bionomics shares for the past three years:

**Figure 1: Bionomics' share performance**


*Source: CapIQ*

In relation to the trading of Bionomics shares over the last three years we note the following:

- Shares are thinly traded with an average daily volume of approximately 933,176 shares from June 2017 to the announcement of the Proposed Transaction.
- Between June 2017 and February 2018, the share price generally traded between 40 cents and 50 cents before gradually rising to its peak of 63 cents in April 2018. This was likely attributed to the positive market outlook for BNC210's development as Bionomics' completed recruitment for the Phase 2 trial for PTSD.
- The spike in trading activity on 2 October 2018 predominantly related to the announcement of BNC210 Phase 2 PTSD trial result. The failure to meet primary endpoint in the trial triggered a decline in the share price from 50 cents to 17 cents.
- In February 2019, Bionomics released further analysis of the Phase 2 PTSD trial supporting continued development of BNC210 for PTSD and other indications leading to a rise in trading activity and share price.
- The release of BNC210 exploratory Phase 2 agitation in the elderly study findings in June 2019 prompted a further decline in the share price to 4 cents on 26 June 2019. The share price subsequently recovered as trading activity picked up following the favourable result of BNC210 solid dosage studies in September 2019.
- There was a small increase in price and volume in November 2019 as a result of Bionomics announcing the Fast Track designation for BNC210.
- From November 2019 Bionomics' share price has been on a downward trend, trading at 4 cents in the month prior to the announcement of the Proposed Transaction on 2 June 2020. The announcement had a positive impact on the share price with an increase in price to approximately 7 cents since that date.

# 5 VALUATION METHODOLOGY

## 5.1 Available valuation methodologies

To estimate the fair market value of Bionomics we have considered common market practice and the valuation methodologies recommended in RG 111. There are a number of methods that can be used to value a business including:

- The discounted cash flow method
- The capitalisation of future maintainable earnings method
- Asset based methods
- Analysis of share market trading
- Industry specific rules of thumb.

Each of these methods is appropriate in certain circumstances and often more than one approach is applied. The choice of methods depends on several factors such as the nature of the business being valued, the return on the assets employed in the business, the valuation methodologies usually applied to value such businesses and the availability of the required information. A detailed description of these methods and when they are appropriate is provided in Appendix 2.

## 5.2 Selected methodology

In selecting an appropriate valuation methodology to value Bionomics, we have considered the following factors:

- Bionomics is neither an asset-based business nor an investment holding company, thus, an asset approach is not appropriate.
- Bionomics is not expected to have consistent cash flows over the forecast period, with cash outflows expected in the early years and cash inflows in later years. These changes are best captured in a discounted cash flow analysis.
- Bionomics shares are publicly traded in an informed market, although volumes are fairly low.
- We are not aware of any industry specific valuation methodologies appropriate to Bionomics.

Accordingly, we are of the opinion that the most appropriate methodology to value Bionomics is the discounted cash flow method with a cross-check to the recent share trading of the company.

# 6 VALUATION BEFORE PROPOSED TRANSACTION

## 6.1 Background

We have assessed the fair market value of a Bionomics share using the discounted cash flow method, with a cross-check based on an analysis of recent share trading of the company. This valuation has been made on a control basis in accordance with the requirements of RG111. In order to determine the value of a Bionomics share using the discounted cash flow method, we have:

- Determined suitable cash flow projections for Bionomics.
- Determined an appropriate discount rate.
- Assessed the value of any non-operating assets and liabilities.
- Considered the number of shares and potential shares on issue.
- Considered the application of a control premium / minority discount.
- Calculated the value of a Bionomics share based on the preceding analysis.

## 6.2 Cash flow projections

Bionomics' management have prepared a financial forecast for the period FY21 to FY43 (the "**Model**") and this forecast has been reviewed by Bionomics' audit and risk committee.

We have undertaken a detailed analysis of the forecasts and have discussed the key assumptions behind the forecast with Bionomics' management. We have considered supporting information to determine the reasonableness of the cash flow projections and considered the residual risks associated with achieving the forecast. Based on these discussions and analysis we consider the assumptions to be reasonable for the purposes of our analysis and have concluded that no reasonable set of alternative assumptions would change our opinion.

The Model has been prepared on the expectation that licensing agreements are entered into once a compound reaches its next major stage of development in line with Bionomics' current strategy for commercialisation.

The detailed projections are not included in this report due to commercial sensitivity. However, the key assumptions underpinning the projections and the information considered in assessing the reasonableness of these assumptions are discussed below and include:

| | | |
|---|---|---|
| 1. | **Milestone payments** | The potential milestone payments as a compound passes each stage of development |
| 2. | **Timeframe** | The time required to pass through each stage of development |
| 3. | **Probabilities** | The probability of successfully passing each stage of development |
| 4. | **Royalty rates** | The potential royalty payments on the successful commercialisation of the drug |
| 5. | **Future drug revenues** | The size of the addressable market and likely market share |

### 6.2.1 Milestone Payments

#### Assumptions

As stated in Section 3.2, the development of a new drug often requires expenditure of over US$1 billion. As a result, smaller biotechnology companies, such as Bionomics, generally licence their compounds to larger pharmaceutical companies and have them pay for the costs associated with the clinical trials and commercialisation. In return they receive payments as the compounds commence each subsequent stage of development. These payments are referred to as milestone payments.

The Model includes the following expected milestone payments:

- For BNC375, the agreement with Merck ("**Merck Agreement**") includes contracted development milestones, sales milestones and sales royalty rates. The announced deal size was up to US$506 million (of which US$30 million has been received) plus royalties. Further details of this agreement cannot be disclosed for confidentiality reasons.
- For the other assets in development with no contractual agreement in place (BNC210, BNC105 and BNC101) if the current trials are successful, it has been assumed a licensing deal is negotiated, which includes a combination of upfront proceeds and milestone payments linked to development and sales as well as ongoing royalties. The detailed assumptions have not been disclosed for confidentiality reasons.

#### Assessment

We have compared the milestone payments assumed by Bionomics for BNC375 with the Merck Agreement and did not identify any differences. We have compared the projected milestones for the other compounds with the Merck Agreement and with the following information available regarding average milestone payments obtained from independent sources:

**Table 7: Market data for milestone payments**

| US$ million | Development Milestones | | Sales Milestones | Ave Deal Size (exc Royalties) | Max Deal Size (exc Royalties) |
|---|---|---|---|---|---|
| | Upfront | Total | | | |
| BioPharm Dealmakers [1] | 8.5% | 52.3% | 47.7% | 144 | NP |
| BioSci BD [2] by development stage | | | | | |
| Phase 2 | 10.0% | 65.0% | 35.0% | 268 | 1,564 |
| Phase 3 | 13.0% | 67.0% | 33.0% | 312 | 1,100 |
| BioSci BD [2] by disease | | | | | |
| Cancer | 22.0% | 77.0% | 23.0% | 125 | 1,100 |
| Central Nervous System | 9.0% | 68.0% | 32.0% | 253 | 3,249 |
| Psychiatric | 11.0% | 78.0% | 22.0% | 393 | 1,240 |
| Clarivate / Corellis [3] | | | | | |
| All deals | NP | NP | NP | 371 | NP |
| Cancer | 7.1% | NA | NP | 700 | NP |

*Note: NP – Not published*
*Source:*
1. *BioPharma Dealmakers - Milestone payments in biopharma: negotiating an equitable value allocation (The article analyses 218 deals between 2009 and 2018.)*
2. *BioSci BD – Effective Royalty Rates in Biopharma Alliances. (The dataset included 267 deals between 2007 and 2016.)*
3. *JPM-deals-analysis-2019_webinar_FINAL*

It is important to note that each transaction is different and is dependent on the needs (and negotiating power) of both parties. This can influence the relative quantum of front-ended milestone payments versus back-ended royalty payments which can significantly impact the net present value of the transaction.

The assumptions used in the Model for deal size (i.e. total milestone payments) for BNC210 are considerably higher than the average deal size observed for psychiatric applications in the table above, but significantly below the maximum amounts noted. We consider this appropriate for a novel, first in class drug in a potentially very large market.

For BNC105 and BNC101 the assumptions used are slightly higher than the average deal size for Phase 3 and Phase 2 deals respectively in the table above but significantly below the maximum amounts noted.

Overall, we consider the projected milestone payments assumed are reasonable for the purpose of our analysis. Any reasonable range of alternative development milestones payments would not impact our conclusion on the Proposed Transaction.

### 6.2.2 Development timeframes

#### Assumptions

As described in Section 3.2 there are variations in the time a drug may expect to be in each stage of development. The Model assumes the following timeframes to reach FDA approval for each compound:

**Table 8: Assumed timeframes**

| Compound | Current phase of development | Assumed year of FDA approval | Years to FDA approval |
|---|---|---|---|
| **BNC210** | Phase 2 | First indication in FY 2028 | 8 years |
| **BNC105** | Phase 2 | First indication in FY 2029 | 9 years |
| **BNC101** | Phase 1 | First Indication in FY 2032 | 12 years |
| **BNC375** | Phase 1b | First indication in FY 2029 | 9 years |

#### Assessment

BNC210 was granted Fast Track designation by the FDA for the treatment of PTSD in November 2019, which may allow for accelerated approval. In April 2020 Bionomics announced it was preparing for Phase 2b trials.

These time frames assumed by Bionomics can be compared with the following information regarding approval timeframes obtained from independent sources:

**Table 9: Market data on development timeframes**

| Source | | Phase 1 | Phase 2 | Phase 3 | FDA Approval | TOTAL |
|---|---|---|---|---|---|---|
| JACC | Time in Phase | 2.5 Yrs | 2.0 Yrs | 3.5 Yrs | 2.0 Yrs | **10.0 Yrs** |
| | Cumulative | 2.5 Yrs | 4.5 Yrs | 8.0 Yrs | 10.0 Yrs | |
| FDA | Time in Phase | 0.5 Yrs | 1.5 Yrs | 2.5 Yrs | nr | **4.5 Yrs** |
| | Cumulative | 0.5 Yrs | 2.0 Yrs | 4.5 Yrs | 4.5 Yrs | |
| Taconic | Time in Phase | 1.6 Yrs | 2.5 Yrs | 2.5 Yrs | nr | **6.6 Yrs** |
| | Cumulative | 1.6 Yrs | 4.1Yrs | 6.6 Yrs | 6.6 Yrs | |
| PLOS | Time in Phase | nr | nr | nr | nr | **7.0 Yrs** |
| | Cumulative | nr | nr | nr | nr | |
| NCBI | Time in Phase | 2.5 Yrs | 2.0 Yrs | 2.0 Yrs | 1.5 Yrs | **8.0 Yrs** |
| | Cumulative | 2.5 Yrs | 4.5 Yrs | 6.5 Yrs | 8.0 Yrs | |
| **Average** | **Time in Phase** | **1.8 Yrs** | **2.0 Yrs** | **2.6 Yrs** | **1.8 Yrs** | **8.2 Yrs** |
| | **Cumulative** | **1.8 Yrs** | **3.8 Yrs** | **6.4 Yrs** | **8.2 Yrs** | |

*Note:*
*nr = not reported*
*In some case the timeframes have been calculated based on the reported cumulative timeframes and where a range has been provided, the midpoint has been used.*
*Source:*

1. *JACC: Basics to Translational Science – Drugs, Devices and the FDA. Part 1 – An Overview of Approval Process for Drugs (article published 2016)*
2. *FDA Drug development process (website accessed 2020)*
3. *Taconic Biosciences – The Drug Development Process (website accessed 2020)*
4. *PLOS Timelines of translational science: From technology initiation to FDA approval (article published 2017)*
5. *NCBI: Omics – Informed Drug and Biomarker Discovery (article published 2016)*

The time frames in the Model are longer than the comparable market data presented above. For BNC375, this is not unreasonable as the original licensing agreement was signed in 2014 and Merck has continued - Phase 1 trials significantly longer than the industry average. For the other compounds, the above market data does not include the time necessary to identify and negotiate a commercialisation partner (which would not be necessary for large pharmaceutical companies whose compounds are likely to be included in the above data sets). This has so far not been possible for BNC105 and BNC101 despite considerable efforts as the process is dependent on finding and negotiating an acceptable deal with a major pharmaceutical company, which can take a number of years based on Bionomics' previous experience. Furthermore, the development of these compounds is only being progressed as Bionomics identifies external partners which fully fund the costs of clinical development.

Based on the above, we consider the development timeframes assumed by Bionomics are reasonable for the purpose of our analysis. Any reasonable range of alternative development timelines would not impact our conclusion on the Proposed Transaction.

### 6.2.3 Probabilities

#### Assumptions

The Model includes the following probabilities of satisfying the requirements of each stage of development:

**Table 10: Assumed probabilities of clinical success**

| Compound | Current phase of development | Cumulative Probability of Success | | | |
|---|---|---|---|---|---|
| | | Phase 1 to 2 | Phase 2 to 3 | Phase 3 to NDA | FDA Approval |
| **BNC210** | Phase 2 | N/A | 100.0% | 30.1% | 18.2% |
| **BNC105** | Phase 2 | N/A | 64.0% | 18.0% | 8.0% |
| **BNC101** | Phase 1 | 75.0% | 48.0% | 14.0% | 6.0% |
| **BNC375** | Phase 1b | 62.7% | 18.8% | 11.4% | 9.4% |

*Note: Probabilities disclosed relate to first indication only. Lower probabilities have been used for second indications.*

### Assessment

As described in Section 3.2 there are a number of published sources for probabilities of success for drugs passing through each stage of development. The probabilities of success assumed by Bionomics can be compared with the following information regarding probabilities of success obtained from independent sources:

**Table 11: Market data on clinical trial success rates**

| Source | | Phase 1 to 2 | Phase 2 to 3 | Phase 3 to NDA | FDA Approval | TOTAL Cumulative |
|---|---|---|---|---|---|---|
| JACC [1] | Probability of phase | 59.5% | 35.7% | 61.2% | 90.0% | **11.7%** |
| | Cumulative | 59.5% | 21.2% | 13.0% | 11.7% | |
| FDA [2] | Probability of phase | 70.0% | 33.0% | 27.5% | 87.5% | **5.6%** |
| | Cumulative | 70.0% | 23.1% | 6.4% | 5.6% | |
| ScienceMag [3] | Probability of phase | 50.0% | 25.0% | 70.0% | 88.5% | **7.7%** |
| | Cumulative | 50.0% | 12.5% | 8.8% | 7.7% | |
| Bio [4] | Probability of phase | 63.2% | 30.7% | 58.1% | 85.3% | **9.6%** |
| | Cumulative | 63.2% | 19.4% | 11.3% | 9.6% | |
| CTS [5] | Probability of phase | 75.1% | 50.0% | 58.6% | 87.5% | **19.3%** |
| | Cumulative | 75.1% | 37.6% | 22.0% | 19.3% | |
| Ventue Valuation [6] | Probability of phase | 64.0% | 32.0% | 61.0% | 86.0% | **10.7%** |
| | Cumulative | 64.0% | 20.5% | 12.5% | 10.7% | |
| Nature Biotechnologyn [7] | Probability of phase | 64.0% | 32.0% | 60.0% | 83.0% | **10.2%** |
| | Cumulative | 64.0% | 20.5% | 12.3% | 10.2% | |
| **Average** | **Probability of phase** | **63.6%** | **34.4%** | **56.1%** | **87.5%** | **10.7%** |
| | **Cumulative** | **63.6%** | **21.9%** | **12.3%** | **10.7%** | |

*Note: Where a range has been provided, the midpoint has been used. Where no data was available for FDA approval, the average result was used.*

*Source:*

1. *JACC: Basics to Translational Science – Drugs, Devices and the FDA. Part 1 – An Overview of Approval Process for Drugs (article published 2016)*
2. *FDA Drug development process (website accessed 2020)*
3. *SienceMad.org: Science Translational Medicine Blog "In The Pipeline" – The Latest on Drug Failure and Approval Rates (article published 2019)*
4. *Biotechnology Innovation Organisation – Clinical Development Success Rates 2016 – 2015 (article published 2016)*
5. *Clinical and Translational Science -The Current Status of Drug Discovery and Development as originated in US Academia (article published 2018)*
6. *Venture Valuation – Valuation of biotechnology companies, assets and products for financing or licencing (published 2019).*
7. *Nature Biotechnology: - Clinical development Success Rates for Investigational drugs (article published 2014)*

The probability of success varies by disease and the Biotechnology Innovation Organization publication and the Nature Biotechnology reports provide additional information on the probability of success as follows:

- For psychiatry Phase 2 to approval of 11.6%, increasing to 49% for Phase 3 to approval.
- For oncology Phase 1 to approval of 5.1% and for Phase 2 to approval of 8.1%.
- For neurology Phase 1 to approval of 8.4% and Phase 2 to approval of 14.2%.

The cumulative success probabilities in the Bionomics model are broadly consistent with the independent data (after adjusting for disease area and the current stage of development) and accordingly are reasonable for the purpose of our analysis. Furthermore, any reasonable range of alternative probabilities does not impact our conclusion on the Proposed Transaction.

### 6.2.4 Royalty rates

#### Assumptions

In addition to milestone payments, as part of the licensing agreement drug developers often receive royalties on the sales revenue.

The Model includes the following royalty rates:

- For BNC375, the contracted royalty rates from the Merck Agreement which have not been disclosed for confidentiality reasons.
- For the other assets in development with no contractual agreement (BNC210, BNC105 and BNC101) it has been assumed the licensing deals to be negotiated including royalty ranges which increase as the level of revenue increases. The royalty rates differ for each compound but range from a low of 5% to a high of 14%.

#### Assessment

The royalty rates assumed in the Model can be compared with the following market data:

**Table 12: Market data on royalties**

| Disease | Compared to | Sample Size | Royalty Rates | | | |
|---|---|---|---|---|---|---|
| | | | Low | Median | Average | High |
| **Mental Health** | BNC210 | 8 | 1.0% | 2.9% | 5.7% | 20.0% |
| **Cancer** | BNC105 / BNC101 | 148 | 0.5% | 4.0% | 5.1% | 40.0% |
| **Alzheimer** | BNC375 | 13 | 2.0% | 4.0% | 5.7% | 20.0% |

*Note: Where the sources data included a range, the midpoint has been used.*

*Source:*
*1. www.RoyaltyRange.com*

The assessed royalty rates in the Model are generally higher than the median and average independent data, but significantly lower than the highest data point observed in the independent data. We consider this appropriate because:

- for BNC375, the royalty rate is already contracted with Merck
- BNC210 is a novel, first in class drug in a potentially very large market and would be in a strong position to negotiate a higher royalty rate range
- BNC105 has used a higher amount of expected milestone payments and an offsetting lower royalty rate whereas BNC101 has used a lower amount for expected milestone payments and an offsetting higher royalty rate

Accordingly, we consider the assumed royalties are reasonable for the purpose of our analysis. Furthermore, any reasonable range of alternative royalties does not impact our conclusion on the Proposed Transaction.

### 6.2.5 Future drug sales

The following table includes both Bionomics' management peak revenue assumptions, and the information supporting those assumptions:

| Compound | Management Assumption | Supporting Information |
|---|---|---|
| **BNC210** | US$3.5 billion peak revenue in FY38 | The global PTSD market was estimated at US$7.3 billion in 2018. |
| **BNC105** | US$2.0 billion peak revenue in FY36 | The global colorectal cancer drug market was estimated at US$9.3 billion in 2018 and the global CLL market was estimated to be US$7.7 billion in 2017. |
| **BNC101** | US$2.0 billion peak revenue in FY42 | The global colorectal cancer drug market was estimated at US$9.3 billion in 2018. |
| **BNC375** | US$4.8 billion peak revenue in FY40 | The Alzheimer's disease treatment market is expected to reach $17.7 billion by 2025, growing at 12.3% per annum. |

Except for BNC210 the drugs are forecast to achieve relatively low implied market shares. For BNC210 it is a novel, first in class drug in a potentially very large market and there are additional target markets with unmet needs including major depressive disorder, bipolar disorder, social anxiety disorder and generalised anxiety disorder.

Accordingly, we consider the assumed royalties are reasonable for the purpose of our analysis. Due to how far into the future the drug sales are, the probabilities of success applied to each development stage and the discount rate used, the assumed royalty rates have limited impact on our valuation conclusions. No reasonable change in the expected market size, market share or revenue would change our opinion on the Proposed Transaction.

## 6.3 Other

### Royalties Payable

The Model includes assumptions regarding costs payable if the drugs are successfully developed. These include:

- For BNC210, payments to Ironwood in consideration for the termination of the research collaboration and license agreement and the return of the asset to Bionomics. The payments are based on the forecast probability adjusted revenues and contracted royalty rates.
- For BNC101, payments to Eclipse for a share of forecast probability adjusted milestone payments and sales royalties received based on the contractual agreement.

### Development costs

For BNC210 development costs have been included up to the assumed license point. These are forecast to be between US$4 million and US$6 million per annum for the next three years.

### Corporate costs

Corporate costs include the cost of head office staff, occupancy costs, general administration costs and compliance costs (associated with operating a listed company). These have been forecast to be approximately $6.4 million per annum and increase in line with inflation.

## 6.4 Forward exchange rate

The projections for revenue, royalties payable and development costs in the Model are in US dollars. We have converted these amounts to Australian Dollar based on US Dollar futures pricing as shown below:

**Table 13: AUD/USD exchange rates**

| | FY21 | FY22 | FY23 | FY24 | FY25 |
|---|---|---|---|---|---|
| AUD to USD futures | 0.69 | 0.69 | 0.69 | 0.68 | 0.68 |

*Source: S&P Capital IQ.*

## 6.5 Discount rate

We have applied a discount rate of between 16.0% and 18.0% (nominal, post-tax, weighted average cost of capital ("**WACC**")) to the projected cash flows. We calculated the discount rate using the capital asset pricing model ("**CAPM**") based on the assumptions set out in Appendix 3.

## 6.6 Non-operating assets and liabilities

In order to assess the equity value of Bionomics it is necessary to identify any non-operating assets and liabilities not used in generating the enterprise value. These can be:

- **Surplus assets**: assets held by the company that are not utilised in its business operation. This could be investments, unused plant and equipment held for resale, or any other assets that is not required to run the operating business. It is necessary to ensure that any income from surplus assets (i.e. rent / dividends) is excluded from the business value.
- **Net debt**: comprising debt used to fund a business, less surplus cash held by the company.
- **Other non-operating liabilities**: liabilities of a company not directly related to its current business operations, although they may relate to previous business activities, for example legal claims against the entity. We have not identified any material non-operating liabilities owed by Bionomics.

### Surplus assets

As at 31 May 2020, Bionomics had $1.6 million in R&D tax incentives receivable.

### Net debt

As at 31 May 2020, Bionomics had $12.1 million in loans and equipment mortgages and $1.9 million in surplus cash. We have included an additional $3.26 million in cash received from the First Apeiron Subscription since then. The lease liability associated with the property lease is not regarded as borrowings as it is offset by a right of use asset. The net debt position of Bionomics is set out in the table below:

**Table 14: Net debt summary**

| $'000 | |
|---|---|
| Cash | 1,873 |
| Debt | (12,071) |
| Cash from First Apeiron Subscription | 3,260 |
| **Net debt** | **(6,938)** |

*Source: Bionomics*

### Non-operating liabilities

Bionomics' non-current contingent consideration is not included as a non-operating liability as the cash flows are directly linked to revenue and have been included in the forecast cash flows.

## 6.7 Control premium

A premium for control can be defined as an amount or a percentage by which the pro-rata value of a controlling interest exceeds the pro-rata value of a non-controlling interest in a business enterprise, to reflect the power of control. The requirement for an explicit valuation adjustment for a premium for control depends on the valuation methodology and approach adopted. This valuation is based on the discounted cash flow approach, which is premised on the ability to control the assets of an entity and therefore incorporates any relevant premium for control. Thus, no further adjustment is required.

## 6.8 Shares on issue

As detailed in Section 4.7 after the First Apeiron Subscription (as at 15 June 2020), Bionomics had a total of 626,185,872 ordinary shares on issue. We have not included any potential shares from the exercise of the options and warrants on issue as they are significantly out of the money in comparison to both our assessed value and to Bionomics' share price.

## 6.9 Discounted cash flow summary

The cash flow projections and discount rate assumption set out above result in a valuation of Bionomics of $0.11 to $0.13 per share, calculated as follows:

**Table 15: Assessed value of a Bionomics share before the Proposed Transaction**

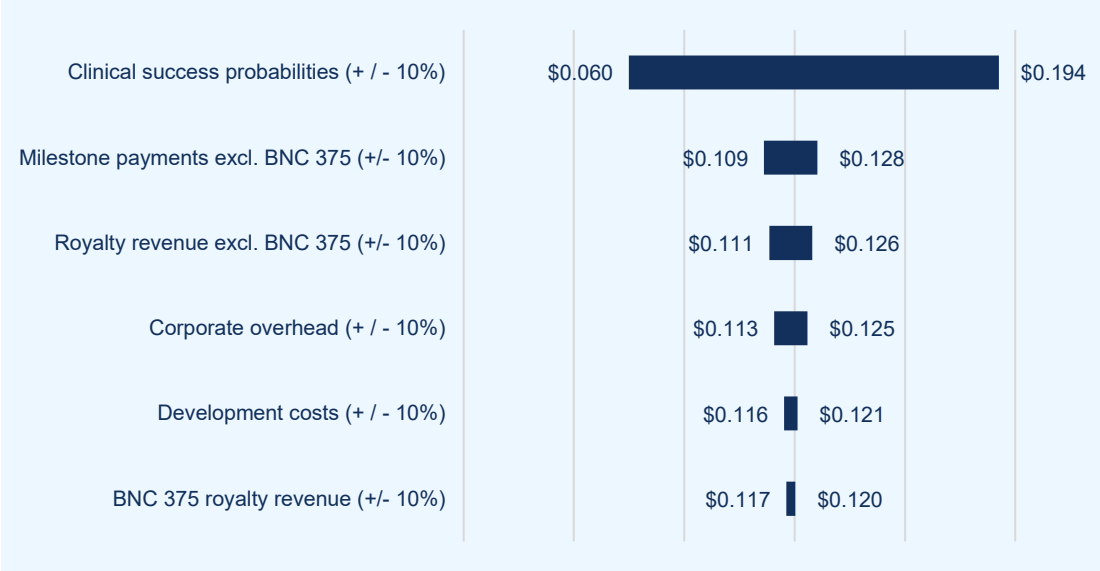
| $'000 | Low | High |
|---|---|---|
| Enterprise value | 71,354 | 87,966 |
| Net debt | (6,938) | (6,938) |
| Surplus assets | 1,579 | 1,579 |
| **Equity value** | **65,994** | **82,607** |
| Ordinary shares on issue ('000) | 626,186 | 626,186 |
| **Assessed value per share on a control basis ($)** | **0.105** | **0.132** |

*Source: Leadenhall analysis*

## 6.10 Sensitivity analysis

The analysis presented above is sensitive to a number of key assumptions in the Model. We have therefore presented a sensitivity analysis of the midpoint of the assessed value per share for Bionomics to those assumptions in the following figure:

**Figure 2: Sensitivity analysis - value per share of Bionomics**




*Source: Leadenhall analysis*

As highlighted above the key sensitivity is the probability of clinical success. The probabilities used have been benchmarked against a number of independent studies giving some comfort that they are reasonable. As Bionomics' clinical studies progress over time these probabilities will change significantly, thus the value of a Bionomics share in future will also change significantly depending on the outcomes of its clinical trials.

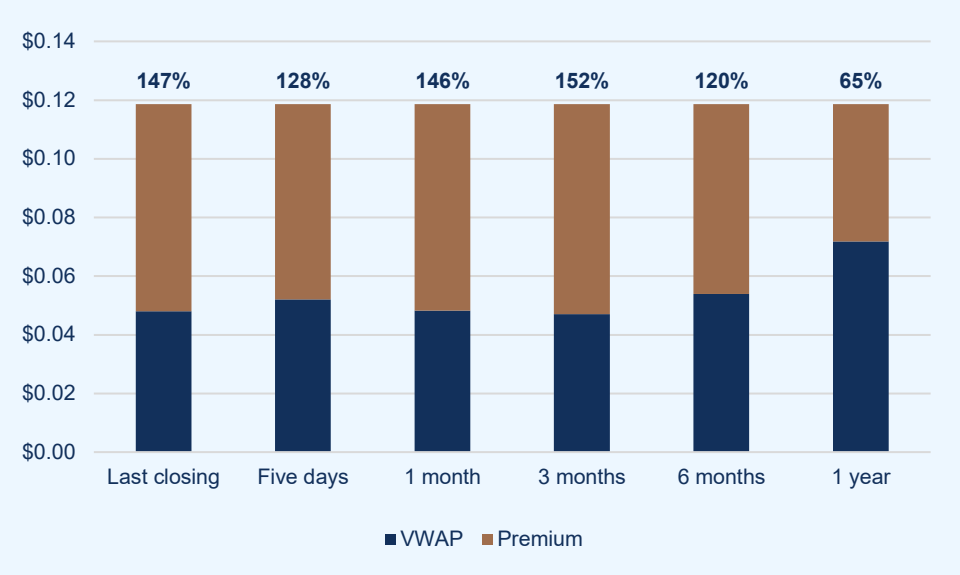
## 6.11 Analysis of share trading

Market trading in Bionomics shares prior to the announcement of the Proposed Transaction provides an indication of the market's assessment of the value of Bionomics on a minority basis. We have presented an analysis of recent trading in Bionomics shares in Section 4.8 above. When assessing market trading, it is necessary to consider whether the market is informed and liquid. In this regard, we note:

- Bionomics shares are reasonably widely dispersed. However, daily values traded over the past three years are approximately $150,000 on average, with the average declining to approximately $100,000 over the year prior to the announcement of the Proposed Transaction. This level is below the level at which many institutional investors may wish to trade and may be seen as a deterrent for other significant investors.
- Bionomics is a listed company with continuous disclosure obligations under the ASX Listing Rules, thus the market is reasonably informed about its activities. However, there is significant uncertainty associated with the successful commercialisation of Bionomics' pipeline of compounds. Investing in Bionomics may therefore be perceived as speculative.

As a result of these factors, we consider the market trading to be reasonably well-informed but only moderately liquid. We have therefore undertaken only a high level analysis of share market trading by assessing the level of control premium implied by our valuation range compared to the volume weighted average price ("**VWAP**") of a Bionomics share over the year leading up to the announcement of the Proposed Transaction, as set out in the figure below.

**Figure 3: Implied control premium to market trading prices**




*Source: Capital IQ and Leadenhall analysis*

The generally observed range for control premiums is between 20% and 40%. In addition, the average takeover premium observed for transactions in the healthcare sector in Australia between 2007 and 2017 ranged from 18% to 99%. Further information on observed control premiums and takeover premiums is included in Appendix 5.

The control premium implied by our assessed value of a Bionomics share exceeds the generally observed range as well as transaction premiums observed in the healthcare sector. However, we do not consider this to be unreasonable given the substantial risks in successfully developing a product from Bionomics' pipeline. It is likely that the market was also pricing in significant funding and/or insolvency risk for the company prior to the announcement of the Proposed Transaction given the significant debt overhang and funding pressures faced by Bionomics.

## 6.12 Conclusion on value before Proposed Transaction

Based on our DCF analysis and share trading analysis, we have selected a valuation range for a share in Bionomics of between $0.11 and $0.13, on a control basis.

# 7 VALUATION AFTER PROPOSED TRANSACTION

## 7.1 Introduction

If the Proposed Transaction is approved, Shareholders will continue to own a share in Bionomics. However, RG111.25 requires an independent expert to evaluate an issue of securities under s611 that has a similar effect to a takeover offer as if it was a takeover offer.

Accordingly, the value of a Bionomics share after the Proposed Transaction has been assessed on a minority interest basis (i.e. excluding a control premium) as Shareholders would own a minority stake in Bionomics should the Proposed Transaction occur.

## 7.2 Assessed value of Bionomics after Proposed Transaction

In order to assess the value of a Bionomics share after the Proposed Transaction we have assessed:

- The value of Bionomic before the proposed transaction on a control basis (Section 6).
- The cash raised from the Second Apeiron Subscription, Pro-rata Issue, Underwritten Issue and exercise of the Apeiron Warrants.
- The number of shares expected to be on issue after the Proposed Transaction.
- A discount for lack of control as Shareholders would own a minority stake in Bionomics should the Proposed Transaction occur.

The value of a Bionomics share after the Proposed Transaction is as follows:

**Table 16: Value of a Bionomics share after the Proposed Transaction**

| $'000 | Low | High |
|---|---|---|
| Equity value of Bionomics on a control basis | 65,994 | 82,607 |
| Cash received from: | | |
| - Second Apeiron Subscription | 2,173 | 2,173 |
| - Pro-rata Issue | 2,173 | 2,173 |
| - Underwritten Issue | 15,000 | 15,000 |
| - Apeiron Warrants | 9,000 | 9,000 |
| **Total equity value after Proposed Transaction** | **94,341** | **110,954** |
| Total number of shares after the Proposed Transaction (millions) | 1,135 | 1,135 |
| **Value per share after Proposed Transaction on a control basis ($)** | **0.083** | **0.098** |
| DLOC at 20% to 25% | (0.02) | (0.02) |
| **Value per share after Proposed Transaction on a liquid minority basis ($)** | **0.062** | **0.078** |

*Source: Leadenhall analysis*

### Value of Bionomics before the Proposed Transaction on a control basis

As discussed in Section 6, we have assessed the equity value of Bionomics before the Proposed Transaction on a control basis to be between $66.0 million and $82.6 million.

### Cash to be subscribed / raised

As discussed in Section 1.2, the Proposed Transaction involves a number of stages which involve Bionomics raising at least a further $17.1 million from the Second Apeiron Subscription and the Underwritten Issue (it is possible more could be raised as the Underwritten Issue is at no less than A$0.06 per share). In determining the equity value of Bionomics after the Proposed Transaction, we have assumed that:

- $2.2 million is raised from the Second Apeiron Subscription.
- $2.2 million is raised from full subscription to the Pro-rata Issue since the offer price of $0.04 per share is below our assessed value per share in Bionomics and recent market trading in Bionomics shares. Assuming no participation in the Pro-rata Issue by Shareholders does not impact our conclusion on the Proposed Transaction.

- $15.0 million is raised from full subscription to the Underwritten Issue since the issue is underwritten by Apeiron, thus any shortfall in subscription would be taken up by Apeiron or placed by it.
- The Apeiron Warrants will be exercised for $9.0 million in cash (150 million warrants at an exercise price of $0.06 per warrant) as they are in the money based on our assessed value per share in Bionomics. Deducting the value of the warrants (assessed using an options valuation methodology) from the total equity value of Bionomics instead would have no impact on our conclusion on the Proposed Transaction.

### Shares on issue after the Proposed Transaction

As discussed in Section 4.7, there are currently 626,185,872 shares on issue. As the exercise prices of the options and warrants on issue before the Proposed Transaction significantly exceed Bionomics' current share price and our assessed value per share, we have assumed none of the options and warrants currently on issue are converted to shares in Bionomics.

As discussed above, we have assumed the issues of the following shares and warrants as part of the Proposed Transaction:

- **Second Apeiron Subscription:** 54.3 million shares.
- **Pro-rata Issue:** 54.3 million shares.
- **Underwritten Issue:** 250 million shares.
- **Apeiron Warrants:** 150 million warrants which are assumed to convert to 150 million shares in Bionomics for the purpose of our evaluation.

The total number of shares after the Proposed Transaction is set out below:

**Table 17: Number of shares after the Proposed Transaction**

| '000 | |
|---|---|
| Shares on issue before the Proposed Transaction | 626,186 |
| Shares issued from: | |
| - Second Apeiron Subscription | 54,333 |
| - Pro-rata Issue | 54,333 |
| - Underwritten Issue | 250,000 |
| - Apeiron Warrants | 150,000 |
| **Total number of shares after Proposed Transaction** | **1,134,852** |

*Source: Bionomics and Leadenhall analysis*

### Discount for lack of control ("DLOC")

As Bionomics' current shareholders would be minority holders if the Proposed Transaction completes, consistent with the requirements of RG 111, the value of the consideration must be determined on a minority interest basis. In order to estimate the value of a minority interest it is necessary to apply a DLOC to the value of a 100% interest in the business. This discount takes into account the lack of control that a minority shareholder has over the affairs of a company and is described in more detail in Appendix 5.

A DLOC is effectively the inverse of a control premium. In selecting a suitable DLOC we have considered:

- Australian studies have indicated that control premiums generally range from 20% to 40%. This implies a range for DLOC of approximately 15% to 30%.
- Under the Proposed Transaction there would be two Apeiron representatives on the board, thus increasing the overall DLOC.
- The Proposed Transaction would give Apeiron a shareholding in Bionomics of between 25% and 52%. Thus, its degree of control at a shareholder level would be significant but not absolute as it would be able to block special resolutions at a minimum but would be unable to pass a special resolution on without the support of other shareholders. This would imply a higher DLOC.
- Other than BVF Partners (who hold 17% of the shares in Bionomics prior to the Proposed Transaction) shares in Bionomics are widely dispersed over a large number of holders. A wider dispersion of holdings decreases the DLOC.

- BVF Partners holds a seat on the board of Bionomics which would limit the degree of control exerted by Apeiron over the company, thus reducing the DLOC.
- Bionomics does not pay dividends. A low dividend pay-out typically produces a higher DLOC.

As a result of these considerations, we have selected a DLOC of 20% to 25%. The assumed DLOC does not impact our conclusion on the Proposed Transaction.

## 7.3 Cross-check

Market trading in Bionomics since the announcement of the Proposed Transaction may provide an indication of the market's assessment of the value of Bionomics after the Proposed Transaction (on a minority basis). When assessing market trading, it is necessary to consider whether the market is informed and liquid. In this regard, we note:

- Average daily values traded have increased to approximately $180,000 since announcement of the Proposed Transaction.
- To date, the market has been provided with limited information concerning Apeiron which is a private, family office focussed on investing in life sciences. Furthermore, significant uncertainty remains in relation to the successful commercialisation of Bionomics' pipeline of products. In this respect, while the recapitalisation of Bionomics is likely to ease concerns over its solvency, investing in Bionomics continues to remain a speculative venture.

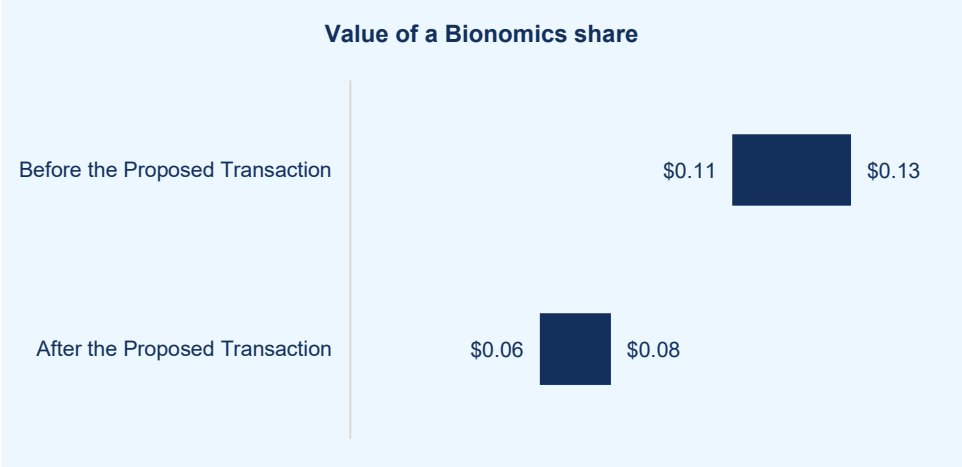
As a result of these factors, we consider the market trading to be reasonably well-informed and moderately liquid. After the Proposed Transaction was announced Bionomics shares have traded in the range of 6.1 cents to 7.5 cents with a VWAP of 6.8 cents. This is consistent with our assessed valuation.

# 8 EVALUATION

## 8.1 Fairness

We have assessed the Proposed Transaction as fair if the fair market value of a Bionomics share before the Proposed Transaction on a (control basis) is less than or equal to the fair market value of a Bionomics share after the Proposed Transaction (on a minority basis). This comparison is shown in the following figure:

**Figure 4: Assessment of fairness**




*Source: Leadenhall analysis*

As the value of a Bionomics share after the Proposed Transaction is less than the assessed value of a Bionomics share before the Proposed Transaction, we have assessed the Proposed Transaction as being not fair.

## 8.2 Reasonableness

In accordance with ASIC guidelines, we have defined the Proposed Transaction as reasonable if it is fair, or if despite not being fair, the advantages to Shareholders outweigh the disadvantages. We have therefore considered the following advantages and disadvantages of the Proposed Transaction to Shareholders.

### Advantages

**Avoids likely insolvency**
Due to ongoing cash outflows, and the requirement to commence repayment of its US$6.8 million loan from Silicon Valley Bank and Oxford Finance LLC in November 2020, in the absence of the Proposed Transaction or an alternative injection of cash, Bionomics would likely be unable to continue to meet its obligations as they fall due in a matter of months. In this scenario it is unlikely that Shareholders would receive any value for their Bionomics shares.

The Proposed Transaction provides the funding required for Bionomics to repay its debt and continue to pursue clinical research into its compounds, in particular the Phase 2 trial for BNC210. If this trial is successful, shareholders will have an opportunity to participate in any future cash distributions or share price appreciation from a licensing transaction.

**Capital raising above VWAP**
For the month prior to the announcement of the Proposed Transaction Bionomics shares traded at a VWAP of $0.048. Under the Proposed Transaction, the average price for the capital raising is A$0.051 (before considering the warrants, which are exercisable at $0.06). This is in comparison to a number of recent capital raisings by other listed companies at discounts in the order of 10% to 20% to recent trading.

**Best alternative available**
Bionomics' board has conducted an extensive exercise seeking to raise capital for Bionomics in order to repay debt and fund future clinical trials. The Proposed Transaction is the only transaction that has arisen from that process that has progressed to an executable stage.

The review undertaken by the board included:

- Bionomics board and management team has expended a significant effort seeking out-licensing deals similar to the Merck Agreement for its non-partnered programs. Despite these efforts no proposals have been received. We have been advised that the potential counterparties approached consider Bionomics' compounds to be at too early a stage of development for investment at present. We understand that once further clinical trials are successfully completed there is a much higher likelihood of Bionomics being able to negotiate partnering deals for its other compounds. The Proposed Transaction will provide the funding needed to advance these clinical trials.
- The board sought to monetise the potential future cash flows from the Merck Agreement. After extensive negotiations, they were unable to conclude a transaction.
- We have also been informed that Bionomics' major shareholders, whilst potentially supportive of a limited further investment via a rights issue or similar pro-rata capital raising, would not be able to commit to a capital raising similar in size to the Proposed Transaction (over $20 million) without a significant discount to recent market trading. Thus, a significant capital raise from existing shareholders would be more dilutive to shareholders that did not participate than the Proposed Transaction.

Further, the Proposed Transaction was announced 2 June 2020 and we are advised that no alternatives have been presented to Bionomics since that date. Given Bionomics' short-term requirement for additional funding, we consider it to be unlikely that a superior proposal to the Proposed Transaction could be found.

**Impact on share price**
Since the Proposed Transaction was announced market trading in Bionomics shares increased significantly. In the month before announcement the VWAP was $0.048. Since the Proposed Transaction was announced Bionomics shares have traded between $0.061 and $0.076. If the Proposed Transaction is not approved, we consider it likely the Bionomics share price would fall below current levels.

### Disadvantages

**Loss of control**
After the Proposed Transaction (including the second subscription), Apeiron would have the ability to appoint two directors as well as holding up to 52% of the shares in Bionomics (assuming the warrants are exercised and the Underwritten Issue is almost entirely taken up by Apeiron which we understand is not the expected outcome). This would not provide absolute control to Apeiron, but it would provide a significant ability to influence the operations of Bionomics. Apeiron may not always act in the best interests of Bionomics' other shareholders, subject to compliance with relevant laws and regulations and may be able to block another party making a bid and obtaining control of the company. This may prevent Shareholders selling at a price inclusive of a control premium at a later time.

### Conclusion

Bionomics needs a cash injection in the near term and the Proposed Transaction provides an opportunity for this to occur. While Apeiron is not paying a control premium, we do not consider this to be unreasonable as Apeiron will not be obtaining full control of Bionomics from the Proposed Transaction. In considering the reasonableness of the Proposed Transaction, we also consider the fact that the subscription price exceeds recent market trading prices prior to the announcement of the Proposed Transaction to be positive. Thus in our opinion, the position of Shareholders if the Proposed Transaction is approved is more advantageous than their position if it is not.

We have therefore assessed the Proposed Transaction as being reasonable.

## 8.3 Opinion

The Proposed Transaction is not fair but reasonable to Shareholders.

An individual shareholder's decision in relation to the Proposed Transaction may be influenced by their own particular circumstances. If in doubt, the shareholder should consult an independent financial adviser.

# APPENDIX 1: GLOSSARY

| Term | Meaning |
|---|---|
| AASB | Australian Accounting Standards Board |
| Allosteric binding site | A binding site on the surface of a receptor other than the active site |
| Alzheimer's disease | An irreversible, progressive neurodegenerative disease which is a common cause of dementia among the elderly |
| Apeiron | Apeiron Investment Group Ltd |
| ASIC | Australian Securities and Investments Commission |
| ASX | The Australian Securities Exchange owned by ASX Limited |
| AUD | Australian Dollar |
| Biologics | Drugs manufactured in, extracted from, or semi-synthesised from biological sources |
| Biopharmaceuticals | Medicine and drugs that are produced using biotechnology |
| Biosimilars | A biologic which is highly similar to an existing, approved biologic |
| BLA | Biologics License Application |
| Blockbuster drugs | Drugs which generate $1 billion or more in annual sales |
| BNC101 | A monoclonal antibody that targets an overexpressed cancer stem cell receptor, LGR5, in most solid tumours, including colorectal, breast and lung cancers through binding and internalization |
| BNC105 | A small molecule vascular disrupting agent for the treatment of solid tumours and blood cancers |
| BNC210 | A small molecule inhibitor that binds to the allosteric binding site of the alpha7 nicotine acetylcholine receptor |
| BNC375 | A small molecule, positive allosteric modulator of the alpha7 nicotine acetylcholine receptor in the brain |
| BVF | BVF Partners L.P. |
| CAPM | Capital Asset Pricing Model |
| CLL | Chronic Lymphocytic Leukaemia |
| CNS | Central Nervous System |
| Corporations Act | The Corporations Act 2001 |
| CRC | Colorectal Cancer |
| EBIT | Earnings Before Interest and Tax |
| EBITDA | Earnings Before Interest, Tax, Depreciation and Amortisation |
| Efficacy | The ability of a drug to produce the desired result |
| EMA | European Medicines Agency |
| Fair market value | The price, expressed in terms of cash equivalents, at which property would change hands between a hypothetical willing and able buyer and a hypothetical willing and able seller, acting at arms' length in an open and unrestricted market, when neither is under compulsion to buy or sell and when both have reasonable knowledge of the relevant facts |
| Fast Track designation | A scheme designed to facilitate and expedite development and review of new drugs to address unmet medical needs |
| FDA | Food and Drug Administration |
| FOS | Financial Ombudsman Service |
| FSG | Financial Services Guide |
| FY | Financial Year |
| IND | Investigational New Drug |
| Indication | A health problem or disease that is identified as likely to be benefited by a therapy being studied in clinical trials |
| Ion channels | Macromolecular pores made up of multiple protein subunits through which ions may move passively across the cell membrane |

| Term | Meaning |
|---|---|
| ionX® | Bionomics' proprietary technologies for the identification of drugs targeting ion channels for diseases of the central nervous system |
| Ironwood | Ironwood Pharmaceuticals, Inc |
| Item 7 | Item 7 of Section 611 of the Corporations Act |
| Kv3.1/3.2 | Kv3.1/Kv3.2 potassium channels |
| Leadenhall | Leadenhall Corporate Advisory Pty Ltd |
| LGR5 | Leucine-rich repeat-containing G-protein coupled receptor 5 |
| Merck | Merck & Co., Inc. |
| Metastatic | The spread of a disease-producing agency (such as cancer cells) from the initial or primary site of disease to another part of the body |
| Monoclonal antibody | An antibody that is derived from the clone of a single B cell and that is produced in large quantities of identical cells possessing affinity for the same epitope on a specific antigen |
| MultiCore® | Bionomics' proprietary, diversity orientated chemistry platform for the discovery of small molecule drugs |
| NAV | Net asset value |
| Nav1.7/1.8 | Nav 1.7/Nav 1.8 voltage-gated sodium channels |
| NDA | New Drug Application |
| Net debt | Debt used to fund a business; less surplus cash held by the company |
| Neuropathic pain | Pain caused by damage, injury, or dysfunction of nerves due to trauma, surgery, disease, or chemotherapy |
| NIH | National Institutes of Health |
| NPAT | Net Profit After Tax |
| NTA | Net Tangible Assets |
| Oncology | Study and treatment of tumours and blood cancers |
| P/E | Price to earnings |
| PBT | Profit before tax |
| Phase 1 | Trials to determine toxicity and safety of a drug |
| Phase 1a | Single dose Phase 1 trials |
| Phase 1b | Multiple ascending dose Phase 1 trials |
| Phase 2 | Trials involving subjects with the targeted medical condition to explore efficacy and less common side effects. These tests are often conducted in comparison to placebo and with escalating doses. |
| Phase 3 | Studies involving subjects with the targeted medical condition to confirm clinical safety and efficiency and comparison with commonly used alternative treatments |
| Preclinical testing/studies | *In vitro* and *in vivo* studies to determine the efficacy and safety of the proposed drugs in cellular and animal models respectively |
| Proposed Transaction | Subscription agreement with Apeiron under which Bionomics expects to raise $20.4 million to $22.6 million over a number of tranches, of which Apeiron will invest between $5.4 million to $20.4 million for a diluted interest in Bionomics of 25% to 52%. |
| PTSD | Post-traumatic stress disorder |
| R&D | Research and development |
| RG111 | Regulatory Guide 111: Content of Expert Reports |
| RG74 | Regulatory Guide 74: Acquisitions Approved by Members |
| s606 | Section 606 of the Corporations Act 2001 |
| s611 | Section 611 of the Corporations Act 2001 |
| Special value | The amount a specific purchaser is willing to pay in excess of fair market value |
| Surplus assets | Assets held by the company that are not utilised in its business operation |
| US | United States of America |

| Term | Meaning |
|---|---|
| USD | US Dollar |
| VWAP | Volume Weighted Average Price |
| WACC | Weighted Average Cost of Capital |
| WHO | World Health Organization |

# APPENDIX 2: VALUATION METHODOLOGIES

In preparing this report we have considered valuation methods commonly used in practice and those recommended by RG 111. These methods include:

- The discounted cash flow method
- The capitalisation of earnings method
- Asset based methods
- Analysis of share market trading
- Industry specific rules of thumb

The selection of an appropriate valuation method to estimate fair market value should be guided by the actual practices adopted by potential acquirers of the company involved.

## Discounted Cash Flow Method

### Description

Of the various methods noted above, the discounted cash flow method has the strongest theoretical standing. It is also widely used in practice by corporate acquirers and company analysts. The discounted cash flow method estimates the value of a business by discounting expected future cash flows to a present value using an appropriate discount rate. A discounted cash flow valuation requires:

- A forecast of expected future cash flows
- An appropriate discount rate

It is necessary to project cash flows over a suitable period of time (generally regarded as being at least five years) to arrive at the net cash flow in each period. For a finite life project or asset this would need to be done for the life of the project. This can be a difficult exercise requiring a significant number of assumptions such as revenue growth, future margins, capital expenditure requirements, working capital movements and taxation.

The discount rate used represents the risk of achieving the projected future cash flows and the time value of money. The projected future cash flows are then valued in current day terms using the discount rate selected.

The discounted cash flow method is often sensitive to a number of key assumptions such as revenue growth, future margins, capital investment, terminal growth and the discount rate. All of these assumptions can be highly subjective sometimes leading to a valuation conclusion presented as a range that is too wide to be useful.

### Use of the Discounted Cash Flow Method

A discounted cash flow approach is usually preferred when valuing:

- Early stage companies or projects
- Limited life assets such as a mine or toll concession
- Companies where significant growth is expected in future cash flows
- Projects with volatile earnings

It may also be preferred if other methods are not suitable, for example if there is a lack of reliable evidence to support a capitalisation of earnings approach. However, it may not be appropriate if:

- Reliable forecasts of cash flow are not available and cannot be determined
- There is an inadequate return on investment, in which case a higher value may be realised by liquidating the assets than through continuing the business

# Capitalisation of Earnings Method

## Description

The capitalisation of earnings method is a commonly used valuation methodology that involves determining a future maintainable earnings figure for a business and multiplying that figure by an appropriate capitalisation multiple. This methodology is generally considered a short form of a discounted cash flow, where a single representative earnings figure is capitalised, rather than a stream of individual cash flows being discounted. The capitalisation of earnings methodology involves the determination of:

- A level of future maintainable earnings
- An appropriate capitalisation rate or multiple.

A multiple can be applied to any of the following measures of earnings:

**Revenue** – most commonly used for companies that do not make a positive EBITDA or as a cross-check of a valuation conclusion derived using another method.

**EBITDA** - most appropriate where depreciation distorts earnings, for example in a company that has a significant level of depreciating assets but little ongoing capital expenditure requirement.

**EBITA** - in most cases EBITA will be more reliable than EBITDA as it takes account of the capital intensity of the business.

**EBIT** - whilst commonly used in practice, multiples of EBITA are usually more reliable as they remove the impact of amortisation which is a non-cash accounting entry that does not reflect a need for future capital investment (unlike depreciation).

**NPAT** - relevant in valuing businesses where interest is a major part of the overall earnings of the group (e.g. financial services businesses such as banks).

Multiples of EBITDA, EBITA and EBIT are commonly used to value whole businesses for acquisition purposes where gearing is in the control of the acquirer. In contrast, NPAT (or P/E) multiples are often used for valuing minority interests in a company.

The multiple selected to apply to maintainable earnings reflects expectations about future growth, risk and the time value of money all wrapped up in a single number. Multiples can be derived from three main sources. Using the guideline public company method, market multiples are derived from the trading prices of stocks of companies that are engaged in the same or similar lines of business and that are actively traded on a free and open market, such as the ASX. The merger and acquisition method is a method whereby multiples are derived from transactions of significant interests in companies engaged in the same or similar lines of business. It is also possible to build a multiple from first principles.

## Use of the Capitalisation of Earnings Method

The capitalisation of earnings method is widely used in practice. It is particularly appropriate for valuing companies with a relatively stable historical earnings pattern which is expected to continue. This method is less appropriate for valuing companies or assets if:

- There are no suitable listed company or transaction benchmarks for comparison
- The asset has a limited life
- Future earnings or cash flows are expected to be volatile
- There are negative earnings or the earnings of a business are insufficient to justify a value exceeding the value of the underlying net assets

## Asset Based Methods

### Description

Asset based valuation methods estimate the value of a company based on the realisable value of its net assets, less its liabilities. There are a number of asset based methods including:

- Orderly realisation
- Liquidation value
- Net assets on a going concern basis
- Replacement cost
- Reproduction cost

The orderly realisation of assets method estimates fair market value by determining the amount that would be distributed to shareholders, after payment of all liabilities including realisation costs and taxation charges that arise, assuming the company is wound up in an orderly manner. The liquidation method is similar to the orderly realisation of assets method except the liquidation method assumes the assets are sold in a shorter time frame. Since wind up or liquidation of the company may not be contemplated, these methods in their strictest form may not necessarily be appropriate. The net assets on a going concern basis method estimates the market values of the net assets of a company but does not take account of realisation costs.

The asset / cost approach is generally used when the value of the business' assets exceeds the present value of the cash flows expected to be derived from the ongoing business operations, or the nature of the business is to hold or invest in assets. It is important to note that the asset approach may still be the relevant approach even if an asset is making a profit. If an asset is making less than an economic rate of return and there is no realistic prospect of it making an economic return in the foreseeable future, an asset approach would be the most appropriate method.

### Use of Asset Based Methods

An asset-based approach is a suitable valuation method when:

- An enterprise is loss making and is not expected to become profitable in the foreseeable future
- Assets are employed profitably but earn less than the cost of capital
- A significant portion of the company's assets are composed of liquid assets or other investments (such as marketable securities and real estate investments)
- It is relatively easy to enter the industry (for example, small machine shops and retail establishments)

Asset based methods are not appropriate if:

- The ownership interest being valued is not a controlling interest, has no ability to cause the sale of the company's assets and the major holders are not planning to sell the company's assets
- A business has (or is expected to have) an adequate return on capital, such that the value of its future income stream exceeds the value of its assets

## Analysis of Share Trading

The most recent share trading history provides evidence of the fair market value of the shares in a company where they are publicly traded in an informed and liquid market. There should also be some similarity between the size of the parcel of shares being valued and those being traded. Where a company's shares are publicly traded then an analysis of recent trading prices should be considered, at least as a cross-check to other valuation methods.

## Industry Specific Rules of Thumb

Industry specific rules of thumb are used in certain industries. These methods typically involve a multiple of an operating figure such as eyeballs for internet businesses, numbers of beds for hotels etc. These methods are typically fairly crude and are therefore usually only appropriate as a cross-check to a valuation determined using an alternative method.

# APPENDIX 3: DISCOUNT RATES

The selected discount rate applied in our DCF analysis for Bionomics has been determined using the weighted average cost of capital. We have estimated the cost of equity with the capital asset pricing model.

### Post-tax cost of equity ($K_e$)

The CAPM is based on the assumption that investors require a premium for investing in equities rather than in risk-free investments (such as government bonds). The cost of equity, $K_e$, is the rate of return that investors require to make an equity investment in a firm.

The cost of equity capital under CAPM is determined using the following formula:

$$K_e = R_f + \beta \times (R_m - R_f) + \alpha$$

The components of the CAPM formula are:

**Table 18: Components of CAPM**

| Input | Definition |
|---|---|
| $K_e$ | The required post-tax return on equity |
| $R_f$ | The risk-free rate of return |
| $R_m$ | The expected return on the market portfolio |
| **MRP** | The market risk premium ($R_m - R_f$) |
| **β** | The beta, the systematic risk of a stock (this is an equity or levered beta) |
| **α** | The specific company risk premium |

Each of the components in the above equation is discussed below.

### Risk-free rate ($R_f$)

The relevant risk-free rate of return is the return on a risk-free security, typically over a long-term period. In practice, long-dated government bonds are an acceptable benchmark for the risk-free security. We have selected a risk-free rate of 0.92%, being the yield on 10-year Australian Government bonds as at 11 June 2020.

### Equity market risk premium (EMRP)

The EMRP ($R_m - R_f$) represents the additional return that investors expect from an investment in a well-diversified portfolio of assets (such as a market index). It is the excess return above the risk-free rate that investors demand for their increased exposure to risk, when investing in equity securities.

Leadenhall undertakes a review of the EMRP at least every six months, taking account of market trading levels and industry practice at the time. Based on this research, we have adopted an EMRP of 7.25% to 7.75%.

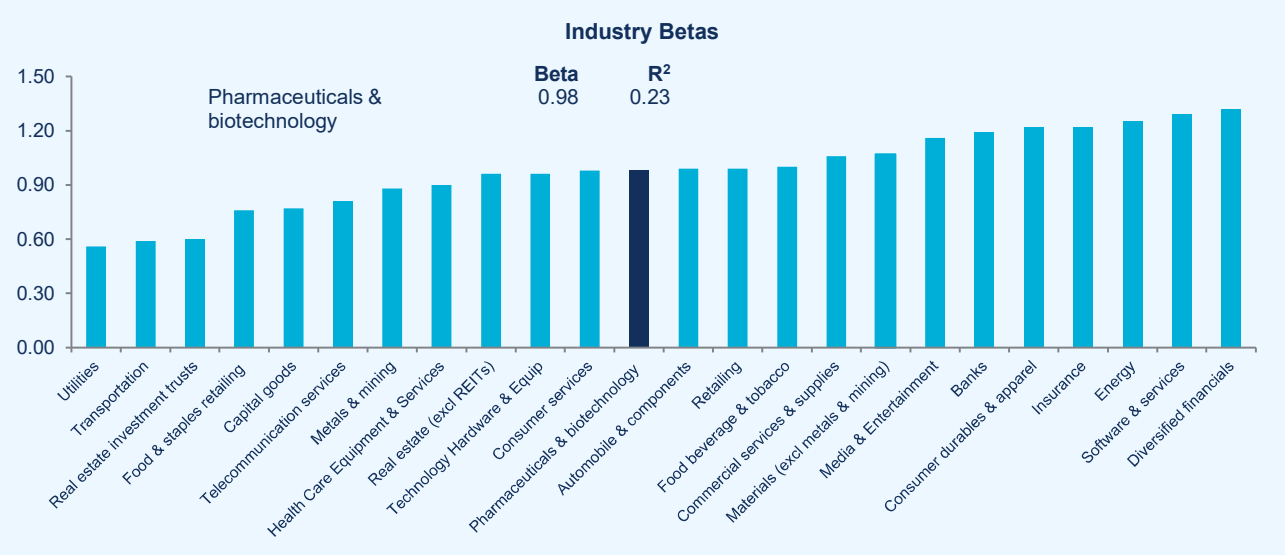
### Beta estimate (β)

#### *Description*

The beta factor is a measure of the risk of an investment or business operation, relative to a well-diversified portfolio of assets. The only risks that are captured by beta are those risks that cannot be eliminated by an investor through diversification. Such risks are referred to as systematic, undiversifiable or uninsurable risk.

Beta is a measure of the relative riskiness of an asset in comparison to the market as a whole – by definition, the market portfolio has an equity beta of 1.0. The equity beta's of various Australian industries listed on the Australian Stock Exchange are reproduced below.

**Figure 5: Industry betas**




*Source: SIRCA as at 31 December 2019*

Betas derived from share market observations represent equity betas, which reflect the degree of financial gearing of the company. To eliminate the impact of differing capital structures, analysts often 'un-lever' observed betas to calculate an asset beta. The selected asset beta is then 're-levered' with a target level of debt. In this instance, the un-levering and re-levering process is unnecessary as the comparable companies generally have no debt.

The betas of Bionomics and companies with similar business are included in the following table.

**Table 19: Comparable company betas – Neurology and Psychiatry**

| Company | Market Cap ($m) | Equity Beta | | $R^2$ | |
|---|---|---|---|---|---|
| | | CIQ | LH | CIQ | LH |
| **Neurology and Psychiatry** | | | | | |
| Biogen Inc. | 67,007 | 1.47 | 1.44 | 0.26 | 0.24 |
| Neurocrine Biosciences, Inc. | 15,235 | 1.37 | 1.42 | 0.13 | 0.14 |
| Ionis Pharmaceuticals, Inc. | 11,414 | 2.03 | 2.04 | 0.15 | 0.15 |
| ACADIA Pharmaceuticals Inc. | 10,211 | 2.84 | 2.80 | 0.24 | 0.25 |
| Axsome Therapeutics, Inc. | 3,895 | 3.43 | 1.42 | 0.07 | 0.03 |
| Sage Therapeutics, Inc. | 2,612 | 3.92 | 3.54 | 0.23 | 0.25 |
| Intra-Cellular Therapies, Inc. | 1,984 | 2.44 | 1.74 | 0.04 | 0.07 |
| Voyager Therapeutics, Inc. | 650 | 2.43 | 2.72 | 0.10 | 0.15 |
| Prothena Corporation plc | 576 | 2.92 | 2.86 | 0.22 | 0.16 |
| Brainstorm Cell Therapeutics Inc. | 366 | 1.15 | 1.03 | 0.08 | 0.08 |
| Anavex Life Sciences Corp. | 307 | 1.89 | 2.08 | 0.11 | 0.13 |
| Minerva Neurosciences, Inc. | 193 | 1.89 | 1.75 | 0.09 | 0.09 |
| Bionomics Limited | 38 | 1.39 | 1.77 | 0.01 | 0.03 |
| Actinogen Medical Limited | 30 | 2.69 | 3.31 | 0.04 | 0.11 |
| **Average** | | **2.15** | **2.03** | **0.12** | **0.13** |
| **Median** | | **2.03** | **1.77** | **0.10** | **0.13** |

*Source: SIRCA, Capital IQ and Leadenhall analysis beta data as at 31 December 2019 and market capitalisation as at 11 June 2020*
*Note:*
*1. The average and median betas and $R^2$ exclude outliers highlighted in grey.*
*2. $R^2$ is a measure of how well the regression approximates the underlying data.*

**Table 20: Comparable company betas - Oncology**

| Company | Market Cap (A$m) | Equity Beta | | $R^2$ | |
|---|---|---|---|---|---|
| | | CIQ | LH | CIQ | LH |
| **Oncology** | | | | | |
| Regeneron Pharmaceuticals, Inc. | 87,774 | 1.19 | 1.20 | 0.16 | 0.16 |
| Seattle Genetics, Inc. | 37,281 | 2.16 | 2.14 | 0.31 | 0.31 |
| Immunomedics, Inc. | 10,147 | 2.07 | 2.39 | 0.10 | 0.13 |
| Mirati Therapeutics, Inc. | 6,371 | 2.77 | 2.51 | 0.11 | 0.09 |
| Xencor, Inc. | 2,416 | 1.49 | 1.62 | 0.11 | 0.15 |
| MacroGenics, Inc. | 1,412 | 1.77 | 1.86 | 0.12 | 0.14 |
| Leap Therapeutics, Inc. | 113 | 2.46 | 2.81 | 0.15 | 0.21 |
| AIM ImmunoTech Inc. | 110 | 1.15 | 1.19 | 0.03 | 0.03 |
| Cardiff Oncology, Inc. | 46 | 0.92 | 1.14 | 0.01 | 0.02 |
| **Average** | | **1.78** | **1.88** | **0.12** | **0.14** |
| **Median** | | **1.77** | **1.86** | **0.11** | **0.14** |

*Source: SIRCA, Capital IQ and Leadenhall analysis beta data as at 31 December 2019 and market capitalisation as at 11 June 2020*
*Note:*
*1. $R^2$ is a measure of how well the regression approximates the underlying data.*

### *Selected beta (β)*

In selecting an appropriate beta for Bionomics, we have considered the following:

- The outbreak of COVID-19 in early 2020 has introduced significant noise into our beta estimation. The impact of the pandemic varies across industries and there is presently no reason to expect underlying beta has changed for any specific industry. We have therefore used pre-COVID data as at 31 December 2019 for our estimation.
- The average equity beta of the comparable companies focusing on neurology-related diseases is between 2.03 and 2.15 while the median equity beta of the comparable companies is between 1.77 and 2.03.
- The average equity beta of the comparable companies focusing on oncology is between 1.78 and 1.88 while the median equity beta of the comparable companies is between 1.77 and 1.86.
- The most relevant industry beta is 0.98
- Bionomics beta is a single data point with a relatively low $R^2$ and thus should not be relied upon in isolation.
- Bionomics have both neurology and oncology related assets in their pipeline. We have therefore considered both neurology-focussed and oncology-focussed companies in our assessment of the appropriate beta for Bionomics.

As a result of these considerations we have selected an equity beta between 1.7 and 1.8 for Bionomics.

### Specific company risk premium (α)

#### *Size premium*

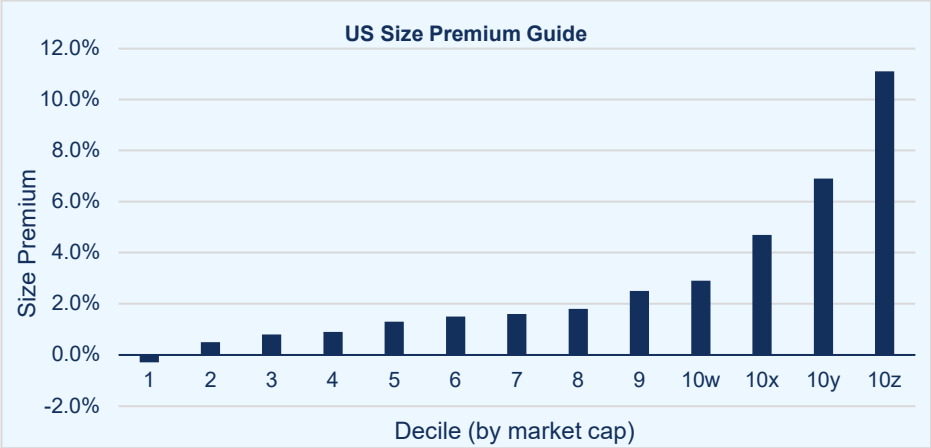
The size premium is the additional return that investors require for the risks of investing in small businesses. To date it has not been possible to isolate the specific causes of size premiums (other than simply size), many factors have been suggested including:

- Depth of management
- Reliance on key personnel
- Weak market position
- Reliance on key customers
- Reduced access to capital
- Reliance on key suppliers
- Lack of geographic diversification
- Limited access to technology
- Absence of broker analysis
- Supplier concentration

- Deeper pool of investors for larger companies
- Investors in large companies often more diversified

A number of studies have been undertaken attempting to measure the size premium, in particular in the US. The Valuation Handbook published by Duff & Phelps contains calculations of the size premium for each decile of market capitalisation. As the size premium is most significant for very small companies, the tenth decile is then further divided into four equal segments. The following chart summarises the size premium data from the 2015 Valuation Handbook.

**Figure 6: Evidence of size premium**




*Source: Duff & Phelps 2015 Valuation Handbook*
*Note: The first decile represents the largest companies while the 10z decile represents the smallest companies by market capitalisation.*

As mentioned above, the existence of the size premium has been well documented. However, there are limited studies setting out the appropriate bands of size premium and the quantum of size premium applicable to each band. For this reason, the above table should be taken as broad support for the size effect and not an exact guide to the extent of any particular discount or premium that should be applied.

Although there is considerable evidence from the US, in the Australian context, the relatively small size of the Australian equity market makes it more difficult to observe the existence of this phenomenon.

Leadenhall and others have conducted a number of high level studies which have confirmed the existence of the size effect in the Australian market. However, we are not aware of any Australian studies that have been performed with the same detail and rigour as the US studies, such as the Duff & Phelps data presented above. Based on the evidence from US studies and our knowledge of prices actually paid in Australian transactions, from which a discount rate can be implied, we believe the size premium ranges in the below table are appropriate. This table should be taken as a guide to the appropriate size premium for a given business and needs to be considered in conjunction with the specific circumstances of a particular business.

**Table 21: Leadenhall size premium bandings**

| Size Premium Guide for Australia | | | | |
|---|---|---|---|---|
| **Size** | **Mkt Cap Range (AU$m)** | | **Size Premium** | |
| | ***Low*** | ***High*** | ***Low*** | ***High*** |
| Largest | 4,000 | Above | - | - |
| Large | 1,000 | 4,000 | - | 1.0% |
| Mid-cap | 300 | 1,000 | 1.0% | 2.0% |
| Low-cap | 100 | 300 | 2.0% | 3.0% |
| Small-cap | 50 | 100 | 3.0% | 5.0% |
| Micro-cap | 10 | 50 | 5.0% | 8.0% |
| *Medium private* [1] | *5* | *10* | *8.0%* | *11.0%* |
| *Small private* [1] | *2* | *5* | *11.0%* | *15.0%* |
| *Smallest* [1] | *-* | *2* | *15.0%* | *20.0%* |

*Note:*

1. *We do not generally consider the CAPM model to be reliable for entities of this size as they often do not meet the background assumptions underpinning the CAPM. In particular investors are often not diversified and it is rarely possible to lend or borrow stock of entities this size. These suggested size premiums are therefore presented as an approximate guide only as alternate models, studies and rules of thumb are commonly utilised for these types of companies.*

*Source: Leadenhall analysis*

Based on our assessed valuation, Bionomics would be considered a small-cap company and as such a size premium of approximately 4.5% would apply.

***Other company specific risks***

The specific company risk premium adjusts the cost of equity for company specific factors, including unsystematic risk factors such as reliance on key customers, reliance on key suppliers, existence of contingent liabilities etc. We consider that these factors are reflected in either the cash flow forecasts or adjustments to size premium discussed above for Bionomics. However, due to heightened market volatility and uncertainty attributable to COVID-19, we have increased our assessed EMRP by approximately 0.5% to 1.0% over typical levels. Due to the nature of its business Bionomics is less exposed to the additional uncertainty created by the COVID-19 pandemic than most businesses. We have therefore reduced the overall specific risk premium to 3.0% in our assessment of an appropriate discount rate to apply in our valuation of Bionomics.

### Dividend Imputation

Since July 1987, Australia has had a dividend imputation system in place, which aims to remove the double taxation effect of dividends paid to investors. Under this system, domestic equity investors receive a taxation credit (franking credit) for any tax paid by a company. The franking credit attaches to any dividends paid out by a company and the franking credit offsets personal tax. To the extent the investor can utilise the franking credit to offset personal tax, then the corporate tax is now not a real impost. It is best considered as a withholding tax for personal taxes. It can therefore be argued that the benefit of dividend imputation should be added to any analysis of value.

However, in our view, the evidence relating to the value that the market attributes to imputation credits is inconclusive. There are diverse views as to the value of imputation credits and the appropriate method that should be employed to calculate this value. Due to the uncertainty surrounding the extent to which acquirers of assets factor in dividend imputation, we have taken the conservative approach and not factored in dividend imputation.

### Conclusion on cost of equity

The following table sets out our cost of equity estimate for Bionomics based on the assumptions and inputs discussed above:

**Table 22: Estimated cost of equity for Bionomics**

| Components | Low | High |
|---|---|---|
| Risk-free rate | 0.92% | 0.92% |
| Equity beta | 1.7 | 1.8 |
| Market risk premium | 7.25% | 7.75% |
| Specific risk premium | 3.0% | 3.0% |
| **Calculated cost of equity (post-tax)** | **16.2%** | **17.9%** |

*Source: Leadenhall analysis*

### Corporate tax rate ($t_c$)

The corporate tax rate in Australia is 30% and we have adopted this rate in calculating the WACC for Bionomics.

### Cost of debt capital ($K_d$)

The cost of borrowing is the expected future borrowing cost of the relevant project and/or business. The cost of debt is not relevant to our analysis as we have assumed there is no debt in an optimal capital structure for Bionomics.

### Debt and equity mix

The selection of an appropriate capital structure is a subjective exercise. The tax deductibility of the cost of debt means that the higher the proportion of debt, the lower the WACC for a given cost of equity. However, at significantly higher levels of debt, the marginal cost of borrowing would increase due to the greater risk which debt holders are exposed to. In addition, the cost of equity would also be likely to increase due to equity investors requiring a higher return given the higher degree of financial risk that they have to bear.

Ultimately for each company there is likely to be a level of debt/equity mix that represents the optimal capital structure for that company. In estimating the WACC, the debt/equity mix assumption should reflect what would be the optimal or target capital structure for the relevant asset. We have selected a capital structure with no debt based on the comparable companies' gearing levels and the company's lack of ability to support debt given its poor profitability and cash flow generation.

### Calculation of WACC

As we have assumed no debt in the optimal capital structure for Bionomics, the WACC for Bionomics is equivalent to its cost of equity. We have therefore assessed a WACC 16.0% to 18.0% for Bionomics.

# APPENDIX 4: COMPARABLE COMPANIES

The following company descriptions are extracted from descriptions provided by Capital IQ.

| Company | Description |
|---|---|
| ACADIA Pharmaceuticals Inc. | ACADIA Pharmaceuticals Inc., a biopharmaceutical company, focuses on the development and commercialization of small molecule drugs that address unmet medical needs in central nervous system disorders. |
| Actinogen Medical Limited | Actinogen Medical Limited, a biotechnology company, develops treatments for Alzheimer's disease, and the cognitive deficiency associated with other neurological and metabolic diseases in Australia. |
| AIM ImmunoTech Inc. | AIM ImmunoTech Inc., an immuno-pharma company, focuses on the research and development of therapeutics to treat multiple types of cancers and immune-deficiency disorders in the United States. |
| Anavex Life Sciences Corp. | Anavex Life Sciences Corp., a clinical stage biopharmaceutical company, engages in the development of drug candidates for the treatment of central nervous system diseases. |
| Axsome Therapeutics, Inc. | Axsome Therapeutics, Inc., a clinical stage biopharmaceutical company, engages in developing novel therapies for central nervous system (CNS) disorders in the United States. |
| Biogen Inc. | Biogen Inc. discovers, develops, manufactures, and delivers therapies for treating neurological and neurodegenerative diseases worldwide. |
| Bionomics Limited | Bionomics Limited, a clinical-stage biopharmaceutical company, discovers and develops novel drug candidates for the treatment of central nervous system disorders and cancers. |
| Brainstorm Cell Therapeutics Inc. | Brainstorm Cell Therapeutics Inc., a biotechnology company, engages in the development and commercialization of central nervous system (CNS) adult stem cell therapies designed to address the unmet medical needs of patients with debilitating neurodegenerative diseases. |
| Cardiff Oncology, Inc. | Cardiff Oncology, Inc., a clinical-stage, oncology therapeutic company, develops drugs to treat various types of cancer, including leukaemia, lymphomas, and solid tumours. |
| Immunomedics, Inc. | Immunomedics, Inc., a clinical-stage biopharmaceutical company, develops monoclonal antibody-based products for the targeted treatment of cancer. |
| Intra-Cellular Therapies, Inc. | Intra-Cellular Therapies, Inc., a biopharmaceutical company, develops novel drugs for the treatment of neuropsychiatric and neurologic diseases, and other disorders of the central nervous system (CNS) in the United States. |
| Ionis Pharmaceuticals, Inc. | Ionis Pharmaceuticals, Inc. discovers and develops RNA-targeted therapeutics in the United States. |
| Leap Therapeutics, Inc. | Leap Therapeutics, Inc., a biopharmaceutical company, acquires and develops therapies for the treatment of cancer. |
| MacroGenics, Inc. | MacroGenics, Inc., a biopharmaceutical company, discovers and develops antibody-based therapeutics for the treatment of cancer in the United States. |

| Company | Description |
|---|---|
| Minerva Neurosciences, Inc. | Minerva Neurosciences, Inc., a clinical-stage biopharmaceutical company, focuses on the development and commercialization of a portfolio of product candidates for the treatment of central nervous system diseases. |
| Mirati Therapeutics, Inc. | Mirati Therapeutics, Inc., a clinical-stage oncology company, develops product candidates to address the genetic and immunological promoters of cancer in the United States. |
| Neurocrine Biosciences, Inc. | Neurocrine Biosciences, Inc. discovers and develops treatments for patients with neurological, endocrine, and psychiatric disorders. |
| Prothena Corporation plc | Prothena Corporation plc, a clinical-stage neuroscience company, focuses on discovery and development of novel therapies for life-threatening diseases in the United States. |
| Regeneron Pharmaceuticals, Inc. | Regeneron Pharmaceuticals, Inc., a biopharmaceutical company, discovers, invents, develops, manufactures, and commercializes medicines for treating various medical conditions worldwide. |
| Sage Therapeutics, Inc. | Sage Therapeutics, Inc., a clinical-stage biopharmaceutical company, develops and commercializes novel medicines to treat central nervous system (CNS) disorders. |
| Seattle Genetics, Inc. | Seattle Genetics, Inc., a biotechnology company, develops and commercializes therapies for the treatment of cancer in the United States and internationally. |
| Voyager Therapeutics, Inc. | Voyager Therapeutics, Inc., a clinical-stage gene therapy company, focuses on the development of treatments for patients suffering from severe neurological diseases. |
| Xencor, Inc. | Xencor, Inc., a clinical stage biopharmaceutical company, focuses on the discovery and development of engineered monoclonal antibody and other protein therapeutics to treat severe and life-threatening diseases with unmet medical needs. |

# APPENDIX 5: CONTROL PREMIUM

### Background

The difference between the control value and the liquid minority value of a security is the control premium. The inverse of a control premium is a minority discount (also known as a discount for lack of control). A control premium is said to exist because the holder of a controlling stake has several rights that a minority holder does not enjoy (subject to shareholders agreements and other legal constraints), including the ability to:

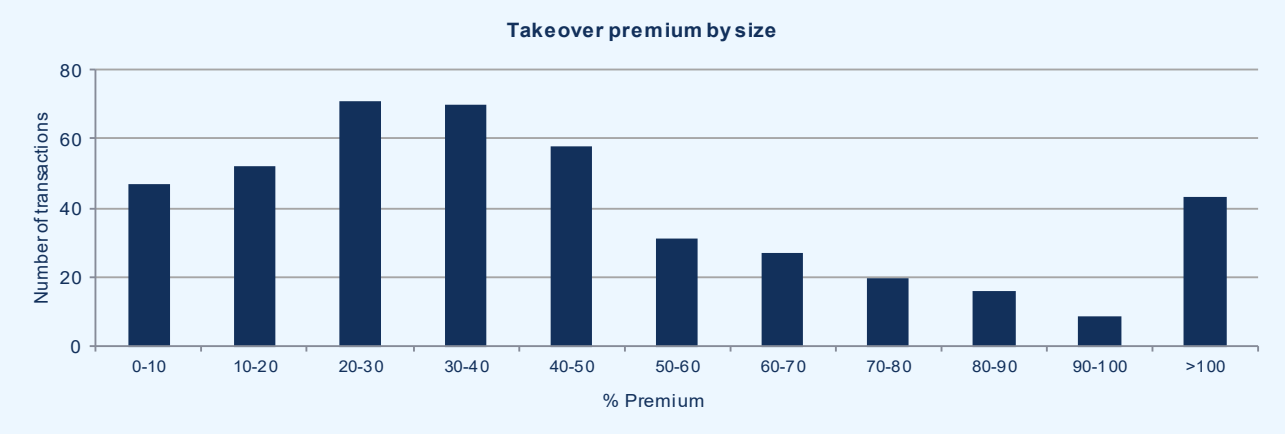
- Appoint or change operational management
- Appoint or change members of the board
- Determine management compensation
- Determine owner's remuneration, including remuneration to related party employees
- Determine the size and timing of dividends
- Control the dissemination of information about the company
- Set strategic focus of the organisation, including acquisitions, divestments and any restructuring
- Set the financial structure of the company (debt / equity mix)
- Block any or all of the above actions

The most common approach to quantifying a control premium is to analyse the size of premiums implied from prices paid in corporate takeovers which may include synergistic benefits as well as control. Another method is the comparison between prices of voting and non-voting shares in the same company. We note that the size of the control premium should generally be an outcome of a valuation and not an input into one, as there is significant judgement involved.

## Takeover Premiums

### Dispersion of premiums

The following chart shows the spread of premiums paid in takeovers between 2007 and 2017. We note that these takeover premiums may not be purely control premiums, for example the very high premiums are likely to include synergy benefits, while the very low premiums may be influenced by share prices rising in anticipation of a bid.

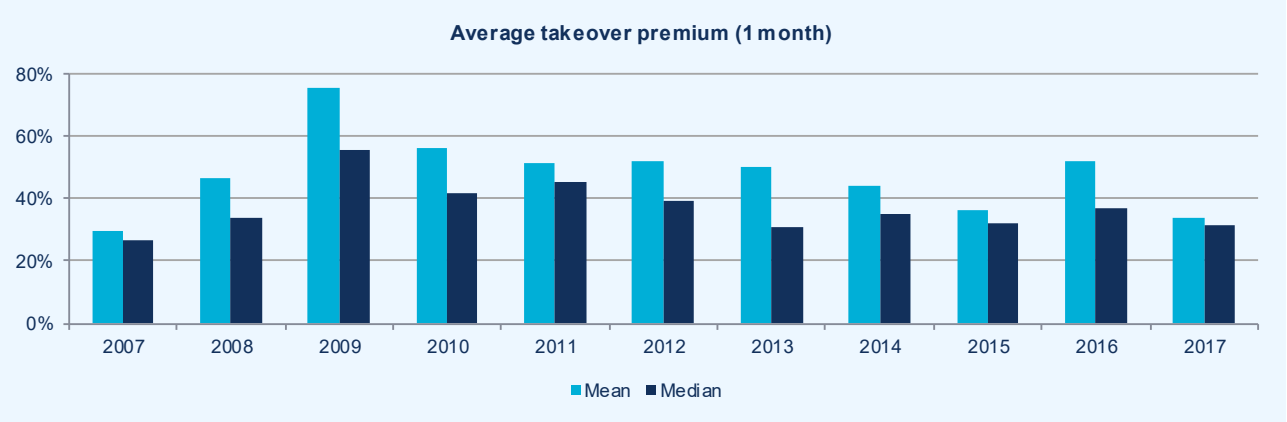



*Sources: Capital IQ, Leadenhall analysis*

This chart highlights the dispersion of premiums paid in takeovers. The chart shows a long tail of high premium transactions, although the most common recorded premiums are in the range of 20% to 40%, with approximately 65% of all premiums falling in the range of 0% to 50%.

### Premiums over time

The following chart shows the average premium paid in completed takeovers compared to the price one month before the initial announcement.

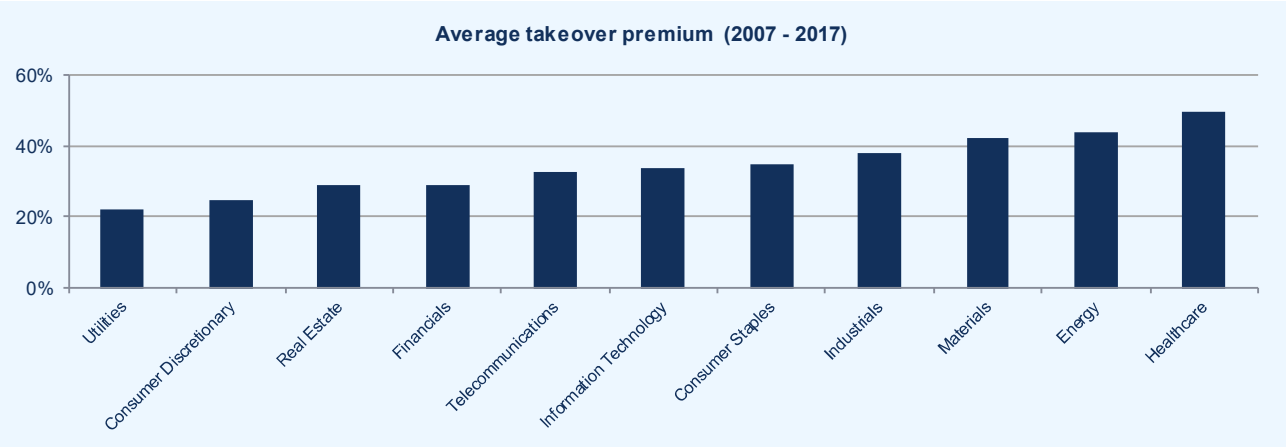



*Sources: Capital IQ, Leadenhall analysis*
*Note: The average premiums presented above exclude transactions with implied control premiums below zero and transactions which we consider to be outliers.*

The chart indicates that while premiums vary over time, there is no clearly discernible pattern. The mean is higher than the median due to a small number of high premiums.

### Premiums by industry

The following chart shows the average takeover premium by industry, compared to the share price one month before the takeover was announced. Most industries show an average premium of 20% to 40%.




*Sources: Capital IQ, Leadenhall analysis*
*Note: The average premiums presented above exclude specific transactions with implied control premiums below zero or over 100% which we consider to be outliers.*

Key factors that generally lead to higher premiums being observed include:

- Competitive tension arising from more than one party presenting a takeover offer.
- Favourable trading conditions in certain industries (e.g. recent mining and tech booms).
- Significant synergistic, special or strategic value.
- Scrip offers where the price of the acquiring entity's shares increases between announcement and completion.

## Industry Practice

In Australia, industry practice is to apply a control premium in the range of 20% to 40%, as shown in the following list quoting ranges noted in various independent experts' reports.

- Deloitte - 20% to 40%
- Ernst & Young - 20% to 40%
- Grant Samuel - 20% to 35%
- KPMG - 25% to 35%
- Lonergan Edwards - 30% to 35%
- PwC - 20% to 40%

The range of control premiums shown above is consistent with most academic and professional literature on the topic.

## Alternative View

Whilst common practice is to accept the existence of a control premium in the order of 20% to 40%, certain industry practitioners (particularly in the US) disagree with the validity of this conclusion. Those with an alternate view point to the fact that very few listed companies are acquired each year as evidence that 100% of a company is not necessarily worth more than the proportionate value of a small interest. Those practitioners agree that the reason we see some takeovers at a premium is that if a company is not well run, there is a control premium related to the difference in value between a hypothetical well run company and the company being run as it is.

## Impact of Methodologies Used

The requirement for an explicit valuation adjustment for a control premium depends on the valuation methodology and approach adopted and the level of value to be examined. It may be necessary to apply a control premium to the value of a liquid minority value to determine the control value. Alternatively, in order to estimate the value of a minority interest, it may be necessary to apply a minority discount to a proportional interest in the control value of the company.

### Discounted cash flow

The discounted cash flow methodology generally assumes control of the cash flows generated by the assets being valued. Accordingly, such valuations reflect a premium for control. Where a minority value is sought a minority discount must therefore be applied. The most common exception to this is where a discounted dividend model has been used to directly determine the value of an illiquid minority holding.

### Capitalisation of earnings

Depending on the type of multiple selected, the capitalisation of earnings methodology can reflect a control value (transaction multiples) or a liquid minority value (listed company trading multiples).

### Asset based methodologies

Asset based methodologies implicitly assume control of the assets being valued. Accordingly, such valuations reflect a control value.

## Intermediate Levels of Ownership

There are a number of intermediate levels of ownership between a portfolio interest and 100% ownership. Different levels of ownership will confer different degrees of control and rights as shown below.

- 90% - can compulsory purchase remaining shares if certain conditions are satisfied
- 75% - power to pass special resolutions
- > 50% - gives control depending on the structure of other interests (but not absolute control)
- > 25% - ability to block a special resolution
- > 20% - power to elect directors, generally gives significant influence, depending on other shareholding blocks
- < 20% - generally has only limited influence

Conceptually, the value of each of these interests lies somewhere between the portfolio value (liquid minority value) and the value of a 100% interest (control value). Each of these levels confers different degrees of control and therefore different levels of control premium or minority discount.

### 50%

For all practical purposes, a 50% voting interest would generally confer a similar level of control to holdings of greater than 50%, at least where the balance of the shares are listed and widely held. Where there are other significant holders, such as in a 50/50 joint venture, 50% interests involve different considerations depending upon the particular circumstances.

Strategic parcels do not always attract a control premium. In fact, if there is no bidder, the owner may be forced to sell the shares through the share market, usually at a discount to the prevailing market price. This reflects the fact that the sale of a parcel of shares significantly larger than the average number of shares traded on an average day in a particular stock generally causes a stock overhang, therefore there is more stock available for sale than there are buyers for the stock and in order to clear the level of stock available, the share price is usually reduced by what is referred to as a blockage discount.

### 20% to 50%

Holdings of less than 50% but more than 20% can confer a significant degree of influence on the owner. If the balance of shareholders is widely spread, a holding of less than 50% can still convey effective control of the business. However, it may not provide direct ownership of assets or access to cash flow. This level of holding has a strategic value because it may allow the holder significant influence over the company's management, possibly additional access to information and a board seat.

### <20%

Holdings of less than 20% are rarely considered strategic and would normally be valued in the same way as a portfolio interest given the stake would not be able to pass any ordinary or special resolution on their own if they were against the interests of the other shareholders. Depending on the circumstances, a blockage discount may also apply.

As explained above, the amount of control premium or minority discount that would apply in specific circumstances is highly subjective. In relation to the appropriate level of control premium, Aswath Damodaran, a noted corporate finance and valuation professor, notes "*the value of controlling a firm has to lie in being able to run it differently (and better)*". A controlling shareholder will be able to implement their desired changes. However, it is not certain that a non-controlling shareholder would be able to implement changes they desired. Thus, following the logic of Damodaran and the fact that the strategic value of the holding typically diminishes as the level of holding decreases, the appropriate control premium for a non-controlling shareholder should be lower than that control premium for a controlling stake.

### Key Factors in Determining a Reasonable Control Premium

Key factors to consider in determining a reasonable control premium include:

- **Size of holding** – Generally, larger stakes attract a higher control premium
- **Other holdings** – The dispersion of other shareholders is highly relevant to the ability for a major shareholder to exert control. The wider dispersed other holdings are, the higher the control premium
- **Industry premiums** – Evidence of premiums recently paid in a given industry can indicate the level of premium that may be appropriate
- **Size of business** – medium sized businesses in a consolidating industry are likely to be acquired at a larger premium than other businesses
- **Dividends** – a high dividend payout generally leads to a low premium for control
- **Gearing** – a company that is not optimally geared may attract a higher premium than otherwise, as the incoming shareholder has the opportunity to adjust the financing structure
- **Board composition** – the ability to appoint directors would increase the control premium attaching to a given parcel of shares. The existence of independent directors would tend to decrease the level of premium as this may serve to reduce any oppression of minority interests and therefore support the level of the illiquid minority value
- **Shareholders' agreement** - the existence and contents of a shareholders agreement, with any protection such as tag along and drag along rights offered to minority shareholders lowers the appropriate control premium

# APPENDIX 6: QUALIFICATIONS, DECLARATIONS AND CONSENTS

### Responsibility and purpose

This report has been prepared for Bionomics' shareholders for the purpose of assessing the fairness and reasonableness of the Proposed Transaction. Leadenhall expressly disclaims any liability to any shareholder, or anyone else, whether for our negligence or otherwise, if the report is used for any other purpose or by any other person.

### Reliance on information

In preparing this report we relied on the information provided to us by Bionomics being complete and accurate and we have assumed it has been prepared in accordance with applicable Accounting Standards and relevant national and state legislation. We have not performed an audit, review or financial due diligence on the information provided. Drafts of our report were issued to Bionomics' management for confirmation of factual accuracy.

### Prospective information

To the extent that this report refers to prospective financial information, we have considered the prospective financial information and the basis of the underlying assumptions. The procedures involved in Leadenhall's consideration of this information consisted of enquiries of Bionomics' personnel and analytical procedures applied to the financial data. These procedures and enquiries did not include verification work nor constitute an audit or a review engagement in accordance with Australian Auditing Standards, or any other standards. Nothing has come to our attention as a result of these enquiries to suggest that the financial projections for Bionomics, when taken as a whole, are unreasonable for the purpose of this report.

We note that the forecasts and projections supplied to us are, by definition, based upon assumptions about events and circumstances that have not yet transpired. Actual results in the future may be different from the prospective financial information of Bionomics referred to in this report and the variation may be material, since anticipated events frequently do not occur as expected. Accordingly, we give no assurance that any forecast results will be achieved. Any future variation between the actual results and the prospective financial information utilised in this report may affect the conclusions included in this report.

### Market conditions

Leadenhall's opinion is based on prevailing market, economic and other conditions as at the date of this report. Conditions can change over relatively short periods of time. Any subsequent changes in these conditions could impact upon the conclusion reached in this report.

As a valuation is based upon expectations of future results it involves significant judgement. Although we consider the assumptions used and the conclusions reached in this report are reasonable, other parties may have alternative expectations of the future, which may result in different valuation conclusions. The conclusions reached by other parties may be outside Leadenhall's preferred range

### Indemnities

In recognition that Leadenhall may rely on information provided by Bionomics and their officers, employees, agents or advisors, Bionomics has agreed that it will not make any claim against Leadenhall to recover any loss or damage which it may suffer as a result of that reliance and that it will indemnify Leadenhall against any liability that arises out of Leadenhall's reliance on the information provided by Bionomics and their officers, employees, agents or advisors or the failure by Bionomics and their officers, employees, agents or advisors to provide Leadenhall with any material information relating to this report.

### Qualifications

The personnel of Leadenhall principally involved in the preparation of this report were Richard Norris, BA (Hons), FCA, M.App.Fin, F.Fin, Simon Dalgarno, B.Ec, FCA, F.FINSIA and Dave Pearson, BCom., CA, CFA, CBV, M.App.Fin.

This report has been prepared in accordance with "APES 225 – Valuation Services" issued by the Accounting Professional & Ethical Standards Board and this report is a valuation engagement in accordance with that standard and the opinion is a Conclusion of Value.

### Independence

Leadenhall has acted independently of Bionomics. Compensation payable to Leadenhall is not contingent on the conclusion, content or future use of this report.

# Online Meeting Guide

## Getting Started

If you choose to participate online you will be able to view a live webcast of the meeting, ask the Directors questions online and submit your votes in real time and you will need to either:

a) Visit https://web.lumiagm.com on your smartphone, tablet or computer. You will need the latest versions of Chrome, Safari, Internet Explorer 11, Edge and Firefox. Please ensure your browser is compatible; or

b) Download the Lumi AGM app from the Apple App or Google Play Stores by searching for Lumi AGM.

## Meeting ID: 395-495-309

To log in, you must have the following information:

### Australian Residents

Username (SRN or HIN) and Password (postcode of your registered address)

### Overseas Residents

Username (SRN or HIN) and Password (three-character country code) e.g. New Zealand - NZL; United Kingdom - GBR; United States of America - USA; Canada - CAN. A full list is provided at the end of this guide.

### Appointed Proxy

To receive your username and password, please contact Computershare Investor Services on +61 3 9415 4024 during the online registration period which will open 1 hour before the start of the meeting.

Online registration will open 1 hour before the start of the meeting

1 To participate in the meeting, you will be required to enter the unique 9 digit Meeting ID provided above.

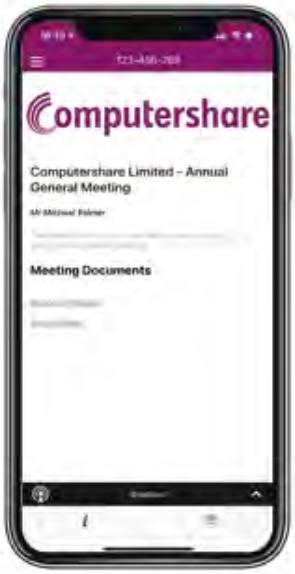

2 To proceed into the meeting, you will need to read and accept the Terms and Conditions.


OR

3 To register as a securityholder, select 'I have a login' and enter your username (SRN or HIN) and password (postcode or country code).


3a If you are a visitor, select 'I am a guest' and enter your name and email details. Please note, visitors will not be able to ask questions or vote at the meeting.


4 Once logged in, you will see the home page, which displays the meeting documents and information on the meeting. Icons will be displayed in different areas, depending on the device you are using.




## 5 View the webcast

To view proceedings you must tap the broadcast arrow  on your screen. Video and/or slides of the meeting will appear after approx. 30 seconds*. Toggle between the up or down arrow  to view another screen.

(*Dependant on the speed of your internet)


| | |
|---|---|
|  | The broadcast bar allows you to view and listen to the proceedings |
| *i* | Home page icon, displays meeting information |
| | Questions icon, used to ask questions |
| | Voting icon, used to vote. Only visible when the chairman opens poll |

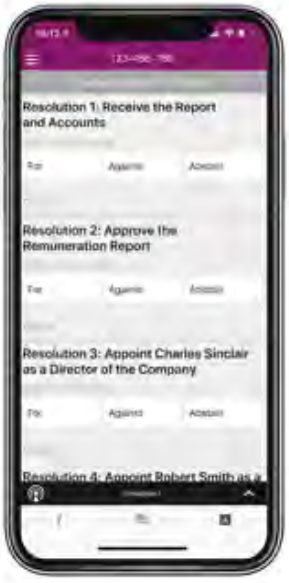
## 6 To Vote

When the Chairman declares the poll open:

- A voting icon will appear on your device and the Meeting Resolutions will be displayed.
- To vote tap one of the voting options. Your response will be highlighted.
- To change your vote, simply press a different option to override.

The number of items you have voted or yet to vote on, is displayed at the top of the screen.

Votes may be changed up to the time the chairman closes the poll.





## 7 To Ask Questions

Tap on the Questions icon to submit a question, type your question in the chat box at the bottom of the screen and then select the send icon .

Confirmation that your message has been received will appear.


On some devices, to vote, you may need to minimise the webcast by selecting the arrow in the broadcast bar, audio will still be available. To return to the webcast after voting, select the arrow again.

## For Assistance

If you require assistance prior to or during the Meeting, please call +61 3 9415 4024


Available on the App Store

Get it on Google play

**https://web.lumiagm.com**

# COUNTRY CODES

Select your country code from the list below and enter it into the **password** field.

**ABW** ARUBA
**AFG** AFGHANISTAN
**AGO** ANGOLA
**AIA** ANGUILLA
**ALA** ALAND ISLANDS
**ALB** ALBANIA
**AND** ANDORRA
**ANT** NETHERLANDS ANTILLES
**ARE** UNITED ARAB EMIRATES
**ARG** ARGENTINA
**ARM** ARMENIA
**ASM** AMERICAN SAMOA
**ATA** ANTARCTICA
**ATF** FRENCH SOUTHERN TERRITORIES
**ATG** ANTIGUA AND BARBUDA
**AUS** AUSTRALIA
**AUT** AUSTRIA
**AZE** AZERBAIJAN
**BDI** BURUNDI
**BEL** BELGIUM
**BEN** BENIN
**BFA** BURKINA FASO
**BGD** BANGLADESH
**BGR** BULGARIA
**BHR** BAHRAIN
**BHS** BAHAMAS
**BIH** BOSNIA & HERZEGOVINA
**BLM** ST BARTHELEMY
**BLR** BELARUS
**BLZ** BELIZE
**BMU** BERMUDA
**BOL** BOLIVIA
**BRA** BRAZIL
**BRB** BARBADOS
**BRN** BRUNEI DARUSSALAM
**BTN** BHUTAN
**BUR** BURMA
**BVT** BOUVET ISLAND
**BWA** BOTSWANA
**BLR** BELARUS
**CAF** CENTRAL AFRICAN REPUBLIC
**CAN** CANADA
**CCK** COCOS (KEELING) ISLANDS
**CHE** SWITZERLAND
**CHL** CHILE
**CHN** CHINA
**CIV** COTE D'IVOIRE
**CMR** CAMEROON
**COD** CONGO DEMOCRATIC REPUBLIC OF
**COG** CONGO PEOPLES REPUBLIC OF
**COK** COOK ISLANDS
**COL** COLOMBIA
**COM** COMOROS
**CPV** CAPE VERDE
**CRI** COSTA RICA
**CUB** CUBA
**CXR** CHRISTMAS ISLAND
**CYM** CAYMAN ISLANDS
**CYP** CYPRUS
**CZE** CZECH REPUBLIC
**DEU** GERMANY
**DJI** DJIBOUTI
**DMA** DOMINICA
**DNK** DENMARK
**DOM** DOMINICAN REPUBLIC
**DZA** ALGERIA
**ECU** ECUADOR
**EGY** EGYPT
**ERI** ERITREA
**ESH** WESTERN SAHARA
**ESP** SPAIN
**EST** ESTONIA
**ETH** ETHIOPIA
**FIN** FINLAND
**FJI** FIJI
**FLK** FALKLAND ISLANDS (MALVINAS)
**FRA** FRANCE
**FRO** FAROE ISLANDS
**FSM** MICRONESIA
**GAB** GABON
**GBR** UNITED KINGDOM
**GEO** GEORGIA
**GGY** GUERNSEY
**GHA** GHANA
**GIB** GIBRALTAR
**GIN** GUINEA
**GLP** GUADELOUPE
**GMB** GAMBIA
**GNB** GUINEA-BISSAU
**GNQ** EQUATORIAL GUINEA
**GRC** GREECE
**GRD** GRENADA
**GRL** GREENLAND
**GTM** GUATEMALA
**GUF** FRENCH GUIANA
**GUM** GUAM
**GUY** GUYANA
**HKG** HONG KONG
**HMD** HEARD AND MCDONALD ISLANDS
**HND** HONDURAS
**HRV** CROATIA
**HTI** HAITI
**HUN** HUNGARY
**IDN** INDONESIA
**IMN** ISLE OF MAN
**IND** INDIA
**IOT** BRITISH INDIAN OCEAN TERRITORY
**IRL** IRELAND
**IRN** IRAN ISLAMIC REPUBLIC OF
**IRQ** IRAQ
**ISL** ICELAND
**ISM** BRITISH ISLES
**ISR** ISRAEL
**ITA** ITALY
**JAM** JAMAICA
**JEY** JERSEY
**JOR** JORDAN
**JPN** JAPAN
**KAZ** KAZAKHSTAN
**KEN** KENYA
**KGZ** KYRGYZSTAN
**KHM** CAMBODIA
**KIR** KIRIBATI
**KNA** ST KITTS AND NEVIS
**KOR** KOREA REPUBLIC OF
**KWT** KUWAIT
**LAO** LAO PDR
**LBN** LEBANON
**LBR** LIBERIA
**LBY** LIBYAN ARAB JAMAHIRIYA
**LCA** ST LUCIA
**LIE** LIECHTENSTEIN
**LKA** SRI LANKA
**LSO** LESOTHO
**LTU** LITHUANIA
**LUX** LUXEMBOURG
**LVA** LATVIA
**MAC** MACAO
**MAF** ST MARTIN
**MAR** MOROCCO
**MCO** MONACO
**MDA** MOLDOVA REPUBLIC OF
**MDG** MADAGASCAR
**MDV** MALDIVES
**MEX** MEXICO
**MHL** MARSHALL ISLANDS
**MKD** MACEDONIA FORMER YUGOSLAV REP
**MLI** MALI
**MLT** MALTA
**MMR** MYANMAR
**MNE** MONTENEGRO
**MNG** MONGOLIA
**MNP** NORTHERN MARIANA ISLANDS
**MOZ** MOZAMBIQUE
**MRT** MAURITANIA
**MSR** MONTSERRAT
**MTQ** MARTINIQUE
**MUS** MAURITIUS
**MWI** MALAWI
**MYS** MALAYSIA
**MYT** MAYOTTE
**NAM** NAMIBIA
**NCL** NEW CALEDONIA
**NER** NIGER
**NFK** NORFOLK ISLAND
**NGA** NIGERIA
**NIC** NICARAGUA
**NIU** NIUE
**NLD** NETHERLANDS
**NOR** NORWAY
**NPL** NEPAL
**NRU** NAURU
**NZL** NEW ZEALAND
**OMN** OMAN
**PAK** PAKISTAN
**PAN** PANAMA
**PCN** PITCAIRN ISLANDS
**PER** PERU
**PHL** PHILIPPINES
**PLW** PALAU
**PNG** PAPUA NEW GUINEA
**POL** POLAND
**PRI** PUERTO RICO
**PRK** KOREA DEM PEOPLES REPUBLIC OF
**PRT** PORTUGAL
**PRY** PARAGUAY
**PSE** PALESTINIAN TERRITORY OCCUPIED
**PYF** FRENCH POLYNESIA
**QAT** QATAR
**REU** REUNION
**ROU** ROMANIA
**RUS** RUSSIAN FEDERATION
**RWA** RWANDA
**SAU** SAUDI ARABIA KINGDOM OF
**SCG** SERBIA AND MONTENEGRO
**SDN** SUDAN
**SEN** SENEGAL
**SGP** SINGAPORE
**SGS** STH GEORGIA & STH SANDWICH ISL
**SHN** ST HELENA
**SJM** SVALBARD & JAN MAYEN
**SLB** SOLOMON ISLANDS
**SLE** SIERRA LEONE
**SLV** EL SALVADOR
**SMR** SAN MARINO
**SOM** SOMALIA
**SPM** ST PIERRE AND MIQUELON
**SRB** SERBIA
**STP** SAO TOME AND PRINCIPE
**SUR** SURINAME
**SVK** SLOVAKIA
**SVN** SLOVENIA
**SWE** SWEDEN
**SWZ** SWAZILAND
**SYC** SEYCHELLES
**SYR** SYRIAN ARAB REPUBLIC
**TCA** TURKS AND CAICOS ISLANDS
**TCD** CHAD
**TGO** TOGO
**THA** THAILAND
**TJK** TAJIKISTAN
**TKL** TOKELAU
**TKM** TURKMENISTAN
**TLS** EAST TIMOR DEMOCRATIC REP OF
**TMP** EAST TIMOR
**TON** TONGA
**TTO** TRINIDAD & TOBAGO
**TUN** TUNISIA
**TUR** TURKEY
**TUV** TUVALU
**TWN** TAIWAN
**TZA** TANZANIA UNITED REPUBLIC OF
**UGA** UGANDA
**UKR** UKRAINE
**UMI** UNITED STATES MINOR OUTLYING
**URY** URUGUAY
**USA** UNITED STATES OF AMERICA
**UZB** UZBEKISTAN
**VAT** HOLY SEE (VATICAN CITY STATE)
**VCT** ST VINCENT & THE GRENADINES
**VEN** VENEZUELA
**VGB** BRITISH VIRGIN ISLANDS
**VIR** US VIRGIN ISLANDS
**VNM** VIETNAM
**VUT** VANUATU
**WLF** WALLIS AND FUTUNA
**WSM** SAMOA
**YEM** YEMEN
**YMD** YEMEN DEMOCRATIC
**YUG** YUGOSLAVIA SOCIALIST FED REP
**ZAF** SOUTH AFRICA
**ZAR** ZAIRE
**ZMB** ZAMBIA
**ZWE** ZIMBABWE

## ANNEXURE C – SUMMARY OF MATERIAL TERMS OF EMPLOYEE EQUITY PLAN

| | |
|---|---|
| **Eligibility** | The Board has discretion to determine which employees or non-executive directors of the Company or subsidiaries or other persons are eligible to participate. Director grants that may result in a new issue of shares on exercise of rights must also receive separate shareholder approval (**Eligible Participants**). |
| **Terms of grant** | A grant of equity instruments under the Plan is subject to both the Plan Rules and the terms of the specific grant. |
| **Administration of Plan** | The Employee Equity Plan is administered by the Board that may delegate responsibilities to a committee of the Board and/or specified officers of the Company or such other third parties as it considers appropriate. |
| **Exercise price** | Unless the Board determines otherwise, the exercise price of share options granted under the Employee Equity Plan will be the weighted average closing price of the Company's shares traded on ASX for the 7 trading days immediately preceding the date on which the invitation is made. |
| **Exercise period** | Unless the Board determines otherwise, the equity instruments will become exercisable in equal tranches over a five year period and each tranche can be exercised during the period from the date on which they vest under the terms of the specific grant to the date specified in the terms of the grant that can be no later than the seventh anniversary of the date of grant of the equity instruments. |
| **Lapse and forfeiture** | The equity instruments will lapse at the end of their relevant exercise period determined by the Board on grant. However, unless the Board or the terms of the specific grant prescribe otherwise, if the Eligible Participant ceases to be an Eligible Participant for any reason (other than by death, retrenchment or retirement), then:<br>(a) any equity instruments held by that participant for which the exercise period has commenced will lapse 30 days after the date the participant ceased to be an Eligible Participant; and<br>(b) any equity instrument held by that participant for which the exercise period has not commenced will lapse on the date the participant ceased to be an Eligible Participant. |
| **Shares issued** | A share issued on the exercise of an equity instrument will be a fully paid ordinary share in the Company ranking equally with, and having the same rights and entitlements as, other ordinary shares in the Company on issue at the date of allotment of the share (other than rights and entitlements accrued prior to the date of allotment of the share). |
| **Delivery of shares** | The Board can decide whether to purchase Shares on-market or issue new Shares on exercise of equity instruments. |
| **Restrictions on transfer** | An Eligible Participant must not assign or transfer an equity instrument (without the Company's consent), other than a transfer to a legal personal representative in the event that an Eligible Participant has died or become subject to mental health legislation. |
| **Reorganisations or bonus issues** | The entitlement of a holder of an equity instrument to Shares or their cash equivalent value will be adjusted to take account of any bonus |

| | |
|---|---|
| | issues as if the equity instrument had been exercised before the determination of any entitlements in respect to those issues. Any exercise price will be adjusted in the case of a discounted rights issue in accordance with a formula prescribed by ASX Listing Rules. In the case of a reorganisation of issued capital, the entitlement to shares will be adjusted as required by the ASX Listing Rules from time to time. |
| **Performance hurdles and other vesting and exercise conditions** | Subject to the terms of the Plan, the vesting and exercise of equity instruments may be conditional on performance hurdles, service requirements, and the satisfaction of any other vesting and exercise conditions set by the Board at the time of grant of the equity instruments. |
| **Early vesting** | Equity instruments may vest (in whole or in part) earlier than the vesting date in some circumstances, subject to exercise of the Board's discretion and compliance with the ASX Listing Rules, including if there is a change of control event (such as a takeover bid or scheme). |
| **Restriction on disposal** | The Board may impose a restriction on disposal of shares allocated on exercise of an equity instrument. |
| **Clawback** | Where, in the opinion of the Board, an equity instrument vests, or may vest, to an Eligible Participant as a result of the fraud, dishonesty, breach of obligations or knowing material misstatement of financial statements by a participant or an employee of the Group other than the participant and, in the opinion of the Board, the equity instrument would not otherwise have vested, the Board may determine that it has not vested and may, subject to applicable laws, determine any treatment in relation to the equity instrument (including resetting conditions, deeming Shares to be forfeited and/or new instruments be granted subject to substitute conditions) to ensure that no unfair benefit is obtained by the participant as a result of the actions of another person. |
| **Dilution** | Shares will not be issued unless the Board is satisfied that the number of Shares offered or that may be offered under this plus any other equity plan over the previous 3 years is less than 5% of the total shares on issue. |
| **Hedging** | An Eligible Participant must not enter into any scheme, arrangement or agreement (including options and derivative products) under which the participant may alter the economic benefit to be derived from an equity instrument. |
| **Variations** | The Board may terminate, suspend or amend the terms of the Employee Equity Plan at any time. However, the Board may not without the consent of the participants amend any restriction or other condition relating to the Plan that materially reduces the rights of participants, except in certain circumstances (for example, if the amendment is required to comply with the ASX Listing Rules or the Corporations Act). After equity instruments have been granted, the terms and conditions for a particular grant cannot be changed without the consent of the participant. |

**Bionomics** Limited
ABN 53 075 582 740

## Need assistance?

**Phone:**
1300 850 505 (within Australia)
+61 3 9415 4000 (outside Australia)

**Online:**
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SAMPLE ESTATE
SAMPLEVILLE VIC 3030

## YOUR VOTE IS IMPORTANT

For your proxy appointment to be effective it must be received by **9:00am (Adelaide time) Monday 24 August 2020**

# Proxy Form

## How to Vote on Items of Business

All your securities will be voted in accordance with your directions.

### APPOINTMENT OF PROXY

**Voting 100% of your holding:** Direct your proxy how to vote by marking one of the boxes opposite each item of business. If you do not mark a box your proxy may vote or abstain as they choose (to the extent permitted by law). If you mark more than one box on an item your vote will be invalid on that item.

**Voting a portion of your holding:** Indicate a portion of your voting rights by inserting the percentage or number of securities you wish to vote in the For, Against or Abstain box or boxes. The sum of the votes cast must not exceed your voting entitlement or 100%.

**Appointing a second proxy:** You are entitled to appoint up to two proxies to attend the meeting and vote on a poll. If you appoint two proxies you must specify the percentage of votes or number of securities for each proxy, otherwise each proxy may exercise half of the votes. When appointing a second proxy write both names and the percentage of votes or number of securities for each in Step 1 overleaf.

**A proxy need not be a securityholder of the Company.**

### SIGNING INSTRUCTIONS FOR POSTAL FORMS

**Individual:** Where the holding is in one name, the securityholder must sign.

**Joint Holding:** Where the holding is in more than one name, all of the securityholders should sign.

**Power of Attorney:** If you have not already lodged the Power of Attorney with the registry, please attach a certified photocopy of the Power of Attorney to this form when you return it.

**Companies:** Where the company has a Sole Director who is also the Sole Company Secretary, this form must be signed by that person. If the company (pursuant to section 204A of the Corporations Act 2001) does not have a Company Secretary, a Sole Director can also sign alone. Otherwise this form must be signed by a Director jointly with either another Director or a Company Secretary. Please sign in the appropriate place to indicate the office held. Delete titles as applicable.

### ATTENDING THE MEETING

**Due to Federal and State Government restrictions regarding gatherings and COVID-19 the meeting will be held virtually via an online platform at https://web.lumiagm.com with meeting ID 395-495-309**

## Lodge your Proxy Form: XX

### Online:

Lodge your vote online at www.investorvote.com.au using your secure access information or use your mobile device to scan the personalised QR code.

Your secure access information is

**Control Number: 999999**
**SRN/HIN: I9999999999**
**PIN: 99999**

For Intermediary Online subscribers (custodians) go to www.intermediaryonline.com

### By Mail:

Computershare Investor Services Pty Limited
GPO Box 242
Melbourne VIC 3001
Australia

### By Fax:

1800 783 447 within Australia or
+61 3 9473 2555 outside Australia

**PLEASE NOTE:** For security reasons it is important that you keep your SRN/HIN confidential.

MR SAM SAMPLE
FLAT 123
123 SAMPLE STREET
THE SAMPLE HILL
SAMPLE ESTATE
SAMPLEVILLE VIC 3030

☐ **Change of address.** If incorrect, mark this box and make the correction in the space to the left. Securityholders sponsored by a broker (reference number commences with '**X**') should advise your broker of any changes.

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# Proxy Form

**Please mark ☒ to indicate your directions**

## Step 1 Appoint a Proxy to Vote on Your Behalf

XX

**I/We being a member/s of Bionomics Limited hereby appoint**

☐ **the Chairman of the Meeting** **OR** _____

**PLEASE NOTE:** Leave this box blank if you have selected the Chairman of the Meeting. Do not insert your own name(s).

or failing the individual or body corporate named, or if no individual or body corporate is named, the Chairman of the Meeting, as my/our proxy to act generally at the meeting on my/our behalf and to vote in accordance with the following directions (or if no directions have been given, and to the extent permitted by law, as the proxy sees fit) at the General Meeting of Bionomics Limited to be held virtually via an online platform at https://web.lumiagm with meeting ID 395-495-309 on Wednesday, 26 August 2020 at 9:00am (Adelaide time) and at any adjournment or postponement of that meeting.

**Chairman authorised to exercise undirected proxies on remuneration related resolutions:** Where I/we have appointed the Chairman of the Meeting as my/our proxy (or the Chairman becomes my/our proxy by default), I/we expressly authorise the Chairman to exercise my/our proxy on Items 6 & 7 (except where I/we have indicated a different voting intention in step 2) even though Items 6 & 7 are connected directly or indirectly with the remuneration of a member of key management personnel, which includes the Chairman.

**Important Note:** If the Chairman of the Meeting is (or becomes) your proxy you can direct the Chairman to vote for or against or abstain from voting on Items 6 & 7 by marking the appropriate box in step 2.

## Step 2 Items of Business

**PLEASE NOTE:** If you mark the **Abstain** box for an item, you are directing your proxy not to vote on your behalf on a show of hands or a poll and your votes will not be counted in computing the required majority.

| **ORDINARY BUSINESS** | **For** | **Against** | **Abstain** |
|---|---|---|---|
| 1. Ratification of the prior issue of 81,500,000 Shares under First Placement | ☐ | ☐ | ☐ |
| 2. Approval for the issue of 54,333,000 Shares under Second Placement | ☐ | ☐ | ☐ |
| 3. Approval for the acquisition of a Relevant Interest by Apeiron and Christian Angermayer of up to 52% | ☐ | ☐ | ☐ |
| 4. Approval for the issue of up to 250,000,000 Shares under further offer underwriting arrangements | ☐ | ☐ | ☐ |
| 5. Confirm appointment of Director – Mr Aaron Weaver | ☐ | ☐ | ☐ |
| 6. Fees to Non-Executive Directors | ☐ | ☐ | ☐ |
| 7. Approval of proposed issue of Options to Dr Errol De Souza | ☐ | ☐ | ☐ |

The Chairman of the Meeting intends to vote undirected proxies in favour of each item of business. In exceptional circumstances, the Chairman of the Meeting may change his/her voting intention on any resolution, in which case an ASX announcement will be made.

## Step 3 Signature of Securityholder(s)

*This section must be completed.*

| **Individual or Securityholder 1** | **Securityholder 2** | **Securityholder 3** | |
|---|---|---|---|
| | | | / / |
| **Sole Director & Sole Company Secretary** | **Director** | **Director/Company Secretary** | **Date** |

**Update your communication details** *(Optional)*

**Mobile Number** _____

**Email Address** _____

By providing your email address, you consent to receive future Notice of Meeting & Proxy communications electronically