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27 February 2017

The Manager Companies
ASX Limited
20 Bridge Street
Sydney NSW 2000 (3 pages by email)

Dear Madam

SHAREHOLDER UPDATE

In accordance with Listing Rule 3.17, I attach a copy of a document as sent to the Company's shareholders.

Yours sincerely

Peter J. Nightingale
Company Secretary

pjn8791

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BITNews

February 2017

Dear Shareholders,

It has been a very busy and productive period since the August 2016 Newsletter and Biotron continues to make steady progress advancing its antiviral programs toward commercialisation. In this issue of BITNews we highlight the following headlines:

- **Biotron has begun a pivotal Phase 2 HIV-1 clinical trial for BIT225.**
- **Excellent results from a BIT225 humanised mouse study.**
- **Renewed interest in Biotron's extensive library of preclinical compounds.**

BIT225 Phase 2 HIV-1 clinical trial commences

Last week Biotron announced the commencement of a Phase 2 human clinical trial, designated BIT225-009, with the Company's lead drug BIT225.

Starting this trial sets Biotron on a very direct course into the world of HIV-1 eradication. Despite the dramatic advances in HIV-1 treatments, more than 1.1 million people still live with the disease in the USA alone and ~30,000 are infected in Australia. Current treatments suppress the virus but do not eliminate it; as a result HIV-1 patients must take combination Antiretroviral Therapy (cART) for the rest of their lives. This can lead to long-term health implications for these patients.

It is clear that a new class of anti-HIV-1 drugs is needed, drugs that will eradicate or "cure" HIV-1. Many global pharmaceutical companies have development programs targeting the eradication of HIV-1, but the field is at a very early stage, and Biotron's BIT225 is one of the few approaches that has reached the clinic. Successful results from this trial could position Biotron to play a key role in the eradication of HIV-1.

The trial will be run at the internationally well-regarded HIV-NAT facility in Bangkok. HIV-NAT has close affiliations with St Vincent's Hospital, and more recently with the well-established Kirby Institute located at the University of NSW, in Sydney. While ideally we would have run this trial in Australia, there are not enough new infections here for sufficient patients to be recruited in an acceptable timeframe.

Biotron hopes to show that BIT225 can further improve the current standard of care anti-HIV-1 drugs, either by:

- Faster decline in viral load compared to cART drugs alone, and/or
- A lowering of "immune activation", this is a lessening of the deleterious effect of having HIV-1 continually "smouldering" in the reservoirs or background of a patient.

If we can show these improvements, the data will imply that BIT225 is targeting a different source of virus than that currently treated with cART standard drugs. These different sources, or reservoirs, persist despite years of cART treatment, and are the reason why patients have to remain on lifelong drugs. To show that HIV-1 inside the reservoirs can be targeted by BIT225 will be a significant finding, and move us well down the path towards a partnership and commercial outcome.

Positive Results from Humanised Mouse Study

Prior to starting the phase 2 trials for BIT225, Biotron completed a key study in humanised mice.

This particular model is a recent invention. Human cells are injected into the mice, leading to the development of a functioning human immune system. HIV-1 does not replicate in mouse cells, but in this humanised mouse, the human immune system can be infected with HIV-1.

This model means that the effect of drugs can be assessed in a very cost-effective and timely manner. Study designs that cannot be used in humans can be used in these mice. For example, it is very difficult to stop current drug treatment in patients due to potential for viral rebound, but the effect of new drugs on viral rebound can be tested in these mice.

In the BIT225 study, HIV-1 infected mice were treated with current anti-HIV-1 drugs (cART) with the addition of either BIT225 or placebo. Once virus dropped below detectable limits, the drugs were stopped, to measure viral rebound.

The results clearly demonstrated that the addition of BIT225 to cART resulted in significantly faster clearance of HIV-1 as well as delayed viral rebound. This confirms our hypothesis that BIT225 attacks a different source of virus than current anti-HIV-1 drugs.

Biotron's scientists aim to present the data from this important study at an international AIDS meeting later in 2017.

Implications of the Positive Results from Humanised Mouse Study

Much time and effort went into designing a human clinical trial that would most likely demonstrate an additional clinical benefit for BIT225 on top of what is seen with current cART drugs.

International medical experts were consulted, and data from other studies extensively analysed. It has been challenging to be the first with a drug with a mode of action such as that of BIT225. There are no precedents to follow.

The data from the mouse study is critically important. The results support our view that the final design of the human clinical trial is the correct one, and gives the best chance of demonstrating a clinical benefit with BIT225 - something that potential partners need to see.

Advancing Biotron's Preclinical Compounds

Biotron has observed renewed interest from the pharmaceutical industry in targeting a broad range of viral diseases. Respiratory diseases such as Respiratory Syncytial Virus (RSV), rhinovirus, and influenza can have serious health implications in people with underlying diseases such as asthma and Chronic Obstructive Pulmonary Disorder (COPD).

Diseases including Dengue Ebola, Zika and MERS-CoV, which continue to cause public health issues worldwide, are also a focus of attention for the drug developers.

Biotron's progress with BIT225 has demonstrated the robustness of its viroporin targeting approach. Biotron continues to screen its compound library for activity against other key viruses with the aim of building a portfolio of preclinical candidates that could be of interest to potential partners.

Are New Drugs for Hepatitis C Safe?

A report published recently in the USA highlighted that new drugs for hepatitis C (HCV) may have severe side effects including liver failure and reactivation of hepatitis B (HBV) infection. The USA Food and Drug Administration (FDA) identified a safety problem with the new drugs requiring the inclusion of a "boxed warning", the Agency's most prominent advisory, regarding the reactivation of HBV.

While co-infection with HCV and HBV make up a relatively small group in the USA there is data that suggests the rate of co-infection in China is much higher.

Biotron is actively monitoring the HCV therapeutic space, and as set out in recent presentations, opportunities in China are a major focus of ongoing commercialisation activities.

Other News

The recent receipt of $1.6 million under the Australian government's R&D Tax Incentive scheme provides working capital while the Phase 2 HIV-1 trial is in progress.

I believe that 2017 will be a pivotal year for Biotron. The year has commenced on a strong note with the data from the humanised mouse HIV-1 study. Achievement of positive clinical data from the Phase 2 HIV-1 trial for BIT225, anticipated for 3Q17, will be a significant value inflection point for Biotron. In addition to proving the clinical utility of BIT225, positive results from the HIV-1 program also validate the company's viroporin approach, and thus significantly enhance the value of Biotron's wider antiviral portfolio.

Sincerely,

Michelle Miller

CEO & Managing Director

Have you checked out Biotron's new website? It is has been updated and is now mobile device friendly!

Remember to keep your contact details up to date at Computershare. Save paper and request receipt of communications via email!

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