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**Annual General Meeting
20th November 2018**



Forward Looking Statements

This presentation may contain forward looking statements with respect to the financial condition, results and business achievements/performance of Biotron Limited (ACN 086 399 144) and certain of the plans and objectives of its management. These statements are statements that are not historical facts. Words such as “should”, “expects”, “anticipates”, “estimates”, “believes” or similar expressions, as they relate to Biotron Limited, are intended to identify forward looking statements. By their nature, forward looking statements involve risk and uncertainty because they reflect Biotron’s current expectations and assumptions as to future events and circumstances that may not prove accurate. There is no guarantee that the expected events, trends or results will actually occur. Any changes in such assumptions or expectations could cause actual results to differ materially from current expectations.

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Key Achievements 2018

- Completed Phase 2 clinical trial of BIT225 and Combination Antiretroviral Therapy (cART)
 - Reported positive data in September 2018
 - Presenting data from trial at HIV DART conference in late November 2018
- Raised \$1.48 million (after costs) via rights issue in June '18
- Received \$1.07 million R&D tax refund in Oct '18
- Underwriting agreement for 30 Nov 2018 \$0.06 options in Oct '18; will bring in \$4.7 million
 - Places the company in a sound financial position as it focuses on commercial outcomes



Biotron – New Approach to Anti-Viral Drug Development

- Focused on the design and development of a new class of antiviral drugs targeting viral-encoded viroporin proteins
- Viroporins are present in wide range of viruses: Influenza (M2), HIV-1 (Vpu), HCV (p7), Dengue and West Nile (M protein), SARS (E protein) and others
- Broad platform:
 - Rapid, proprietary primary bacterial cell-based screening assays for target proteins
 - Focused library of compounds that target these viral proteins
 - Pipeline of internally-generated, first-in-class small molecule viroporin inhibitors for key markets

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HIV-1 Eradication

Current antiretroviral drugs to not cure HIV-1 infection

- HIV-1 reservoirs set up early, leading to chronic, life-long infection
- Not sensitive to current anti-HIV-1 drugs
- ***New mode of actions drugs are needed to eradicate or cure HIV-1 infection***

Why is HIV-1 eradication necessary?

- Long-term health implications e.g. HAND, immune activation, drug-drug interactions
- Compliance issues/drug holidays can lead to viral rebound
- Cost of treatment
 - ~ \$20 billion p.a. world wide
 - Major burden on healthcare systems

BIT225 has potential to be used in combination with other antiretroviral drugs to eradicate HIV-1 reservoirs

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BIT225 Targets HIV-1 Macrophage Reservoirs

[WHERE THE VIRUS HIDES]

HIV'S MANY RESERVOIRS

Beyond lying in wait in dormant memory T cells, HIV may reproduce at a low rate in certain other immune system cells—particularly macrophages and dendritic cells that seem inherently able to ward off immune defenses and anti-HIV drugs to some extent. Further, HIV-infected cells in a few parts of the body may be physically shielded to a degree from the immune system and certain drugs. HIV made in cellular and anatomical reservoirs does not reach the blood readily in aggressively treated patients but might generate a vigorous infection if treatment stops.

CELLULAR RESERVOIRS

Dormant memory T cells in lymph nodes and blood

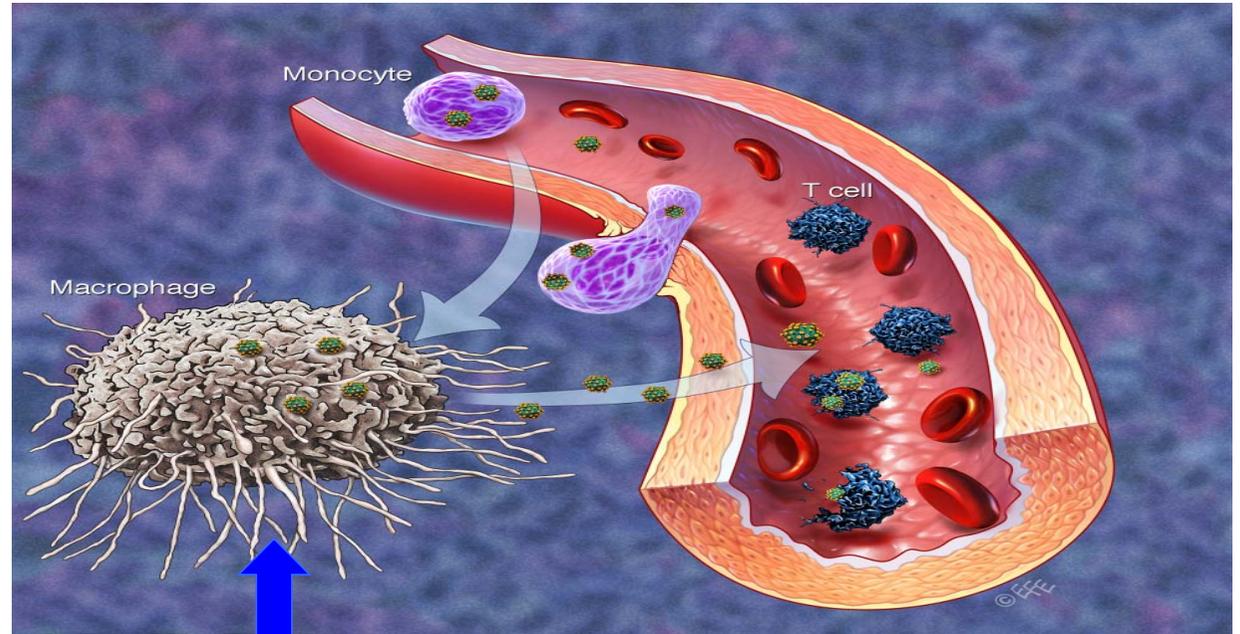
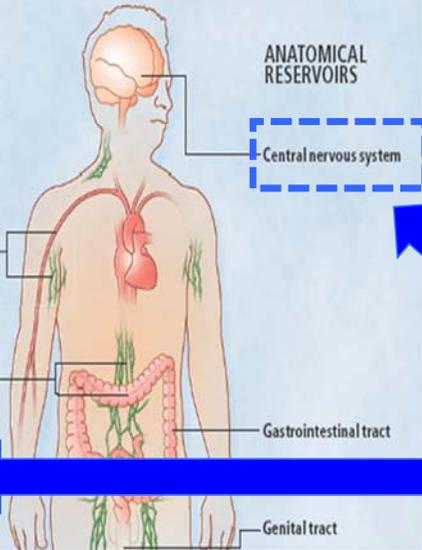
Macrophages and dendritic cells in various tissues (especially in lymph nodes, gut and central nervous system)

ANATOMICAL RESERVOIRS

Central nervous system

Gastrointestinal tract

Genital tract



BIT225 targets and kills HIV-1 in macrophage cells – these are a key reservoir of infection, even in people taking antiretroviral drugs

Mario Stevenson
Scientific American 299, 78 - 83 (2008)

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BIT225-009 Phase 2 HIV-1 Trial

Protocol

- *Double-blind, placebo-controlled, randomised, multi-centre study*
- *12 weeks, once daily, oral treatment with BIT225 or placebo in combination with antiretroviral treatment (ART)*

Subjects

- 36 HIV +ve, treatment-naïve subjects commencing standard antiretroviral treatment (ART).
Two arms, each randomised 2:1 (BIT225:Placebo):*
- 1. n=9 : 100 mg daily for detailed pharmacokinetic analyses and safety*
 - 2. n=27; 200 mg daily for efficacy and safety*

Objectives

Safety and pharmacokinetics of BIT225 in combination with ART

Impact on:

- 1. Viral load decay and kinetics (direct measurement of virus in the blood)*
- 2. Immunological markers (indirect measurement of the effect by measuring immune responses)*

Purpose

To determine whether BIT225 has a clinical benefit over and above ART, and provide data to inform the drug's future development path.

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BIT225-009 Phase 2 HIV-1 Trial Outcomes

Pharmacokinetics (PK):

- Reports by third parties in progress. Data generally not reported, as details are considered trade secrets, other than required for regulatory filings
- Adds to a large body of data (over 200 subjects dosed in trials to date) on PK of BIT225 at different dosing in different patient and healthy populations

Safety:

- No withdrawals or serious adverse events (SAEs) in the 200 mg cohort
- 200 mg once daily BIT225 was safe and well tolerated
- Additional details of demographics and safety data will be released in conjunction with conference presentations



BIT225-009 Phase 2 HIV-1 Trial Outcomes

Virological Outcomes (Measurement of virus levels in the blood)

1. Plasma viral loads

- Standard way to measure effectiveness of anti-HIV-1 drugs
- Routine diagnostic test run by pathology laboratories worldwide
- Approved anti-HIV-1 drugs are very efficient and effective at rapidly reducing plasma viral loads to undetectable
- As expected, no additional benefit with BIT225

2. Cell-associated virus

- Very sensitive assay
- Measures extremely low levels of virus produced by specific cells e.g. T cells vs monocytes in the blood
- Not a routine laboratory test
- Highly experimental, with many factors to control
- Developed by third party, academic group
- Potentially allows us to look at impact of drugs on different cells types i.e. T cells vs monocytes in the blood
- May provide additional, cell-specific information on viral decay kinetics
- Work is still in progress, and will reported once complete

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BIT225-009 Phase 2 HIV-1 Trial Outcomes

Immunological Outcomes

1. Soluble CD163

- A macrophage immune activation marker found in the blood
- High levels in untreated HIV+'s; levels are known to be lowered once on anti-HIV-1 drugs
- BUT despite treatment with anti-HIV-1 drugs, some patients have high levels of sCD163
 - These patients are at risk of higher rates of morbidity and mortality from HIV-1 infection
- **The results from BIT225-009 showed a statistically significant reduction in levels of sCD163 in the BIT225 + ART treatment arm. This provides evidence of a potential clinical benefit to patients**
- **The sCD163 data from the different cohorts will be presented at HIV DART conference in late November**



BIT225-009 Phase 2 HIV-1 Trial Outcomes

Immunological Outcomes

2. Other immunological markers

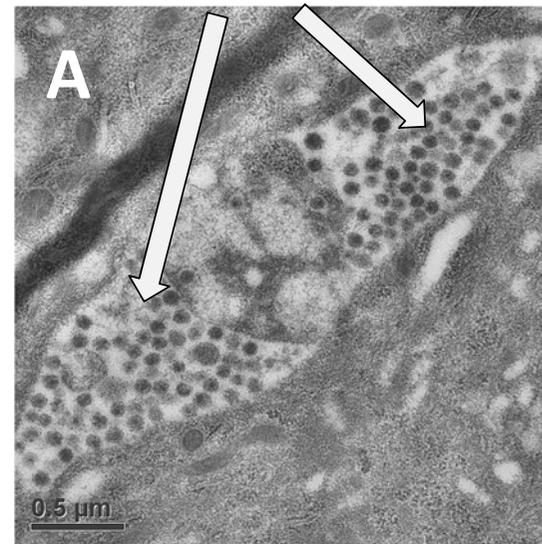
- A range of other immunological markers have been assessed to determine impact of BIT225
- Statistically significant differences found between the BIT225 + ART cohort and the placebo + ART cohort
- **Details of these immunological markers and the data from the different cohorts will be presented at HIV DART conference in late November**
- **The immunological data is evidence that BIT225 is having a profound effect on cells infected with HIV-1 in HIV-1^{+ve} patients**



Trial Data Supports BIT225 Clearing Virus from Macrophage Reservoirs

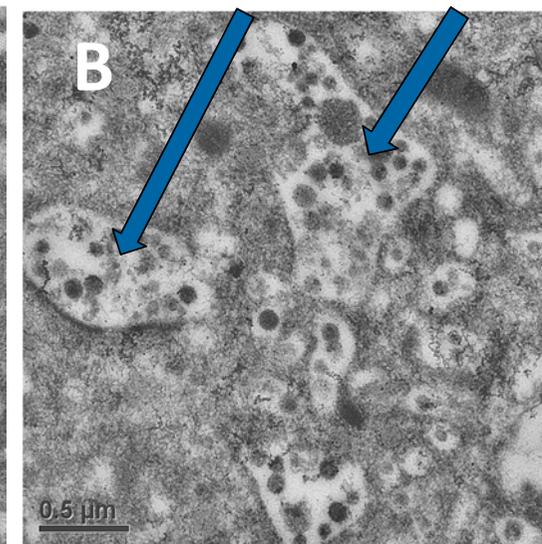
- Cell culture studies showed that BIT225 targets formation of new virus in macrophage cells (Figs A and B), producing non-infectious, dead virus
- Immunological data from the Phase 2 clinical trial showed a significant immune response in BIT225-treated patients that appears to be triggered by this non-infectious, dead virus
- This response is consistent with BIT225 targeting and clearing virus from these reservoir cells

Infectious HIV-1



(A) Untreated Controls

Non-infectious HIV-1



(B) BIT225 treated cells

This is a major advance towards eradicating HIV-1 infection

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BIT225-009 Phase 2 HIV-1 Trial Outcomes

What do these results mean for BIT225 and Biotron's HIV-1 Program?

- ***The immunological data provide clear clinical evidence that BIT225 is having a unique effect in individuals infected with HIV-1***
 - This effect is not seen in individuals treated with current approved anti-HIV-1 drugs
 - The data are consistent with BIT225's targeting and clearance of virus from macrophage cell reservoirs
 - There may be additional benefits; analyses are ongoing
- **The results support two potential future avenues for development of BIT225:**
 - 1. As a key component of future HIV-1 eradication/cure strategies**

A combination, or multi-drug approach, will be needed for successful eradication of HIV-1 infection
 - 2. As an addition to current anti-HIV drugs to reduce immune activation markers and improve patient health outcomes**
- Add to an already extensive body of preclinical and clinical data on BIT225 generated over the last decade
- **Potentially improve the saleability of the program to a commercial partner, by providing evidence of a clinical benefit over and above ART**

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Unlocking Value for Other Virus Targets

Biotron's approach enables the targeting of a wide range of viral diseases; examples include:

- Hepatitis B virus (HBV)
- Respiratory Viruses such as Respiratory Syncytial Virus (RSV), Influenza, & Coronaviruses (leading cause of "common cold")
- Flaviviruses such as Dengue and Zika Virus
- Transplant viruses such as BK virus
- Epstein Barr virus (EBV) - particular interest in Asia where it is causative agent of Nasopharyngeal Carcinoma

Biotron's Viroporin-targeting platform has the potential to become an important tool in the development of antiviral therapies

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Hepatitis B Virus Program

- Hepatitis B virus (HBV) therapeutic space has generated significant interest from pharma & biotech companies
 - Oct '18 – J&J and Arrowhead in deal worth up to US\$3.7 billion
- Screening of Biotron's compound library has identified several compounds with activity against HBV
 - Novel mechanism is attractive in combination approaches to treatment of HBV
- Progressing this program internally through early preclinical development, with aim of identifying a lead clinical candidate
- Expands Biotron's partnering opportunities – potential for early stage co-development /collaboration agreement

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Commercialisation – Key Focus

- Three tactical priorities:
 - Partnering lead clinical program - BIT225 for HIV-1 eradication
 - Partnering one or more preclinical programs – e.g. HBV
 - Execute a regional licensing deal in China - HCV program remains a key potential opportunity



Commercialisation & Outlook for 2019

- *Aim is to achieve commercial outcomes for the company's programs*
 - **Prime focus is partnering the HIV-1 program**
 - Data from the Phase 2 HIV-1 trial to be presented at key conference(s), and also shared with potential partners, during late 2018/early 2019
 - The successful results from this study are expected to facilitate commercialisation negotiations with these parties
 - Continuing to explore regional partnering opportunities in China for the BIT225 Hepatitis C (HCV) program. China has one of the world's largest populations of people infected with HCV and there may be key benefits in this particular population for treatment of HCV with BIT225
 - Hepatitis B (HBV) remains a promising early stage program. Additional resources are being committed to progress this to partner-ready status



Summary

- **HIV-1/BIT225**
 - BIT225-009 Phase 2 trial provides clear clinical evidence that BIT225 is having a unique effect in individuals infected with HIV-1
 - Engaged with the right potential partners, with the right legal/commercial deal-making skills in place
 - This is not a fast process; but we are focused on achieving a commercial outcome
- **Preclinical Programs**
 - HBV has promise as a preclinical candidate for joint development.
 - BIT225 results validate the platform; potential to facilitate funded developments by partners for “other” viral diseases
- **Regional Licensing**
 - HCV in China remains a significant development opportunity – “cost-conscious” market combined with the high rate of co-infection HCV & HBV requires different approach than used in the USA



Thanks

- Huge thank you to Biotron's small, focused, and highly dedicated team
- Thank you to Biotron's contractors and consultants
- Thank you to shareholders, especially long-term shareholders and those that participated in the recent rights issue

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