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Annual General Meeting
19th October 2016

Chairman's Address

Today I will give you a brief overview of the 2015-2016 year for BioDiem's subsidiary, Opal Biosciences Ltd. Opals' preclinical antimicrobial compound BDM-I is being developed and commercialised to target the treatment of infections, including 'superbugs' that cause antibiotic-resistant serious human infections.

In May 2015 we launched Opal Biosciences and a capital-raising for it to allow external investment in the promising antimicrobial asset, BDM-I. By the close of this capital raising one year later in June 2016 we had raised only $103,000 into Opal Biosciences. Since its formation, development work in Opal has been funded primarily by BioDiem. Our plan is to look for a cornerstone investor to continue with the development plans for the injectable, topical and lung delivery options of the BDM-I antimicrobial.

The need for new antimicrobials has not diminished and has in fact grown strongly. Global leaders met at the United Nations General Assembly in New York last month to commit to fighting antimicrobial resistance together. This is only the fourth time in the history of the UN that a health topic has been discussed at the General Assembly (HIV, noncommunicable diseases, and Ebola were the others).

The key events of this year were the progress with the development of BDM-I programs for Opal-I, Opal-T and now Opal-L. We also saw:

- Additional patents have been granted in Europe and the US with claims directed at serious and treatment-resistant infections.
- Studies on how BDM-I works to kill germs and superbugs continued at Western Sydney University's Antibiotic Resistance and Mobile Elements Group (ARMEG) led by Associate Professor Slade Jensen, who is with us today and who will be presenting some of his work to you. This research focuses on BDM-I's activity against hospital pathogens such as MRSA (methicillin-resistant Staphylococcus aureus or "Golden Staph") and other superbugs. Results to date indicate that BDM-I's cellular target is novel and therefore BDM-I represents a next-generation anti-infective. Some of this research was presented overseas.
- *On product development*,
    - we continued to prepare for *in vivo* proof-of-concept testing. BDM-I is very insoluble and to develop an injectable (Opal-I) formulation for use in the next studies in animal models we commissioned work by a UK specialist company. This injectable formulation development is ongoing;

- we explored early feasibility studies of nanoparticle formation of BDM-I which has led to discussions of a program for lung delivery of BDM-I (Opal-L) with Prof Kim Chan, Professor of Pharmaceutics (Advanced Drug Delivery), University of Sydney. Grant funding for this program will be sought. Possible disease targets include life-threatening respiratory tract fungal infections and tuberculosis;

- subsequent to the year end, we also started early stage formulation development for Opal-T (the topical application of BDM-I) with Formulytica, a Melbourne-based specialist formulation company. Opal-T could be used for superficial infections of the mucous membranes and skin: such as tinea (athlete's foot) and candida (thrush);

- Preliminary safety pharmacology and cytotoxicity studies were performed during the year.

- In addition to the investigation being undertaken in the resistant tuberculosis and fungal programs, BDM-I was accepted into an updated program of the NIH and showed activity against strains of VRE (vancomycin-resistant enterococci) and VRSA (vancomycin-resistant *Staph aureus*).

The aim of all this work is to provide the data necessary to attract an acquirer of the technology for final development, clinical trials and registration.

We are doing our best to access Australian and international grants to extend our program and leverage our limited resources. Expenditure is managed very tightly – we are pleased with our progress in the circumstances and Opal's commercial potential particularly in the US where the financial incentives for antimicrobial developers are unequalled. The spectrum of activity of the technology is impressive.

The commercial opportunities with Opal Biosciences appear only limited by the amount of funding we are able to devote to the technology development. We have been the recipient of modest Australian federal government grants for which we are grateful and are also the beneficiaries of US government programs. We are therefore seeking a cornerstone investor to fund the necessary next work to take the antimicrobial candidates towards clinical trials and to importantly, we are looking to configure the board of Opal with the requisite expertise to ensure this.

On behalf of the Opal Biosciences board I would like to thank our shareholders and staff and look forward to advising you of our progress through our website during the year.

ENDS

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