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## ASX Announcement

### BioDiem signs agreement with RMIT to create new non-influenza vaccines

**Melbourne, 19 July 2012:** Australian infectious disease therapy and vaccine development company BioDiem Ltd (ASX: BDM) today announced that BioDiem has signed an agreement with The Royal Melbourne Institute of Technology (RMIT) regarding a research program that will investigate the use of BioDiem's live attenuated influenza virus (LAIV) to create new non-influenza vaccines. Developing the potential of the LAIV technology for new indications is an important part of BioDiem's strategy, and this research is part of the work towards that goal.

The capacity to accept foreign genetic material and then use it to produce specific proteins that induce vaccination is well understood in many viruses. BioDiem's LAIV has a long history of safe use and provides a good basis for the development of a platform technology for manufacturing new therapeutic and preventative vaccines. This includes vaccines against a number of specific cancers caused by prior infections such as nasopharyngeal carcinoma (NPC), a disease of the upper airways which is of particular concern in Asia. NPC incidence is strongly correlated with infection with the Epstein-Barr virus, which represents a target for vaccination and thus NPC prevention.

The research at RMIT is expected to lead to the demonstration that re-engineered versions of BioDiem's flu virus can be produced for different disease targets. Dr Hao Van has commenced this work at the RMIT Biotechnology Laboratory in the Biosciences group led by Professor Peter Smooker who has significant experience in exploring novel approaches to vaccine creation, including with a commercially available veterinary vaccine, and in the delivery of viral antigens including HIV.

BioDiem will provide seed funding for the research and will retain full intellectual property rights relating to any new technologies produced. RMIT and BioDiem will be seeking further joint grant funding for the project. Royalties on commercial outcomes will be negotiated.

"We're pleased to enter this agreement with RMIT to explore the important area of LAIV customisation. The success of our existing vaccine licensing business is based on the ability of the LAIV to safely and effectively deliver a strong immune response, qualities we intend to expand into new indications. This partnership represents another strand in the parallel development of our portfolio of therapies and vaccines for infectious diseases and related cancers" said Julie Phillips, BioDiem CEO.

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#### About BioDiem Ltd

BioDiem is an ASX-listed company based in Melbourne with an international focus on discovering, developing and commercialising world-class research and technology targeting cancers and infectious diseases. BioDiem's core technologies include the Live Attenuated Influenza Virus (LAIV), the SAVINE platform and the BDM-I antimicrobial compound.

The LAIV influenza vaccine is an intranasal vaccine to prevent infection from seasonal and pandemic influenza. The LAIV influenza vaccine can be produced using both egg-based and cell-based manufacturing methods. The cell-based LAIV vaccine has completed a Phase II clinical trial in Europe. The egg-based LAIV vaccine technology is licensed to the World Health Organization as part of the Global Pandemic Influenza Action Plan to Increase Vaccine Supply.

The LAIV influenza vaccine is marketed as Nasovac™ in India by the Serum Institute of India, and has been licensed to China-based Changchun BCHT Biotechnology Co. The LAIV vaccine was in-licensed from the Institute of Experimental Medicine in St Petersburg, Russia where it has been used for over a decade in many millions of people - children, adults and the elderly. The LAIV is administered by nasal spray and induces a rapid immune response in the mucosal lining of the nose and pharynx.

The LAIV is also being developed as a viral vector for making novel non-influenza vaccines for different diseases including cancers. Viruses have the ability to generate proteins prolifically and can be programmed to produce disease-specific proteins. As part of a vaccine, disease-specific proteins can help generate a beneficial immune response.

SAVINE (patented Scrambled Antigen Vaccine) is a platform technology for the design of antigens for incorporation into vaccines targeting an immune response to a range of different diseases. SAVINE antigens are encoded as synthetic genes which, together with a delivery technology such as BioDiem's LAIV-based vaccine vector technology, can be used to develop novel vaccines.

BDM-I is a synthetic compound targeted at the treatment of serious human infections. BDM-I is in the preclinical stage with outlicensing as the intended outcome. BDM-I is active against a range of pathogenic micro-organisms including gram-positive and gram-negative bacteria, fungi and protozoa. Key patents have been filed around BDM-I's antimicrobial activity, including for activity against *Plasmodium falciparum*, responsible for causing the most commonly severe form of malaria, and *Trichomonas vaginalis*, the protozoan responsible for causing a common sexually transmitted disease named trichomoniasis.

BioDiem is also developing BDM-E, a tetra peptide synthetic compound, as a treatment for ophthalmic disorders. The US Food & Drug Administration (USFDA) has granted Orphan Drug designation to BDM-E for the treatment of retinitis pigmentosa, a serious degenerative disease of the retina.

BioDiem's research is ongoing in partnership with internationally recognised laboratories.

For additional information, please visit [www.biodiem.com](http://www.biodiem.com)

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