

BioBusiness Proof of Concept Grant

BIOBUSINESS PROOF OF CONCEPT GRANT APPLICATIONS FUNDED IN 2007

Seagull Technology Pty Ltd - Funding Amount \$69,865

Electrosonification device for fast non-invasive ocular drug delivery to treat Macular Degeneration

Seagull Technologies platform drug delivery device is designed for the non-invasive delivery of drugs by an innovative combination of nanotechnology and ultrasound. In its first application, it will facilitate a safer and more comfortable delivery of drugs to the back of the eye to manage eye diseases such as Age Related Macular Degeneration (ARMD). Currently needle injections are required every 6-8 weeks to prevent blindness. Needle injection in the eye can result in retinal detachment.

EnGeneIC Pty Limited - Funding Amount \$100,000

Targeted nanocell technology (EDV): safety and anti-tumour efficacy evaluation in dogs with cancer

EnGeneIC has developed the world's first targeted nanocell technology for cancer treatment. This project aims to develop new methods to manufacture the individual doses of the full therapeutic carrying cancer-targeting bispecific antibody attached to drug-packaged nanocells suitable for human studies and evaluate safety and anti-tumour efficacy of the technology in dogs suffering from various cancers.

Heard Systems Pty Ltd - Funding Amount \$99,015

HEARD Passive Pregnancy Testing Device for Cows

HEARD has conceived of a novel 'real time' method to provide non invasive pregnancy diagnosis for large farm animals. The proposed device requires less operator skill and capital investment than current methodologies such as ultra-sound, and will be linked into Radio Frequency ID ear-tag technology to better enable herd and individual animal management.

MAMA Innovations - Funding Amount \$100,000

A Catheter-Antenna based Microwave-energy Tissue Ablation System

A microwave catheter-antenna tissue ablation device (MC-A) – a new surgical tool to treat cardiac-arrhythmias, cancer-tumours and other diseases. The patented MC-A has superior manoeuvrability, novel antenna radiation and temperature-control systems which deliver precise, deep, linear ablations delivered with minimal patient invasions; thus providing a permanent cure for common cardiac arrhythmia.

Bioline (Aust) Pty Ltd - Funding Amount \$98,888

A new Fusion Protein for Novel Recombinant Protein Purification

A novel small fusion protein (tag) has been developed that allows the selective aggregation and subsequent purification of target protein from media or cell lysate, reducing costs and improving efficiency over current technology. This method will also enhance the purification of delicate protein complexes disrupted by chromatographic steps.

AllVascular Pty Ltd - Funding Amount \$73,060

Development of an in-theatre, resterilisable crimping and loading device for venous autograft stents

The technology being developed is a hand-held, resterilisable device enabling in-theatre crimping and loading of endovenous valve stent grafts. The device takes a factory based, mechanised process and transforms it into a theatre based process able to be performed by surgeons and/or theatre nurses at the time of surgery, thereby enabling the effective treatment of long-term chronic venous ulceration.

Acu Rate Pty Ltd - Funding Amount \$100,000

Revolutionary Acu Rate Flow Control Technology for IV Sets

This project will demonstrate "Proof of Concept" of Acu Rate's revolutionary flow control products. Acu Rate's devices regulate the flow of IV-administered medication. Costing less than \$1.00 (one dollar), they make simple 50 cent "gravity feed" IV sets almost as accurate and safe as \$1,000+ electric pump-assisted systems.

Special Phage Holdings Pty Ltd - Funding Amount \$71,038

Efficacy of SmartPhage PA at controlling bacterial infections caused by Pseudomonas aeruginosa

Special Phage Holdings Pty Ltd proposes to demonstrate the in-vitro efficacy of its prototype SmartPhage PA therapeutic cocktail of lytic phages in eradicating *Pseudomonas aeruginosa* bacteria (including antibiotic-resistant strains) which are commonly found in burns, wounds and cystic fibrosis patients, using locally isolated pathogens and an innovative experimental set up.

Medcare Holdings Pty Ltd - Funding Amount \$96,949

PreventaFall + A Personal Alarm Response System for Falls Monitoring and Prevention

Medcare has developed a falls monitoring system based on triaxial accelerometry that can interpret signals from ambulatory users. We will integrate these existing developments with a directed routine and voice capabilities to provide falls prevention indicators. We will also incorporate the requirements of a Personal Emergency Response System.

Novodural Pty Ltd - Funding Amount \$80,000

Novodural epidural - aiming to reduce headache and nerve damage risk

A new epidural anaesthesia system, locally designed and manufactured, which will dramatically reduce the risks of disabling headache and nerve damage associated with epidurals and which has the potential for global dominance in a US\$330 million annual market.