



# Biotech Daily

Tuesday May 31, 2011

*Daily news on ASX-listed biotechnology companies*

- \* **ASX, BIOTECH UP: BENITEC UP 10%; VIRALYTICS DOWN 13%**
- \* **WEHI 'UPENDS THEORY OF HOW CELLS GROW AND MOVE'**
- \* **DUBAI APPROVES PRIMA'S CVAC FOR OVARIAN CANCER**
- \* **JOHNS HOPKINS USES BENITEC VARIANT FOR PROSTATE CANCER**
- \* **GENETIC TECHNOLOGIES PROCESSES FIRST US BREVAGEN SAMPLE**
- \* **CEPHALON 0.5% FROM CHEMGENEX COMPULSORY ACQUISITION**
- \* **BIOMD TAKES 87% OF ALLIED MEDICAL**
- \* **ASX QUERIES PHARMAXIS TRADING HALT; REPLY BACKS CEO SALES**
- \* **OMI DIRECTOR GARY STEWART REPLACES CO SEC DAVID WOODFORD**
- \* **ARC LINKAGE GRANTS IN FULL**

## MARKET REPORT

The Australian stock market climbed 0.87 percent on Tuesday May 31, 2011 with the S&P ASX 200 up 40.8 points to 4708.3 points.

Sixteen of the Biotech Daily Top 40 stocks were up, seven fell, 10 traded unchanged and seven were untraded.

Benitec was best, up 0.3 cents or 9.7 percent to 3.4 cents with 28.5 million shares traded, followed by Alchemia up 9.5 percent to 69 cents with 301,599 shares traded.

Circadian climbed 6.7 percent; Prima and Virax were up more than four percent; Cellmid was up 3.6 percent; Impedimed, Mesoblast and Sunshine Heart were up more than three percent; Acrux, Nanosonics, Optiscan and Tissue Therapies rose more than two percent; with Bionomics, Biota, Cochlear and Phylogica up more than one percent.

Viralytics led the falls, down 1.4 cents or 12.7 percent to 9.6 cents with 19.4 million shares traded. Cellmid lost 3.45 percent; Pharmaxis and Psivida shed more than two percent; with Cellestis and QRX down more than one percent.

## WALTER AND ELIZA HALL INSTITUTE FOR MEDICAL RESEARCH

The Walter and Eliza Hall Institute says its researchers have overturned conventional wisdom on the control of cell movement in all species.

WEHI said the discovery solved the structure of a protein that cut power to the cell 'motor' and the protein could be a potential drug target for malaria and anti-cancer treatments.

The discovery is expected to be published in the Proceedings of the National Academy of Sciences in an article entitled 'Minimal requirements for actin filament disassembly revealed by structural analysis of malaria parasite actin-depolymerizing factor 1'.

The article's authors, the Institute's Dr Jake Baum, Wilson Wong and Dr Jacqui Gulbis, in collaboration with the University of Chicago's Dr Dave Kovar said that by studying the structure of actin-depolymerising factor 1 (ADF1), a key protein involved in controlling the movement of malaria parasites, they demonstrated that the historic understanding of the relationship between protein structure and cell movement was flawed.

Dr Baum said actin-depolymerising factors (ADFs) and their genetic regulators had been known to be involved in controlling cell movement, including the movement of malaria parasites and movement of cancer cells through the body.

Anti-cancer treatments that exploit this knowledge are under development.

"ADFs help the cell to recycle actin, a protein which controls critical functions such as cell motility, muscle contraction, and cell division and signaling," Dr Baum said. "Actin has unusual properties, being able to spontaneously form polymers which are used by cells to engage internal molecular motors - much like a clutch does in the engine of your car."

"A suite of accessory proteins control how the clutch is engaged, including those that dismantle or 'cut' these polymers, such as ADF1," Dr Baum said.

Dr Baum said that research in yeast, plants and humans suggested that the ability of ADFs to dismantle actin polymers - effectively disengaging the clutch - required a small molecular 'finger' to break the actin in two, but in the malaria ADF1 protein, the group discovered it lacked the molecular 'finger' and was still able to cut the polymers.

"We discovered that a previously overlooked part of the protein, effectively the 'knuckle' of the finger-like protrusion, was responsible for dismantling the actin; we then discovered this hidden domain was present across all ADFs," Dr Baum said.

Mr Wong said it was the first time a 3-D image of the ADF protein had been captured in such detail from any cell type and imaging the protein structure at high resolution with the Australian Synchrotron facilities was critical in proving beyond question the segment of the protein responsible for cutting actin polymers.

Dr Baum said the knowledge would give researchers a much clearer understanding of one of the fundamental steps governing how cells across all species grow, divide and move.

"Knowing that this one small segment of the protein is singularly responsible for ADF1 function means that we need to focus on an entirely new target not only for developing anti-malarial treatments, but also other diseases where potential treatments target actin, such as anti-cancer therapeutics," Dr Baum said.

"Malaria researchers are normally used to following insights from other biological systems; this is a case of the exception proving the rule: where the malaria parasite, being so unusual, reveals how all other ADFs across nature work," Dr Baum said.

Dr Baum said the discovery could lead to drugs geared toward preventing malaria infection, without adverse effects on human cells.

"One of the primary goals of the global fight against malaria is to develop novel drugs that prevent infection and transmission in all hosts, to break the malaria cycle," Dr Baum said.

"There is a very real possibility that ... drugs could be developed that jam this molecular clutch, meaning the malaria parasite cannot move and continue to infect cells in any of its conventional hosts, which would be a huge breakthrough for the field," Dr Baum said.

## PRIMA BIOMED

Prima says that Dubai Healthcare City has granted approval for the marketing and distribution of its CVac vaccine for ovarian cancer.

Prima is preparing to enroll patients for a phase IIb US and phase III European registration-directed trial of the cancer vaccine, which last reported some efficacy in four of 21 patients in a phase II trial in 2007 (BD: Dec 12, 2006; Mar 14, 2007; Feb 1, 21, 2011).

Prima chief executive officer Martin Rogers told Biotech Daily the Dubai approval was due to the classification of CVac as a blood product and Prima expected to gain Australian Therapeutic Goods Administration approval under a similar regulatory approach.

In a media release, Prima said that subject to finalizing regulatory steps, the first sales of CVac in Dubai were expected by the end of 2011.

The company said commercialization of CVac was “a significant event ... allowing the company to generate revenues in a growing Middle Eastern healthcare market”.

Prima said there was also the potential to extend the application of CVac in Dubai to other mucin-1 positive tumors.

The company said it had appointed Dr Hind Al Saadi as its general manager of Middle East operations and would lead the commercialization effort in the region.

Prima said Dr Al Saadi was a qualified pharmacist with about 20 years of international industry experience in marketing, sales, distribution and regulatory affairs.

Prima was up 1.5 cents or 4.9 percent to 32 cents with 32.6 million shares traded.

## BENITEC

Benitec says Johns Hopkins University scientists have shown the potential of its gene silencing technology to provide effective therapeutics for prostate cancer.

Benitec said that in a paper entitled ‘Prostate-targeted radiosensitization via aptamer-shRNA chimeras in human tumor xenografts’ published in the Journal of Clinical Investigation the independent researchers said they used a form of Benitec’s DNA-directed RNA interference technology (ddRNAi) as a key component of their therapeutic molecule in preclinical studies both in vitro and in vivo.

Benitec chief executive officer Dr Peter French told Biotech Daily that his company held the intellectual property for the variant of its ddRNAi technology.

The company reported the researchers combined a short hairpin RNA (shRNA) molecule which silenced a key repair gene, with a molecule which targeted prostate cancer cells, resulting in the prostate cancer cells being unable to survive after radiotherapy.

The research paper said one in six men would be diagnosed with prostate cancer with a 50 percent risk of recurrence for men with locally advanced disease, which was primarily managed by radiation therapy.

“New technologies that improve the therapeutic index of radiation therapy for local disease have the opportunity to significantly affect the morbidity and mortality of prostate cancer,” the researchers said and concluded that the “targeted treatment markedly enhanced the benefits of radiation therapy in both cellular and tumor models”.

Benitec said the researchers reported that the shRNAs used in this prostate cancer study could also be useful in many other radiotherapy-resistant cancers.

The paper is available at: <http://www.jci.org/articles/view/45109>.

Dr French said that while the study was at an early stage, “it is very pleasing to see the power and the potential of Benitec’s ddRNAi technology being demonstrated by independent researchers around the world to develop potential new therapies for the treatment of serious human diseases such as cancer”.

Benitec was up 0.3 cents or 9.7 percent to 3.4 cents with 28.5 million shares traded.

## GENETIC TECHNOLOGIES

Genetic Technologies says it has received and processed its first Brevagen clinical sample from a US patient.

Genetic Technologies said the first processed US sample followed last month's receipt of certification of its Australian laboratory under the US Clinical Laboratories Improvements Amendments (BD: Apr 28, 2011)

The company said the sample was received by its North American subsidiary Phenogen Sciences, where the cheek swab sample was bar-coded and entered into the laboratory information management system, before being shipped to Australia for processing.

Genetic Technologies said the results were made electronically accessible to the company's North Carolina offices for distribution to the requesting physician.

The company said that all systems functioned as expected and no infrastructure hurdles remain to full market availability.

Genetic Technologies said the results enabled the patient's physician to better understand the personalized risk of non-familial breast cancer, allowing better management and prevention of disease.

The company said the patient was one of an estimated 1.3 million new patients in the US who could benefit from such a test each year.

Phenogen general manager Lewis Stuart said that 64 percent of the target patient population "will have their breast cancer risk re-classified as a result of using the Brevagen test, providing a more personalized and actionable assessment".

"Many women will have their peace of mind improved by being re-classified to a lower risk group while for others, they will be re-classified to a higher risk group, enabling decisions regarding increased surveillance or even cancer preventive therapy," Mr Stuart said.

Genetic Technologies said Phenogen had hired its initial sales team in preparation for the launch of Brevagen.

Genetic Technologies was unchanged at 25 cents.

## CHEMGENEX

Cephalon said it had increased acceptances for its Chemgenex takeover bid from 276,642,228 shares (88.22%) to 280,714,604 shares (89.52%).

When Cephalon reaches 90 percent acceptances it can proceed to a compulsory acquisition of the remaining shares.

The company has said it will pay for those shares with five business days of the takeover conditions being met.

Last week, Cephalon waived its 90 percent listed options condition (BD: May 27, 2011).

Today Cephalon said it held acceptances for 9,500,960 listed options (86.77%).

Chemgenex was unchanged at 69.5 cents.

## BIOMD, ALLIED MEDICAL

Biomd says it has increased its takeover bid acceptances from Allied Medical investors from 8,471,529 shares (65.35%) to 11,289,747 shares (87.09%).

Biomd was up 0.3 cents or 4.6 percent to 6.8 cents.

## PHARMAXIS

The ASX has questioned Pharmaxis about the timing of its trading halt regarding the negative 'trend vote' from European regulators (BD: May 23, 25, 2011).

Pharmaxis told the ASX that it did not consider the trend vote as 'material' but the formal decision expected in June would be material under the ASX Listing Rules.

The information provided by Pharmaxis reinforced the statement that chief executive officer Dr Alan Robertson sold shares prior to knowing the trend vote result.

Dr Robertson previously told Biotech Daily that he sold 500,000 shares obtained through the exercise of options received when the company was founded to pay a tax liability incurred through the exercise of those options (BD: May 17, 2011).

The ASX asked Pharmaxis whether it considered the trend vote material and if not, why not, when it first became aware of the outcome of the trend and if the company became aware of the outcome of the trend vote prior to requesting the trading halt, why the halt was not requested at an earlier time.

Pharmaxis said it first became aware of a negative trend vote when it "was verbally and confidentially communicated to the company on the morning of May 19, 2011".

Pharmaxis said the European Committee for Medicinal Products for Human Use meeting did not end until the morning of May 20 and an official and public report of the proceedings of the meeting was not available to applicants until overnight on May 20.

The company said that when the trend vote was verbally communicated, its implications for the final June vote "could not immediately be fully understood".

"It was only when the company had a sufficient understanding of the trend vote's implications for the likely outcome of the June meeting, on the balance of probabilities, that the company formed its view that the outcome of the June meeting would likely be negative," Pharmaxis said.

Pharmaxis said that on the Saturday morning, May 21, as the Committee for Medicinal Products for Human Use had not communicated anything further before the publication of the report and the report itself did not reference the company's application, it formed the view it was unlikely there would be a change in the Committee's position at the June 2011 meeting.

The company then requested a trading halt prior to the commencement of trading on the next trading day, May 23, 2011.

Separately, Dr Robertson told Biotech Daily today that excluding the adolescent data from the trial analyses provided a significant difference between Bronchitol and placebo in both the under 12 year old and over 17 year old groups.

Dr Robertson was in Melbourne as part of a road show for major investors, following the trend vote announcement.

He said that he expected to publish the re-analyzed data for next scientific meeting of cystic fibrosis.

Pharmaxis fell three cents or 2.6 percent to \$1.14 with 5.8 million shares traded.

## OMI HOLDINGS

OMI says David Woodford has resigned as company secretary will be replaced by non-executive director Gary Stewart.

OMI was formerly known as Occupational and Medical Innovations.

Mr Woodford was appointed in his capacity as a senior associate in Tresscox lawyers to assist the company recover from its ASX suspension.

OMI fell 0.1 cents or 14.3 percent to 0.6 cents.

## AUSTRALIAN RESEARCH COUNCIL LINKAGE GRANTS

The following programs have been awarded Linkage Grants starting in July 2011. Along with Cochlear, Glaxosmithkline, Immuron, Novartis, Pfizer, Sirtex and Tissue Therapies named in last night's edition, grants have also been awarded to collaborative research with Mesoblast and Prima Biomed.

The funding amounts are for years beginning with the six months of 2011, then 2012, 2013 and 2014 and in some cases funding has been extended to further years.

The University of Sydney

Prof Dale L Bailey, Dr Stephen K Jones, Prof Clive Baldock, A/Prof Zdenka Kuncic

A phenomenological approach to improve radioembolisation treatment of cancer

\$45,000 + \$87,500 + \$87,500 + \$45,000

Partner/Collaborating Organisation(s): Sirtex Technology

Prof Marcela M Bilek, Prof Anthony S Weiss, Prof David R McKenzie

Multifunctional surfaces for implantable biomedical devices

\$90,000 + \$180,000 + \$180,000 + \$90,000

Partner/Collaborating Organisation(s): Cochlear Limited, LfC Sp. z o.o., Spinecell Pty Ltd

The project will develop new plasma processing methods to create surfaces for implants that will give control over the response of human tissues.

University of Wollongong

A/Prof Stephen J Blanksby, Dr Todd W Mitchell, Dr John L Campbell

Development of ozone-induced dissociation for lipidomics workflows

\$44,500 + \$89,000 + \$89,000 + \$44,500

Partner/Collaborating Organisation(s): AB Sciex Pte Ltd

Ozone induced dissociation will be developed in collaboration with a major instrument manufacturer to provide researchers with capabilities to investigate the role of lipids in human disease.

The University of Adelaide

Dr Darren J Trott, Prof Adam McCluskey, Dr Stephen Page

Characterisation of a new class of antimicrobial agent for multidrug-resistant infections

\$73,500 + \$147,000 + \$140,500 + \$67,000

Partner/Collaborating Organisation(s): Neoculi Pty Ltd

The University of New South Wales

Prof Brett A Neilan

Discovery of bioactive natural substances from uncultured bacteria and their production using photosynthetic reactor technology

\$47,500 + \$95,000 + \$95,000 + \$47,500

Partner/Collaborating Organisation(s): DIAGNOSTIC TECHNOLOGY Pty. Ltd.

The range and rate of natural product discovery is the limiting factor in developing new therapies for cancer and infectious disease. This research will enable the discovery of new drugs.

The University of Queensland

Prof David J Craik, Prof David P Fairlie, Dr Spiros Liras, Dr David A Price

Innovations in peptide-based drug design

\$447,777 + \$831,636 + \$777,386 + \$393,527

Partner/Collaborating Organisation(s): Pfizer Australia Pty Ltd

This project will aim to develop new drugs to fill a gap between existing small molecule drugs, which are inexpensive and stable, but often have side-effects and biologics which are expensive and require injection.

Monash University

Prof Peter J Scammells, Dr Bim Graham, Dr Campbell Scott

New methodology for the manufacture of opioid pharmaceuticals and the discovery of novel opiate receptor ligands

\$35,000 + \$70,000 + \$70,000 + \$35,000

Partner/Collaborating Organisation(s): GlaxoSmithKline

Monash University

Prof Robert N Pike, Prof James C Whisstock, Dr Jiangning Song, Dr Tracey L Mynott

Characterisation of plant cysteine proteases with therapeutic potential

\$55,000 + \$100,000 + \$90,000 + \$45,000

Partner/Collaborating Organisation(s): Sarantis Limited

This project aims to uncover how plant enzymes have effects on the immune system. This will allow the development of these enzymes as therapeutic agents for cancer and autoimmune conditions.

Queensland University of Technology

Dr Timothy R Dargaville, Dr Gary K Shooter, Dr Tristan I Croll, Dr Brett G Hollier

Investigation of the biology of insulin-like growth factor 1 and its derivatives for the development of new therapeutics

\$25,000 + \$50,000 + \$25,000

Partner/Collaborating Organisation(s): Tissue Therapies Ltd

The University of Queensland

Prof Matthew A Brown, Prof Huji Xu, Prof Perry F Bartlett, Dr Robyn H Wallace, Prof Peter M Visscher, Prof

Bryan J Mowry, Prof David C Reutens

Sino-Australian neurogenetics initiative

\$125,000 + \$215,000 + \$220,000 + \$130,000

Partner/Collaborating Organisation(s): NuNerve Pty Ltd , Queensland Centre for Mental Health Research, Shanghai Changzheng Hospital

This project will undertake large population studies to identify genes associated with motor neuron disease, schizophrenia and intracranial haemorrhage. The project will determine genetic markers, aid development of diagnostic tools and identify new therapeutic targets for these common heritable neurological diseases.

Monash University

Dr Dena Lyras, Prof Julian I Rood, Dr Grant T Rawlin

The development and evaluation of a new therapy for the prevention and treatment of bacterial infections in hospitals

\$82,500 + \$165,000 + \$165,000 + \$82,500

Partner/Collaborating Organisation(s): Immuron Limited

The technology used in this project will enable products to be developed from the Australian dairy industry which may provide protection and treatment for diarrhoea acquired in hospitals for which there are few effective options.

Queensland University of Technology

Dr Wilhelmina M Huston, Prof Kenneth W Beagley

Chemical inhibition: a new approach to investigate the role of a key protease, CtHtrA, from Chlamydia trachomatis

\$22,500 + \$45,000 + \$45,000 + \$22,500

Partner/Collaborating Organisation(s): The Wesley Research Institute

Infertility in women frequently results from infection with Chlamydia trachomatis. This project will develop an inhibitor compound against a protein from this bacteria and establish a new approach to study Chlamydia trachomatis. This project will also contribute to the development of new treatments for infertility.

The University of Melbourne

A/Prof Laura J Parry, A/Prof Helena C Parkington, Dr Marianne Tare, A/Prof Mary E Wlodek

Novel anti-ageing peptides in the vascular system

\$57,500 + \$112,500 + \$110,000 + \$55,000

Partner/Collaborating Organisation(s): Novartis Pharma AG

Macquarie University

Dr David J Spence, Dr Helen M Pask, A/Prof Richard P Mildren, Prof James A Piper, Dr Graeme P Malcolm, Dr Gail McConnell

Versatile ultrafast Raman laser sources for biophotonics

\$45,000 + \$90,000 + \$90,000 + \$45,000

Partner/Collaborating Organisation(s): M Squared Lasers Ltd

The project will develop new wavelength-versatile and robust ultrafast laser sources to enable new technologies in areas such as the study of diseases at the cellular level and micron precision drug activation.

Deakin University

Prof Xungai Wang, Dr Rangam Rajkhowa, Dr Robert J Marano, Prof Marcus D Atlas

Engineering a silk fibroin based ear drum with optimum acoustic properties

\$51,000 + \$102,500 + \$106,000 + \$105,000 + \$50,500

Partner/Collaborating Organisation(s): Ear Science Institute Australia Incorporated

Monash University

Prof Gil B Garnier, Dr Wei Shen

Cellulosic and paper-based biosensors for blood analysis

\$75,000 + \$150,000 + \$165,000 + \$165,000 + \$150,000 + \$75,000

Partner/Collaborating Organisation(s): Lateral Grifols Pty Ltd

Testing the blood compatibility of an Australian evacuated for surgery; measuring the iron content from India for anemia treatment; identifying the outbreak of malaria in Pakistan; measuring prostate specific antigen/blood screening in your home. These are novel applications for paper biosensors, which will improve health and create new jobs in Australia.

The University of Queensland

Prof Peter J Halley, A/Prof Rowan W Truss, Prof Michael J Gidley

High performance thermoplastic starch polymer films for controlled barrier and delivery

\$50,000 + \$100,000 + \$100,000 + \$50,000

Partner/Collaborating Organisation(s): Plantic Technologies Ltd

The project will develop new biopolymers for high-performance applications, such as smart packaging, biomedical materials and drug delivery systems.

The University of Sydney

Prof David R McKenzie, Dr Natalie L James

Feedthrough technologies for polymeric encapsulated active implants

\$97,500 + \$195,000 + \$195,000 + \$97,500

Partner/Collaborating Organisation(s): Cochlear Limited, Raymax Applications Pty Ltd

The project will address the scientific challenges of signal transfer between tissue and novel active implantable medical devices, with major implications for cochlear implant manufacture.

University of South Australia

Prof Robert D Short, Dr David A Steele, Dr Peter J Murphy

The development of flexible, graded plasma surface engineered coatings for superior interfacial performance

\$46,896 + \$96,042 + \$98,292 + \$49,146

Partner/Collaborating Organisation(s): Contamac Limited

The next generation of intraocular lenses, medical devices to treat patients with cataracts, will be developed through application of advanced surface engineering technologies. These superior coated lenses will improve biocompatibility and function, leading to additional benefit for people with cataracts by 2021.

Monash University

Dr Tracy S Heng, Prof Richard L Boyd, Prof Silviu Itescu

Dissecting the physiology of multipotent mesenchymal stromal cells to develop vaccine candidates for respiratory disease

\$62,500 + \$117,500 + \$115,000 + \$60,000

APDI, Dr Tracy S Heng

Partner/Collaborating Organisation(s): Mesoblast

The project aims to gain an understanding of how a type of adult stem cell inhibits immune responses that cause asthma. The project will produce new stem cell products and facilitate the design of a vaccine for asthma and other respiratory diseases, which would greatly reduce the burden of such conditions.

Queensland University of Technology

Dr Maria A Woodruff, Dr Siamak Saifzadeh, Prof Ross W Crawford, Prof Molly M Stevens, Dr Matthew O'Donnell

The development of new scaffolds for bone repair comprising polycaprolactone and strontium-substituted bioactive glasses

\$53,500 + \$102,000 + \$92,000 + \$43,500

Partner/Collaborating Organisation(s): Queensland Orthopaedic Research Trust, RepRegen Ltd

The University of Adelaide  
Prof Tanya M Monro, A/Prof Jeremy G Thompson, Dr Robert B Gilchrist, Prof Andrew D Abell  
Nanosampling sensors for real-time embryo monitoring  
\$75,000 + \$145,000 + \$135,000 + \$65,000  
Partner/Collaborating Organisation(s): Cook Medical Australia Pty Ltd

The University of Queensland  
A/Prof Stephen M Mahler, Dr Trent P Munro, Dr Martina L Jones, Dr Jennifer MacDiarmid, Dr Himanshu Brahmbhatt  
Targeting the delivery of cytotoxic agents to tumour cells using novel minicells as drug delivery vehicles and engineered, bispecific antibodies  
\$59,500 + \$119,000 + \$116,500 + \$57,000  
Partner/Collaborating Organisation(s): EnGeneIC Limited

The University of New South Wales  
LP110200125  
Prof Neil R Foster, Prof Ian H Frazer  
Development of dense gas technology platforms for the formulation of oral vaccines  
\$65,000 + \$115,000 + \$100,000 + \$50,000  
Partner/Collaborating Organisation(s): PRIMA BIOMED LTD  
This project will aim to develop a technology platform that enables the formulation of vaccines that can be delivered orally and this research has the potential to radically change existing vaccination regimens. The availability of needle-free vaccination also has potential for considerable societal and economic impact in developing countries.

The University of New South Wales  
A/Prof Yong Li, A/Prof Peter H Graham, Dr Bradley J Walsh, Dr Zhenjun Zhao  
Proteomic study of tears to discover novel biomarkers for human breast cancer  
\$28,500 + \$51,000 + \$47,500 + \$25,000  
Partner/Collaborating Organisation(s): Brien Holden Vision Institute, Minomic international Limited

Queensland University of Technology  
Prof Kenneth W Beagley, Dr Frank E Aldwell, A/Prof John G Aaskov  
Development of an orally delivered genital herpes vaccine: targeting the reproductive tract using Liporale, a novel lipid-based adjuvant  
\$21,000 + \$42,000 + \$42,000 + \$21,000  
Partner/Collaborating Organisation(s): Immune Solutions Ltd

The University of New South Wales  
Prof Rakesh K Kumar, A/Prof Nicodemus T Tedla  
Mechanism of action of an anti-inflammatory compound which targets alternatively activated macrophages  
\$36,000 + \$74,000 + \$38,000  
Partner/Collaborating Organisation(s): Isu Abxis Co., Ltd.  
The project will study the mechanism by which a novel anti-inflammatory compound, developed by our commercial partner, suppresses the activity of a population of cells known as alternatively activated macrophages. These cells play a key role in driving allergic inflammation, including the inflammation associated with asthma.