

ANNUAL REPORT 2004

IMBcom pty Ltd

The commercialisation company for the Institute for Molecular Bioscience

The University of Queensland

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Knowledge is the currency of today's and tomorrow's global economy.

In the investigation of human and animal biology, the Institute for Molecular Bioscience generates a fund of ideas, many of which lend themselves to innovation and commercialisation. This process can lead to new medical treatments, highly valuable health diagnostic products and novel biomedical and other technologies.

IMBcom is the value-adding innovation carrier for these ideas. We protect the discoveries of the IMB researchers, build alliances with organisations to promote them, and draw up partnerships with investors who help us to grow them into platforms for new enterprises.

CHAIRMAN/CEO REPORT

IMBcom's activities support the commercialisation of long term, high quality research at The University of Queensland's Institute for Molecular Bioscience (IMB). IMBcom provides an effective interface between the IMB and industry for the economic and social benefit of Queensland and Australia through the development of a biotechnology industry. In 2004, IMBcom entered its fifth year of incorporation. The relationship between the company and its client, the IMB, continues to flourish. IMBcom's contributions include IP management and development, sourcing of commercial contracts, assistance with government development and commercialisation grants, startup company generation and management and commercialisation education programs. It continues to enjoy a strong reputation with the State Government as a vital force in the Smart State commercialisation strategy.

Since 2000, companies in which IMBcom retains an interest have secured a total of \$45M in investment, of which more than 60% was raised from private capital, and almost all of the balance through government-sourced industry development grants. Over the past year IMBcom raised significant revenues through commercial contracts, and contributed significantly to the IMB's national profile in being awarded public research grants. During the reporting year IMBcom Pty Ltd maintained its emphasis on developing existing start-up companies while increasing efforts to secure new intellectual property. The company also increased its efforts in establishing partnerships with biotechnology and pharmaceutical companies. In particular, IMBcom secured contract research agreements with international biotech companies and continued to maintain agreements with several of its spin-out companies, with total billings exceeding \$5.0 million. Three of our start-up companies received additional funding through a variety of government grants and

private equity and progressed to their next stage of development. New areas of intellectual property were secured in the IMBcom portfolio, including major projects on hydrogen production, novel anti-cancer compounds, renal regeneration and inflammation. Progress was made in developing commercial outcomes from IMB's strengths in biodefence programs for new pharmaceuticals and other useful molecules.

In a significant milestone for the company, IMBcom's shareholder interest (with UniQuest) in a spinout company was liquidated providing a significant return on the University's investment. This has enabled the establishment of a commercial Proof of Concept Fund, co-administered by the IMB and IMBcom, to move valuable IP along commercial pathways.

We forecast that 2005 will see a more conservative approach by investors in spin-out companies. However, IMBcom anticipates securing sufficient funds for IMBcom's companies to continue to grow. A targeted approach will be continued to be used in seeking commercial alliances.

The company continues to benefit from co-location with the IMB in the new complex at the Queensland Bioscience Precinct. Sharing the facility with the researchers and support staff of the Institute strengthens productive interactions between IMBcom's staff and the Institute's researchers.

DR JANE WILSON – CHAIRMAN

DR PETER ISDALE - CHIEF EXECUTIVE OFFICER

ACKNOWLEDGMENTS

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IMBcom BOARD



IMBcom Board: (back row, from left) Euan Murdoch, Peter Riddles, Mel Bridges, Paul Greenfield, Peter Isdale (CEO)
(front row, from left) Michael Finney (Company Secretary), Jane Wilson (Chair), Ken Roberts (Deputy Chairman)

Dr Jane Wilson MBBS, MBA, FAICD - Chairman

Jane Wilson is a professional company director with a background in medicine and finance. She is a Council member and immediate past President of the Australian Institute of Company Directors Qld Division as well as a director of UQ Holdings Ltd, Protagonist Pty Ltd, and the National Archives Advisory Council. Dr Wilson is Finance Director of the Winston Churchill Memorial Trust and was the Inaugural Chair of Horticulture Australia Ltd.

Mr Kenneth J. Roberts, AM, FRACP (Hon), BEc, FCPA, FAIM, FAICD

Ken Roberts was Chairman and Managing Director of Wellcome Australasia Limited and Director of Marketing Development for the Wellcome Worldwide Group until 1996. He is currently a Director of CSL Limited, Chairman of the Royal Australasian College of Physicians Research and Education Foundation, Chairman of the Boards of the Australian Genome Research Facility Ltd and the Australian Phenomics Facility, and Deputy Chairman of the University of Queensland's IMBcom Pty Ltd. He is Chairman of Start-Up Australia Pty Ltd.

Professor Paul Greenfield, BE, PhD, FTSE, FICChE, FIEAust, CPEng

Paul Greenfield is Senior Deputy Vice-Chancellor and Professor of Chemical Engineering at The University of Queensland. Professor Greenfield has extensive experience as a Board Director, serving on the boards of ten company or CRCs. He is Chair of the Scientific Advisory Group of the Moreton Bay Waterways Partnership.

Dr David A. Evans, BE, MS, AM, PhD, FIEAust, CPEng

David Evans was CEO of University Partnerships at the University of New England from 1989 to 1994 and CEO and then Managing Director of UniQuest, a technology transfer company of the University of Queensland, from 1994 to 2000. In 2000 he co-founded Uniseed, a joint venture between UQ Holdings and Melbourne University Private. Until 2004 Dr Evans ran his own consulting company, Atlati Management Pty Ltd and was recently appointed Managing Director and CEO of Koala Corporation Australia Limited.

Mr Euan Murdoch

Euan Murdoch is Founder of Herron Pharmaceuticals, and is a Board Member of its parent company, Sigma Pharmaceuticals. Mr Murdoch is also Founder and Executive Chairman of the Board of Imaginot - a research company he established in 2001 from collaboration with the Departments of Medicine and Pharmacy of the University of Queensland. In 2001, Euan Murdoch was a Queensland winner of the Australian Entrepreneur of the Year Awards. He has also received numerous marketing awards from the Public Relations Institute of Australia and the Australian Society of Business Communicators.

Mr Mel Bridges

Mel Bridges has over 30 years experience in the biotech and healthcare industry. He has founded and managed successful diagnostics, biotech and medical device businesses. A Fellow of the Australian Institute of Company Directors, Mr Bridges co-founded listed company PANBIO, raising \$17 million in its IPO, and is currently Chairman of a number of listed and unlisted companies including, Peptech Pty Ltd, Genetic Solutions Pty Ltd, Farmacule Pty Ltd and Cleveland BioSensors Pty Ltd. He is also the founder and non-executive director of the medical device group, Impedimed. Mr Bridges has won numerous awards for his achievements, including the Ernst and Young 2002 'Entrepreneur of the Year'.

Dr Peter Isdale, BA, PhD, MAICD- Chief Executive Officer

Peter Isdale was appointed Chief Executive Officer of IMBcom Pty Ltd in 2003. He is a director of IMBcom Pty Ltd, a member of the board of the Institute for Molecular Bioscience and ElaCor Pty Ltd, a Senior Fellow of the Chaoyong Limthongkul Foundation (Thailand), Chairman of the Wetlands and Grasslands Foundation, non-executive Director of the Great Barrier Reef Research Foundation, as well as an Adjunct Professor at Texas A&M University. Dr Isdale spent 15 years as a marine scientist before being appointed Business Director, and executive at the Australian Institute of Marine Science. He has had 18 years of Directorship on Boards of private, public and ASX-listed companies in Australia, Asia and the Pacific Rim.

IMBcom TEAM



"IMBcom Team: (back row, from left) Christine Morrison, Kellie Broderick, Olivia Teed, Peter Isdale, Warren Parker, Michael Finney, Katherine Nielsen, Fiona McMillan.
(front row, from left) Jessica Hamlyn, Alison Clark, Peter Riddles, Samantha Cobb, Catherine Benham.
Absent: Kathy Geertshuis, Donna Maysey."

CORPORATE GROUP

Peter Isdale BA PhD MAICD – Chief Executive Officer
Peter Riddles PhD FAICD – Deputy CEO

Kellie Broderick JP. Qual WHSO - Office Manager: manages the Human Resources of the organisation and manages the IMBcom's internal charter to provide education and training on the commercialisation of science

Alison Clark – Executive Assistant: responsible for coordination and organisation of the activities of the Executive, including administrative and secretarial support to the CEO and the Deputy CEO and is also responsible for managing the company's financial systems.

Kathy Geertshuis BCom - Accountant: Responsible for monthly and annual financial reporting for IMBcom and its subsidiaries.

Warren Parker PhD – Visiting Research Manager: currently on secondment from AgResearch, a New Zealand Crown Research Institute that develops and commercialises discoveries from agricultural and related life sciences.

COMMERCIAL GROUP

Michael Finney B.E (Hons) M.B.A. J.D, FAICD – Vice President Commercialisation: provides expert, highly focussed commercial development, deal making and negotiation capacity to IMBcom.

Jessica Hamlyn B. Biotech Innov (Hons) - Commercialisation Officer: responsible for identification and liaison with investors and potential partners matching them with appropriate commercial projects initiated from the high quality research conducted at the IMB

Catherine Benham - Administration Assistant: provides administrative and secretarial support to the Commercial Group, Senior Development Officer/Executive Officer of Nephrogenix, and Visiting Research Manager.

INTELLECTUAL PROPERTY & DEVELOPMENT GROUP

Katherine Nielsen BSc, M. Pharm, M.Intell. Prop Law, PhD - Manager, Intellectual Property and Development: manages IMBcom's intellectual property portfolio and coordinates business development and related opportunities arising from IMB research.

Fiona McMillan BSc PhD – Deputy Manager, Intellectual Property & Development: assists in the preparation and analysis of opportunities for commercialisation arising from IMB research and the preparation of appropriate project plans, assisting in patent filing and prosecution

Olivia Teed Dip. Lib. Tech. - Administration Assistant: provides support to the IP & Development Group. Co-ordinates subscriptions and provides marketing assistance.

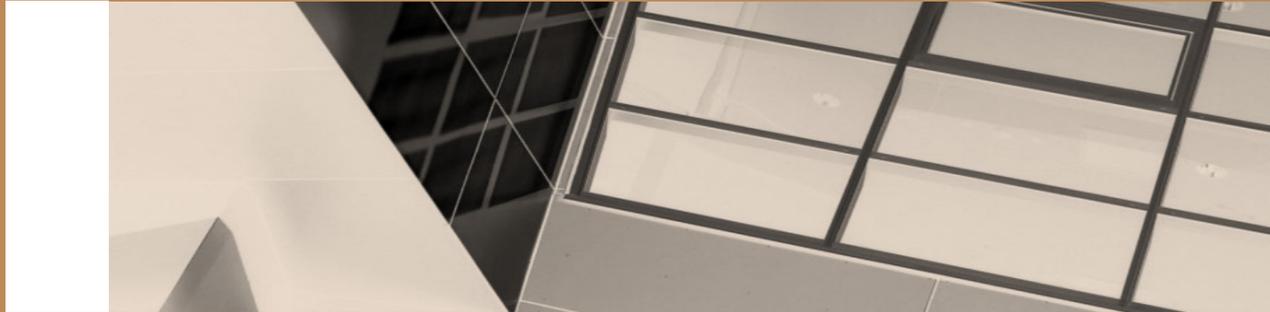
PROGRAM DEVELOPMENT & ALLIANCES GROUP

Peter Riddles PhD FAICD - Deputy CEO and Manager, Program Development and Alliances: acts as Director on IMBcom companies, promotes the building and establishment of relationships with industry and government, and provides general support to the CEO in the management and coordination of the company's affairs.

Samantha Cobb BSc, GradDip Biotech, MApL, GMAICD - Senior Development Officer and Executive Officer for Nephrogenix: co-ordinates business development activities for IMBcom and identifies potential partners and new funding opportunities for IMBcom and Nephrogenix.

Christine Morrison BSc - Manager of Business Support: coordinates and manages commercial funding applications including the identification of funding opportunities, and assistance and project management of commercial grant applications.

2004 UPDATE OF IMBcom START-UP AND SPIN-OUT COMPANIES



XENOME LTD

Early in 2004, Xenome filed an Investigational New Drug (IND) application with the US Food and Drug Administration (FDA) for their neuropathic pain drug lead. This lead was modelled on a peptide isolated from the venom of a marine coneshell from Australia's Great Barrier Reef. This is a major milestone for Xenome as it represents the culmination of a rigorous and successful drug development program aimed at providing proof of efficacy and safety in animals to support a human clinical investigation.

This application was approved by the FDA, which in turn triggered a further AUS\$2m investment in Xenome by the Queensland BioCapital Fund (QBF). Subsequently, in August 2004, Xenome's lead molecule entered human clinical trials. The Phase I trial will evaluate the safety and tolerability of the lead peptide-based drug following administration into the blood stream.

PROMICS PTY LTD

Promics has now completed, with encouraging results, its oral Phase Ib/IIa human clinical trial using its novel, innovative anti-inflammatory drug, PMX53. This trial was performed in patients suffering chronic rheumatoid arthritis. The trial has confirmed that Promics' lead anti-inflammatory agent is safe and well tolerated in patients.

Promics' lead molecule, PMX53, has displayed other positive results in anti-inflammatory indications. Promics' topical formulation of the anti-inflammatory agent has shown encouraging data in a pilot study with psoriasis patients. The study met the protocol trial end points of safety and tolerability. In addition, 90% of the patients showed improvement in their psoriasis lesions.

PROTAGONIST PTY LTD

In 2004, Protagonist received a substantial injection of funds with a \$250,000 State Government investment to progress their drug development technology in the area of asthma treatment. This funding came from the BioStart Investment Fund and was matched by a further tranche from their existing investor Start-up Australia Ventures Pty Ltd.

Protagonist is still actively progressing its in-house program to develop an asthma therapy based around a small disulphide rich peptide that antagonises the interleukin 4 (IL-4) receptor at nanomolar conditions.

Another significant finding in 2004 was the discovery of a small molecule agonist of the melanocortin-4 receptor, enabling another product development opportunity, this time for the obesity market. This opportunity is being pursued in collaboration with large multi-national pharmaceutical companies.

NANOMICS BIOSYSTEMS PTY LTD

The State Government's investment in the company through the Innovation Start-Up Scheme (ISUS) has been applied throughout 2004 towards the production of a business plan, and for marketing and staff development particularly in areas of commercialisation, governance and project planning. The year also marked the finalisation of Nanomics' second Biotechnology Innovation Fund grant from AusIndustry. The company attained all milestones and these outcomes have positioned the company for future growth.

Nanomics now has a viable prototype of their first product, Optoplex, which is based on functionalised ceramic beads encoded with fluorescent dyes for specific biological assays. Nanomics plans to launch this innovative product in late 2005.

MIMETICA PTY LTD

Mimetica successfully raised funds to progress its chemical technology for manufacturing drug candidates directly from the known structures of natural peptides, proteins and related compounds.

A term sheet was signed with Start-up Australia Ventures Pty Ltd and teQstart Pty Ltd (Queensland Government seed fund) to jointly invest up to \$3 million in Mimetica. Initially, these funds will go towards investigating the drug-like characteristics of Mimetica's molecular scaffolds, as well as a number of business development activities.

KALTHERA PTY LTD

With the formal completion of the company's Biotechnology Innovation Fund grant late in 2003, Kalthera underwent intensive fund raising in 2004. The company is now primed for its second injection of funds. At the end of 2004, Kalthera was finalising due diligence with two investors wherein the company would focus its proprietary technology on treatments for pain, thrombosis and conditions related to inflammation.

In 2004, Kalthera was also awarded an Innovation Start-Up Scheme (ISUS) grant which was used to appoint an Executive Officer to undertake business development activities including the development of strategic partnerships both with investors and pharmaceutical companies. This appointment will provide very important strategic support for Kalthera through this early growth phase.

CYCLAGEN PTY LTD

In 2004, Cyclagen completed its Proof of Concept program funded by the Federal Government through the Biotechnology Innovation Fund program. The research program was aimed at evaluating the commercial feasibility of using the unique plant protein family to confer pest resistance in cotton.

The project was a success with the identification of new molecules with improved insecticidal activity as well as the discovery of new information about mode of action of these molecules. Cyclagen is continuing this research and hopes to have transgenic plants conferring resistance by mid 2005.

NEPHROGENIX PTY LTD

Nephrogenix aims to develop cell based therapies for kidney disease, drawing on the collective research efforts of some of Australia's pre-eminent researchers in the fields of cell and tissue based therapies and kidney development to develop the next generation renal treatments. In 2004 Nephrogenix was awarded a Federal Government BIF grant for the development of its business activities and intellectual property.

Nephrogenix has fostered a number of collaborations and corporate alliances and in 2004 entered into a collaborative agreement with the Australian Stem Cell Centre (ASCC), which recognises the research synergies between Nephrogenix and the ASCC. Kidney Health Australia continues to fund a research program conducted by researchers within the Renal Regeneration Consortium which aims to identify, define, isolate and expand renal stem cells.

Nephrogenix continues to develop its commercial pipeline, which include stem cell markers and renal growth factors that have the potential to stimulate regeneration and repair of the kidney. During 2004, Nephrogenix continued to work towards its long term aim of developing deliverable renal regeneration or renal repair strategies using cellular therapies.

BETABIOTICS PTY LTD

In 2004 Betabiotics continued the program funded by AusIndustry's Biotechnology Innovation Fund grant which aims to validate nominated short peptide sequences which are targets for interfering with the binding of proteins to the beta subunit of bacterial DNA, thereby preventing DNA replication in bacteria. This would be the new smart antibiotic.

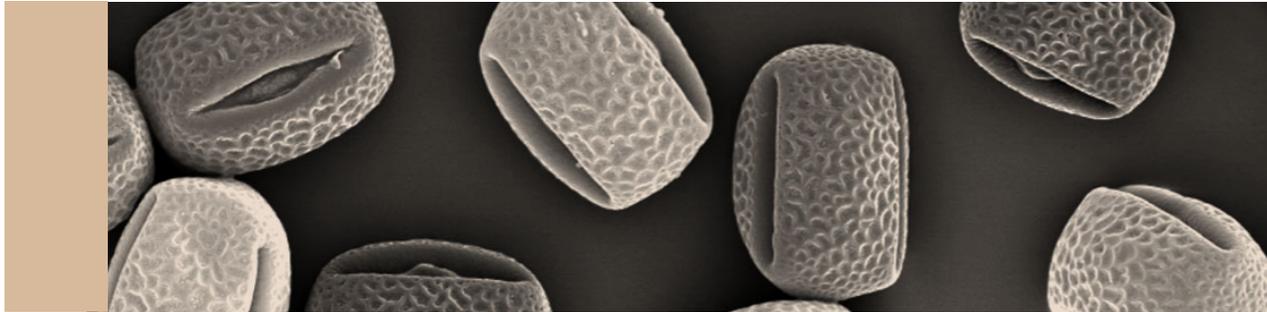
Also in 2004, Betabiotics was awarded an ISUS grant to continue the development and commercialisation of this innovation. The funds will be directed towards the strategic and business support of the start-up company.

ELACOR PTY LTD

ElaCor Pty Ltd is a start-up company formed in 2004 to develop new drugs based on peptides derived from Taipan snake venom for the effective long-term treatment of congestive heart failure (CHF). The new technology is based on the joint discovery by scientists at the IMB and the Baker Heart Research Institute in Melbourne. There is currently an urgent unmet need for an effective, stable therapeutic suitable for long-term treatment of CHF, and initial animal studies indicate that development of ElaCor's lead compound will produce an excellent candidate to match this need.

IMBcom has been dedicated to the business development activities surrounding the incorporation of ElaCor and has contributed strongly to the creation of the scientific development program which will further optimize the lead compound to produce a highly superior drug candidate. ElaCor was awarded a \$250,000 grant from AusIndustry's Biotechnology Innovation Fund for research and technology development activities, and also secured an \$80,000 Queensland State Government ISUS grant to facilitate effective business strategies for the development of the new enterprise company.

HIGHLIGHTS OF 2004



COMMERCIALISATION

IMBcom has a corporate responsibility to build its capacity, longevity and profitability as a source of future support for IMB's discovery research. In 2004 IMBcom helped IMB commercial income to reach more than \$5.3M, maintaining a 3-year moving average of 21.7% of total IMB income. During the reporting year 2004 IMBcom Pty Ltd maintained its emphasis on developing existing start-up companies while increasing efforts in securing new intellectual property. The company also increased its efforts in establishing partnerships with biotechnology and pharmaceutical companies. IMBcom's interest in a spinout company was liquidated in November providing a significant return on the University's investment.

The company's operating profit for the year ended 31 December 2004 was \$748,200 (2003: \$502,795).

IP AND DEVELOPMENT

IMBcom is dedicated to the maintenance and growth of IMB's IP portfolio with a view to advancing valuable biotechnology projects to investor readiness. In 2004 IMBcom continued to work closely with IMB scientists to ensure identification and proper assessment of new projects, as well as protection and development of existing projects. This effort has contributed to tangible outcomes in the IP portfolio as the number of invention disclosures steadily increased in 2004. IMBcom has focussed on the detailed assessment of invention disclosures for patentability and commercial potential, including novelty and infringement searches, surveillance of the competitive landscape and freedom-to-operate analyses. This is consistent with our belief that early assessment makes for a more valuable and robust product. This attention to detail continues for the life of the project, so that new developments are aligned to dynamic market needs.

In brief:

In 2004, four provisional patent applications were filed in the fields of therapeutics for renal development, molecular scaffolds for drug design, and the treatment of congestive heart failure. Several existing provisionals were progressed to complete filings including the biological production of hydrogen, methods of cell isolation and enrichment, new sodium channel peptides and novel anti-cancer compounds. Other projects developed more fully over the year include effector RNA (eRNA) technologies; breast cancer diagnostics and therapeutics (in partnership with Griffith University and the Mater Medical Research Institute); and a novel target in inflammation. We also provide IP management services to several of our spin-out companies including ElaCor Pty Ltd, Nanomics Biosystems Pty Ltd, Nephrogenix Pty Ltd, Kalthera Pty Ltd and Cyclagen Pty Ltd.

IMBcom recognises the importance that Intellectual Property Management plays not only in the identification of new inventions, but also the development of IP through due diligence and well researched strategy. We have continued to refine and improve patent management processes, optimise best practice regarding invention disclosure and patent prosecution, and provide a driving force for the development of IP-related policies (e.g., procedures for disclosure, the transfer of materials) all of which form an integral part of our interaction with the IMB.

ALLIANCES

IMBcom actively worked with major Biotech and Pharma companies, both nationally and internationally, throughout 2004 fostering collaborations between industry and research companies that included Amgen Inc, Chemicon International, Neuren Pharmaceuticals Ltd and Bone Ltd. IMBcom consolidated existing and identified new partnerships in 2004 through participation at a number of key partnering events including BIOSQUARE, BIO 2004 and Ausbiotech and identified key alliance partners through these meetings.

Through the ARC Linkage program IMBcom initiated alliances with Australian based companies including CBio, Hexima and Mimetica. These new linkages with the local industry bring complementary partners together to generate valuable outcomes for the Australian biotechnology industry.

IMBcom worked with Australia's Biotechnology Centre of Excellence, the Australian Stem Cell Centre, and The University of Queensland to execute two project agreements within the haematopoietic therapeutic area and under the Stem Cell Screening platform technology area.

IMBcom is committed to identifying the most appropriate alliance partners for technologies developed within the IMB and, as an example in 2004, executed a research use only licence agreement with Chemicon International.

GOVERNMENT RELATIONS

IMBcom continued to support the Queensland Government in the promotion and development of the Smart State strategy in biotechnology. Highlights of the year included participation by both the Chairman and CEO of IMBcom in the Queensland delegation to BIO 2004 held in San Francisco and the IMBcom team making significant contributions to the success of AusBiotech 2004 held in Brisbane. During the year, senior staff of IMBcom continued to serve on the Queensland Biotechnology Advisory Council, participated in many promotional activities including Science Meets Parliament, and played host to a variety of international Government and industry officials.

GRANTS

In 2004 IMBcom continued to play an active role in supporting researchers to access funding for commercial projects. IMBcom helped to secure over \$3.8 million in support of research programs with commercial potential. This included more than \$2.5 million in direct funding with an additional \$1.3 million in cash and in-kind contributions from industry partners.

- ARC Linkage Projects - 3 grants, awarded over 3 years, totalling more than \$0.7 million with further cash (\$285,000) and in-kind contributions (\$1.05 million) from the industry partners.
- NHMRC Industry Fellowships - 3 Fellowships awarded in alliance with industry partners worth \$1.03 million over 4 years.

IMBcom also provides support to startups established from the research developed at the IMB. This resulted in funding support in 2004 for ElaCor Pty Ltd and Nephrogenix Pty Ltd which were each awarded Biotechnology Innovation Fund (BIF) grants for \$250,000 to fund development and business activities. Furthermore, Kalthera Pty Ltd, ElaCor Pty Ltd, and Betabiotics Pty Ltd each secured an Innovation Start Up Scheme (ISUS) grant (\$80,000) from the Queensland State Government to facilitate business activities.



DEVELOPING PROJECTS

EDUCATION AND PROFESSIONAL DEVELOPMENT

IMB student education provides joint benefits in the training of IMB graduates in the ways and means of commercialisation. The company is now regarded as a leader in the design and delivery of biobusiness education, receiving requests from pharmaceutical companies and other UQ institutes. In 2004 IMBcom conducted regular induction programs, workshops, and a dedicated biobusiness retreat for 3rd year PhD students. In this year's program, speakers from IMBcom, big pharma, and prominent members of the Australian biotechnology and intellectual property law communities delivered case studies relating to the successful translation of high quality research outputs to valuable commercial outcomes. We aim for our programs to evolve each year and to remain contemporary and cutting edge.

TEAM UPDATES

In 2004 IMBcom broadened its expertise in the biotechnology commercialisation arena through key appointments and staff development. The company appointed new staff to strengthen the Commercialisation Team, Michael Finney (Vice President, Commercialisation) and Jess Hamlyn (Commercialisation Officer). Alison Clark joined our team in February to provide an important complement to the existing expertise of the IMBcom Executive. IMBcom encourages professional development of its staff, and in 2004 our team members successfully completed a number of degrees, courses, and/or certificates. Kathy Nielsen, our Manager of IP and Development graduated with a Masters in Intellectual Property Law from the University of Melbourne. Sam Cobb, Senior Development Officer graduated from the Company Director's Course with the AICD and became GAICD of that organisation. Office Manager Kellie Broderick obtained a certificate in Frontline Management, and Executive Assistant, Alison Clark, completed an Accounting for Non-Accountants course.

IMBcom staff take an active interest in issues relating to the commercialisation of Australian biotechnology communicating through a variety of media, contributing to seminars, publications, and government submissions on legal issues. Working in collaboration with the University of Queensland's Amanda McBratney, the IP team (Kathy Nielsen and Fiona McMillan) contributed to two discussion papers regarding gene patenting and research exemption, respectively, in Australian patent law. They subsequently co-authored a paper published in Nature Biotechnology with Dr. McBratney based on the ALRC and ACIP discussion contributions regarding the need for a research exemption in Australian IP law (McBratney, Nielsen and McMillan (2004) Nature Biotechnology 22, 1023-5). IMBcom staff are also actively involved in the Australian biotechnology community. Throughout 2004, Sam Cobb and Fiona McMillan were members of the Queensland Branch of AusBiotech, assisting in the coordination of key biotech networking events in the Brisbane area.

On 8 October 2004 our Deputy CEO, Peter Riddles stepped down as the President, AusBiotech Ltd. Peter was also a Founding President and valued member of AusBiotech who dedicated his time to expanding the industry and growing the organisation.

VISITING RESEARCH MANAGER

The ANZAC spirit of trans-Tasman biotech industries was boosted with the 12 month secondment of Dr Warren Parker from AgResearch Ltd to IMBcom in September 2004. AgResearch, New Zealand's largest Crown Research Institute (CRI), specialises in research and development in pastoral agriculture and related life sciences. Established through the Office of Queensland's Chief Scientist, the appointment will help to fulfill the 2003 Queensland-New Zealand Biotechnology Agreement to jointly work together to enhance the region's global competitiveness in biotechnology.

The aims of Dr. Parker's secondment include identifying areas of competitive strength in science, developing strategies to achieve critical mass, directing Government policy to attract the best people and capital, as well as facilitating partnership formation on both sides of the Tasman. Dr. Parker is developing IMBcom's portfolio of agricultural projects and assisting with corporate development and planning.



Dr Warren Parker



MOLECULAR SCAFFOLDS

The alpha helix is a fundamental structural component of most proteins, and in many cases facilitates a protein interactions with DNA, RNA, and/or other proteins. Such interactions mediate numerous biological processes. It is now clear that stabilised short peptide alpha helices or small molecule mimics have huge potential therapeutic applicability for a variety of conditions including cancer, HIV and inflammatory diseases. Previous attempts to stabilise or mimic short alpha-helical peptides have met with limited success to date. However, researchers at the IMB have now developed a unique molecular scaffold for stable helix mimetics. This platform technology enables the creation of novel alpha-helical compounds for a wide variety of therapeutic targets. Moreover, such compounds also have potential value as chemical and biological probes, diagnostic agents, new components of novel biopolymers, and as industrial agents. IMBcom is coordinating the commercialisation of this technology through effective IP management and business development activities.



BIOENERGY

Hydrogen (H₂) is widely considered to be among the most promising fuel to replace oil. Nevertheless, the shift to a hydrogen economy will be critically dependent upon the development of clean, sustainable, large-scale hydrogen production systems capable of supplying the global energy demand. IMB scientists, working in collaboration with researchers at the University of Bielefeld in Germany believe that a select group of green algae may have the answer. These algae can harness solar energy to split water (H₂O) into hydrogen (H₂) and oxygen (O₂). By identifying key bottlenecks in the H₂ production process, these scientists have developed a genetically modified green algal system that produces significantly more hydrogen than wild-type and has the potential to be further developed for economical large scale H₂ production. IMBcom has supported the development of this unique biotechnology project in 2004 through effective IP protection at the PCT level, economic analyses, assistance with fund sourcing, and progression of business partnering activities including identification of and negotiations with potential allies in the energy industry. R&D aimed at expanding our BioEnergy IP portfolio is already in progress.



ANTI-CANCER

Selective destruction of malignant tumour cells without damaging normal cells is an important goal for cancer therapy. Differentiating agents that transform cancer cells to either a non-proliferating or normal phenotype could potentially be tissue-specific and avoid the side effects of current drugs. A number of anti-cancer programs exist at the IMB. One research team in particular has synthesised a novel series of compounds that display cytotoxicity at nanomolar concentrations in a range of human cancer cell lines. There is further evidence that this compound series is selective for cancer cell lines and is orally bioavailable in rats. Another IMB anti-cancer program is focusing on screening existing marine biodiversity to discover anti-cancer natural products. This has led to the identification of novel molecules that show great promise as potential cancer therapeutics. IMBcom is facilitating the commercialisation of these novel classes of compounds through coordinated IP management and business development activities.

