

Commercial Development



The Commercial Office within the Monash Institute of Medical Research acts as the interface for external investors and partners seeking opportunities in the commercial aspects of the Institute's research. Its primary role is to capture value for the Institute and its scientists by securing investment in the development of and/or partnering with technology arising from promising early stage technologies developed during the course of research within the Institute. It also plays a leading role in the identification and protection of Intellectual Property and its subsequent commercial development.

Commercialization of research is a necessity if the benefits of the research are to be transferred to the community through innovation in diagnostic and/or therapeutic technologies. It has also become a necessity in the funding mix of Universities and their need for greater self-reliance into the future. Furthermore, the activities of this office extend beyond the traditional patenting and licensing of inventions to the development of a variety of relationships with businesses and industry.

2005 Achievements

The Commercial Office managed 17 families of patent applications through National Phase entry, 3 new PCT applications and 4 new provisional applications. In addition, the Commercial Office negotiated and assisted in generating \$6 million in income through either license, research income or equity realization.

The Office addressed ongoing linkages with existing startup companies including:

- Pulmosonix Pty Ltd (now part of Premier Bionics Ltd),
- ES Cell International Pte Ltd (originated from the Institute),
- Cortical Pty Ltd.

The relationship with the Australian Stem Cell Centre was consolidated.

The Institute is committed to fostering talented scientists of the future. It provides a wide range of postgraduate opportunities in research, for ambitious and enthusiastic young scientists interested in pursuing careers at the forefront of medical research.



Collaborative Ventures





Andrology Australia

Andrology Australia (The Australian Centre for Excellence in Male Reproductive Health) is a Federal Government initiative administered by MIMR.

Led by former MIMR Director Professor David de Kretser, with contributions from key personnel at the the Centre for Urological Research, Andrology Australia has strong ties to MIMR. The Institute is proud to be associated with this collaborative program to improve men's health through educational initiatives and collaborative research programs.

A highlight of 2005 was the publication of the 'Men in Australia Telephone Survey' which is the first Australian study to describe the self-reported prevalence of reproductive health disorders, related to health issues and behaviors in men aged 40 years and over. This unique and quality work was recognized with an award for research innovation at the Victorian Public Health Awards for Excellence in Innovation.

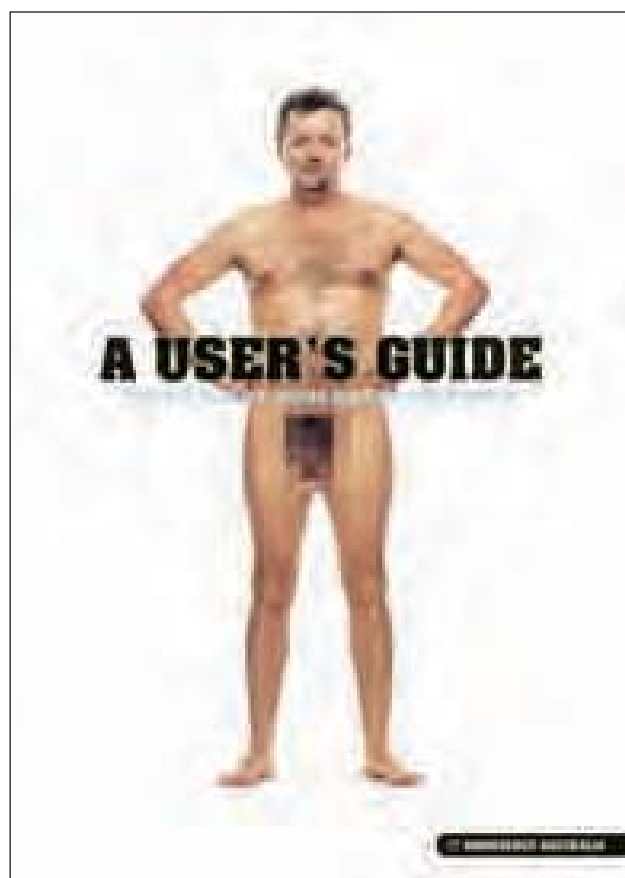
Ongoing education of the medical community is a high priority for Andrology Australia. Activities in 2005 included the development of a clinical audit and online education program on erectile dysfunction to increase professional awareness and improve management of this disorder. Seminars and symposia were conducted for the benefit of a range of health professionals.

Research initiatives supported by Andrology Australia in 2005 included an examination of the different methods of testing hormone levels to standardize testosterone level testing in Australia. There was also an investigation into the psychosocial and behavioral issues of anabolic steroid users to develop preventative programs and improve health education. A further six one year research programs into the psychosocial aspects of male reproductive health disorders and their impact on quality of life and relationships were also supported in 2005.

Andrology Australia provides independent, user-friendly, authoritative information to the community. Distribution of the newsletter *The Healthy Male* increased to 5500 per quarter. The website www.andrologyaustralia.org received on average 550,000 hits per month. More than 30,000 copies of the series of five *Men's Health Matters* consumer guide were distributed. Three fact cards on men's health issues, prostate problems and erectile dysfunction were developed and distributed through pharmacies across Australia.

Other community education activities included support of "International Men's Health Week" in June 2005, community and workplace seminars on men's health, and the translation of the brochure "A User's Guide: What Every Man Needs to Know" into 12 different languages to provide information on male reproductive health to men from culturally and linguistically diverse backgrounds.

An independent panel of medical and health experts, including international members, strongly endorsed the Centre's programs during the year and provided a series of recommendations to further enhance its work.



Collaborative Ventures



CRC for Innovative Dairy Products

MIMR's Centre for Reproduction and Development undertakes several projects in collaboration with the Federal Government's Co-operative Research Centre (CRC) for Innovative Dairy Products.

Advanced Breeding Technologies

Through a range of advanced molecular and reproductive technologies, this program delivers improved genetics to the dairy industry and so contributes to the national research priority: 'Frontier technologies for building and transforming Australian industries'.

Bovine Cloning

A leader in its field, this program aims at rapid amplification of elite genotypes. Despite considerable improvements in efficiency and the production of a number of healthy cloned animals, cloning remains a relatively inefficient process. Many pregnancies are lost, some around birth, and a few animals are born with deformities. These issues need to be overcome before cloning technology can deliver a clear industry benefit. In addition, government and regulating agencies need to provide an assured path to market for this technology. Studies focus on *in vitro* reprogramming and the critical early (45 day) period of development, particularly pre-implantation embryo gene expression and proteomics. Genetic and/or biomarkers which can be used to enhance transfer success for any *in vitro*-produced embryo are also being sought.

Bovine Stem Cells

Significant progress has been made in the quest to use adult and embryonic stem cells in both autologous transplant and in accelerated breeding applications, with the first production of a fully characterized stem cell line from a livestock species. In conjunction with the Australian Stem Cell Centre (ASCC), efforts to reprogram differentiated cells into new tissue-types have yielded four patents to date. The CRC maintains commercial rights in agricultural fields and the ASCC in human applications. Each party provides half the research funding, and IP is jointly owned.



CRC for Chronic Inflammatory Diseases

Scientists from MIMR's Centre for Functional Genomics and Human Disease (CFGHD), are making significant contributions to the discovery of new treatments for serious chronic inflammatory disease through their involvement with the Co-operative Research Centre (CRC) for Chronic Inflammatory Diseases.

This CRC is focused on finding better treatments for widespread diseases such as osteo arthritis and chronic obstructive pulmonary disease (COPD).

Using sophisticated techniques including genome-wide expression profiling, gene targeting, stem cell biology and animal models, the CFGHD team made some significant progress in 2005 towards identifying potential disease-causing genes. Work also progressed in the development of novel tests for validating these possible disease targets.

The validated targets are then used by collaborating researchers at the University of Melbourne and University of Queensland, who have complementary expertise in inflammatory disease, and by the international pharmaceutical company AstraZeneca to further the drugs' development.

MIMR's participation in this CRC is also providing special students with a unique experience in translational research in the discovery and drug development arenas. Not only do students participate in collaborative projects with leading scientists from a number of Australian universities, but they also have the opportunity for placement in AstraZeneca laboratories in the UK and Sweden.





Dr Mulyoto Pangestu and EPRB student Amanda Leslie

PhD Graduates

Simon Chu

The molecular pathogenesis of ovarian granulosa cell tumours

Fiona Chow

The role of macrophages in diabetic nephropathy

Mark Denham

Environmental regulation of stem cell differentiation in vitro

Paul Hutchinson

Quantitation of immune competence in renal transplant patients

Claire Kennedy

*Studies to identify key male fertility related genes using *enu* mutagenesis*

Sandra Levasseur

Can a structured identification of the things that are important increase one's chances of quitting smoking after stroke or TIA?

Amanda-Jane Ruth

The effector mechanisms of glomerular injury in experimental crescentic glomerulonephritis

Elaine Stockx

Ontogeny of supraspinal control of spinal circuits

Shamith Samarajawa

The role of soluble IFNAR2 in modifying interferon response in vivo

Wen Mei Zhu

Altered dopamine pharmacokinetics and L-dopa induced dyskinesia in rodent and primate models of Parkinson's disease

Education Program in Reproductive Biology

The Education Program in Reproductive Biology (EPRB) is a unique program dedicated to providing vocational post-graduate training in the reproductive sciences and clinical embryology. Established in 1987, the EPRB draws on Melbourne's wide range of expertise in reproductive biology.

Administered jointly by MIMR and Prince Henry's Institute, teaching staff are also drawn from the Monash University Departments of Physiology, Pharmacology, Obstetrics and Gynaecology, Paediatrics, Microbiology, Biological Sciences, Anatomy and Cell Biology, Centre for Human Bioethics and the Monash Immunology and Stem Cell Laboratories. A number of external organisations, including the Australian Stem Cell Centre, Monash IVF and Melbourne IVF also make valuable contributions to the program.

The EPRB offers three post-graduate research and coursework degrees:

Graduate Diploma of Reproductive Sciences

This coursework degree provides broad theoretical education and practical training ranging from basic reproductive anatomy to clinical human and veterinary medicine. It is an alternative for those with Bachelor's degrees who do not want to do honors, as well as a chance for professionals currently working in this area, to update their knowledge and skills and gain professional accreditation. At the completion of this degree many students upgrade to the Masters program.

Master of Reproductive Sciences

This higher research degree has a strong theoretical focus. Students gain detailed understanding and advanced research skills in an area of specific interest in reproductive biology. The course consists of five course-work subjects followed by a research project (thesis) supervised by research staff from one of the participating institutes or departments. Three Masters students graduated in 2005:

- Jean Bligh Loren: The employment of strontium to activate mouse oocytes (supervised by Orly Lacham-Kaplan)
- Natasha Czarny: Breeding, growth and genetics of the captive Mainland Eastern Quoll, *Dasyurus viverrinus* (supervised by David Galloway and Ian Gunn)
- Simon Degen: In vitro assessment of the FSH impact on sertoli and germ cell function in the day 17 rat testis (supervised by Kate Loveland)

Master of Clinical Embryology

Rapid advances in the development and application of reproductive technology, led largely by staff at MIMR's Centre of Reproduction and Development have resulted in a strong demand for specialised scientific expertise in clinical embryology. This course has a strong focus on development of practical skills in IVF, and is designed to train people specifically wanting to work in infertility clinics and research programs focused on assisted reproduction.

We were delighted to have Dr Sally Catt join the EPRB as Course Coordinator in 2005. Sally brings considerable expertise and experience in the reproductive sciences, particularly clinical embryology.

Throughout 2005, enrolment numbers remained relatively small, with no more than 10 students enrolled in each course. These small class sizes allow for intensive practical training and ensure much individual interaction with academic staff.

Publications



Refereed Papers

- Alexopoulos NI, Vajta G, Maddox-Hyttel P, French AJ, Trounson AO. (2005) Stereomicroscopic and histological examination of bovine embryos following extended in vitro culture. *Reprod Fertil Dev* 17(8):799-808
- Almahbobi G, Hedwards S, Fricout G, Jeulin D, Bertram JF, Risbridger GP (2005) Computer-based detection of neonatal changes to branching morphogenesis reveals different mechanisms of and predicts prostate enlargement in mice haplo-insufficient for bone morphogenetic protein 4. *J Pathol* 206(1):52-61.
- Andrews PW, Benvenisty N, McKay R, Pera MF, Rossant J, Semb H, Stacey GN; Steering Committee of the International Stem Cell Initiative. (2005) The International Stem Cell Initiative: toward benchmarks for human embryonic stem cell research. *Nat Biotechnol* 23 (7):795-7
- Barkehall-Thomas A, Wilson C, Baker L, ni Bhuienneain M, Wallace EM. (2005) Uterine artery Doppler velocimetry for the detection of adverse obstetric outcomes in patients with elevated mid-trimester beta-human chorionic gonadotrophin. *Acta Obstet Gynecol Scand* 84(8):743-7
- Bennell KL, Hinman RS, Metcalf BR, Buchbinder R, McConnell J, McColl G, Green S, Crossley KM. (2005) Efficacy of physiotherapy management of knee joint osteoarthritis: a randomised, double blind, placebo controlled trial. *Ann Rheum Dis* 64(6):906-12
- Berger PJ, Skuza EM, Ramsden CA, Wilkinson MH. (2005) Velocity and attenuation of sound in the isolated fetal lung as it is expanded with air. *J Appl Physiol* 98(6):2235-41
- Berlowitz DJ, Brown DJ, Campbell DA, Pierce RJ. (2005) A longitudinal evaluation of sleep and breathing in the first year after cervical spinal cord injury. *Arch Phys Med Rehabil* 86(6):1193-9
- Blazik M, Hutchinson P, Jose MD, Polkinghorne KR, Holdsworth SR, Atkins RC, Chadban SJ. (2005) Leukocyte phenotype and function predicts infection risk in renal transplant recipients. *Nephrol Dial Transplant* 20(10):2226-30
- Bond CP, Parry LJ, Samuel CS, Gehring HM, Lederman FL, Rogers PA, Summers J. (2005) Increased expression of the relaxin receptor (LGR7) in human endometrium during the secretory phase of the menstrual cycle. *Ann N Y Acad Sci* 1041:136-43
- Brand C, Landgren F, Hutchinson A, Jones C, Macgregor L, Campbell D. (2005) Clinical practice guidelines: barriers to durability after effective early implementation. *Intern Med J* 35(3):162-9
- Brand C, Sundararajan V, Jones C, Hutchinson A, Campbell D. (2005) Readmission patterns in patients with chronic obstructive pulmonary disease, chronic heart failure and diabetes mellitus: an administrative dataset analysis. *Intern Med J* 35(5):296-9
- Campbell DA. (2005) Clinical epidemiology reconstructed. *Intern Med J* 35(2):106-7.
- Campo R, Molinas CR, Rombauts L, Mestdagh G, Lauwers M, Braekmans P, Brosens I, Van Belle Y, Gordts S. (2005) Prospective multicentre randomized controlled trial to evaluate factors influencing the success rate of office diagnostic hysteroscopy. *Hum Reprod* 20(1):258-63
- Cantwell K, Dietze P, Flander L. (2005) The relationship between naloxone dose and key patient variables in the treatment of non-fatal heroin overdose in the prehospital setting. *Resuscitation* 65(3):315-9.
- Cattrall FR, Vollenhoven BJ, Weston GC. (2005) Anatomical evidence for in utero androgen exposure in women with polycystic ovary syndrome. *Fertil Steril* 84(6):1689-92
- Costa M, Dottori M, Ng E, Hawes SM, Sourris K, Jamshidi P, Pera MF, Elefanti AG, Stanley EG. (2005) The hESC line Envy expresses high levels of GFP in all differentiated progeny. *Nat Methods* 2(4):259-60
- Coultas L, Bouillet P, Loveland KL, Meachem S, Perlman H, Adams JM, Strasser A. (2005) Concomitant loss of proapoptotic BH3-only Bcl-2 antagonists Bik and Bim arrests spermatogenesis. *EMBO J* 16;24(22):3963-73
- Daly RM, Dunstan DW, Owen N, Jolley D, Shaw JE, Zimmet PZ. (2005) Does high-intensity resistance training maintain bone mass during moderate weight loss in older overweight adults with type 2 diabetes? *Osteoporos Int* 16(12):1703-12
- Dean EG, Wilson GR, Li M, Edgton KL, O'Sullivan KM, Hudson BG, Holdsworth SR, Kitching AR. (2005) Experimental autoimmune Goodpasture's disease: a pathogenetic role for both effector cells and antibody in injury. *Kidney Int* 67(2):566-75
- de Haan JB, Stefanovic N, Nikolic-Paterson D, Scurr LL, Croft KD, Mori TA, Hertzog P, Kola I, Atkins RC, Tesch GH. Kidney expression of glutathione peroxidase-1 is not protective against streptozotocin-induced diabetic nephropathy. (2005) *Am J Physiol Renal Physiol*. 289(3):F544-51
- Dietze P, Jolley D, Fry C, Bammer G. (2005) Transient changes in behaviour lead to heroin overdose: results from a case-crossover study of non-fatal overdose. *Addiction* 100(5):636-42
- Duffield JS, Tipping PG, Kipari T, Cailhier JF, Clay S, Lang R, Bonventre JV, Hughes J. (2005) Conditional ablation of macrophages halts progression of crescentic glomerulonephritis. *Am J Pathol* 167(5):1207-19
- Ellis PJ, Clemente EJ, Ball P, Toure A, Ferguson L, Turner JM, Loveland KL, Affara NA, Burgoyne PS. (2005) Deletions on mouse Yq lead to upregulation of multiple X- and Y-linked transcripts in spermatids. *Hum Mol Genet* 14(18):2705-15

- French SD, Grant WD, Green S, Walker B. (2005) Chiropractic interventions for low-back pain (Protocol). *The Cochrane Database of Syst Rev* (3):CD005427
- French SD, Green SE. (2005) The Cochrane Collaboration: is it relevant for doctors of chiropractic? *J Manipulative Physiol Ther* 28(9):641-2
- French SD, McDonald S, McKenzie JE, Green SE. (2005) Investing in updating: how do conclusions change when Cochrane systematic reviews are updated? *BMC Med Res Methodol* 5:33
- Girling JE, Rogers PA. (2005) Recent advances in endometrial angiogenesis research. *Angiogenesis* 2005;8(2):89-99
- Goeman DP, Hogan CD, Aroni RA, Abramson MJ, Sawyer SM, Stewart K, Sancu LA, Douglass JA. (2005) Barriers to delivering asthma care: a qualitative study of general practitioners. *Med J Aust* 183(9):457-60
- Gold EJ, Zhang X, Wheatley AM, Mellor SL, Cranfield M, Risbridger GP, Groome NP, Fleming JS (2005) betaA- and betaC-activin, follistatin, activin receptor mRNA and betaC-activin peptide expression during rat liver regeneration. *J Mol Endocrinol.* 34(2):505-15.
- Grant DA, Franzini C, Wild J, Eede KJ, Walker AM. (2005) Autoregulation of the cerebral circulation during sleep in newborn lambs. *J Physiol* 1;564(Pt 3):923-30
- Green S, McDonald S. (2005) Cochrane Collaboration: more than systematic reviews? *Intern Med J* 35(1):3-4
- Hall VJ, Cooney MA, Shanahan P, Tecirlioglu RT, Ruddock NT, French AJ. (2005) Nuclear lamin antigen and messenger RNA expression in bovine in vitro produced and nuclear transfer embryos. *Mol Reprod Dev* 72(4):471-82
- Hall VJ, Ruddock NT, French AJ. (2005) Expression profiling of genes crucial for placental and pre-implantation development in bovine in vivo, in vitro, and nuclear transfer blastocysts. *Mol Reprod Dev* 72(1):16-24
- Hamrosi MA, Wallace EM, Riley MD. (2005) Iodine status in pregnant women living in Melbourne differs by ethnic group. *Asia Pac J Clin Nutr* 14(1):27-31.
- Harris C, Day N, Young D, Potiriadis M, Southern D, Dunt D. (2005) Improving general practice survey response rates: bells (primers), whistles (reminders) and carrots (incentives). *Aust J Prim Health* 11 (2): 106-12
- Harvey KJ, Vitry AI, Roughead E, Aroni R, Ballenden N, Faggotter R. (2005) Pharmaceutical advertisements in prescribing software: an analysis. *Med J Aust* 183(2):75-9
- Hedger M, Klug J, Frohlich S, Muller R, Meinhardt A. (2005) Regulatory cytokine expression and interstitial fluid formation in the normal and inflamed rat testis are under leydig cell control. *J Androl.* 26(3):379-86.
- Hodges RJ, Wallace EM. (2005) Testing for Down syndrome in the older woman: a risky business? *Aust N Z J Obstet Gynaecol* 45(6):486-8
- Holden CA, McLachlan RI, Cumming R, Wittert G, Handelsman DJ, de Kretser DM, Pitts M. (2005) Sexual activity, fertility and contraceptive use in middle-aged and older men: Men in Australia, Telephone Survey (MATeS). *Hum Repro.* 20(12):3429-34
- Holden CA, McLachlan RI, Pitts M, Cumming R, Wittert G, Agius PA, Handelsman DJ, de Kretser DM. (2005) Men in Australia Telephone Survey (MATeS): a national survey of the reproductive health and concerns of middle-aged and older Australian men. *Lancet* 366(9481):218-24
- Hughes AJ, Hutchinson P, Gooding T, Freezer NJ, Holdsworth SR, Johnson PD. (2005) Diagnosis of Mycobacterium tuberculosis infection using ESAT-6 and intracellular cytokine cytometry. *Clin Exp Immunol* 142(1):132-9
- Hussein-Fikret S, Fuller PJ, Gargett CE. (2005) Expression of steroid receptor coactivators in cultured cells from paired myometrial and fibroid tissues. *J Soc Gynecol Investig* 12(6):445-51
- Ilic D, Maloney S, Green S. (2005) Guiding users to quality information about osteoarthritis on the Internet: a pilot study. *Telemed J E Health* 11(6):703-6
- Itsykson P, Ilouz N, Turetsky T, Goldstein RS, Pera MF, Fishbein I, Segal M, Reubinoff BE. (2005) Derivation of neural precursors from human embryonic stem cells in the presence of noggin. *Mol Cell Neurosci* 30(1):24-36
- Katz-Jaffe MG, Mantzaris D, Cram DS. (2005) DNA identification of fetal cells isolated from cervical mucus: potential for early non-invasive prenatal diagnosis. *BJOG* 112(5):595-600
- Katz-Jaffe MG, Trounson AO, Cram DS. (2005) Chromosome 21 mosaic human pre-implantation embryos predominantly arise from diploid conceptions. *Fertil Steril* 84(3):634-43
- Kavanagh AM, Goller JL, King T, Jolley D, Crawford D, Turrell G. (2005) Urban area disadvantage and physical activity: a multilevel study in Melbourne, Australia. *J Epidemiol Community Health* 59(11):934-40
- Kelly AM, Kerr D, Dietze P, Patrick I, Walker T, Koutsogiannis Z. (2005) Randomised trial of intranasal versus intramuscular naloxone in prehospital treatment for suspected opioid overdose. *Med J Aust* 182(1):24-7
- Kennedy CL, O'Connor AE, Sanchez-Partida LG, Holland MK, Goodnow CC, de Kretser DM, O'Bryan MK. (2005) A repository of ENU mutant mouse lines and their potential for male fertility research. *Mol Hum Reprod* 11(12):871-80

- Kermode M, Jolley D, Langkham B, Thomas MS, Crofts N. (2005) Occupational exposure to blood and risk of bloodborne virus infection among health care workers in rural north Indian health care settings. *Am J Infect Control* 33(1):34-41
- Kermode M, Jolley D, Langkham B, Thomas MS, Holmes W, Gifford SM. (2005) Compliance with Universal/Standard Precautions among health care workers in rural north India. *Am J Infect Control* 33(1):27-33
- Kitching AR. (2005) More targeted treatments for lupus nephritis: is the future (nearly) here? *J Am Soc Nephrol* 16(11):3146-8
- Kitching AR, Turner AL, Wilson GR, Semple T, Odobasic D, Timoshanko JR, O'Sullivan KM, Tipping PG, Takeda K, Akira S, Holdsworth SR. (2005) IL-12p40 and IL-18 in crescentic glomerulonephritis: IL-12p40 is the key Th1-defining cytokine chain, whereas IL-18 promotes local inflammation and leukocyte recruitment. *J Am Soc Nephrol* 16(7):2023-33
- Krikun G, Schatz F, Taylor R, Critchley HO, Rogers PA, Huang J, Lockwood CJ. (2005) Endometrial endothelial cell steroid receptor expression and steroid effects on gene expression. *J Clin Endocrinol Metab* 90(3):1812-8
- LeVasseur SA, Green S, Talman P. (2005) The SEIQoL-DW is a valid method for measuring individual quality of life in stroke survivors attending a secondary prevention clinic. *Qual Life Res* 14(3):779-88.
- Ligam P, Manuelpillai U, Wallace EM, Walker D. (2005) Localisation of indoleamine 2,3-dioxygenase and kynurenine hydroxylase in the human placenta and decidua: implications for role of the kynurenine pathway in pregnancy. *Placenta* 26(6):498-504
- Little CB, Mittaz L, Belluoccio D, Rogerson FM, Campbell IK, Meeker CT, Bateman JF, Pritchard MA, Fosang AJ. (2005) ADAMTS-1-knockout mice do not exhibit abnormalities in aggrecan turnover in vitro or in vivo. *Arthritis Rheum* 52(5):1461-72
- Loos N, Grant DA, Wild J, Paul S, Barfield C, Zoccoli G, Franzini C, Walker AM. (2005) Sympathetic nervous control of the cerebral circulation in sleep. *J Sleep Res.* 14(3):275-83
- Loveland KL, Hogarth C, Mendis S, Efthymiadis A, Ly J, Itman C, Meachem S, Brown CW, Jans DA (2005) Drivers of germ cell maturation. *Ann N Y Acad Sci* 1061:173-82
- Lynch M, Cram DS, Reilly A, O'Bryan MK, Baker HW, de Kretser DM, McLachlan RI. (2005) The Y chromosome gr/gr subdeletion is associated with male infertility. *Mol Hum Reprod* 11(7):507-12
- Maloney S, Ilic D, Green S. (2005) Accessibility, nature and quality of health information on the Internet: a survey on osteoarthritis. *Rheumatology (Oxford)* 44(3):382-5
- Manser R, Dalton A, Carter R, Byrnes G, Elwood M, Campbell DA. (2005) Cost-effectiveness analysis of screening for lung cancer with low dose spiral CT (computed tomography) in the Australian setting. *Lung Cancer* 48(2):171-85
- Manser RL, Dodd M, Byrnes G, Irving LB, Campbell DA. (2005) Incidental lung cancers identified at coronial autopsy: implications for overdiagnosis of lung cancer by screening. *Respir Med* 99(4):501-7.
- Manuelpillai U, Ligam P, Smythe G, Wallace EM, Hirst J, Walker DW. (2005) Identification of kynurenine pathway enzyme mRNAs and metabolites in human placenta: up-regulation by inflammatory stimuli and with clinical infection. *Am J Obstet Gynecol* 192(1):280-8
- Marks R, Scarff CE, Yap LM, Verlinden V, Jolley D, Campbell J. (2005) Fungiform papillary glossitis: atopic disease in the mouth? *Br J Dermatol* 153(4):740-5
- McCallum Z, Wake M, Gerner B, Harris C, Gibbons K, Gunn J, Waters E, Baur LA. (2005) Can Australian general practitioners tackle childhood overweight/obesity? Methods and processes from the LEAP (Live, Eat and Play) randomized controlled trial. *J Paediatr Child Health* 41(9-10):488-94
- McClure L, O'Connor AE, Hayward S, Jenkin G, Walker DW, Phillips DJ. (2005) Effects of age and pregnancy on the circulatory activin response of sheep to acute inflammatory challenge by lipopolysaccharide. *J Endocrinol.* 185(1):139-49
- Meachem SJ, Ruwanpura SM, Ziolkowski J, Ague JM, Skinner MK, Loveland KL. (2005) Developmentally distinct in vivo effects of FSH on proliferation and apoptosis during testis maturation. *J Endocrinol* 186(3):429-46
- Micallef SJ, Janes ME, Knezevic K, Davis RP, Elefanti AG, Stanley EG. (2005) Retinoic acid induces Pdx1-positive endoderm in differentiating mouse embryonic stem cells. *Diabetes* 54(2):301-5
- Mittaz L, Ricardo S, Martinez G, Kola I, Kelly DJ, Little MH, Hertzog PJ, Pritchard MA. (2005) Neonatal calyceal dilation and renal fibrosis resulting from loss of Adamts-1 in mouse kidney is due to a developmental dysgenesis. *Nephrol Dial Transplant* 20(2):419-23
- Morand EF, Leech M. (2005) Macrophage migration inhibitory factor in rheumatoid arthritis. *Front Biosci* 10:12-22
- Norman MU, Lister KJ, Yang YH, Issekutz A, Hickey MJ. (2005) TNF regulates leukocyte-endothelial cell interactions and microvascular dysfunction during immune complex-mediated inflammation. *Br J Pharmacol* 144(2):265-74
- O'Bryan MK, Gerdprasert O, Nikolic-Paterson DJ, Meinhardt A, Muir JA, Foulds LM, Phillips DJ, de Kretser DM, Hedger MP. (2005) Cytokine profiles in the testes of rats treated with lipopolysaccharide reveal localized suppression of inflammatory responses. *Am J Physiol Regul Integr Comp Physiol* 288(6):R1744-55
- Odobasic D, Kitching AR, Semple TJ, Timoshanko JR, Tipping PG, Holdsworth SR. (2005) Glomerular expression of CD80 and CD86 is required for leukocyte accumulation and injury in crescentic glomerulonephritis. *J Am Soc Nephrol* 16(7):2012-22

- Odobasic D, Kitching AR, Tipping PG, Holdsworth SR. (2005) CD80 and CD86 costimulatory molecules regulate crescentic glomerulonephritis by different mechanisms. *Kidney Int* 68(2):584-94.
- Okuma Y, O'Connor AE, Muir JA, Stanton PG, de Kretser DM, Hedger MP. (2005) Regulation of activin A and inhibin B secretion by inflammatory mediators in adult rat Sertoli cell cultures. *J Endocrinol* 187(1):125-34
- Okuma Y, Saito K, O'Connor AE, Phillips DJ, de Kretser DM, Hedger MP. (2005) Reciprocal regulation of activin A and inhibin B by interleukin-1 (IL-1) and follicle-stimulating hormone (FSH) in rat Sertoli cells in vitro. *J Endocrinol* 185(1):99-110
- O'Leary DA, Koleski D, Kola I, Hertzog PJ, Ristevski S. (2005) Identification and expression analysis of alternative transcripts of the mouse GA-binding protein (Gabp) subunits alpha and beta1. *Gene* 344:79-92
- Ogrin R, Darzins P, Khalil Z. (2005) Age-related changes in microvascular blood flow and transcutaneous oxygen tension under Basal and stimulated conditions. *J Gerontol A Biol Sci Med Sci* 60(2):200-6
- Osborne EC, Trounson AO, Cram DS. (2005) A QF-PCR system to detect chromosome 13 aneuploidy from as few as ten cells. *Am J Med Genet A* 134(1):33-8
- Palmer J, Ernst M, Hammacher A, Hertzog PJ. (2005) Constitutive activation of gp130 leads to neuroendocrine differentiation in vitro and in vivo. *Prostate* 62(3):282-9
- Pebay A, Wong RC, Pitson SM, Wolvetang EJ, Peh GS, Filipczyk A, Koh KL, Tellis I, Nguyen LT, Pera MF. (2005) Essential roles of sphingosine-1-phosphate and platelet-derived growth factor in the maintenance of human embryonic stem cells. *Stem Cells* 23(10):1541-8
- Pera MF. (2005) Stem cell culture, one step at a time. *Nat Methods* 2(3):164-5
- Pralong D, Lim ML, Vassiliev I, Mrozik K, Wijesundara N, Rathjen P, Verma PJ. (2005) Tetraploid embryonic stem cells contribute to the inner cell mass of mouse blastocysts. *Cloning Stem Cells* 7(4):272-8.
- Pralong D, Mrozik K, Occhiodoro F, Wijesundara N, Sumer H, Van Boxel AL, Trounson A, Verma PJ. (2005) A novel method for somatic cell nuclear transfer to mouse embryonic stem cells. *Cloning Stem Cells* 7(4):265-71
- Rogers PA, Martinez F, Girling JE, Lederman F, Cann L, Farrell E, Tresserra F, Patel N. (2005) Influence of different hormonal regimens on endometrial microvascular density and VEGF expression in women suffering from breakthrough bleeding. *Hum Reprod* 20(12):3341-7
- Sarraj MA, McClive PJ, Wilmore HP, Loveland KL, Sinclair AH. (2005) Novel scavenger receptor gene is differentially expressed in the embryonic and adult mouse testis. *Dev Dyn* 234(4):1026-33
- Sawyer SM, Aroni RA. (2005) Self-management in adolescents with chronic illness. What does it mean and how can it be achieved? *Med J Aust* 183(8):405-9
- Schwab KE, Chan RW, Gargett CE. (2005) Putative stem cell activity of human endometrial epithelial and stromal cells during the menstrual cycle. *Fertil Steril* 84 Suppl 2:1124-30
- Silvani A, Asti V, Bojic T, Ferrari V, Franzini C, Lenzi P, Grant DA, Walker AM, Zoccoli G. (2005) Sleep-dependent changes in the coupling between heart period and arterial pressure in newborn lambs. *Pediatr Res* 57(1):108-14
- Sikaris K, McLachlan RI, Kazlauskas R, de Kretser D, Holden CA, Handelsman DJ. (2005) Reproductive hormone reference intervals for healthy fertile young men: evaluation of automated platform assays. *J Clin Endocrinol Metab* 90(11):5928-36
- So K, Buckley P, Adamson TM, Horne RS. (2005) Actigraphy correctly predicts sleep behavior in infants who are younger than six months, when compared with polysomnography. *Pediatr Res* 58(4):761-5
- Stamp L, Crosby HA, Hawes SM, Strain AJ, Pera MF. (2005) A novel cell-surface marker found on human embryonic hepatoblasts and a subpopulation of hepatic biliary epithelial cells. *Stem Cells* 23(1):103-12
- Taranto E, Xue JR, Lacey D, Hutchinson P, Smith M, Morand EF, Leech M. (2005) Detection of the p53 regulator murine double-minute protein 2 in rheumatoid arthritis. *J Rheumatol* 32(3):424-9.
- Taylor JM, Ali U, Iannello RC, Hertzog P, Crack PJ. (2005) Diminished Akt phosphorylation in neurons lacking glutathione peroxidase-1 (Gpx1) leads to increased susceptibility to oxidative stress-induced cell death. *J Neurochem* 92(2):283-93.
- Tecirlioglu RT, Cooney MA, Lewis IM, Korfiatis NA, Hodgson R, Ruddock NT, Vajta G, Downie S, Trounson AO, Holland MK, French AJ. (2005) Comparison of two approaches to nuclear transfer in the bovine: hand-made cloning with modifications and the conventional nuclear transfer technique. *Reprod Fertil Dev* 17(5):573-85
- Teede HJ, Meyer C, Norman RJ. Insulin-sensitisers in the treatment of polycystic ovary syndrome. *Expert Opin Pharmacother* 6(14):2419-27.
- Tharyan P, Clarke M, Green S. (2005) How the Cochrane collaboration is responding to the Asian tsunami. *PLoS Med* 2(6):e169
- Timoshanko JR, Kitching AR, Semple TJ, Holdsworth SR, Tipping PG. (2005) Granulocyte macrophage colony-stimulating factor expression by both renal parenchymal and immune cells mediates murine crescentic glomerulonephritis. *J Am Soc Nephrol* 16(9):2646-56

Toure A, Clemente EJ, Ellis P, Mahadevaiah SK, Ojarikre OA, Ball PA, Reynard L, Loveland KL, Burgoyne PS, Affara NA. (2005) Identification of novel Y chromosome encoded transcripts by testis transcriptome analysis of mice with deletions of the Y chromosome long arm. *Genome Biol* 6(12):R102

Tuladhar R, Harding R, Adamson TM, Horne RS. (2005) Heart rate responses to non-arousing trigeminal stimulation in infants: effects of sleep position, sleep state and postnatal age. *Early Hum Dev* 81(8):673-81.

Tuladhar R, Harding R, Adamson TM, Horne RS. (2005) Comparison of postnatal development of heart rate responses to trigeminal stimulation in sleeping preterm and term infants. *J Sleep Res* 14 (1):29-36.

Wahlqvist ML, Darmadi-Blackberry I, Kouris-Blazos A, Jolley D, Steen B, Lukito W, Horie Y. (2005) Does diet matter for survival in long-lived cultures? *Asia Pac J Clin Nutr* 14(1):2-6

Walter LM, Rogers PA, Girling JE. (2005) The role of progesterone in endometrial angiogenesis in pregnant and ovariectomised mice. *Reproduction* 129(6):765-77

Webster KE, O'Bryan MK, Fletcher S, Crewther PE, Aapola U, Craig J, Harrison DK, Aung H, Phutikanit N, Lyle R, Meachem SJ, Antonarakis SE, de Kretser DM, Hedger MP, Peterson P, Carroll BJ, Scott HS. (2005) Meiotic and epigenetic defects in Dnmt3L-knockout mouse spermatogenesis. *Proc Natl Acad Sci USA* 102(11):4068-73

Weston G, Bowditch J. (2005) Office ultrasound should be the first-line investigation for confirmation of correct ESSURE placement. *Aust N Z J Obstet Gynaecol* 45(4):312-5.

Weston G, Chaves N, Bowditch J. (2005) Sheehan's syndrome presenting post-partum with diabetes insipidus. *Aust N Z J Obstet Gynaecol* 45(3):249-50

Weston GC, Catrall F, Lederman F, Vollenhoven BJ, Rogers PA. (2005) Differences between the pre-menopausal and post-menopausal uterine fibroid vasculature. *Maturitas* 51(4):343-8

Wilkinson MH, Sia KL, Skuza EM, Brodecky V, Berger PJ. (2005) Impact of changes in inspired oxygen and carbon dioxide on respiratory instability in the lamb. *J Appl Physiol* 98(2):437-46

Vejlsted M, Avery B, Schmidt M, Greve T, Alexopoulos N, Maddox-Hyttel P. (2005) Ultrastructural and immunohistochemical characterization of the bovine epiblast. *Biol Reprod* 72(3):678-86

Xue J, Cooney MA, Hall VJ, Korfiatis NA, Tecirlioglu RT, French AJ, Ruddock NT. (2005) Effect of exogenous DMNPE-caged ATP on in vitro-matured bovine oocytes prior to parthenogenetic activation, fertilization and nuclear transfer. *Reprod Fertil Dev*. 16(8):781-6

Yang YH, Hall P, Little CB, Fosang AJ, Milenkovski G, Santos L, Xue J, Tipping P, Morand EF. (2005) Reduction of arthritis severity in protease-activated receptor-deficient mice. *Arthritis Rheum* 52(4):1325-32

Zhou J, Chehab R, Tkalcevic J, Naylor MJ, Harris J, Wilson TJ, Tsao S, Tellis I, Zavarsek S, Xu D, Lapinskas EJ, Visvader J, Lindeman GJ, Thomas R, Ormandy CJ, Hertzog PJ, Kola I, Pritchard MA. (2005) Elf5 is essential for early embryogenesis and mammary gland development during pregnancy and lactation. *EMBO J* 9;24(3):635-44.

Reviews

Browne CM, Hime GR, Koopman P, Loveland KL. (2005) Genetic basis of human testicular germ cell cancer: insights from the fruitfly and mouse. *Cell Tissue Res* 322(1):5-19

Butler CM, Gold EJ, Risbridger GP. (2005) Should activin betaC be more than a fading snapshot in the activin/TGFbeta family album? *Cytokine Growth Factor Rev*. 16(4-5):377-85.

Crack PJ, Taylor JM. Reactive oxygen species and the modulation of stroke. (2005) *Free Radic Biol Med*. 1;38 (11):1433-44

Green S. (2005) Systematic reviews and meta-analysis. *Singapore Med J* 46(6):270-3; quiz 274

Green S, Buchbinder R, Hetrick S. (2005) Acupuncture for shoulder pain. *Cochrane Database Syst Rev* (2):CD005319

Hogarth C, Itman C, Jans DA, Loveland KL. (2005) Regulated nucleocytoplasmic transport in spermatogenesis: a driver of cellular differentiation? *Bioessays* 27(10):1011-25

Horne RS, Parslow PM, Harding R. (2005) Postnatal development of ventilatory and arousal responses to hypoxia in human infants. *Respir Physiol Neurobiol* 15;149(1-3):257-71.

Lethaby A, Vollenhoven B. (2005) Fibroids (uterine myomatosis, leiomyomas). *Am Fam Physician* 71(9):1753-6.

Loveland KL, Hime G. (2005) TGFbeta superfamily members in spermatogenesis: setting the stage for fertility in mouse and Drosophila. *Cell Tissue Res* 322(1):141-6

Manser RL, Irving LB, de Campo MP, Abramson MJ, Stone CA, Pedersen KE, Elwood M, Campbell DA. (2005) Overview of observational studies of low-dose helical computed tomography screening for lung cancer. *Respirology* 10(1):97-104.

Manser R, Wright G, Hart D, Byrnes G, Campbell DA. (2005) Surgery for early stage non-small cell lung cancer. *Cochrane Database Syst Rev* (1):CD004699

Misso ML, O'Connor DA, Egberts KJ, Shaw J. (2005) Continuous subcutaneous insulin infusion (CSII) versus multiple insulin injections for type 1 diabetes mellitus. (Protocol) *Cochrane Database Syst Rev* (1) CD005103

Morand EF. (2005) New therapeutic target in inflammatory disease: macrophage migration inhibitory factor. *Intern Med J* 35(7):419-26

Norman MU, Hickey MJ. (2005) Mechanisms of lymphocyte migration in autoimmune disease. *Tissue Antigens* 66(3):163-72

Phillips DJ, Jones KL, Clarke IJ, Scheerlinck JP, de Kretser DM. (2005) Activin A: from sometime reproductive factor to genuine cytokine. *Vet Immunol Immunopathol* 108(1-2):23-7.

Phillips DJ. (2005) Activins, inhibins and follistatins in the large domestic species. *Domest Anim Endocrinol*. 28(1):1-16

Risbridger GP, Almahbobi GA, Taylor RA. (2005) Early prostate development and its association with late-life prostate disease. *Cell Tissue Res*. 322(1):173-81.

Risteovski S. (2005) Making better transgenic models: conditional, temporal, and spatial approaches. *Mol Biotechnol* 29(2):153-63

Sathananthan AH, Trounson A. (2005) Human embryonic stem cells and their spontaneous differentiation. *Ital J Anat Embryol* 110(2 Suppl 1):151-7

Shehu-Xhilaga M, de Kretser D, Dejucq-Rainsford N, Hedger M. (2005) Standing in the way of eradication: HIV-1 infection and treatment in the male genital tract. *Curr HIV Res* 3(4):345-59

Shehu-Xhilaga M, Tachedjian G, Crowe SM, Kedzierska K. (2005) Antiretroviral compounds: mechanisms underlying failure of HAART to eradicate HIV-1 *Curr Med Chem*. 12(15):1705-19

Timoshanko JR, Tipping PG. (2005) Resident kidney cells and their involvement in glomerulonephritis. *Curr Drug Targets Inflamm Allergy* 4(3):353-62

Tipping PG, Kitching AR. (2005) Glomerulonephritis, Th1 and Th2: what's new? *Clin Exp Immunol* 142(2):207-15.

Tipping PG, Timoshanko J. (2005) Contributions of intrinsic renal cells to crescentic glomerulonephritis. *Nephron Exp Nephrol* 101(4): e173-8

Wraight PR, Lawrence SM, Campbell DA, Colman PG. (2005) Creation of a multidisciplinary, evidence based, clinical guideline for the assessment, investigation and management of acute diabetes related foot complications. *Diabet Med* 22(2):127-36

Book Chapters

Burger HG, de Kretser DM (2005) "Gonadal Peptides: Inhibins, activins, follistatin, Müllerian-inhibiting substances (antimüllerian hormone)." In: *Endocrinology 5th Edition* Eds LJ DeGroot, JL Jameson, Saunders-Elsevier, Ch 140, Vol 3, pp 2669-2686

Kerr JB, de Kretser DM (2005) "Functional morphology of the testis." In: *Endocrinology 5th Edition* Eds LJ DeGroot, JL Jameson, Saunders-Elsevier, Ch 167, Vol 3, pp 3089-3120

Loveland KL, Robertson DM (2005) "The TGF β Superfamily in Sertoli Cell Biology." In: *Sertoli Cell Biology* Eds. M Griswold, M Skinner pp 227-247 Elsevier-Academic Press NY

Pera MF, Dottori M (2005) "Stem cells and their developmental potential." In: *Stem Cells: From Bench to Bedside* Eds. A Bongso, E Liu pp 55-70 World Scientific Publishing Company

Risbridger GP, Taylor RA (2005) "The physiology of the male sex accessory tissues." In: *Physiology of Reproduction 3rd Edition* Ed. JD Neill Elsevier San Diego CA

Weston GC, Girling JE, Gargett CE & Rogers PA (2005) "Hormonal Effects on Endometrial Angiogenesis" in *Trends in Angiogenesis Research* Ed. Roberta V. Zubar Nova Biomedical Books (Nova Science Publishers Inc) pp 71-102

Xu, D., Wilson, TJ, Hertzog, PJ (2005) Ultraviolet-induced apoptosis in embryonic stem cells. *Methods in Molecular Biology* 329: Embryonic Stem Cell Protocols: Vol 1 edited by K.Turksen.

Community Relations and Philanthropy



Community Relations and Philanthropy

Community interaction and support is essential to MIMR, and the Institute is extremely fortunate to have an impressive range of supporters including philanthropic trusts, corporate donors, business leaders on our Board and committees as well as a growing numbers of private donors. MIMR's Development Office manages these key relationships, which are vital for the continuing growth of the Institute.

Ensuring MIMR's stakeholders, including supporters, scientific collaborators and prospective students, are fully informed about the Institute's research is vital. Scientific progress cannot succeed in a vacuum or without community understanding.

Launch of Monash Institute of Medical Research

The merger of several of Monash University's key research entities to create Monash Institute of Medical Research not only marked the dawn of a new era in medical research in Victoria but also saw the birth of the MIMR brand. The occasion was celebrated in style on 1 February, 2005. Victorian Premier, the Honorable Steve Bracks officially launched the new Institute in the presence of over 100 guests and scientific colleagues.



Professor de Kretser, Premier Bracks, Professor Cornish, Professor Byrne and Ms Linda Sorrell at the MIMR launch

Communications

Newsletters, brochures, banners, fact sheets, stationery and the MIMR website form part of the communications tools produced to increase awareness, understanding and support for MIMR.

Institute scientists continued to make regular appearances in the media in 2005. While "Brandy the first serial nuclear transfer cloned cow" and the "Discovery of stem cells in the uterus" made headlines around the world, other advances in arthritis research, male infertility, ovarian health and SIDS research also received positive coverage.

Community Support

In the second year of direct mail appeals, the Institute's database of supporters grew considerably. Profiling a different aspect of the Institute's research with each appeal, donations were sought on a quarterly basis. These funds have assisted in the purchase of vital scientific equipment and expanding existing research programs.

The sale of Christmas cards through charity shops and direct mail raised considerable funds to support MIMR's research endeavours. The response to this fundraiser in its first year was excellent.

Scholarships

Scholarships play an important part in creating opportunities for scientists to further their careers. In 2005 Emeritus Professor John Maloney, Founding Director of the Centre for Early Human Development, the forerunner to the Ritchie Centre, created a scholarship in honor of his mother and father to assist Ritchie Centre staff and students advance their skills in technology and research.

Laboratory Manager Mr Votja Brodecky was the inaugural recipient of the JE & HTE Maloney Travel Scholarship. With this assistance, Votja visited the Liggins Institute in Auckland, New Zealand, and Masimo Corporate in California to gain insight into the latest applications of technology for tissue, blood and oxygen measurement.

WISE

The Women in Scientific Excellence (WISE) program brings together women who value wisdom and learning and recognize the enormous contribution young scientists can make given sufficient support. Through an Awards program, these supporters are helping talented young women further their scientific careers. Membership to WISE requires a set annual contribution. In a bid to recruit more supporters a luncheon program began in 2005.

MIMR on Show

Showcasing the work of the Institute is an important part of the Institute's communication with the wider community. During 2005, the Discovery Tour program continued. Tours are conducted on request for corporate and private donors, trustees from philanthropic organizations, as well as clubs, community and school groups, gave participants the opportunity to see first-hand the cutting-edge research carried out in our laboratories.

During the year MIMR scientists also ventured out of their labs to present their latest research findings to community groups such as Rotary, Freemasons and Probus.

Community Relations and Philanthropy

2005 Student Open Days

Recruiting enthusiastic and talented students to undertake post-graduate studies at MIMR is important for the longevity of medical research in Australia. To highlight the opportunities for young scientists, MIMR conducts Annual Student Open Days. Students are taken on tours of the Institute and provided with resources outlining the diverse number of research projects available.



Open Day

Kaarene Fitzgerald Lecture

As a tribute to Ms Kaarene Fitzgerald AC, the inspirational woman who set up SIDS and Kids, a free public lecture is hosted each year by the Ritchie Centre. On 3 November 2005, Monash Medical Centre's Director of Newborn Services Dr Andrew Ramsden, Professor Brad Thach from Washington University and Associate Professor Peter Eastwood from Sir Charles Gairdner Hospital in Perth shared their knowledge and expertise on newborn breathing disorders in sleep, with members of the public.

David de Kretser Festschrift

When the Institute's Founding Director Professor David de Kretser AO retired, colleagues from around the world gathered to honor this great man and his work. A full day symposium and gala dinner were held, where this array of internationally recognized scientists recounted stories of David's influence on their careers and major milestones in medical history. Messages and tributes from David's scientific colleagues who could not attend were played throughout the evening. The Festschrift Committee acknowledges all who contributed to David's Festschrift, especially those who traveled from overseas to take part.

Following the Festschrift, the Governor of Victoria, John Landy, hosted an evening at Government House for David, his family, members and former members of the Management Advisory Board, Monash University staff and Institute staff who had worked with David for a long time. The Institute thanks former Board Member and the Official Secretary to the Governor of Victoria, Dr Charles Curwen CVO OBE, for organising this special event.



The de Kretser family at David's Festschrift

Management Advisory Board

Special thanks to the members of the MIMR Fundraising and Communications Committees, under the leadership of David Evans and Barbara Crook respectively, for their positive advice and assistance throughout the year.

Community Relations and Philanthropy

Philanthropic Support

MIMR is sincerely grateful for the many contributions made by organisations and individuals that have provided support throughout 2005. Each gift assists the Institute to continue its important research.

The Institute acknowledges the following generous donations:

Abbott Australasia Pty Ltd
American Association for Cancer Research
American Health Assistance Foundation
Australian Science Network Pty Ltd
Australian Prostate Cancer Collaboration
Australian Society for Reproductive Biology
Australian Stem Cell Centre
Bayer Australia Ltd
Beaton Consulting
Blair Ritchie Estate
BUPA Foundation
Business Essentials
Collier Charitable Fund
Consulting International Partnerships
Doug Shore Motors Pty Ltd
Duke of Richmond Masonic Lodge
The Eirene Lucas Foundation
E J Whitten Foundation
Endocrine Society of Australia
The Fertility Society of Australia
Geoffrey Gardiner Dairy Foundation Ltd
Helen Macpherson Smith Trust
The Jack & Robert Smorgon Families Foundation

John Hart Pty Ltd
Juvenile Diabetes Research Foundation
KDB Group of Companies
Mallesons Stephen Jacques
Melbourne Aquarium
Merck Sharp & Dohme (Australia) Pty Ltd
Mesothelioma Applied Research Foundation
The Michael & Andrew Buxton Foundation
Newspec Pty Ltd
Organon (Aust) P/L
Ovarian Cancer Research Foundation
The Parncutt Family Foundation
Plin Pty Ltd
RANZCOG Research Foundation
Roche Products
Sudden Infant Death Research Foundation
Turning Point Alcohol & Drug Centre Inc
US Army Medical Research & Material Command
US Department of Defense
Victorian Health Promotion Foundation -VicHealth
Victorian Trauma Foundation
Wilrene Pty Ltd

WISE Members 2005

Ms Patricia Baitz
Mrs Mary Conigrave
Professor Gillian Duchesne
Mrs Maureen Hindle
Mrs Karen Joel
Mrs Diana Jones AM, DSJ
Mrs Dawn King

Mrs Esther Lewin
Mrs Marcia Pinskiar
Professor Gail Risbridger
Mrs Val Smorgon OBE, JP
Mrs Vicki Smorgon
Mrs Lisa Thurin

Community Relations and Philanthropy

Individual Donors (\$100 or more)

Ms Vicky Alateras	Mr David Gamble	Mr Israel Nissenbaum
Ms Barbara Anderson	Mr Alan Garrett	Mrs O Noon
Mr Peter Ashley	Ms Ann Geddes	Mr Jim O'Connor
Ms Audrey Aslop	Mr Giuseppe Gioffre	Dr Peter Parashos
Mr Neil Bailey	Mr & Mrs Ian Gittus AM	Mr Leslie J Pearcy
Mrs Judith Baird	Hon Justice Alan Goldberg AO	Mr Ian Perry
Ms Patricia Baitz	Mr John Gordon-Kirby	Mrs Marcia Pinskiar
Mr Anthony Barnes	Mr Peter Gyopar	Mr Geoffrey Polites
Mr Michael Bartlett	Mr Kelvin Hack	Mr A H A Pyman
Mrs E. F. Beeton	Mr Malcolm Haddrick	Mr Ralph Renard
Mrs Barbara Bexley	Mrs Jean Hadges	Dr David W Rogers AO
Mr William Bishop	Mrs AF Hamilton	Mr Maxmilian Sachs
Mr Geoffrey Brentnall	Mr D Hammond	Mr Alan Schneyer
Mr Andrew J Brock	Dr Richard E Harbig	Ms Barbara Schofield
Dr John Campbell	Mr Ian M Hicks, AM	Mr Greg Shalit
Mr DE Chandler	Mr Rodney Hill	Mr Douglas Showman
Mr Robert Chapple	Ms Tracy Hocking	Dr Jane Sklovsky
Mr Frank Chiodi	Mr T F Hogg	Mr David J Smith
Emeritus Professor Arthur Clark, AM	Ms Annelie Holden	Mr & Mrs Victor & Lotti Smorgon AO
Mrs Ailsa Coath	Dr & Mrs Samuel & Margaret Howes	Dr W Stewart
Mrs Mary Conigrave	Dr June Howqua	Mr Peter Sutton
Mr Dick Conigrave	Mrs Joyce Hudson	Mr Fred Talman
Mr Graham Conningsby	Mr John Hughes	Mr Keith Taylor
Professor David Copolov	Mrs Sue James	Mr Keith Thornton
Mr Frank Corless	Mr Jack Joel OAM	Mr & Mrs Peter & Barbara Tomlinson
Ms Wendy F Crisp	Mr Harold Johnston	Mr Haydn Vincent
Ms Barbara Crook	Mr R Jones	Professor Adrian Walker
Mr Laurence Crouch	Mrs Sylvia Kemp	Mr Hugh Wallace
Mr Thomas Cunneen	Mr & Mrs Sam & Zofia Kipen	Mr Geoff Webb
Mr Conrad Danilidis	Mrs Denise Knol	Mr Robert Wilkinson
Dame Joyce Daws	Dr Phillip G Law, AC, CBE	Mr John Williams
Mrs Joan D Dickens	Emeritus Professor John Legge	Mrs Lynette Williamson
Mr Kenneth Doubleday	Mr Simon Leivenzon	Ms Denise Young
Mr J M Dowling	Mr & Mrs Sam & Esther Lewin	
Ms Margaret L Eckfield	Mr Robert Liddle	
Mr David Evans	Ms Eileen Luk	
Ms Miriam Faine	Mr Kevin Luscombe AM	
Dr Jean-Claude Fauchère	Mr Lance Matheson	
Mr Peter Foster	Mr Ross McCann	
Mrs Vivienne Fried	Mr Bill Moulding	
Mr Brian Gallery	Mrs Sally Mulholland	

Monash Health Research Precinct





DNA Sequencing

The service provided by the DNA Sequencing Laboratories was in high demand throughout 2005. In addition to MIMR, these facilities are accessed on a regular basis by Prince Henry's Institute and a number of other groups associated with Southern Health. This essential technology facilitates greater understanding of gene structure and function by determining the sequence of base pairs within a gene, which assists in understanding diseases, developing early diagnostics and innovative therapies.

During 2005 it became apparent that a new Sequencer was required in order to maintain the quality services which had been provided since 1998. The technology has moved on considerably over the last seven years and now offers improved capability, flexibility and reliability. A grant application was submitted to the Gandel Trust to enable the purchase of this valuable piece of equipment. The submission was favorably received, and details of the application outcome will be reported in 2006.

Histology

The Histology Laboratory offers a range of functions including processing for electron microscopy and all aspects of paraffin, frozen and resin histology from cut up through to stained slides in a range of stains. During 2005, long term manager of this facility Anne Davies retired from the Institute, creating a short term hiatus in the service. However the laboratory and equipment remained accessible to Institute staff.

Animal Facilities, Monash Medical Centre

The Animal Facilities at Monash Medical Centre provides vital support services to researchers across various University departments in the Southern Clinical School, including MIMR. The facility breeds and cares for a range of animals, including unique strains of SPF mice which require elaborate individually ventilated cages. Ethics Committees oversee the operations of the Animal Facilities to ensure the animals are maintained and used in a humane manner according to the highest ethical standards and in compliance with various legislations. Sincere thanks to the following people for their services on the Animal Ethics Committees and for their commitment to this vital aspect of the Institute's operations:

- Shirley Andersson
- Janice Bate
- Vojta Brodecky
- Peter Crack
- Sari Cuce
- Ann Drummond
- David Galloway
- Monika Generowicz
- Jane Girling
- Mark Hedger
- Michael Hickey
- Margaret Kingman
- Joan Liley
- Lisa Mc Coll
- David Nicollic-Paterson
- Denise Noonan
- Robin Stevens
- Trevor Wilson

Network Services, Monash Medical Centre

The IT Service and Support group manage computer installations, email accounts, security issues, and network management for all University departments based at Monash Medical Centre. As the Institute continues to grow, the need for simplified and efficient systems of communication and interface with the University is increasingly important. At the end of 2005 the Institute had 289 registered users on the network.





The Administration Team

The creation of MIMR at the beginning of 2005 brought with it significant administrative change and considerable challenges. A key factor in the birth of MIMR was the consolidation and streamlining of resources and administration. Bringing the various Centres and Institutes under the MIMR banner has been a major undertaking and we acknowledge the assistance of Centre Directors and Administrators with this task.

Construction of the new Monash Health Research Precinct building was completed in 2005. The Logistics team was instrumental in ensuring that this four-storey laboratory and office facility was on track and appropriately fitted out to meet the needs of MIMR and Precinct scientists. Occupancy of the building began in September 2005.

With the increase in Institute size, the annual budget increased dramatically in 2005. Approximately \$24.5 million of funding was received from a diverse range of sources to support the Institute's work. (This amount does not include funds for the construction of the new precinct building.)

Administration Services

Summary of Income and Expenditure

	2005	2004
Income		
General Revenue	4,730,423	2,429,985
Other Income	1,074,591	465,823
Commercial Income	531,524	517,683
Investment Income	216,941	1,166
Non Research Funding	1,202,353	457,368
Research Income	16,811,662	13,359,580
	24,567,494	17,231,606
Salaries Expenditure		
All Salary Expenses	14,809,545	10,502,197
	14,809,545	10,502,197
Non Salary Expenses		
Other Expenses	276,688	1,600,634
Financial and Admin Services	499,823	157,788
Travel and Related	818,649	576,392
Book and Library	45,494	19,790
Print and Stationery	421,384	324,696
Computer Related	472,492	336,478
Communications	290,373	385,714
Equipment Related	863,857	14,783
Lab and Operating	3,572,028	3,063,822
Student Related	816,443	347,154
Staff Related	188,305	87,854
Motor Vehicle	34,981	24,633
Building and Property	287,441	98,120
	8,587,958	7,037,858
Operating Surplus/Deficit	1,169,991	-308,449

