

Major NH & MRC Program Grant awarded to A/Professor Andrew Sinclair



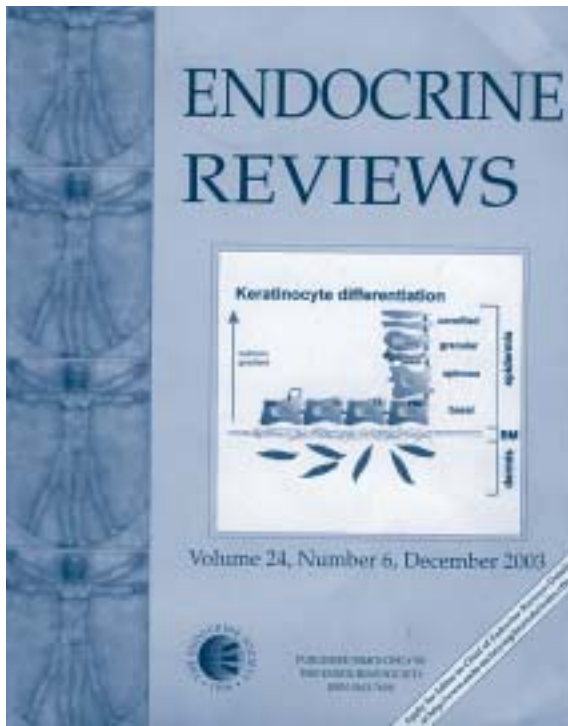
A/Professor Andrew Sinclair was awarded a prestigious NH&MRC Program grant on July 5 by the Health Minister Hon. Tony Abbott. The grant is for \$4.3 million over five years and will support

a multi-centred team of researchers working on intersex disorders. These disorders – ranging in severity from hypospadias (misplacement of the urethral opening) to complete sex reversal – are surprisingly common. These disorders usually result in infertility, genital abnormalities, gender mis-assignment and long-term psychological trauma. The cause of these problems is most often the failure of the delicate network of gene regulation that is responsible for proper development of testes or ovaries in the embryo. This research program will identify genes important for sex determination and development of the gonads, find out how these genes function and interact, and discover how they contribute to cases of aberrant sexual development. This Program will pool the expertise of three major research groups in human molecular genetics, mouse developmental biology and protein chemistry to bring spectacular advances in our knowledge of human sexual development and its associated disorders. This information will be used to bring improved clinical care to patients with disorders of sexual development.



JDRF grant to investigate mechanism of cerebral oedema in diabetic ketoacidosis

Dr Fergus Cameron was awarded a Juvenile Diabetes Federation international innovative research grant to investigate the mechanisms of brain swelling (cerebral oedema) during diabetic ketoacidosis. Brain swelling is a complication unique to children that can occur during diabetic ketoacidosis. Whilst it occurs rarely, brain swelling frequently results in death. Dr Cameron has combined with Dr Terrie Inder to use a new and innovative magnetic resonance technology to investigate the chemical brain changes that predispose to brain swelling in diabetic children. They have already published early findings of this research and plan to extend their research over the next 2-3 years. The lead investigator in this project will be the new research fellow, Dr Ildiko Kovacs.



Cutaneous biology team makes front cover!

Epidermal Homeostasis: The Role of the Growth Hormone and Insulin-Like Growth Factor Systems

Stephanie R Edmondson, Susan P Thumiger, George A Werther, and Christopher J Wraight

Centre for Hormone Research, Murdoch Childrens Research Institute, Royal Children's Hospital, University of Melbourne, Parkville, Victoria, Australia 3052

The Cutaneous Biology team continues to achieve worldwide recognition with the publication of Dr Stephanie Edmondson's review in the prestigious journal Endocrine Reviews. In further recognition of excellence Stephanie's article was invited to grace the cover of the December 2003 issue.

Motor Neurone Disease

Kennedy's disease is a form of Motor Neurone disease that results in crippling muscle weakness, cramps and tremor, including not only the muscles of the body, but of the face and throat. Our research group, headed by Dr Karen Greenland and Professor Jeffrey Zajac, are endeavouring to understand how to slow or prevent the progression of this disease. In addition to research within the Centre for Hormone Research, we have established an active collaboration with Dr John Morrison at Monash Medical Centre, testing a number of factors that we believe may aid in improving the quality of life in those affected by this debilitating disorder.

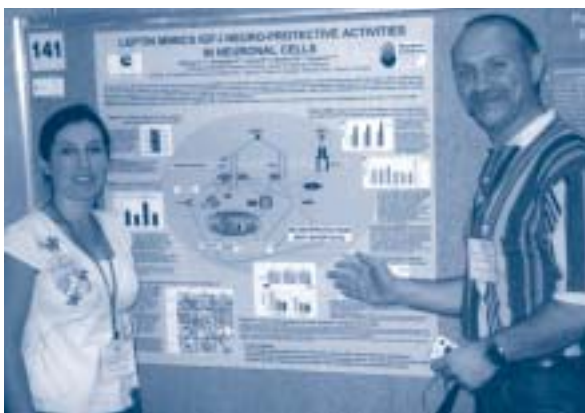
2nd international growth hormone-insulin-like growth factor symposium, Cairns 18-22 April 2004

Dr Vince Russo

The Centre's Neuroendocrine Research and Dermal Therapeutics Units, were strongly represented at the 2nd International GH-IGF Symposium in April. Dr Vincenzo Russo's group, including Ms Suzana Metaxas, Dr Kisho Kobayashi and Dr Burkhardt Schütt presented a number of high profile papers. The work presented included the identification of new glucose responsive genes in the brain and the development of novel growth factor modulators, which modify the behaviour of nerve tumour cells. Dr Russo was awarded for the best poster prize in the basic science section for novel work showing that Leptin, the obesity regulator, also can protect nerve cells from damage due to glucose deficiency.

In May the Leptin study was accepted for publication in the highly rated international journal "Endocrinology". The work from the Neuroendocrine Research Team thus provides the bases for the potential development of alternative treatment of degenerative and malignant conditions of the nervous system.

Frank Anastasopoulos presented new information showing that our gene modulating antisense therapy is effective in blocking growth factor production in skin when applied topically. This will be the basis of the forthcoming trial of this therapy in people with Psoriasis.



Good Friday Appeal, betterdiabetes.com

Fergus Cameron

A new and innovative internet strategy devised by the Diabetes unit has received a lot of press recently. Betterdiabetes.com was launched just over one year ago by the Department of Endocrinology and Diabetes and has been widely used by our patients in the diabetes clinic. This strategy allows patients to have their own, internet-based diabetes health records. In addition patients can use the internet to communicate with our diabetes nurse educators. Better diabetes.com is the first e-health patient record of its kind in Australia and on the anniversary of its launch featured heavily in the media. Copies of the press clippings are available from Lee-Ann Jones on 9345 7057 or email leeann.jones@mcri.edu.au

Fergus Cameron invited to join the International Hvidore Study Group Advisory Board

The Hvidore study group is a prestigious multinational study group dedicated to investigating type 1 diabetes, sponsored by Novo Nordisk. The group performs multicentre research in type 1 diabetes in children and adolescents, is nearly ten years old and is composed of leading diabetes clinicians from Europe, North America and Japan. Fergus is the first person from the southern hemisphere to be invited.



Brittle bones

Dr Justin Brown has been working on a laboratory project in collaboration with the cell and matrix biology group. In the Department of Endocrinology we have been using a bisphosphonate medication to treat children with the inherited brittle bone disease called osteogenesis imperfecta (OI) and other conditions that result in brittle bones. Bisphosphonates make brittle bones stronger and reduce the number of fractures suffered by OI patients but we don't fully understand how bisphosphonates work. OI patients have abnormal bones because the disease

affects the normal formation of collagen, a key bone component that is important for normal bone strength. In the lab, bone cells have been made which produce the type of collagen seen in OI. We are looking at the effect of bisphosphonate treatment on the collagen produced by these bone cells. We hope that an increased understanding of how bisphosphonates work will improve the way in which we can treat patients with OI and other brittle bone diseases. This is an extension of work done by Dr Margaret Zacharin in successfully treating children with this drug.

New appointments



Dr Dunia Ismail is a paediatrician from Sicily, who has been with us for almost six months. She has been undertaking several projects, one examining the outcome of children with hypoglycaemia or low blood sugar due to excess insulin production. Her other projects are effects on obesity due to brain damage and effects of alcohol consumption on glucose variability in adolescents with diabetes. She returned to Sicily in July to continue her specialist training.

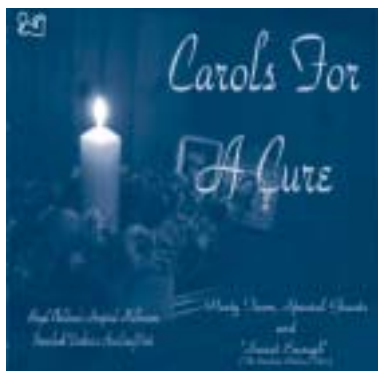


Dr Ildi Koves is a paediatrician who trained at the Royal Children's and has just joined us to undertake training in paediatric endocrinology. She will be pursuing a major project seeking the reasons why some children with diabetes have a devastating complication if they present with dehydration. This is known as cerebral oedema, and is a potentially fatal or brain-damaging condition. Ildi's work will involve a series of specialised MRI's and spectroscopy, a state-of-the-art form of brain imaging. She will also be working in the laboratory with Dr Vince Russo and Professor George Werther, seeking answers to the same questions using nerve cells and brain tissue. Her work will lead to a higher degree (Doctorate of Medicine). We warmly welcome Ildi to the Centre.



Rebecca Humphreys is our newest Diabetes Nurse Educator, having recently joined us. Rebecca has diabetes herself and is a splendid role model to our young patients, sporting a tiny insulin pump to control her blood glucose. Rebecca is also a highly accomplished Irish fiddler, being part of a successful Irish Band. We welcome Rebecca to our Department.

Kerrie Beauglehall is making a Christmas Carol CD with our diabetic kids as the choir



The band "Party Town" and Kerrie Beauglehall from Inverloch have recorded a cd of christmas songs sung by diabetic children from the RCH diabetes clinic. Kerrie has run a fund-raising ball at Inverloch for many years in order to support diabetes complication screening at RCH. The band "Party Town" (made up of Gay and Graeme Murphy, and Tina, Phil and Julia Bowden) have been a regular feature at the Annual Inverloch Ball. This year the Band and Kerrie conceived the idea of recording christmas songs using the voices of children from the

RCH diabetes clinic. A large number of children have participated in the recording of the cd over two weekend sessions. The CD is now complete and will be launched at the Inverloch Diabetes Ball on the 19th June. The CD is available on Clinic Days at the Royal Children's Hospital or through Kerrie Beauglehall, 4 Phillips Street, Inverloch 3996. The cost is \$15 plus \$2 postage and packing within Victoria. Up to 70% of sales goes back to the Royal Children's Hospital. The winner of the Melbourne Holiday was The Atkins Family

Samantha Francis-Pester Endocrine Nurse



Samantha joined the Centre for Hormone Research as the Endocrine Nurse where she is the co-ordinator of the growth hormone program and study co-ordinator on "the use of Nordtrophin simpleXx in adults with childhood onset growth hormone deficiency and bone mineralisation". Samantha's background is as an Immunisationist with Moreland Council, working in the Cardio Thoracic unit with the Royal Children's Hospital and as Transplant co-ordinator with the State Coroner's office.

Professor George Werther was invited to give the inaugural Trans-Pacific Lecture at the US Lawson-Wilkins Pediatric Endocrine Society. This is the American professional body for pediatric endocrinology and the invitation was in recognition of Professor Werther's research contributions over many years. The subject of his lecture was "Insulin-like growth factors and the ectoderm", covering the work in the Centre on skin development and disease, especially a new treatment for psoriasis. This is work led in the laboratory by Christopher Wraight and Stephanie Edmondson over the last ten years.

Special events

Theatre

Saltpillar Theatre Company are generously supporting our Centre with a special charity performance of Neil Simon's "Brighton Beach Memoirs", starring our very own talented Director, Professor George Werther.

Thursday
19th August
8.00pm

Phoenix Theatre,
Elwood

Tickets: \$20.00

Please contact Lee-Ann Jones,
Administrative Assistant,
Centre for Hormone Research
on 9345 7057

Movies

A special thank you to Philippa Finney, Debbie Thomas, Icon Films and the Rivoli cinema on our preview screening of **The Singing Detective** on 21 June 2004. The night was a success, raising valuable funds for the Centres research.

Contact us

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A/ Professor Andrew Sinclair: President, Australian Society for Medical Research

We were delighted that Andrew Sinclair was elected President of ASMR, the peak body for medical research advocacy in Australia. Australian health and medical research saves money, saves lives and generates income and jobs. This message is at the heart of the Australian Society for Medical Research's (ASMR) public, political and scientific advocacy activities in 2004. The Federal government has several reviews of research underway and faces an election this year. This offers both challenges and opportunities, and Andrew is at the forefront, via lobbying for improved medical research funding and infrastructure support. The ASMR also just held its annual Medical Research week in all capital cities, and Andrew hosted federal and state health ministers and leading international and national scientists, who spoke around the country. Andrew is playing a critical role in the future of Australia's medical research.

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We gratefully acknowledge
the generosity of these donors,
and their ongoing support of the
work in the Centre.

Interested in assisting? Volunteering?

There are many ways in which you can assist, including donating much-needed funds, your time and equipment or sponsoring a program or a component.

For more information please contact our office on (03) 9345 7057.

Details of Sponsorship Program Packages will be provided. Any suggestions or offers of assistance will be welcomed. Your support is greatly appreciated. If you wish to donate funds, by cheque or credit card, please complete the donor form below. ▼

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