

Childhood obesity

Dr Matt Sabin



Matt is a paediatrician and Diabetes

UK Clinical Research Training Fellow, on a two year appointment with the Centre for Hormone Research. In the UK he

played a key role in the development of a large-scale childhood obesity service. A multidisciplinary clinic was established to help obese children and their families. This involved the children regularly seeing Dr Matt Sabin (or a fellow paediatrician), a dietician, and a Health and Exercise specialist – with a view to improving their lifestyles. This clinic has now been running for 4 years and has been associated with improvements in body composition in the majority. It has been awarded a Best Practice Award for the treatment of obese children in the UK and the results have recently been accepted for publication in the Journal of Evaluation in Clinical Practice. This type of service provides a basis for the development of similar clinics elsewhere, as well as providing a unique resource within which to examine the factors important in the development of obesity and diabetes in children.

At the MCRI at RCH, Dr Matt Sabin will be commencing studies specifically designed to investigate the effect of differing levels of fat and sugar in the diet on obesity and diabetes risk, as well as assisting in the generation of state-wide interventions for the treatment of obese children.

Healthy bones

Since its inception, our department has provided an extensive clinical service throughout The Royal Children's Hospital (RCH), many departments making increasing use of the facility for both diagnostic and research purposes. We have been invited to give lectures and education sessions to several departments here and at other institutions, regarding bone mass accumulation and the difficult problems of bone density interpretation in the growing child. The significant interest generated by our clinical service has offered and will offer an expanding opportunity for clinical research in the hospital. Areas as diverse as organ transplantation, anticoagulant use, cystic fibrosis management, cerebral palsy, inflammatory bowel disease, orthopaedics and eating disorders all use our service to provide improved information for their patients and to provide research data. The department also offers a research facility for other hospitals and looks forward to a collaborative project with the Royal Melbourne Hospital.

Our own unit is also involved with ongoing research in the areas of primary bone disorders such as osteogenesis imperfecta. Inherited disorders of bone and cartilage represent a significant burden of disease and disability to the community. Together with the Genetic Health Services we are developing a comprehensive bone dysplasia service that will allow the ethical application of basic research advances to families. The project is headed by Professor John Bateman and Dr Ravi Savarirayan who have been successful in winning the Murdoch Childrens Research Institute theme grant (\$450,000 over three years).

Our work has resulted in publication of a number of papers in the areas of new and successful treatment of bone disorders, review articles on paediatric bone health and collaborative work with other units.

Grand Rounds Seminar – 'Childhood obesity'

Date: 11 October 2006
 Time: 12.30pm – 1.30pm

Dr Matt Sabin will present Grand Rounds on Wednesday 11 October at the Ella Latham theatre, 1st floor, The Royal Children's Hospital. Everyone is welcome to attend. A light lunch will be served at 12.15pm.

Growth

The laboratory based work of our Hormone Research Unit mainly focuses on the investigation of hormonal regulation of brain development, repair and malignancies of the nervous system. With the use of laboratory models we have been able to investigate the damaging effects of blood glucose imbalance on nerve cells and brain particularly in Type 1 diabetes. We are now attempting for the first time worldwide, to use our models, to examine whether neuro-protective agents such as 'insulin-like growth factor' can prevent brain damage in case of severe blood hypoglycaemia or low glucose. This work is being developed in collaboration with a New Zealand group at the University of Auckland.

Dr Vince Russo and Dr Anurag Bajpai recently visited Auckland at our collaborators to finalise the research program schedule for 2006 – 2007. A new PhD student and a visiting research fellow from China will soon join the Hormone Research Unit.

We are also actively involved in cancer research, in particular looking at the events regulating tumor growth and spread in the cancer neuroblastoma, which accounts for 15% of all paediatric tumors is often of a very poor prognosis and not curable with conventional anti-cancer therapies. We have identified key molecular mechanisms that appear to be involved in early stages of neuroblastoma development, and now we are able to control, its growth in the laboratory. This has been achieved by the development of a unique molecule with anti-cancer growth activities. This molecule has been patented internationally by Dr Russo, Professor Werther and Professor Bach. Further studies will take this new molecule from 'proof-of-concept' to animal testing in the coming months.

Contact us

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Garry Warne receiving his medal

Staff achievements

Professor Garry Warne

We are delighted to announce that Professor Garry Warne, Director of RCHI was presented with the highly prestigious medal 'For People's Health' by the Government of Vietnam. The medal is the highest award given to 'Foreign Friends' and was awarded to Garry by the Vietnamese Ministry of Health during the third Vietnam/Australia conference on paediatrics, which was held in Hanoi on 28 November 2005. The conference, co-hosted by the RCH and the NHP, offered an opportunity for doctors of the two clinics, which have established their cooperative ties for ten years, to exchange experiences and learn from one another.

Professor Warne was honoured for his contribution to boosting cooperation between the RCH and the National Hospital of Pediatrics (NHP) of Vietnam in the areas of personnel training and scientific research.

We congratulate Garry on his wonderful achievement.

Andrew Sinclair

We would like to congratulate Andrew Sinclair on his promotion to Professor with the University of Melbourne as of 1 July 2006. This appointment recognises firstly his successes in his field of research – Molecular Development, medicine and science. Also, his other achievements including a term in 2004 as President of Australian Society of Medical Research and his new position as Theme Director of Early Development and Disease with the Murdoch Childrens Research Institute.

Fergus Cameron

Congratulations also to Fergus Cameron who was promoted to Associate Professor by the University of Melbourne. This was in recognition of his ongoing research in diabetes and healthy bones and his international standing as an expert in childhood diabetes. Further recognition came from his appointment to a select international juvenile diabetes study group, the Hvidore group as the only Australian representative.

George Werther

Professor George Werther was appointed to the Scientific Advisory Board of Tercica Pharmaceuticals, San Francisco. Tercica Pharmaceuticals is a biopharmaceutical company committed to improving endocrine health. They are helping patients by partnering with the endocrine community to develop and commercialise new therapeutics for endocrine system disorders, including short stature and diabetes.

Professor George Werther spoke to the Postgraduate Students' Association about his experiences in establishing Antisense and an introduction to the opportunities of commercialisation.

Dr Matt Sabin

Dr Matt Sabin has been awarded a highly prestigious educational bursary by the Novartis Foundation, UK. This enables him to attend an international symposium of key research leaders on Diabetes and Lipotoxicity in Beijing in October 2006, following which he will spend a period of time in the host laboratory of one of the 25 attendees. This is likely to be either at the University of Harvard in Boston USA, or at the University of Tokyo, Japan. He is the only young researcher among many applicants to have received this award. Congratulations Matt!

Matt has been short listed as one of five finalists for the IASO New Investigator Award by the International Association for the Study of Obesity. He will be attending the ceremony in Sydney in September 2006. Good luck!

Matt also recently organised a conference on The Practical Management of Childhood Obesity in London, June 2006.

Dr Michele O'Connell

Dr Michele O'Connell, one of our Clinical Research Fellows, has been selected as one of twenty participants from around the world who will attend the International Society of Paediatric and Adolescent Diabetes (ISPAD) science school 2006. This science school will be held at Tours, France in October.

The aim of the science school is to provide fellows and junior faculty members in the early stages of their research careers, an opportunity to develop their skills in diabetes research in children and adolescents. The resident faculty attending the school will comprise senior physician-scientists with considerable clinical and research experience in diabetes and research methodology.

Michele is currently leading two projects in diabetes research which will form the basis for a higher degree (MD). The unifying theme of her research is 'Optimising glycaemic control for patients on insulin pump therapy.' The science school will afford her the opportunity to present and discuss her research projects and plans with senior colleagues from around the world.

Visiting clinical research fellows

Dr Anurag Bajpai



Dr Anurag Bajpai joined the department as a recipient of the Pfizer Career Development Award in October 2005. Anurag received paediatric endocrine training at the All India Institute of Medical Sciences, New Delhi, India and has been actively involved in clinical research related to Paediatric Endocrinology. His areas of research include disorders of calcium metabolism, pubertal disorders, congenital adrenal hyperplasia and growth hormone deficiency. Anurag has authored a book on paediatric endocrine disorders. Besides taking part in the clinical services of the department as a consultant endocrinologist, Anurag is involved in research projects related to development of strategies for preventing brain damage in diabetic children and to study the effect of estrogen on testicular functions and bone in males. On 28 April 2006 Anurag and his wife, Yuthika became the proud parents of a beautiful baby girl, Anushka.

Dr Julieta Solis



Dr Julieta Solis is a Paediatrician from Costa Rica (Central, not South America!). She has been working at The Royal Children's hospital since August 2005. She came to Australia to have further training in Paediatric Endocrinology. She is working as a clinical fellow, involved in a study of the long-term outcome of paediatric Graves' patients and a study of vitamin D and nutritional rickets among children seen in the hospital. Julieta is part of all clinical activities of the Endocrinology Department. She is grateful for this opportunity and enjoying every minute of her two-year appointment in the hospital and at MCRI.

New appointments

Sheena Wong



Sheena was an Honours Student in 2005 with the Centre for Hormone Research and in 2006 became a research assistant under the supervision of Dr Vince Russo and Professor George Werther. Sheena recently completed her thesis 'FGF2 & IGF-1 in neuroblastoma differentiation: A process involving Id1 & SOCS2'. Sheena plans to continue studying, aiming towards a PhD or medicine.

Eliza Bourke

Eliza Bourke is a new addition to our Diabetes Nurse Education Team. Eliza comes to us from The Diabetes Ambulatory Care service at Monash Medical Centre, where she worked with children, adolescents and young adults with diabetes.

Eliza has attended ten of the diabetes camps run by Diabetes Camps Victoria, and intends to work on increasing that number to many more.

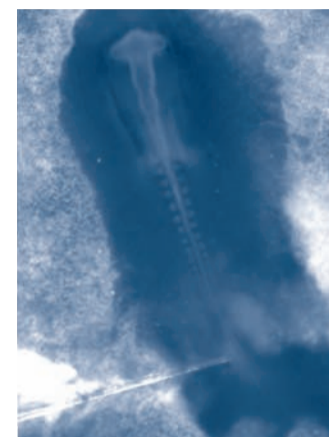
Eliza is delighted to be part of the team at RCH. In her spare time she enjoys reading, socialising with friends and supporting the Carlton football club.

Grants

Congratulations

Congratulations to **Craig Smith**, Molecular Development, who along with colleagues at CSIRO, has been awarded a grant from the University of Melbourne-CSIRO Collaborative Research Support Scheme for 2006. Amount: \$30,000.

Congratulations to **Craig Smith** and **Andrew Sinclair**, Molecular Development, who have been awarded an ARC discovery grant for their project titled 'A bird's eye view of sex: the chicken embryo as a model for gonadal development'. Amount: \$260,000.



Injecting a chicken embryo

Diabetes Allied Health team

The Diabetes Allied Health team has moved

The Diabetes Allied Health team comprising of educators, social workers, dieticians and education advisor, have moved to new a new office. The new office is situated on the 9th floor of the main building at The Royal Children's Hospital in room W946. As part of the move, we have reviewed our education service and will commence running Allied Health clinics in the near future.

Located in the new office are: **Educators:** Rebecca Gebert, Andrew Boucher, Rebecca Humpreys, Anna Crack and Eliza Bourke.

Social workers: Jacqui Rosen and Louise Wilkie.

Five members of the Diabetes Allied Health Team: Jacqui Rosen, Bec Humpreys, Louise Wilkie, Anna Crack and Andrew Boucher



Recent study trips

Dr Craig Smith spent one month on sabbatical leave at the Roslin Institute in Edinburgh last May. The Roslin Institute is famous for cloning 'Dolly' the sheep (and the nearby Roslin Chapel features in 'The Da Vinci Code'). Craig learnt methods of producing transgenic chickens while working with colleagues at the Roslin Institute. The aim of this research is to test candidate sex-determining genes in the chicken model by over-expressing them, leading to sex reversal. To over-express genes in the chicken embryo, avian-specific retroviral vectors are used. Earlier this year, Craig was awarded a University of Melbourne-CSIRO collaborative grant to develop this methodology here in Australia.

Quannah Hudson, Molecular Development, in his final year as a PhD student and supported by the Centre for Hormone Research, visited the laboratories of Dr Gerd Scherer (Freiberg), Dr Robin Lovell-Bade (London) and Dr Serge Nef (Geneva). All three laboratories have published significant studies in the field of sex determination and gonad development. He presented his work and the work of the laboratory, and explored opportunities for collaboration between our laboratories.

Radio serial, 774 Melbourne

Professor George Werther appeared in the live radio serial, 'Sex, Lies and Gramophone Records', 774 ABC Melbourne on the Derek Guille program. Other cast members for this episode included, Charles 'Bud' Tingwell, Kathy Bowlen, Maureen Andrew and Mary Klestadt.



The radio serial cast members

Events

10th Annual Inverloch Dinner Dance



Pictured left are Kerrie Beauglehall, Event Organiser and Lillian Frank, Guest of Honour at the 10th Annual Inverloch Dinner Dance held in June 2006. Once again Kerrie and her family, supporters and people of Inverloch did a magnificent job in raising \$35,000. This money goes towards the complications screening program and our diabetic research.

The Puma Lap Challenge

The Puma Lap Corporate Challenge will see corporate Australia in a treadmill race against time to support the Murdoch Childrens Research Institute and the Centre for Hormone Research.

CEOs and staff will be joined by celebrities including Murdoch Childrens Research Institute ambassador and supermodel Sarah Murdoch, to run as many 100 metre laps as they can in the 10 hour challenge.

Teams from 50 major corporate organisations are already lacing up their runners and training hard to out lap each other. Participants are seeking sponsorship from their friends, family and work colleagues for every lap they complete.

To register to participate or to sponsor a runner visit www.thelap.com.au

Martin Place, Sydney Friday 8 September 2006 7.00am – 5.30pm
City Square, Melbourne Friday 15 September 2006 7.00am – 5.30pm

Please come down on the day to cheer on our runners and to enjoy the entertainment!

Next movie preview screening

The date of the next movie screening is Monday 16 October 2006 at the Rivoli Theatre, East Hawthorn.

We will be in contact with you regarding the movie we have chosen to screen on the night. Please join us for this movie experience and help support the Centre for Hormone Research.



Raffle 2005



Above: Angela Enright, George Werther and Herman Casagrande (Sharp Direct)

In late 2005, we received a donation of a Sharp 26" LCD television valued at \$4,000 by a visiting paediatric anaesthetist from Canada, Dr Angela Enright. Dr Enright was visiting Melbourne during the International Cup (AFL) where her son was playing for Canada. With the assistance

of the St Kilda Football Club and Sharp Direct we were able to hold a raffle for the television. The winner of the raffle was Timothy Finney. The monies raised went towards our research into child health: diabetes, healthy bones, growth, obesity and sexual development.

Supporting the Centre

- A & J Alexander, Home Builders
- Adrian King
- Ann Michod
- Anthony Thomas
- AS Partners
- Barry Novy (Kliger Wood)
- Caroline & Philip Cornish
- Carolyn Kay
- Debbie & Peter Thomas
- Dr David Kolieb
- Eileen Clark
- Elena Andaloro
- G & F Bharucha
- Ian Solomon
- Jacinta Munro
- Jeremy Shapiro
- Joseph Carbone
- Kerrie, Ross & Carla Beauglehall and the Inverloch Community
- Malvern Theatre Company
- Meredith Bunn
- Michael Minski
- Michele O'Connell
- Novo Nordisk
- Paul Brotchie
- Peter Clark (SciGen Aust Pty Ltd)
- Peter Howard
- Peter Scales
- Pfizer
- Philip N Lovel
- Philippa & Alan Finney
- Raoul Salter
- Rivoli Cinemas
- Sandy Benjamin
- Swisse Vitamins
- The Rotary Club of Chadstone/East Malvern
- Tony Aarons
- Veronica Kavanagh

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