

Paediatrics, University of Adelaide

Head: Prof Don Robertson

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The University of Adelaide, Department of Paediatrics has strong clinical, public health and basic science research programs. The Department also provides for affiliations of other major research groups within the WCH with the University of Adelaide, and has a large number of postgraduate students enrolled. The range of research activities outlined below reflects the research programs associated with the Department in 2002.

1

Development of a major clinical toxinology resource on the world wide web

*DJ Bates; with J White,
A Staples (Toxinology)*

We launched a new web site (www.toxinology.com) which provides, at a single location, the most significant source of Clinical Toxinology information available globally. The project entailed undertaking a major upgrade of the structure of the previous toxinology site (www.wch.sa.gov.au/paedm/clintox/index.html) and of its information, to improve both the breadth, depth, accessibility and applicability of information on snakebite, spiderbite etc. The vastly improved site will improve access and information for both consumers and health professionals. This is of particular importance in providing patient care related information to health professionals and inhabitants of rural and remote areas, who are most at risk from snakebite, spiderbite etc. The site is driven by a series of databases for each type of toxic organism, plus linking to "static html pages" covering general topics, not specific for an individual species. The groups covered are snakes, scorpions, spiders, terrestrial vertebrates (except snakes), terrestrial invertebrates (except scorpions and spiders), marine vertebrates, marine invertebrates, marine poisonous animals, poisonous plants and poisonous mushrooms.

2

Preschool DTPa-IPV combination vaccine study

*DM Robertson, MS Gold,
H Marshall, M Busuttill,
R Halstead, J Aldis, L Dinan,
J Walker, R Chen, S Warcup.*

The Paediatric Trials Unit participated in a multicentre trial, which was evaluating a combined vaccine that incorporated the routine DTPa (diphtheria-tetanus-acellular pertussis) vaccine and an inactivated polio vaccine (IPV). The introduction of a combined vaccine such as this would mean that children can receive the benefits of the inactivated polio vaccine without having to endure a separate injection. Our unit enrolled 107 children between 4 and 6 years of age to participate over a 4 month period. Each child was involved for approximately 1 month. Children were examined and received either the combined vaccine or the vaccines given separately along with the recommended MMR (measles-mumps-rubella) vaccine scheduled for this age at our site. Blood samples were drawn pre-vaccination and 1 month post vaccination. Serological assays are being undertaken and results are expected to be available by June 03.

3

EPAAC – early prevention of asthma in atopic children

*MS Gold, DM Robertson,
M Kummerow, H Marshall,
L Dinan, J Aldis, R Halstead,
C Heath, M Busuttil*

This clinical trial is being undertaken at approximately 100 centres throughout Europe, South Africa and Australia. The study is a follow up to a previously conducted study, which suggested there may be the potential for a new medication to reduce the incidence of asthma in certain populations of children. The trial includes children aged 12-24 months of age who meet defined criteria for eligibility. Our site has screened over 80 infants for possible inclusion and has enrolled 11 babies so far. 500 babies will be included worldwide and they will be followed up for 18 months to measure parameters such as development of asthma, time of onset of asthma, severity of atopic dermatitis and safety parameters in children who are considered 'at risk'.

4

A double blind placebo controlled cross-over trial of probiotic use in chronic childhood eczema

*MS Gold; D Keatley, R Butler,
G Davidson, D Tivey
(Gastroenterology)*

Eczema is the most common chronic childhood skin disease which may affect one in four Australian children. If severe the disease is disabling and has been shown to effect quality of life to a greater extent than type I diabetes. Recent double blind and placebo controlled studies in infants have shown that probiotics may prevent the onset of eczema and improve eczema severity. This was the first trial of probiotic use in children with eczema. *Lactobacillus GG* was given to children between one and 12 years in a double blind placebo controlled cross-over six week intervention trial. Those children who received probiotics had a significant improvement in eczema severity but only eight weeks after commencing treatment. This was not associated with changes in small intestinal permeability or sucrose breath excretion – both sensitive measures of small intestinal damage. The findings of this pilot study requires further investigation as probiotics may be a safe long term treatment for eczema.

5

"FluMist" vaccine nasal spray study

*DM Robertson, MS Gold,
H Marshall, M Busuttil,
R Halstead, J Aldis, S Warcup*

This study, investigating the use of an intranasal vaccine for prevention of influenza was continued in 2002 with the completion of the second season of enrolments over the summer period. All participant involvement and data capture was completed in 2002 with a total enrolment of 78 infants site. It is expected that results of the study will be available by the end of 2004.

6

Combination hepA-hepB vaccine study

*DM Robertson, MS Gold,
H Marshall, M Kummerow,
M Busuttil, R Halstead,
J Aldis, L Dinan, S Warcup,
J Walker, D Weber*

In 2002, the Combination HepA-HepB study was continued. The study which looked at comparing a 2 dose HepA-HepB vaccine with the HepA-HepB vaccine currently provided as a 3 dose regime enrolled a total of 123 children over a 6 week period in late 2001. 122 children completed the study by July 2002 with only 1 child withdrawn due to ineligibility. Safety and immunogenicity parameters were measured with serology results recently available. Preliminary review of results shows that all children responded effectively to the vaccines regardless of which group they were randomised to. We are still awaiting a study report before officially closing the study at our site.

7

Long-term follow up of a combined measles - mumps - rubella - varicella vaccine

DM Roberton, MS Gold, H Marshall, M Busuttill, L Dinan, J Aldis, R Halstead

Essentially, the objectives of this study were to evaluate the yearly persistence of antibodies in a cohort of children vaccinated with one of three combinations of vaccines in a primary study. In 2002, the study was completed and serology results made available. Whilst 80 children were involved in the primary study, only 53 children were enrolled into the follow up study. The follow up study consisted of a yearly review of contact with, or breakthrough cases of measles, mumps, rubella and chickenpox and a sample draw for serological analysis. 49 children returned for the second year of follow up, 39 children returned for the third year, and by the 4th year of follow up, only 8 children remained eligible (as they had received a booster vaccination in the interim). We are awaiting data analysis and a final study report.

8

Pentavalent DTPa-HepB-IPV vaccine study

DM Roberton, MS Gold, H Marshall, M Busuttill, R Halstead, J Aldis, L Dinan, S Warcup

A total of sixty-three healthy, term infants were recruited into the study between December 2001 and March 2002. A total of 5 babies were withdrawn from the study at the parents request and consequently 58 children completed the study. 'Safety' telephone calls were completed for all subjects by September 2002. Serology results have been provided and results sent to parents. All participants with the exception of one baby showed an adequate response to the vaccine components. We are currently awaiting the final study report, which will outline an analysis of the data. It is expected that the report will be provided at the end of May 2003 at which time the study will be officially closed out.

9

The effect of co-inhibitory molecules on B lymphocyte differentiation in childhood

P Macardle (Flinders Medical Centre); H Zola (Child Health Research Institute); DM Roberton

This project is examining the expression and function co-inhibitory molecules in childhood. We have examined the expression of several of these molecules in cord blood, blood samples from healthy infants, adults and in tonsil tissue. The major co-inhibitory molecule, CD32, is expressed at low levels on cord and infant B lymphocytes compared to that in adults. However, the co-activation molecule CD21, which is expressed at low levels on cord B cells compared to adult cells was highly expressed on B cells from seven month infants. We are also interested in CD72, this is expressed at low levels on cord and adult B cells but at high levels in seven month infants. This is particularly interesting as we have found this protein to be upregulated on B lymphocytes from adult patients with autoimmune disease.

10

Egg excretion in maternal breast milk

D Palmer, M Makrides, R Gibson (Child Nutrition Research Centre); MS Gold

The excretion of egg protein in the breast milk of lactating mothers is important. Some studies have shown that excluding egg from the diet of lactating mothers may prevent the development of egg allergy in their breast feeding infants. In addition, in those infants who have atopic dermatitis, an egg allergy and whom are being breast fed excluding egg from the diet of their mothers may improve their atopic dermatitis. It is not know how much egg is excreted in maternal breast milk and if this relates to the ingested dose or the duration of lactation. Part one of this study has commenced and has enrolled breast feeding mothers for challenges with known quantities of egg and subsequent measurement of egg protein in their breast milk.

11

**Supports for rural
paediatric service
provided by general
practitioners**

*D Petchell, J Beilby,
D Robertson*

The third year of this study provided rural paediatric life support workshops, with pre and post participation assessments. Data analysis from rural hospital questionnaires and questionnaires completed by rural general practitioners has commenced.

12

**Maternal perceptions of
child health
consultations by
medical students**

*M O'Keefe, D Robertson,
M Sawyer*

PhD Thesis completed 2002

Studies of patient priorities in medical care identify doctor competence and patient-centredness as two key elements of successful doctor-patient interviews, however the relative ability of patients to recognise these two elements is not known. In paediatric interviews with medical students, parents as active participants form their own impressions of student interviewing skills. These parent evaluations could be formally sought as a component of medical student interviewing skills assessment, and contribute to medical student learning programs.

There were two principal aims of this thesis. The first was to determine the relationship between the levels of clinical competence and patient-centredness that were demonstrated by medical students in paediatric consultations, and maternal satisfaction and subsequent recall of information. The second aim was to use this knowledge of maternal perceptions in medical student teaching programs. This thesis has demonstrated the ability of mothers to assess the clinical competence and patient-centredness of medical students in videotaped consultations. Applications in medical student learning were also developed and evaluated.

13

**Prospective
immunological study of
children with increased
risk of IDDM**

*J Couper, S Beresford,
A Pollard; T Kelly
(Endocrinology & Diabetes);
P Colman, L Harrison (Walter
& Eliza Hall Research
Institute, Royal Melbourne
Hospital)*

Approximately 600 babies who have a first degree relative with type 1 diabetes are being followed prospectively to determine environmental factors and the sequence of autoimmune changes which precede the development of T1DM. The fifteen infants who have progressed to T1DM have shown autoimmunity to multiple target antigens.

We have shown no prospective relationship between breast-feeding and introduction of cow's milk, with the development of autoimmunity. The relationship of enteroviral infection (Coxsackie B1-6 and rotavirus intestinal permeability) and islet autoimmunity has been studied. A temporal relationship with rotavirus infection (but not coxsackie B1-6) has been shown for the first time. We are investigating timing of gluten exposure and risk of cell autoimmunity.

14

Homocyst(e)ine and endothelial dysfunction in children with type 1 diabetes (in collaboration with Chemical Pathology, Radiology, and Public Health Research Unit)

*E Wiltshire, A Pena,
K MacKenzie, J Couper
(Endocrinology & Diabetes);
R Gent (Radiology); C Hirte,
P Baghurst (Public Health
Research Unit)*

We have found that children with type 1 diabetes have early endothelial dysfunction and for the first time we have shown a relationship with folate status independent of homocyst(e)ine. We have completed folate intervention trials and are extending this to the effect of B6 in addition and genetic markers of response.

15

Family environmental and treatment factors which influence the quality of life of children with chronic illness

*M Sawyer, J Couper;
D French (University of WA);
P Baghurst (Public Health
Research Unit)*

The goal of this study is to identify the influence of treatment intensity, family environment and childhood self-competence on the quality of life of children with chronic illness. If it can be demonstrated that factors common to several diseases are the key influences on the quality of life of children with chronic illness, it will be possible to develop new approaches to treatment which are not restricted to a single disease. We have been following one hundred and twenty three children with diabetes, cystic fibrosis, cancer or asthma over a two-year period. Every six months, information has been collected about children's quality of life, treatment regimes and the status of their illness. Data collection began in April, 1999 and the study was completed in April 2002. Data analysis is now being undertaken.

16

Why do only a minority of children with attention deficit/hyperactivity disorder receive help from health services? Parental perceptions of help provided by general practitioners

*M Sawyer; J Taplin
(University of Adelaide);
P Baghurst (Public Health
Research Unit); J Rey
(University of Sydney)*

There is strong evidence that only a minority of children with ADHD receive help from any professional service. The aim of this project is to identify factors influencing parents decisions to seek help from general practitioners. The families of children in Years 3 & 4 from seventeen schools have been involved. In the first stage of the study, information about levels of behaviour problems and service use was collected in screening questionnaires sent home from school for parents to complete. Six hundred were selected to take part in stage two. This involved a home interview where a second questionnaire was completed by the parents. The questionnaire asked about perceived outcome of seeking help from a general practitioner, levels of parent stress and family functioning. Data collection for the study is complete. All data has been entered and data analysis is currently being conduct.

17

Factors influencing the early onset and stability of childhood externalising behaviour problems

*M Sawyer; P Baghurst (Public Health Research Unit);
M Prior (Dept Psychology,
University of Melbourne)*

This project is determining whether family risk factors such as marital discord and parental depression influence the onset and persistence of externalising problems in preschool children through their effect on parenting techniques. The study is also providing new information to enhance the accurate identification of young children at increased risk for the future onset of externalising problems, and young children with existing externalising problems who are at risk for persistence of their problems. These are issues which need to be addressed to better understand the aetiology of childhood externalising disorders and to facilitate the development of new interventions to reduce the prevalence of these disorders in the community. A community sample of four hundred and forty four-year-old children has been followed over a three year period. In 2001 parents completed questionnaires assessing parenting styles, family risk factors and children's behaviour problems. A selection of parents and children also participated in video taped direct observations of parent and child behaviour during semi structured interactions. Using grant funding from NHMRC families were again contacted in 2002 and participated in the final assessment for the study. data collection is now complete and initial analysis of results has commenced.

18

Beyondblue school research initiative

M Sawyer; J Burns, S Glover (Centre for Adolescent Health, Victoria); D Kay (Dept of Education & Children Services, Victoria); S Spence (Univ of Queensland); S Boucher (Aust Principals Associations Professional Development Council); B Graetz (Research & Evaluation Unit)

The *beyondblue schools research initiative* will assess the effectiveness of an intervention aimed at reducing levels of depression among high school students. The research will be conducted over three years (2003 to 2005) and involved forty eight school communities with secondary enrolments across Victoria, South Australia and Queensland (sixteen schools from each state). Participating schools in each state will be randomly allocated to intervention and comparison groups. Intervention schools will receive the following: a) Classroom Curriculum – delivered sequentially to the same student group, starting in 2003 with year 8 students; b) Supportive Environments – whole school strategies aimed at improving student participation and communication; c) Pathways – Improving the care pathways for students at risk; d) Community Forums – a community meeting which aims to improve knowledge and awareness of mental health within the whole school community. Assessments from both students and teachers will be used to evaluate the intervention.

19

A one year prospective study of the quality of life of children with juvenile arthritis

M Sawyer; J Whitham (Research & Evaluation Unit); D Robertson; P Baghurst (Public Health Research Unit); J Taplin (Dept of Psychology, University of Adelaide); J Varni (Children's Hospital & Health Center, San Diego CA)

This study is examining the impact of pain, disability and coping strategies on the health-related quality of life (HRQL) of children with juvenile arthritis (JA). Although medical treatment of JA can alter the degree of inflammatory joint disease, it is not curative and only occasionally induces remission. In the past, the impact of JA on children was largely assessed using relatively crude indicators of morbidity identified by clinicians. Better quality information from parents and children about the impact of JA on the lives of children is an important pre-requisite for the development of more effective intervention programmes to improve the HRQL of these children and to allow greater participation by children and parents in the management of the children's illness. Eighty-three children and their families participated in this study. assessments have been carried out at baseline, 6 months post-baseline and 12 months post-baseline. Data collection was completed in April 2002 and analysis of results has now commenced.

20

International workshop in advanced paediatric laparoscopic surgery

H L Tan; T LeBonheur (Tennessee, USA); C Peters (Harvard Medical School, USA); P Borzi (Royal Children's Hosp, Brisbane)

This was the International Workshop conducted at the Women's & Children's Hospital to coincide with the Annual Scientific Meeting of the Royal Australasian College of Surgeons. The workshop was fortunate to have distinguished faculty members all leaders in their fields of expertise. The workshop included performing laparoscopic operations, which were televised live to the audience. Professor Tan started the workshop by outlining the importance of Ergonomics of Laparoscopic Surgery as an understanding of ergonomics is essential if one is to be proficient in complex laparoscopic surgery because unlike conventional surgery laparoscopic surgery is not intuitive. The general principles applied to open surgery in relation to patient positioning, exposure and the floor plan (position of the surgeon, assistant and scrub nurse), may be completely inappropriate when applied to laparoscopic surgery. Understanding laparoscopic ergonomics therefore makes for easier surgery. Professor Lobe lectured on laparoscopic procedures in children. Assoc/Professor Borzi lectured on several areas including minimal equipment requirements for advanced laparoscopy, laparoscopic adrenalectomy in childhood and minimal access for ureteric reimplantation. Assoc/Professor Peters conducted lectures on laparoscopic nephrectomy, partial nephrectomy and nephroureterectomy. He also lectured on laparoscopic evaluation and treatment of impalpable testis, laparoscopy in paediatric urology and robotics in surgery.

21

Diaphragmatic hernia

WDA Ford (Paediatric Surgery); HL Tan

The laparoscopic correction of CDH has now been done successfully laparoscopically in four cases at the WCH. Discussion included technical points that helped the final results of the surgery. This paper will be presented at the PAPS meeting in Sydney in 2003.

22

Choledochal cyst

H L Tan; K R Shankar, WDA
Ford (Paediatric Surgery)

The first laparoscopic excision and hepatico-duodenostomy for choledochal cyst has been successfully performed in the Women's & Children's Hospital on two patients. The technique has been written up and submitted to *Surgical Endoscopy*.

23

A metanalysis of laparoscopic pyloromyotomy

H L Tan; S Hall, A Pierro,
P J Lopez, J Van der Zee
(Paediatric Surgery)

A meta-analysis of all papers published on laparoscopic pyloromyotomy was undertaken. This study was done in conjunction with Great Ormond Street Hospital and indicates that there is no difference to surgical outcome of either technique. A paper has been submitted to the British Association of Paediatric Surgeons meeting in Lisbon.

24

Reduced visceral slide is a good sign of visceroperitoneal adhesions

HL Tan; KR Shankar, E Kiely,
M Guelfand, K McHugh,
R deBruin (Paediatric
Surgery); L Morris
(Radiology)

A study was performed to determine if real time ultrasound examination of the anterior abdominal wall can detect visceroperitoneal adhesions resulting from open surgery. The study indicated that this a good method of detecting adhesions and was presented at the annual scientific meeting of the Canadian Association of Pediatric Surgeons in Vancouver. The paper has been accepted for publication in the *Journal of Pediatric Surgery*.

25

Clinical study on the testicular blood flow after non artery sparing varicoelectomy

HL Tan; S Woo,
G Concha-Grossi,
H Boucaut (Dept Paediatric
Surgery); R Gent, L Morris
(Radiology)

A prospective study to investigate testicular blood flow in all the patients having non artery surgery varicocele surgery is being conducted. This is to see if testicular blood flow is impaired following non artery sparing surgery for varicocele. All the patients are scheduled for surgery undergo a preoperative Testicular Echodoppler ultrasound as a base line. A post operative ultrasound is performed within 24 hours to document any alteration to the blood flow as a result of the surgery. This study is near completion.

26

Complications of stomas in low birth weight neonates

HL Tan; Sithasanan,
WDA Ford, N Patwardhan,
J Hoyle (Paediatric Surgery)

A retrospective study is being conducted to determine the complications of stomas in low birth weight infants. All records of low birth weight infants (<1500gm) with stomas were reviewed over the past ten years, and the results are now being analysed. The study suggests that there is a very high complication rate in stomas in very low birth weight infant.

27

Antigen specific B cells in immune responses to *haemophilus influenzae* type b

A Kodituwakku, D Robertson;
C Jessup, H Zola (CHRI)

Antibody responses to polysaccharide antigens are poor in the first 2 years of life. Conjugation of the polyribosylribitol phosphate antigen (PRP) of *Haemophilus influenzae b* (Hib) to protein antigens converts the antibody response against T cell dependent response, with effective antibody production and improved immune memory. Conjugate Hib vaccines have resulted in a significant decrease in the incidence of invasive Hib infection in children since being introduced to routine childhood immunisation schedules.

This study has developed methods for the detection of anti PRP specific B cells in peripheral blood and lymphoid tissues. Murine monoclonal anti PRP antibodies have been developed and characterised. The antibodies have shown to have functional activity against Hib. However these antibodies have not been effective in improving flow cytometric detection of antigen specific B cells in immunised peripheral blood. ELISPOT assays have been developed to detect anti PRP antibody producing cells in peripheral blood and in lymphoid tissues. These assays are able to detect anti PRP antibody producing cells in spleen cells from immunised mice, a low number of antibody producing cells in tonsil cells from young children and hardly any cells in peripheral blood. The number of anti PRP antibody producing cells in lymphoid tissues has been lower than for cells simultaneously analysed to produce antibody against a protein immunisation antigen tetanus toxoid. Further development of these assays may improve our ability to isolate PRP reactive cells with high purity and allow molecular analyses of polysaccharide antibody producing cells in young children.

28

The effects of intrauterine growth restriction on postnatal lung structure and function

A Wilson, AJ Martin, DW Parsons (Pulmonary Medicine); JD Kennedy; J Lipsett (Histopathology); IC McMillen, JA Owens (University of Adelaide, Dept of Physiology)

This project is examining the link between intra-uterine growth restriction and postnatal lung function and structure. Sheep from multiple pregnancies have been studied as a model of IUGR and new infant lung function techniques have been utilised. Reductions in a number of lung function parameters were found in the IUGR animals, however these differences could be accounted for by correcting for the size of the animals.

29

The evaluation of upper airway obstruction in young children

B Hassan, AJ Martin, DW Parsons, Y Pamula (Pulmonary Medicine); JD Kennedy

Oesophageal pressure measurement is being utilised in this study to evaluate the improvement in diagnostic sensitivity of overnight sleep studies in young children. A comparison between the method and non-invasive parameters of respiratory effort is also being undertaken.

30

Antenatal insulin-like growth factor-I and perinatal growth, survival and function of the growth restricted fetus

A.Wilson, AJ Martin, DW Parsons (Pulmonary Medicine); JD Kennedy; J Lipsett (Histopathology); JA Owens (University of Adelaide, Dept of Physiology)

Antenatal administration of insulin-like growth factor-1 is a potential treatment for IUGR. This is part of a larger study currently being conducted by Dr Owens examining the effects of such treatment on a number of organ systems. Our group will concentrate on the effects of this treatment on lung structure and function. This study was completed late in 2002 and data analysis is underway.

31

Neuropsychological performance and psychosocial functioning in children who snore and are restless sleepers

*S Blunden, K Lushington
(University of SA);*

*B Lorenzen (Northern
Division of General Practice);
JD Kennedy*

The results of a series of studies which evaluated the prevalence of snoring and other sleep disorders in children visiting their general practitioner were analysed and the results submitted for publication. In addition, the effect of disruption of sleep architecture and neurocognitive function in children was also evaluated. The latter study confirmed the negative effect of sleep architecture fragmentation on neurocognitive function. These studies were undertaken in partnership with the Northern Division of General Practice.

32

Development of heart rate variability analysis as a non-invasive clinical tool to detect and evaluate upper airway obstruction in children

*H Nazeran, A Gradziel, K Ung
(Department of Informatics
and Engineering, Flinders
University); Y Pamula,
D Parsons, J Martin
(Pulmonary Medicine);
JD Kennedy*

Heart rate variability (HRV) refers to the beat to beat variation in heart rate and is modulated largely by the autonomic nervous system (ANS) via changes in the balance between parasympathetic and sympathetic tone. In this study HRV will be utilised as an indicator of the autonomic dysfunction that may underlie or accompany the development of certain sleep disorder pathologies, such as the detection of upper airway obstruction during sleep. A PC-based acquisition and analysis system is being developed to perform appropriate signal filtering and algorithm processing of the ECG signal (collected during overnight sleep studies) to measure and analyse HRV during periods of normal and abnormal breathing.

Staff participating in research

UNIVERSITY FUNDED STAFF

Prof DM Robertson
MD, FRACP, FRCPA, Head

Dr M Gold
MD, FRACP, FACP, Senior Lecturer

Prof HL Tan
MBBS, MD, FRACS, FRCS,
Professor and Head of Paediatric
Surgery

Dr M O'Keefe
*PhD, FRACP, DCCH, Senior
Lecturer*

Prof MS Sawyer
*MBBS, PhD, Child Psych, FRCPC,
FRANCZP, Professor and Head,
Research Evaluation Unit*

Dr DG Thomas
*MD, FRACP, Senior Lecturer,
Director of Physician Training*

Dr DJ Bates
PhD, Principal Research Officer

Dr JD Kennedy
*MD, FRCP, FRACP, Senior Lecturer
and Deputy Hea*

Dr RH Burnell*MBBS, FRACP, Senior Lecturer***Dr RTL Couper***MB, ChB, FRACP, Senior Lecturer***A/Prof JJ Couper***MBBS, MD, FRACP, Senior Lecturer, Deputy Head of Diabetes & Endocrinology***HOSPITAL FUNDED STAFF****Dr H Marshall***MBBS, DCH, Senior Medical Officer - Vaccine Research Unit***Ms J Aldis***CertMedLabSci, TGO***GRANT FUNDED STAFF****Dr A Kodituwakku***MBBS, Postgraduate Student***Mrs L Dinan***BSc, MPublHealth, Project Manager – Vaccine Research Unit***Mr GJ Harvey***DipMedLabSci, Laboratory Manager***Mrs A Pollard***Technical Assistant***Ms M Busuttill***BAppSci (MedLabSci), TGO2***Mrs S Nobbs***DipMedLabSci, TGO2***Dr D Petchell***MBBS, FRACGP, Postgraduate Student***International and Interstate Travel and Presentations****M Sawyer***Behavioural Medicine Conference, Helsinki
Academy of Social Sciences in Australia***M O'Keefe***RACP Annual Scientific Meeting, Brisbane, May 2002*

- *Maternal recall of medical student information*

Ottawa Conference on Medication Education, Ottawa, Canada July 2002

- *Maternal satisfaction ratings and information recall*

HL Tan*11th Annual Congress for Endosurgery in Children – IPEG, Italy**Masterclass in Advanced Paediatric Laparoscopic Surgery, London, April, 2002*

- *Scope of laparoscopic surgery*
- *Instruments and ergonomics*
- *Surgical demonstrations – imperforate anus, nissen fundoplication, sympathectomy, pyeloplasty*

Annual Scientific Congress, The Royal Australasian College of Surgeons, Adelaide, May 2002

- *The technical challenges of laparoscopic dismembered pyeloplasty in children.*
- *Are indirect inguinal hernias always congenital?*

J Couper*Australian Diabetes Society, Adelaide, Sep 2002*

Women's & Children's Research Report

	<p>JD Kennedy Annual Sleep Disorders Conference, Hobart, Oct 2002</p> <p>DM Robertson ARA meeting, Christchurch, New Zealand Lectures, postgraduate course in immunology and rheumatology, Kuala Lumpur, Malaysia Elaine Field Oration, Hong Kong</p>
<p>Other Research-related Activity</p>	<p>JJ Couper member, research and grants committee, Faculty of Health Sciences, University of Adelaide; professional advisory panel, Juvenile Diabetes Foundation of Australia; member, program organising committee, Australian Diabetes Society Annual Scientific Meeting 2002</p>
<p>Grants</p>	<p>Roberton D, Gold M, Marshall H <i>"FluMist" vaccine nasal spray study</i> \$92,813</p> <p>Roberton D, Gold M, Marshall H, Kummerow M <i>The Early Prevention of Asthma in Atopic Children</i> UCB Pharma \$85,073</p> <p>Roberton D, Gold M, Marshall H <i>DTPa-IPV combination vaccine study</i> GlaxoSmithKline \$138,048</p> <p>Sawyer M, Baghurst P, Prior M <i>Parenting style as a mediator of psychological risk factors and childhood externalising behaviour problems</i> NHMRC \$85,660</p> <p>Sawyer M, Baghurst P, Taplin J, Rey J <i>Why do only a minority of children with attention deficit/hyperactivity disorder receive help from health services?</i> Channel 7 Children's Research Foundation \$15,000</p> <p>Sawyer M, Burns J, Glover S, Kay D, Patton G, Spence S, Boucher S, Graetz B <i>Beyondblue schools research initiative</i> Beyondblue National Depression Initiative \$119,350</p>

Sawyer M, Hopwood J, Fletcher J

Health related quality of life of parents caring for a child with lysosomal storage disorder

Lysosomal Diseases Australia

\$11,754

Sawyer M, Robertson D, Baghurst P, Varni J

One year prospective study of the health related quality of life of children with juvenile arthritis

WCH Foundation

\$33,000

Palmer D, Gold M, Makrides M, Gibson R

Egg excretion in maternal breast milk

WCH Foundation

\$20,000

Palmer D, Gold M, Makrides M, Gibson R

Egg excretion in maternal breast milk

Rural Industries Research Development Corporation

\$150,000

Sawyer M, Couper J, Baghurst P, French D

Family environmental and treatment factors which influence the quality of life of children with chronic illness

National Health & Medical Research Council

\$78,000

Pena A, Wiltshire E, Thomas DW, Couper JJ

Homocyst(e)ine and endothelial dysfunction in children with type 1 diabetes

Channel 7 Children's Research Foundation

\$32,000

Robinson JS, Crowther CA, Couper JJ, Hillier J

Is insulin sensitivity in children and their mothers programmed by maternal blood glucose

NHMRC

\$135,000

Couper JJ, Brewster D, Colman P

Relationship of intestinal permeability to islet autoimmunity

WCH Research Foundation

\$45,000

Kennedy, JD

Oesophageal pressure monitoring in child sleep studies

Women's and Children's Research Foundation

\$40,648

	<p>O'Keefe M <i>Parent evaluation of medical student interviews</i> University of Adelaide Learning and Teaching Development Grant \$20,000</p>
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