

DEVELOPMENTAL COGNITIVE NEUROPSYCHOLOGY RESEARCH UNIT ANNUAL REPORT

Annual Report, 2007

2007 has been another successful year for the Developmental Cognitive Neuropsychology Research Unit (DeCog) at The Children's Hospital Westmead (CHW). Not only has this year seen the progression and completion of a number of innovative long-term research projects within the Unit, we have also begun preparations for the second biennial DeCog conference to be held early in 2008. Both masters and doctoral students continue to actively contribute to the unit, with special congratulations to Michelle Swain who was awarded her doctorate this year. Research within the Unit continues to pioneer cognitive neuropsychology and clinical neuropsychology including case studies, treatment studies and neuropsychological outcome studies of children with developmental, congenital or acquired disorders.

Cognitive Neuropsychological Models and Profiles

At the core of the DeCog research unit, these studies build on existing theories and models to aid in our understanding of developmental cognitive neuropsychology disorders.

Fractionating face perception in prosopagnosia

Laura Schmazl¹, Max Coltheart¹, Romina Palerma¹, Ruth Brunsdon² and Pam Joy³

1. Macquarie Centre for Cognitive Science, Macquarie University, Australia

2. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3. Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

This research consists of a series of case studies investigating both children and adults affected by prosopagnosia. Prosopagnosia refers to a selective difficulty in recognizing familiar people by their faces. While it has mostly been documented in people who had normal face recognition before sustaining brain damage as a consequence of a stroke or traumatic brain injury, it can also be present from birth (i.e. congenital prosopagnosia). During the past year, the main focus of this research has been to study a family in which several members are affected by face recognition difficulties, strongly suggesting that their prosopagnosia is genetically based. The results of cognitive neuropsychological testing, in conjunction with genetic studies (conducted by Professor John Christodoulou and Dr Bruce Bennetts) will be used to investigate the cognitive as well as genetic aspects underlying the condition. In addition, this research aims to develop and evaluate individual treatment programs to improve face recognition skills in children with congenital prosopagnosia.

Progress:

The family study is complete and one paper has been accepted. Three more papers have been submitted.

The Nature of Paediatric Foreign Accent Syndrome.

Karen Croot^{1,2,3}, Sallyanne Palethorpe^{2,3}, Jeremy Tree⁴, Kathleen Rastle^{2,3,5}, Bronwyn Deacon¹, Ruth Brunsdon⁶, Kathleen Bakker⁶

1. Department of Psychology, University of Sydney, Australia

2. Macquarie Centre for Cognitive Science, Macquarie University, Australia

3. Speech Hearing and Language Research Centre, Macquarie University, Australia

4. Department of Psychology, Exeter University, England

5. Department of Psychology, Royal Holloway, University of London, England

6. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

This research consists of a series of case studies investigating the nature of Paediatric Foreign Accent Syndrome (FAS). The overall research aim is to test the hypotheses that the disorder is due to an altered vocal tract tension setting that relates the disorder to spastic or hypokinetic dysarthria, or that it is due to a motor planning disorder that relates FAS to acquired apraxia of speech. The project is also investigating factors such as the roles of auditory input, compensation for articulatory tension and spontaneous recovery in the resolution of FAS.

Progress:

Completion of one paediatric case study, NC, and completion of data collection for a second case AY.

Visual Processing Skills in 3-8 year olds: Exploration of patterns of normal development with the aim of improving early diagnosis of impairment in clinical groups

Ruth Brunsdon¹ and Pam Joy²

1. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

2. Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

The aim of this research is to investigate the development of visual processing skills in children using the Birmingham Object Recognition Battery (BORB). The BORB is currently used in the assessment of adults, but no norms for children are currently available. We have recruited children between the ages of 3 and 8, with approximately 10-12 children in each age group. The results from this study will provide information about the validity of the BORB's use with younger children. This will make the BORB more useful in a clinical setting as it will facilitate early diagnosis of visual processing difficulties. Information from this pilot data will also be used to determine which age groups should be included in a planned larger developmental study employing the BORB.

Progress:

Data collection has been completed. Analysis and write up are currently underway.

A cognitive neuropsychological model of social processing: identification and treatment of social processing deficits

Melanie Porter^{1,2}, Ruth Brunsdon³, Max Coltheart¹, Pam Joy⁴ and Kathleen Bakker³

1. Macquarie Centre for Cognitive Science, Macquarie University, Australia

2. Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

4. Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

This project involves the development and evaluation of the first cognitive neuropsychological model of social processing; the model includes perceptual, physiological and cognitive components for processing social information. The research aims to identify and treat social processing deficits using case studies of children with developmental or acquired social processing deficits. Assessment tools and treatment programs will be designed based on each component of the model and these will be carefully evaluated. We hope the model will successfully identify and treat social processing deficits across a wide range of patients. We propose that social processing can be broken down into independent functions that can be independently impaired and that the model (which outlines these independent functions) will have widespread research and clinical application.

Progress:

Designing and pilot testing assessment tools.

Children with dyslexia who are unable to process individual letters: Why is their processing impaired and can we help them learn to read?

Ruth Brunsdon

Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

This research involves a series of case studies of children and adolescents with severe letter processing impairments. The study aims:

- To explore the nature of reading impairments in children with very severe dyslexia (i.e., children who are in mid-primary school who remain unable to read even simple words such as 'can' or 'the').
- To investigate whether the reading impairments of such children relate to impairments in letter processing.
- To use this information to test a recently proposed theory of letter processing
- To use existing theories as a basis for the design of assessment methods and treatment programs in order to begin bridging the gap between theory and practice.
- To carefully evaluate intervention programs that aim to treat letter processing impairments in order to provide much needed empirically proven intervention methods for children with dyslexia.

Expected outcomes include: a greater understanding of the nature of the underlying impairment in children with severe dyslexia; a greater understanding of how an impairment that prevents a child from learning their letters impacts on their ability to read; specific recommendations in terms of assessment of impaired letter processing and early diagnosis; increased knowledge regarding what methods are successful in treatment of letter processing impairments in dyslexia, as well as practical treatment examples that could be employed in a school or home environment; and finally evaluation and/or validation of theories in this area.

This project is funded by a Macquarie University Research Development Grant.

Progress:

One case study commenced. To begin data collection for two further case studies soon

Developmental Amnesia: A series of case studies

Louise Parry¹ Ruth Brunsdon² Suncica Lah³ & Max Coltheart⁴

1. Brain Injury Rehabilitation Program, Sydney Children's Hospital, Randwick, Australia

2. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3. University of Sydney, School of Psychology, Sydney, Australia

4. Macquarie Centre for Cognitive Science, Macquarie University, Australia

The aim of this research is to comprehensively evaluate the memory system within a series of paediatric cases with specific memory impairments. This will involve documentation of the established dissociation within the declarative memory domain, wherein episodic and semantic memory skills have been found to operate independently of one another. The relationship between the declarative and non-declarative memory systems will also be examined within each case. This will occur through administration of a developmentally sensitive priming task. Finally the hypothesised parallel impact of impairments within the semantic memory system on the development of literacy and numeracy skills will be investigated. To date two cases have been identified. Both have displayed an impairment in episodic memory while semantic memory skills appear to have followed an age appropriate developmental trajectory. Intellectual, executive and academic skills have also continued to progress at an age appropriate rate over time. It is hoped that further cases will be identified from clinical referrals to paediatric neuropsychological services in the next few years.

Progress:

Ethics applications have been recently approved through the Ethics Committee's at both Sydney Children's Hospital and The Children's Hospital at Westmead. Arrangements have been made to begin assessment of the first case at Sydney Children's Hospital in December 2007.

Cognitive Neuropsychological Rehabilitation in Acquired and Developmental Spelling Disorders

Saskia Kohlen¹, Max Coltheart¹, Lyndsey Nickels¹ and Ruth Brunsdon²

1. Macquarie Centre for Cognitive Science, Macquarie University, Australia

2. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

This PhD research consists of a series of single case studies investigating the treatment of developmental and acquired dysgraphia. In cognitive neuropsychology thus far, only limited research has focussed on the application of cognitive models to the rehabilitation of dysgraphia. The research aims to investigate the extent to which cognitive neuropsychological theories and models can be successfully utilised in guiding the treatment of spelling disorders, and evaluate what the results of treatment studies reveal about the nature of the spelling process.

Progress:

Completion of two rehabilitation case studies and another one is currently underway.

Neuropsychological outcome studies

This area of research and ongoing collaborations have continued this year. These studies form a special research focus regarding the neurological, behavioural, and psychological consequences of traumatic brain injuries, tumours, diseases and syndromes.

Outcome of acquired cerebellar disease in childhood: An assessment of motor and cognitive abilities

Sara Coombes¹, Richard Webster², Belinda Barton³ and Max Coltheart⁴

1. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

2. Neurology Department and the Children's Hospital Education Research Institute, The Children's Hospital at Westmead, Australia

3. Children's Hospital Education Research Institute, The Children's Hospital at Westmead, Australia

4. Macquarie Centre for Cognitive Science, Macquarie University, Australia

Diseases that damage the cerebellum are not uncommon in childhood. There is increasing evidence that the cerebellum participates in higher level brain functions such as attention, memory, language and problem solving. This project aims to find out whether children who suffer damage to their cerebellum in childhood have later problems in these areas and how these problems impact on a child's education and learning. The study will provide further information about the role of the cerebellum in child development. The results of this study will allow more accurate counselling and better targeted monitoring for children who have suffered cerebellar damage.

Progress:

Testing for this project is currently underway. Ethics application to expand recruitment for this study to Sydney Children's Hospital submitted, awaiting response.

Outcomes in Paediatric Traumatic Brain Injury: A long-term follow-up of neuropsychological, neurological, behavioural and psychological sequelae

Kathleen Bakker¹ and Pam Joy¹, in collaboration with Louise Parry³, Steve O'Flaherty⁴, Adrienne Epps³, Max Coltheart⁵ and Arthur Shores⁶

1. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

2. Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3. Brain Injury Rehabilitation Programme, Sydney Children's Hospital, Randwick, Australia

4. Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

5. Macquarie Centre for Cognitive Science, Macquarie University, Australia

6. Department of Psychology, Macquarie University, Australia

This is a large scale study which aims to investigate the long-term effects following paediatric brain injury. Ethics approval has been obtained from The Children's Hospital at Westmead. This study will recruit adults with a history of paediatric TBI and will focus on long-term neuropsychological, academic, social, behavioural and psychological consequences of the childhood injury. A small file review was undertaken in December 2005 to determine feasibility of the ongoing study.

Progress:

Application for NHMRC funding for 2007 was unsuccessful and further funding options will be explored.

Long-term neuropsychological effects of low-grade brain tumours in children diagnosed and treated in infancy: A specific focus on attention and executive functioning abilities

Peta Minton^{1,2}, in collaboration with Ruth Brunsdon³, Pam Joy⁴, Stewart Kellie⁵ and Arthur Shores¹

1.Department of Psychology, Macquarie University, Australia

2.Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3.Rehabilitation Department, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

4.Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

5.Oncology Department, The Children's Hospital at Westmead, Australia

Research into low-grade brain tumours has documented a range of associated intellectual and neuropsychological impairments, albeit is often hindered by methodological flaws. This study aims to improve on these past flaws in its focus on long-term survivors (> 5yrs) of low-grade brain tumours who were diagnosed before the age of six. It will attempt to clarify specific neuropsychological late-effects of early detection and treatment by focusing on attention and executive functioning skills. This specific cognitive focus was chosen on the basis that these processes are critical for the normal development of the cognitive system, are in a rapid state of development during infancy and are, therefore, not well established in this age group. Consequently, it may be argued that these processes may be particularly vulnerable to impairment when brain function is disrupted. In addition, a brief investigation into the long-term quality of life in this patient group will also be undertaken. It is expected that clinical participants will demonstrate a poorer quality of life as well as reductions in attention and executive functioning skills when compared with sibling controls and an age matched (non-cerebral solid based) tumour control group.

Progress:

Data collection for the clinical and sibling control sample is completed. Early analysis suggests significant findings in areas that include quality of life, performance IQ, attention (switching attention), executive functioning (BRIEF), reading and reaction time. Data collection for the Wilm's tumour control sample is also complete. Final data analysis and write-up to be completed in 2008.

Medical interventions

These studies involve a diverse range of projects which focus on monitoring the effectiveness of medical interventions in relation to neuropsychological functioning. The studies are being undertaken in collaboration with a number of specialist departments throughout the Children's Hospital at Westmead. Knowledge gained from these studies is likely to have a significant impact on medical and cognitive outcome in children with quite varying conditions.

The long-term effects of hypoglycaemia on the executive functioning of children with Type 1 Diabetes.

Lauren Gillett^{1,2}, Judi Homewood¹, Pam Joy³, in collaboration with Geoffrey Ambler⁴.

1.Department of Psychology, Macquarie University, Australia

2.Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3.Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

4.Institute of Endocrinology and Diabetes, The Children's Hospital at Westmead, Australia

There is some evidence that recurrent hypoglycaemia may lead to permanent neuropsychological deficits in children with Type 1 Diabetes. In particular, frontal lobe hypoperfusion and executive functioning deficits have been linked to hypoglycaemic episodes. This study aims to investigate the effects of frequency and severity of hypoglycaemia on children's executive functioning, as well as the influence of age at diagnosis and duration of disease on these effects.

Progress:

This project has received ethical approval from the Ethics Committee at The Children's Hospital at Westmead. Ethical approval from Macquarie University is now being finalised, and data collection is planned to commence shortly.

Assessment of changes in cognition, mood and behaviour in children with Type 1 Diabetes starting Insulin Pump Therapy.

Pam Joy¹, Andrew Gardner² and Geoffrey Ambler³ in collaboration the Royal Children's Hospital Melbourne

1.Child Development Unit, Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

2.Developmental Cognitive Neuropsychology Research Unit, The Children's Hospital at Westmead, Australia

3.Institute of Endocrinology and Diabetes, The Children's Hospital at Westmead, Australia

This research project aims to assess changes in cognition, mood and behaviour in children with type 1 diabetes starting insulin pump therapy. It is a collaborative study with the Royal Children's Hospital, Melbourne that consists of a series of case studies. Participants, aged 6-16 years, are tested pre-pump (baseline) and again 6-8 weeks after commencement of their pump therapy.

Progress:

All assessments have been completed. Data analysis and write up are underway.

Projects Under Development

Twelve month outcome from adenotonsillectomy for mild to moderate sleep apnoea in preschoolers

This multicentre study being developed for implementation across Australia and New Zealand will examine children over the age of 3 years who have evidence of mild-moderate obstructive sleep apnoea (OSA) and are referred for adenotonsillectomy. The primary outcome measure will be intellectual function, with the hypothesis that children who have adenotonsillectomy to treat their OSA will show an improvement in intellectual ability over a 12 month follow-up period. Other cognitive skills, sleep and surgical factors will also be examined.

Clinical initiatives

Reading and Spelling Disorders Clinic

This will be a 'state-first' initiative that offers assessment and treatment for children and adolescents with reading and spelling disorders. It will employ theoretically driven and empirically proven assessment and treatment methods.

The Reading and Spelling Disorders Clinic intends to use the existing resources of the Neurodevelopmental Disorders Clinic (NDC) and Developmental Cognitive Neuropsychology Research Unit (DeCog). It will offer children and adolescents a tertiary service involving specific assessment of literacy skills, individual advice and/or treatment where appropriate. The clinic will target only those children with clearly identified, specific reading and spelling difficulties (that is children without intellectual or general language impairment). These children will be referred to the reading and spelling disorders clinic for specific assessment of their literacy difficulties and not for general clinical or neuropsychological evaluation.

Children will be initially identified and referred by special education staff, psychologists, GP's, CHERI, speech pathologists or members of the Macquarie Centre for Cognitive Science (Macquarie University). The Reading and Spelling Disorders Clinic would offer appointments to approximately 6-8 children per year.

At present there are only a very limited number of services in the community that offer specific intervention for spelling/reading problems and none of these provide evidence based theoretically driven programs. The Developmental Cognitive Neuropsychology Research Unit (DeCog) has recently been involved in developing innovative treatment programs for children with reading disorders who have failed to benefit from other mainstream special educational training (Brunsdon, Hannan, Nickels & Coltheart, 2002; Brunsdon, Hannan, Nickels & Coltheart, 2002; Brunsdon, Coltheart & Nickels, 2004; Brunsdon, Coltheart & Nickels, In press). These treatment methods have been empirically evaluated and have been proven successful. This new clinic will enable children to continue to benefit from such treatment programs, which will be individually tailored and theoretically based.

This proposal also fits well with the Hospital vision by providing an innovative quality service to clients. At present there is no other service like this in NSW. At present children who fail to benefit from special education services provided in schools have no other options other than costly, invalidated therapies and limited private intervention therapies. This clinic will strive to offer excellence in clinical care and will advocate for better support and resources for children with reading and spelling disorders in NSW.

Progress:

The clinic has received approval to proceed. It is anticipated that the first children will be seen in 2008.

Publications

Brunsdon, R., Nickels, L., Coltheart, M. (2007) Topographical disorientation: Towards an integrated framework for assessment. *Neuropsychological Rehabilitation*, 17 (1), 34-52.

Brunsdon, R., Nickels, L., Coltheart, M., & Joy, P. (2007). Assessment and treatment of childhood topographical disorientation: A case study. *Neuropsychological Rehabilitation*, 17 (1), 53-94.

Haas, M., Chaplin, M., Wilcken, B., Joy, P., Wiley, V. & Black, C. (2007) Healthcare use and costs of MCADD in Australia: screening versus no screening. *The Journal of Pediatrics*.

Joy, P; Black C; Rocca, A; Haas M and Wilcken B (accepted) Neuropsychological functioning in children with medium chain acyl coenzyme A dehydrogenase deficiency. *Child neuropsychology*

Norman, R., Haas, M., Chaplin, M., Joy, P., Wiley, V. & Wilcken, B. (submitted) Economic evaluation of tandem mass spectrometry newborn screening in Australia. *Archives of Disease in Childhood*

Porter, M.A., Coltheart, M., & Langdon, R. (In Press). The neuropsychological basis of hypersociability in Williams and Down syndrome. *Neuropsychologia*.

Schindeler, S.K., Ghosh-Jerath, S., Thompson, S.M., Rocca, A., Joy, P., Kemp, A.F., Rae, C., Green, K., Wilcken, B. & Christodolou, J. (2007) The Effects of Large Neutral Amino Acid Supplements in PKU: an MRS and Neuropsychological Study. *Molecular Genetics and Metabolism* 91, 48-54.

Schmalzl, L., Palermo, R., & Coltheart, M. (in press). Cognitive heterogeneity in genetically-based prosopagnosia: A family study. *Journal of Neuropsychology*.

Schmalzl, L., Palermo, R., & Harris, I., & Coltheart, M. (under revision). A case study of prosopagnosia following congenital brain damage: Evidence for innate, domain specific and mandatorily engaged face processing mechanisms. *Neuropsychologia*.

Schmalzl, R., Palermo, R., & Green, M., Brunsdon, R., & Coltheart, M. (under revision). Training of familiar face recognition and visual scan paths for faces in a child with congenital prosopagnosia. *Cognitive Neuropsychology*.

Schmalzl, L., Palermo, R., Wilson, C. & Coltheart, M. (submitted). Theoretically driven assessment planning and interpretation of face processing skills in congenital prosopagnosia. *Neuropsychological Rehabilitation*.

Wilcken, B., Haas, M., Joy, P., Wiley, V., Chaplin, M., Black, C., Fletcher, J., McGill, J. & Boneh, A. (2007) The outcome of neonatal screening for medium-chain acyl-coa dehydrogenase deficiency in Australia. *The Lancet* Vol 369.

Doctoral Completions

Swain, M. Visual Object Processing, Attention and Executive Function in Children with Spina Bifida and Hydrocephalus.

Grants

Visual processing skills in 3-8 year olds: Exploration of patterns of normal development with the aim of improving early diagnosis of impairment in clinical groups.

Investigators: Brunsdon, R. and Joy, P.

Funding source: The Children's Hospital at Westmead, Small Grant

Grant amount: \$5,300

Children with dyslexia who are unable to process individual letters: Why is their processing impaired and can we help them learn to read?

Investigator: Brunsdon, R.

Funding Source: Macquarie University Research Development Grant

Grant Amount: \$18,000

A cognitive neuropsychological model of social processing: Identification and treatment of social deficits

Investigators: Porter, M.A., Coltheart, M., Brunsdon, R., Joy, P. & Bakker, K.

Funding Source: Macquarie Internal University Research Grant

Grant Amount: \$18,000

Correlating Cognitive, Genetic and Clinical Variability in Williams Syndrome

Investigators: Porter, M.A., Tassabehji, M., & Hammod, P.

Funding Source: Macquarie University Research Development Grant Scheme

Grant Amount: \$49,268

A model of social processing: Identification and treatment of social deficits

Investigators: Porter, M.A.

Funding Source: Geoffrey Betts Fellow: Australian Rotary Health Research

Grant Amount: \$200,000

Integrating eye tracking and galvanic skin responses into the MACCS event-related potential (ERP) laboratory

Investigators: McArthur, G., Atkinson, C., Castles, A., Coltheart, M., Kinoshita, S., Langdon, R., Palermo, R. & Porter, M.A.

Funding Source: Maquarie University Research Infrastructure Block Grant Scheme

Grant Amount: \$75,495

A cognitive neuropsychological model of social processing: Identification and treatment of social deficits

Investigators: Porter, M.A., Coltheart, M., Brunsdon, R., Joy, P. & Bakker, K.

Funding Source: Australian Rotary Health Research Fund Geoffrey Betts Postdoctoral Fellowship

Grant Amount: \$75,000 p.a. for 3 years

The phenotypes of acquired cerebellar disease in childhood: an assessment of motor, language, cognitive and academic abilities

Investigators: Coombes, S., Webster, R. & Barton, B.

Funding source: Macquarie University Research Development Grants scheme

Grant amount: \$15,000

Presentations

Ambler, G., Knight, S., Northam, E., Donath, S., Gardner, A., Harkin, N., Joy, P., & Cameron, F.

Assessment of changes in cognition, mood and behaviour in children with Type 1 Diabetes starting Insulin pump therapy, 33rd Annual Meeting of the International Society for Pediatric and Adolescent Diabetes (ISPAD), Berlin, September 2007.

Brunsdon, R.

Workshop: Strategies and tips for management of cognitive difficulties in the classroom: Case studies in ABI, Rehabilitation Department Education Day, Children's Hospital at Westmead, Sydney, March 2007.

Coombes, S.

Case presentation DW: Cognitive outcome from cerebellar AVM

Presented at the Royal Prince Alfred Hospital case rounds Sydney November 2007

Coombes, S.

Case presentation LC: Letter processing deficits

Presented at the Royal Prince Alfred Hospital case rounds, Sydney November 2007

Grogan, M., Minton, P., Brunsdon, R., Joy, P., Kellie, S., Somerville, H. & Shores, E.A.

Long-term Neuropsychological Effects of Low-grade Brain Tumours in Children: A Specific Focus on Attention, Executive Functioning and Quality of Life.

Paper presented at the International Neuropsychological Society, Federation of Spanish Societies of Neuropsychology, Spanish Neuropsychological Society, Spanish Psychiatry Society Joint Mid-Year Meeting Bilbao, Spain, July, 2007

Pickles, P.

Presentation at NSW Institute of Psychiatry: "Neuropsychological Assessment of Children" July, 2007

Porter, M.A.

Social Functioning in Children Following Traumatic Brain Injury

11th Brain Injury Research Forum: Friendships and Brain Injury, Sydney, Australia, July 2007

Porter, M.A.

Australasian Human Development Conference

Symposium: Where do we go from here? The future of social cognition research with young children and atypical populations July 2007, Sydney, Australia

Porter, M.A.

Williams syndrome research: Where are we now and where are we headed
International Williams Syndrome Conference, Sydney, Australia, September 2007

DeCog Researchers

Name Clinical Associate Professor Pam Joy
Title/Position Senior Clinical Neuropsychologist
Department/Location Developmental Cognitive Neuropsychology Research Unit and the Child Developmental Unit, CHW
Qualifications BA, MA, MSc, PhD
Telephone 9845 2832
Fax 9845 2088
Email PamelaJ@chw.edu.au

Name Dr Ruth Brunsdon
Title/Position Senior Clinical Neuropsychologist
Qualifications BA(Hons) MSc(Clin.Neuropsych.), PhD
Department/Location Rehabilitation Dept and the Developmental Cognitive Neuropsychology Research Unit, CHW
Telephone 9845 2804
Fax 9845 0685
Email ruthb2@chw.edu.au

Name Kathleen Bakker (until August)
Title/Position Senior Clinical Neuropsychologist
Qualifications BSc(Hons) MSc(Clin.Neuropsych.)
Department/Location Paediatric Rehabilitation Service, Royal Children's Hospital
Telephone (03) 9345 5283
Fax (03) 9345 5913
Email kath.bakker@rch.org.au

Name Sara Coombes
Title/Position Clinical Neuropsychologist
Qualifications BPsych (Hons), MSc (Clin. Neuropsych.)
Department/Location Rehabilitation Unit, CHW
Telephone Number (02) 9845 2759
Fax Number (02) 9845 0685
Email address SaraC2@chw.edu.au

Name Dr Ellen Northcott
Title/Position Clinical Neuropsychologist
Qualifications BA (Hons), DPsych (Clin. Neuropsych.)
Department/Location Developmental Cognitive Neuropsychology Research Unit; the Child Developmental Unit and the Rehabilitation Department, CHW
Telephone number (02) 9845 0525
Fax Number (02) 9845 0685
Email address ellenn@chw.edu.au

Associates

Name Suzanne Benson
Title/Position Clinical Psychologist and Clinical Neuropsychologist
Qualifications BA (Hons), MA (Clin. Psych), M (Clin. Neuropsych.)
Department/Location Rehabilitation Dept and Developmental Cognitive
Neuropsychology Research Unit, CHW
Telephone 9845 2804
Fax 9845 0685
Email Suzannb7@chw.edu.au

Name Polly Pickles
Title/Position Clinical Psychologist
Qualifications BA English (Hons), BSc Psychology (Hons), MSc
Clinical Psychology
Department/Location Child Development Unit, CHW
Telephone Number (02) 9845 2766
Fax Number (02) 9845 2088
Email address PollyP@chw.edu.au

Name Graham C Menzies
Title/Position Clinical Neuropsychologist
Qualifications BPsych (Hons), DPsych (Clin. Neuropsych.)
Department/Location Rehabilitation Dept and Developmental Cognitive
Neuropsychology Research Unit, CHW
Telephone number (02) 9845 2818
0415 442 178
Fax Number (02) 9845 0685
Email address GrahamM2@chw.edu.au

Name Dr Michelle Swain
Title/Position Clinical Neuropsychologist
Qualifications BPsych (Hons), MSc (Clin. Neuropsych.)
Department/Location Rehabilitation Dept and Developmental Cognitive
Neuropsychology Research Unit, CHW
Telephone number (02) 9845 2789
Fax Number (02) 9845 0685
Email address michels1@chw.edu.au

Honorarys

Name Dr Melanie Porter
Title/Position Clinical Neuropsychologist
Qualifications BPsych (Hons), MSc (Clin. Neuropsych.), PhD
Department/Location The Developmental Cognitive Neuropsychology
Research Unit, CHW
Telephone number (02) 9850 6768
0419 221 085
Fax Number (02) 9850 6059
Email address MelanieP@chw.edu.au
mporter@maccs.mq.edu.au

Name Antonella Rocca
Title/Position Clinical Neuropsychologist
Qualifications BPsych (Hons), MSc (Clin. Neuropsych)
Department/Location Rivendell Child, Adolescent and Family Service
Gna Ka Lun, Adolescent Mental Health Inpatient Unit,
Campbelltown Hospital
Telephone number (02)9736 2288
0401 210 733
Fax Number (02) 9743 6264
Email address antonella.rocca@sswahs.nsw.gov.au

Name Louise Parry
Title/Position Clinical Neuropsychologist
Qualifications BSc, M(Clinical Neuropsychology)
Department/Location Brain Injury Rehabilitation Program and Neurology
Department, Sydney Children's Hospital
Telephone (02) 9382 0246
Fax (02) 9382 0246
Email louise.parry@sesiahs.health.nsw.gov.au

**Research
Assistants**

Anneli Cassel

**DPsych
Students**

Lauren Gillett
Peta Minton
Michelle Swain

**PhD
Students**

Laura Schmalz
Saskia Kohnen