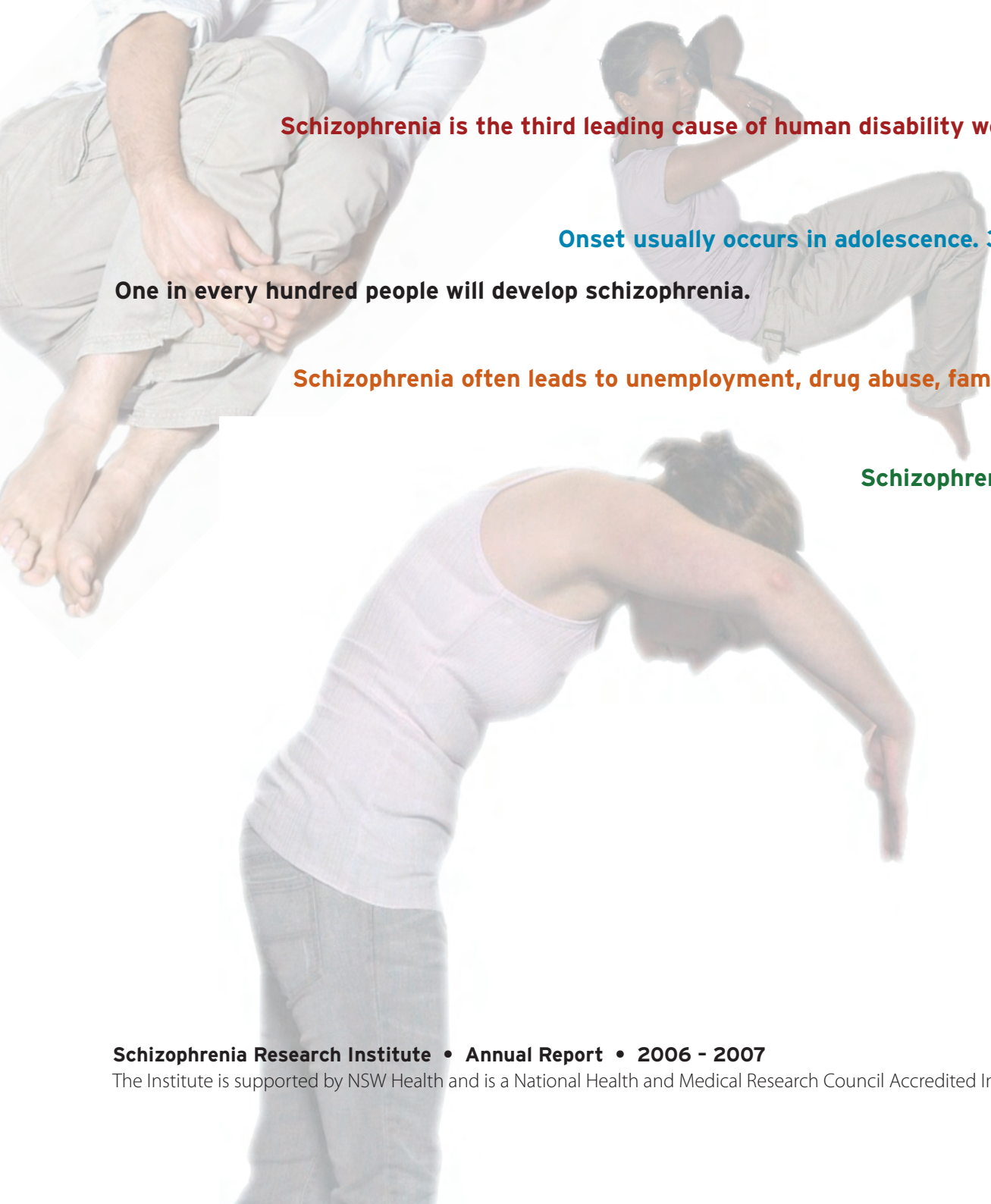
Annual Report 2007

SCHIZOPHRENIA
RESEARCH
INSTITUTE



Schizophrenia is the third leading cause of human disability worldwide.

Onset usually occurs in adolescence. 30% attempt suicide, 5% succeed.

One in every hundred people will develop schizophrenia.

Schizophrenia often leads to unemployment, drug abuse, family trauma, homelessness, and imprisonment.

Schizophrenia can arise in any family.

Schizophrenia Research Institute • Annual Report • 2006 – 2007
The Institute is supported by NSW Health and is a National Health and Medical Research Council Accredited Independent Research Institute.

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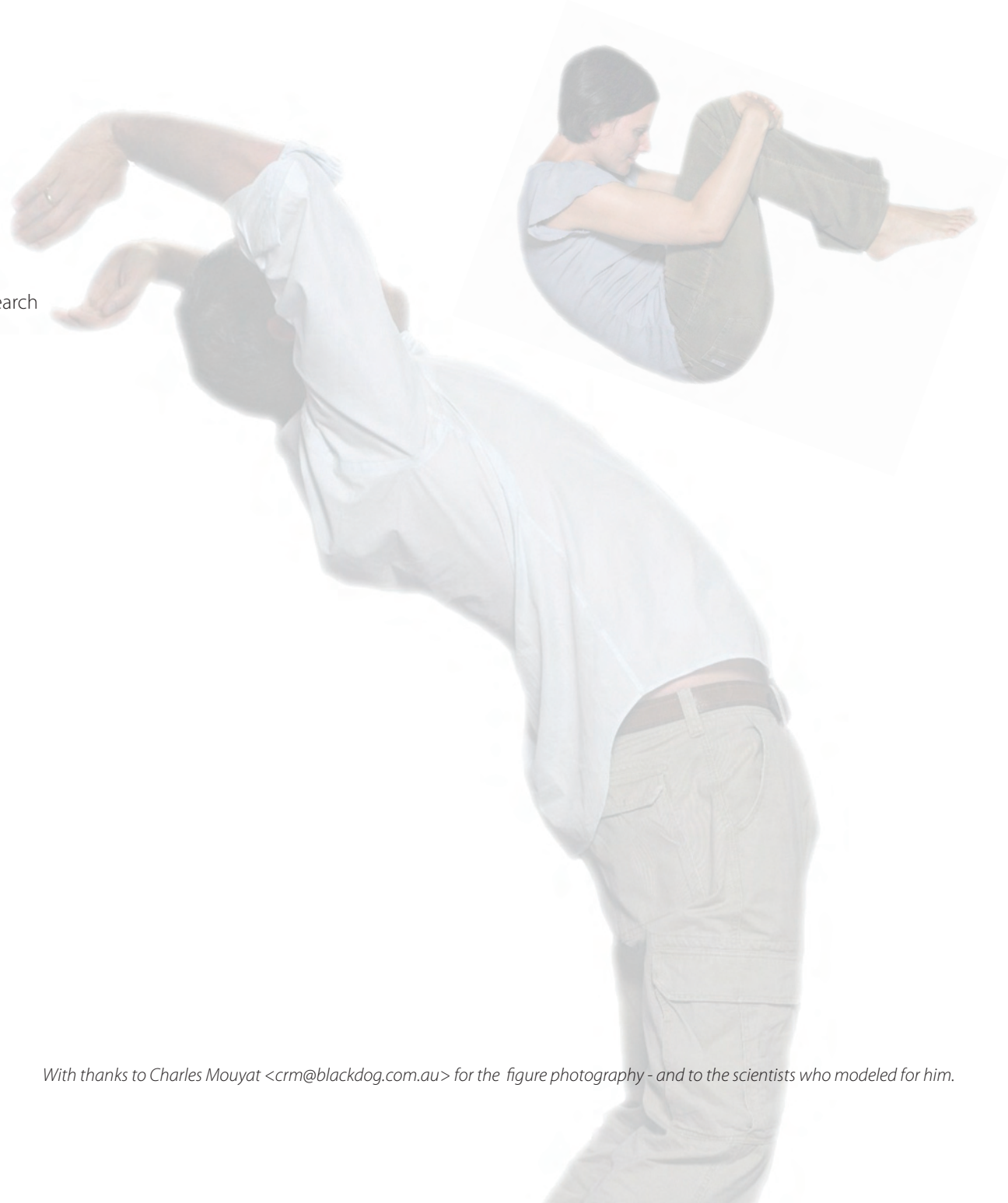


With thanks to Charles Mouyat <crm@blackdog.com.au> for the figure photography - and to the scientists who modeled for him.

The Schizophrenia Research Institute is the only Australian institution entirely dedicated to finding the answer to schizophrenia.

Mobilising Australian schizophrenia research

Peter Maher
Chairman

The last two years has delivered such expansions of the Institute's scope of research as to warrant a change of name from 'Neuroscience Institute of Schizophrenia and Allied Disorders' (NISAD) to the more encompassing and pronounceable 'Schizophrenia Research Institute'. Among the many research advances which justify such a generic title have been establishing Professor Cynthia Shannon Weickert as Australia's first Chair of Schizophrenia Research, and initiating the Australian Schizophrenia Research Bank (ASRB) as this country's biggest collaborative schizophrenia research effort to date. Since June 2006 both these projects have acted as rallying points for increased public interest and optimism regarding the ability of world class research to significantly reduce the toll schizophrenia takes on our young people each year.

Professor Shannon Weickert's laboratory is now functioning at the Prince of Wales Medical Research Institute, and was officially opened in October 2007 by NSW Premier Morris Iemma. Julie White of the Macquarie Group Foundation attended to announce a grant of $1.375 million in support of the Chair, which is now retitled the Macquarie Group Foundation Chair of Schizophrenia Research. To cap a truly momentous occasion, the Premier then announced further Government funding to the Institute and the University of NSW of $2.45 million to establish a second Chair of schizophrenia research - this time focused on epidemiology and population health, as well as on establishing a Schizophrenia Evidence Library.

The development of the ASRB has been equally robust. With the help of a substantial grant from the Pratt Foundation, and a *pro bono* national advertising campaign by Singleton Ogilvy & Mather, the project is now active across Queensland, Victoria, Western Australia and New South Wales, and well on the way to meeting its recruitment target of 4,000 volunteer subjects. I particularly wish to thank my fellow Board member Matthew Cullen for donating the services of McKesson Asia Pacific to the recruitment campaign.

Along with the Institute's other research projects, these new initiatives have been made possible only by the support of the NSW Government, corporate and individual sponsors, and charitable foundations listed in this Report. Persuading more corporate leaders and charitable organisations to invest in our mission is an ongoing commitment of the Board. Despite the significant gains reported above, schizophrenia research still does not attract the volume of support and funding warranted by the numbers of families affected by the illness. The key to redress this inequity lies in improving public knowledge of what schizophrenia actually is, and of what science can do to reduce its incidence and severity. To this end, the 'Spark of Genius 2007' event held at Sydney Town Hall in May was a special success, bringing the facts about schizophrenia and the work of the Institute to the attention of more than 500 guests, and raising $200,000. The event's many corporate sponsors are acknowledged in this Report, and special thanks go once again to the Macquarie Group Foundation as principal sponsor, and to the InterContinental Sydney for providing hospitality to our 40 'genii' table hosts.

Many of the event's sponsors and supporters also attended the July 2006 '10 Years On – Business Leaders Lunch' generously hosted by Institute Board member Andrew Mohl in the AMP Board Dining Room. Cherie Burton MP, and long-time supporter Andrew Ferguson of the Construction Forestry Mining Energy Union attended to celebrate the Institute's first decade and to applaud the well-deserved appointment of Don McDonald as 'Life Governor'.

On behalf of the entire Institute team I thank Debbie Willcox, who resigned as Executive Director in February 2007. Debbie added a special vivacity to the organisation, and we wish her great success in her further career. During the year, the Board also saw the resignation of valued members Peter Dempsey and Janet McDonald, and welcomed the acquisitions of Mick Reid, Christopher Rex, Sam Lipski and Professor Shannon Weickert.

Finally, I wish to acknowledge the talent and tenacity of the Institute's many researchers, in whose hands and brains rest the hopes of so many.

Building the critical mass of evidence

Prof. Vaughan Carr
Chief Executive Officer

The momentum built up by the Institute over the past few years has delivered advances in Australian schizophrenia research barely imagined a decade ago. The new laboratory of the Macquarie Group Foundation Chair of Schizophrenia Research is now operational at the Prince of Wales Medical Research Institute; the funding to initiate another Chair in Schizophrenia Research - focused on epidemiology and population health - as well as an Evidence Library, has been awarded by NSW Health to the Institute and the University of NSW; and the nationwide program of the Australian Schizophrenia Research Bank is now well underway.

With these and similar achievements, a number of paths are open with potential to lead to the development of better treatments and means for prevention of schizophrenia.

The reason why this is more than a pipe dream is that there is emerging scientific consensus that schizophrenia is related to abnormal brain development affecting the placement and connectivity of neuronal cells, and new technological advances enable scientific study of these phenomena at unprecedented levels of detail.

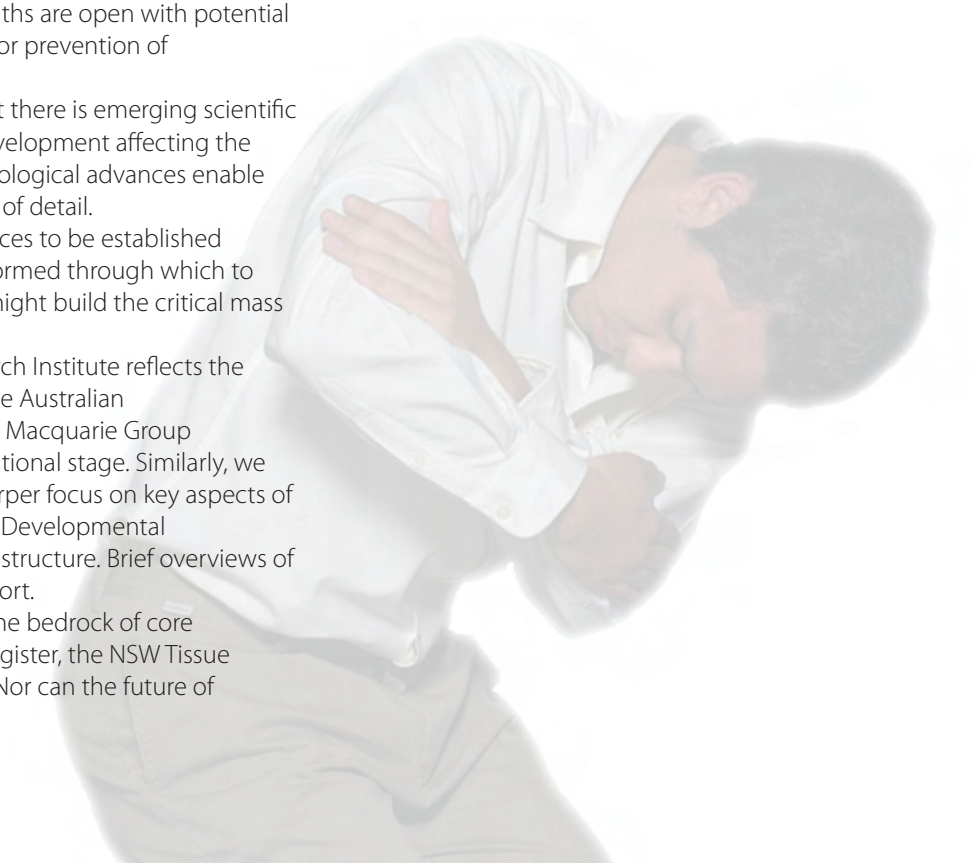
The development of this capacity now requires alliances to be established among scientists and collaborative research networks to be formed through which to focus the available research talent and resources so that we might build the critical mass of evidence needed to make major discoveries.

Renaming our organisation the Schizophrenia Research Institute reflects the national profile we are developing through the initiation of the Australian Schizophrenia Research Bank and the part that we expect the Macquarie Group Foundation Chair of Schizophrenia Research to play on the national stage. Similarly, we have reconstituted our research panels to better enable a sharper focus on key aspects of neurodevelopment. The three research panels are now titled Developmental Neurobiology, Cognition and Connectivity, and Research Infrastructure. Brief overviews of our research activities since July 2006 are provided in this Report.

Such research cannot happen without standing on the bedrock of core institutional structures such as the Schizophrenia Research Register, the NSW Tissue Resource Centre, and the 'Gift of Hope' Brain Donor Program. Nor can the future of schizophrenia research be assured without investment in research higher degree students. Reviewing the year 2006-2007 shows healthy expansion on all of these fronts in proportion to our increased productivity.

During the year, the Institute has supported 48 students, 13 of whom graduated. 38 staff members are employed through SRI funding and, together with our students, all are engaged in collaborative research with numerous institutions in Australia and overseas. Peer-reviewed publications, including those in press, numbered 68, and scientific conference presentations 118. Grant funding received for Institute-supported research totalled $3.3m – including a major grant of $1.5m from the Pratt Foundation for the Australian Schizophrenia Research Bank.

All in all, a good year.



Interrogating the chief suspects

Prof. Cyndi Shannon Weickert

Macquarie Group Foundation Chair of Schizophrenia Research

June 2007 marked the end of my first half year as Macquarie Group Foundation Chair of Schizophrenia Research, and I am delighted that my laboratory within the Prince of Wales Medical Research Institute is now up and running, and receiving enthusiastic support from government, research and corporate sources. The most recent and notable support was announced in October 2007 with the Macquarie Group Foundation's grant of $1.375 million, which I choose to include in this Report because of the increased scope such funding delivers to my research programs.

With the help of such support, my work is focusing on how genetic factors interact with normal brain development to trigger the onset of schizophrenia during adolescence. There are two main targets of my group's research: 1. the role of hormones and the molecular cascade of events that are triggered when sex steroids reach the brain areas involved in social, cognitive and emotional maturation; 2. the role of the pathway by which the neuregulin gene mutations work to bring about schizophrenia in individuals at risk.

By investigating the first target I hope to answer such questions as why onsets almost always occur at puberty; why gender influences symptoms; why testosterone levels are lower in male patients, and why female patients relapse when estrogen levels are low, and improve when levels are high. By answering these questions, I aim to identify psychosis-related estrogen genotypes which may respond better to a hormone-based intervention therapy. I will use a novel adjunctive medication to overcome what I have discovered is a blunting of the testosterone/estrogen signalling capacity of the brains of patients with schizophrenia. Also, one of the major targets of estrogen action at maturation is the induction of brain-derived neurotrophic factor (BDNF). This important growth factor represents a point for clinical intervention. It is significantly reduced in schizophrenia, and antidepressant drugs can induce BDNF by two fold in patients with schizophrenia.

The second target, the neuregulin gene NRG1, is the current chief suspect of worldwide schizophrenia research because it is known to regulate multiple developmental events including the migration of inhibitory neurons from central brain areas to form the adult cortex. Any abnormality of NRG1 expression could result in 'arrested development' or malformation of the cortex, and possibly lead to altered cortical inhibition. My earlier US studies have shown that NRG1 and its major receptor ErbB4 is indeed abnormally expressed in the frontal cortex of schizophrenia patients. I will be extending those studies to brains collected here in Australia, and will begin molecular characterisation of one of Australia's largest cohorts in 2008.

If the mechanism and consequences of abnormal NRG1 expression were understood, a means may be found to detect it and correct it's deleterious effects early enough to avert onset. To this end my laboratory is collaborating with other members of the Institute's Developmental Neurobiology Panel representing 6 NSW schizophrenia research centres, and encompassing a formidable range of research techniques and expertise.

In sum, I am very pleased to be a part of the Schizophrenia Research Institute, which has spearheaded growth in the field over the past decade. The new investments by the Macquarie Group Foundation; the announcement of another Chair of Schizophrenia Research; the launch of the Australian Schizophrenia Research Bank are all synergizing to create an atmosphere ripe for discovery. We are fortunate to have the Premier's support and I hope to build that relationship. The Institute leadership provided by its CEO Prof. Vaughan Carr is outstanding. His plans for the future of schizophrenia research are visionary, and his ability to unite scientists working at different sites on a common problem are a testament to his diplomacy. The future looks very bright indeed!

The Institute initiated Australia's first university Chair of Schizophrenia Research and now supports it in partnership with:

NSW HEALTH

Macquarie Group Foundation

UNSW THE UNIVERSITY OF NEW SOUTH WALES

PRINCE OF WALES MEDICAL RESEARCH INSTITUTE

Building a new world resource for schizophrenia research

Since 1996, the Institute has worked to develop the infrastructure resources necessary for world class schizophrenia research in NSW: the **Schizophrenia Research Register**, a database of patients and their relatives willing to participate in research; the **Hunter DNA Bank**, a library of DNA profiles of patients and relatives, and the **'Gift of Hope' Brain Donor Program,** allowing people to donate their brains for research after death. The Institute also supports the **NSW Tissue Resource Centre**, the major Australian source of post-mortem brain tissue.

With the experience gained from a decade of such infrastructure development, the Institute conceived of a multi-State collaboration to build a national 'Bank' for schizophrenia research. The vision was realised in April 2007 when the Australian Schizophrenia Research Bank was launched.

The Australian Schizophrenia Research Bank

With major funding from the National Health and Medical Research Council, the Pratt Foundation, Ramsay Health Care, and Perpetual Trustees the Bank is coordinated from the Institute's centre in Newcastle. Participating centres now include:

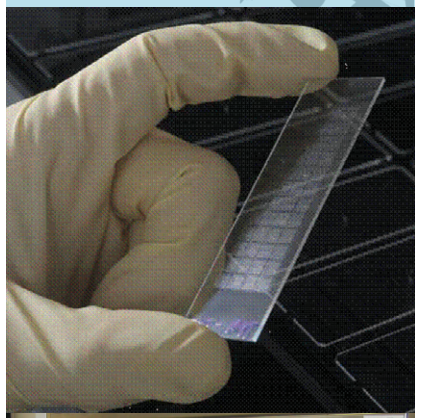
Brisbane: University of Queensland, Queensland Centre for Mental Health.
Sydney: Prince of Wales Medical Research Institute.
Newcastle: University of Newcastle, Centre for Brain and Mental Health Research, Hunter Area Pathology Service.
Melbourne: University of Melbourne, Melbourne Neuropsychiatry Centre.
Perth: University of Western Australia, Centre for Clinical Research in Neuropsychiatry.
Orange: Centre for Rural and Remote Mental Health.

The task of the biggest ever Australian schizophrenia research project is to recruit 2,000 schizophrenia patients and 2,000 controls, and to obtain brain scans, blood samples (to obtain DNA profiles) and clinical information which will be compiled and cross-referenced into a unique database, of enormous value to Australian and international researchers.

The national recruitment campaign launched in May 2007 via TV, radio and print media was provided *pro bono* by Singleton Ogilvy & Mather, Ogilvy PR Health, Plush Films, Black Dog Photography, and McKesson Asia Pacific – who contributed telephone response management. Russell Crowe contributed the voice for the TV appeal.

More than 2,000 people responded to the 2007 campaign, and enquiries are now being processed at State centres. A second national airing of the campaign is scheduled for 2008.

Unravelling the genetic risk factors



The importance of genetic risk in schizophrenia development has long been established, although the genetic basis is complex and likely to involve many genes, each of small effect. The Institute's genomics research teams at several centres have achieved significant results during the 2006–2007 year:

Microarray research – Identifying candidate genes as markers for schizophrenia

Institute researchers at the University of Newcastle have examined the expression of RGS4, a gene implicated in schizophrenia, in the primary auditory cortex of brain tissue from people with schizophrenia. They discovered reduced RGS4 expression in this region, which may be involved in the brain changes that cause auditory hallucinations, and suggests that this gene has the potential for use as a schizophrenia marker.

Epigenetics – Unlocking the complexities of gene expression

Institute researchers at the University of Newcastle have established high-throughput techniques that allow for the analysis of small 'micro RNA' molecules, which have the capacity to 'switch off' hundreds of genes. Preliminary results have shown changes in micro RNA levels in brain areas involved in auditory hallucinations. In addition, several of the genes targeted by these micro RNAs are candidate genes for schizophrenia.

Dysbindin – A candidate gene for schizophrenia

The Institute's Prince of Wales Medical Research Institute group has examined the expression of dysbindin, one of the most promising candidate genes for schizophrenia, in the hippocampus – a brain area critically involved in memory and emotion processing. The results are consistent with previous findings showing reduced dysbindin protein in the same brain region, and suggest that the reduced dysbindin-1 mRNA seen in the hippocampus of patients who suffered from schizophrenia could underlie the abnormal neuronal connectivity in this important brain structure.

Corpus callosum – The bridge of the brain

The corpus callosum (CC) forms the bridge between the two hemispheres of the brain, allowing the two halves of the brain to act as a single unit. Structural abnormalities, including decreased size and nerve density, have been shown in the CC from people with schizophrenia, and are thought to produce some of the symptoms of the disorder. Institute researchers at the University of Sydney have found 34 proteins in the CC of post-mortem schizophrenia brains which were differentially expressed (ie increased or decreased) relative to controls. Eight of these proteins are encoded by genes associated with schizophrenia.

The most valuable rats and mice in the world

The fact that the genomes of rats and mice are 85 percent identical to human is of enormous value to schizophrenia research. It allows us to conduct experimental studies which could not be possible with human subjects – such as investigating the role certain genes play in brain development. The Institute's studies have speeded progress down several lines of investigation in 2006–2007:

Neuregulin

Neuregulin-1 (NRG1) plays a role in various brain development processes, and is one of the most promising candidate genes for schizophrenia. Institute scientists based at the Garvan Institute of Medical Research have examined the influences of reduced NRG1 expression and of environmental conditions on behaviour, using mice which have had their NRG1 expression artificially reduced (Nrg1 mutant mice). Although showing normal behaviour as young adults, these mice were less anxious and showed increased motor activity later in life. They were also found to be more susceptible to changes to their housing environment. These findings suggest that altered NRG1 expression increases sensitivity to environmental influences, and may provide a model for certain changes in brain development and behaviour in schizophrenia.

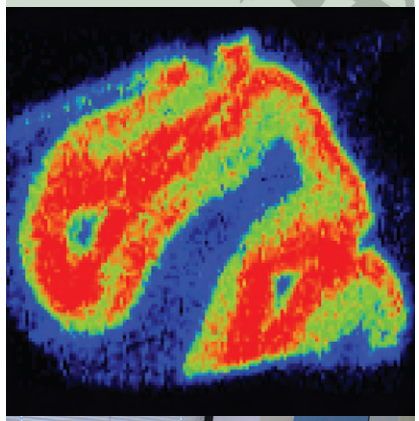
Muscarinic receptor

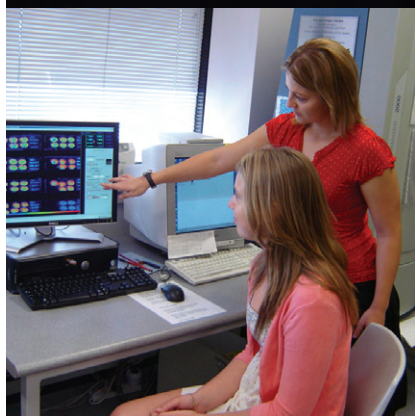
Institute researchers at the University of Wollongong are continuing to investigate the muscarinic receptor system as a potential candidate for developing new schizophrenia treatments. Evidence suggests that targeting the muscarinic receptors may balance the undesirable side effects seen with current dopamine-based treatments. Two studies at Wollongong have been exploring this possibility:

Treatment with phencyclidine (PCP) can induce schizophrenia-like symptoms in animals and humans. Mice were examined for both the short- and long-term effects of chronic PCP treatment. The short-term increase in muscarinic M1/4 receptor density was reversed over time, and the long-term reduction in M1/4 receptor density was consistent with the low receptor levels seen in postmortem brains of schizophrenia patients. These findings suggest that countering M1/4 changes could be the target of potential new treatments for schizophrenia.

Weight gain is one of the debilitating side effects of atypical antipsychotic medication which contribute to non-compliance. Researchers have examined the changes in the muscarinic receptors of the dorsal vagal complex (DVC), a brain area thought to be involved in weight regulation following treatment with antipsychotics. Unlike haloperidol-treated rats, those treated with olanzapine gained weight, and demonstrated reduced muscarinic M2 densities in the DVC. These findings suggest that the weight gain associated with olanzapine may be due to reduced muscarinic M2 receptors in this region.

Does cannabis use increase schizophrenia risk?





Despite being the focus of considerable interest, controversy remains over the link between cannabis use during adolescence and the development of psychosis. The Institute continues to initiate and support investigations into the exact nature of the link.

Cannabis and neuregulin

Cannabis has been associated with the development of schizophrenia in vulnerable individuals, although the precise nature of the relationship remains unclear. Institute researchers from the Garvan Institute, the University of Bordeaux, France, and University of Sydney have used Nrg1 mutant mice to explore how acute treatment of these mice with a component of cannabis (i.e. the psychotropic THC) interacts with the genetic predisposition of these animals for schizophrenia-related brain and behavioural changes. This team demonstrated in two recent publications that the Nrg1 mutant mice were more sensitive to the neurobehavioural effects of THC on a variety of behaviours. In ongoing work, researchers are now examining the susceptibility of these mice to long-term THC treatment.

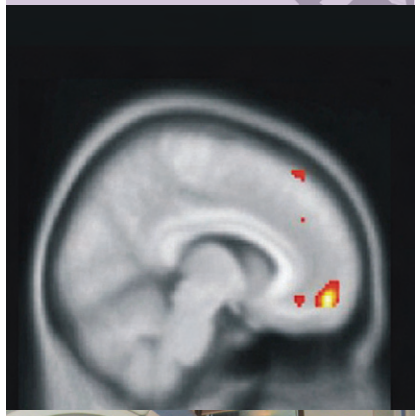
Cannabinoid receptor density in schizophrenia

There is evidence that the cannabinoid system, which is important for regulating neural activity, is altered in individuals with schizophrenia. Institute researchers at the University of Wollongong and the Australian Nuclear Science and Technology Organisation (ANSTO) have been examining this system.

The Wollongong team have examined post-mortem tissue of the posterior cingulate cortex, an area implicated in the development of schizophrenia, using quantitative audoradiography. They found increased cannabinoid CB1 receptor binding in the posterior cingulate cortex of those with schizophrenia. These findings provide support for altered endogenous cannabinoid system in schizophrenia.

The ANSTO group are investigating the long term effects of cannabis on the brains of adolescent and adult rats. This model of long-term cannabis abuse will shed light on how the density and functionality of cellular elements are modified or impaired after chronic exposure to cannabinoids. The way these cellular elements change over time can subsequently be tracked in the rodents *in vivo* (in the living body), using the cutting-edge molecular imaging technology at ANSTO. A post-doctoral researcher has been co-funded with ANSTO to work on this project.

Imaging brain changes in schizophrenia



Aided by the advent of neuroimaging technologies such as functional magnetic resonance imaging (fMRI), we now know that schizophrenia not only changes the way the mind works but also changes the anatomy of the brain itself. Charting precisely how these anatomical changes relate to schizophrenia symptoms is an essential step on the road to new treatments, risk detection, and a means of prevention.

Structural abnormalities in first-episode schizophrenia

Although reduced grey matter volume is seen in chronic schizophrenia, few studies have investigated the brain structural changes seen during the first few years of schizophrenia. Institute researchers at the Brain Dynamics Centre examined grey matter volume differences between first-episode schizophrenia patients and healthy controls, both at the onset of psychosis and 2-3 years subsequently. The grey matter volume was reduced at the onset of psychosis, and subsequently even greater loss was seen at follow-up. However, contrary to expectations, this progressive grey matter loss was not associated with a corresponding reduction in the amplitude of patients' brain waves. These findings suggest that in addition to the grey matter deficits, abnormally increased neural synchrony may contribute to the symptoms of schizophrenia.

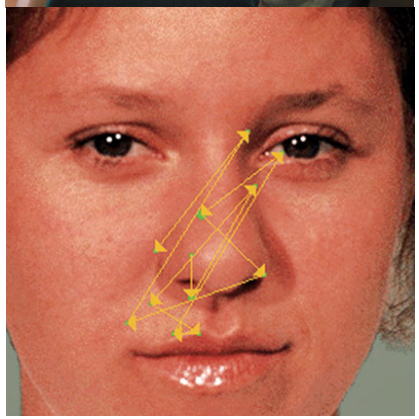
Mismatch negativity

Despite advances in treating schizophrenia, impaired day-to-day functioning remains one of its most debilitating outcomes. Institute researchers at the University of Newcastle have found preliminary evidence linking impaired day-to-day functioning levels in schizophrenia patients with reductions in the event-related potential, mismatch negativity (MMN) and grey matter reduction in brain regions responsible for auditory processing, motor organisation and executive function.

Visual and emotional processing

Alterations in emotion processing and expression have long been associated with schizophrenia. Institute researchers at the Brain Dynamics Centre have examined the brain activity of first-episode schizophrenia patients and healthy controls using fMRI. Schizophrenia patients showed a reversal of the normal pattern of brain activity in response to viewing images of fearful faces. This reversal in connectivity between the visual and emotional processing areas of the brain may underlie the emotional misunderstanding and social dysfunction seen in schizophrenia.

Social cognition and emotion processing



Even schizophrenia patients whose symptoms are well managed with medication sometimes find it difficult to 'read' facial expressions and thereby to interpret social situations appropriately. These difficulties are associated with poor social and vocational functioning. In combination with known abnormalities in visual scanning of faces, these deficits may be exacerbated by poor appreciation of the social information required to interpret another's feelings in different circumstances (i.e. social context).

Poor integration of social contextual cues

Institute researchers at Macquarie University examined how schizophrenia patients identified the emotion on faces following a brief description of a social situation to set the context. Schizophrenia patients did not use the social context when interpreting facial emotions to the same extent as healthy controls. In particular, poor use of social contextual information was most apparent for threat-related facial expressions (e.g. anger and fear). This may therefore contribute to the development of persecutory delusions in schizophrenia.

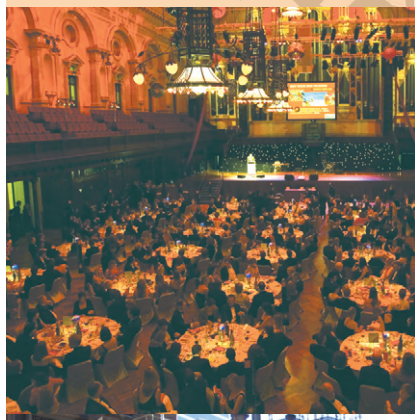
Tunnel vision

In another study, visual scan paths were recorded when individuals were examining photographs of characters depicted in social isolation or in a realistic social context. While healthy participants changed their scan path to attend to the context, and altered their interpretation of the mental state appropriately, individuals with schizophrenia failed to extend their visual attention to the surrounding context, and also had difficulty judging the mental states of the characters. Reduced attention to the social context thus seems likely to contribute to misunderstanding of expressed emotions and poor social functioning in schizophrenia.

Similar deficits found in relatives of patients

Schizophrenia patients demonstrate abnormally restricted visual scan paths and avoid salient facial features when viewing face stimuli. This is thought to underlie some of the social dysfunction in schizophrenia. Institute researchers at the University of Newcastle examined the visual scan paths of schizophrenia patients, first-degree relatives and healthy controls while viewing various facial expressions. First-degree relatives were observed to have an attenuated form of the restricted visual scan paths observed in the schizophrenia patients, and a similar avoidance of facial feature regions - suggesting that the visuo-cognitive disturbances in schizophrenia may involve a familial transmission component.

Support for Australian schizophrenia research



Since the Institute began operations in 1996, public perception has moved a long way from the 'dark ages' of stigma and ignorance, and it is now widely accepted that schizophrenia is a biological illness of the brain. Increasing support from government, corporate, community and private investment in the Institute has allowed our scientists to make real advances, and we gratefully acknowledge all those who mobilised their talents, influence and good will to help the Institute during 2006–2007.

SPARK OF GENIUS '07

Following the successes of previous years, the Institute's Gala Dinner held in May at Sydney Town Hall attracted 40 Australian 'Genii' to host tables for 500 guests. Led by James O'Loghlin, with Mikey Robbins and Peter FitzSimons, the entertainment kept coming - with performances by Jane Rutter, 'Aerialize', and The Latin Kings. Amongst all the fun were serious moments when Heloise Pratt of the Pratt Foundation spoke of the Institute's mission, and Angela Greensill described her experience of schizophrenia. With principal sponsor Macquarie Group Foundation, the event raised $200,000 for the Institute's research programs. The many other contributors are gratefully acknowledged in this Report.

COCKTAILS & CONSCIOUSNESS '06

Held in the Galleria of the Garvan Institute in October, the annual cocktail party for Schizophrenia Research Society members and their guests once again provided a uniquely entertaining evening. The audience enjoyed an early release performance of the play '1 in 100' by Griffin Award Winner Mary Rachel Brown, performed by Jennifer Hagan and Lindsey Farris – followed by a panel discussion of the play's portrayal of a mother and son coping with schizophrenia onset. Once again, our thanks go to Ramsay Health Care as principal sponsor, and to all other contributors acknowledged in this Report.

10 YEARS ON BUSINESS LEADERS LUNCH

To mark the first decade of achievement by the Institute, a sponsors and supporters lunch was held in the AMP Board Dining Room – hosted by Institute board member and CEO AMP Andrew Mohl. Attended by Cherie Burton MP, and Andrew Ferguson of the Construction Forestry Mining Energy Union, the occasion also marked the well-deserved appointment of Don McDonald as 'Life Governor' of the Institute.

HEADLINES APPEALS

Three editions of the Institute's publication HeadLines was mailed to an expanding database of 5,000 subscribers – who donated a total of $60,000 in response to the 2006 June and Christmas appeals.

A full list of the Institute's Partners, Sponsors and Supporters are gratefully acknowledged elsewhere in this Report.











With thanks to all those who made
Spark of Genius '07
such a special occasion.




Scientific Panels and Members

A reorganisation of the Institute's Panel structure occurred in 2006-2007. The Cognition and Connectivity Panel was formed to replace the previous Cognitive Neuroscience and Psychopharmacology and Therapeutics Research Panels. The new Panel will focus on investigating abnormal brain development as the basis of disordered cognition and neural connectivity in schizophrenia.

The Developmental Neurobiology Panel was formed to replace the previous Neurobiology Research Panel. The aim of the Developmental Neurobiology Panel is to identify the key neurodevelopmental processes that are aberrant in schizophrenia and to understand how variation in susceptibility genes and susceptibility environments both independently and interactively impact these neurodevelopmental processes.

The Schizophrenia Research Infrastructure Panel oversees the operation of the Institute's key schizophrenia research infrastructure facilities. These include the Australian Schizophrenia Research Bank (ASRB), the NSW Tissue Resource Centre, the 'Gift of Hope' Tissue Donor Program and the Schizophrenia Research Register. The Hunter DNA Bank for Schizophrenia and Allied Disorders has been incorporated into the ASRB.

Research Council

Professor Vaughan Carr
SRI Scientific Director / Chief Executive Officer

Dr Martin Cohen
Convenor, Psychopharmacology and Therapeutics Panel (until 31 Dec 2006)

Mr Daren Draganic
SRI Research Manager

Dr Melissa Green
Co-Convenor, Cognition and Connectivity Panel (from 1 Jan 2007)

Professor Clive Harper
Co-Convenor, Schizophrenia Research Infrastructure Panel

Professor Xu-Feng Huang
Co-Convenor, Developmental Neurobiology Panel (from 1 Jan 2007)

Professor Graham Johnston
Co-Convenor, Neurobiology Research Panel (until 31 Dec 2006)

Dr Carmel Loughland
Co-Convenor, Schizophrenia Research Infrastructure Panel. Employee Representative

Professor Patricia Michie
SRI Board Representative

Associate Professor Ulrich Schall
Co-Convenor, Cognition and Connectivity Panel

Professor Peter Schofield
Co-Convenor, Neurobiology Research Panel (until 31 Dec 2006), Developmental Neurobiology Panel representative (from 1 Jan 2007)

Professor Cyndi Shannon Weickert
Macquarie Group Foundation Chair of Schizophrenia Research; Co-Convenor, Developmental Neurobiology Panel (from 1 Jan 2007)

Cognition and Connectivity Research Panel

Dr Jo Badcock
University of Western Australia

Associate Professor Amanda Baker
University of Newcastle

Associate Professor Michael Breakspear
University of New South Wales (until 31 Dec 2006)

Dr Bill Budd
University of Newcastle (until 31 Dec 2006)

Dr Linda Campbell
University of Newcastle (until 31 Dec 2006)

Professor Vaughan Carr
SRI Scientific Director

Dr Martin Cohen
University of Newcastle

Professor Max Coltheart
Macquarie University

Mr Gavin Cooper
SRI System Administrator

Dr Pritha Das
SRI Senior Research Officer

Mr Daren Draganic
SRI Research Manager

Ms Liesl Duffy
SRI Research Coordinator (from 5 Mar 2007)

Dr Allison Fox
University of Western Australia (until 31 Dec 2006)

Dr Ross Fulham
University of Newcastle (until 31 Dec 2006)

Dr Melissa Green
University of NSW (Co-Convenor from 1 Jan 2007)

Dr Anthony Harris
Westmead Hospital

Dr Julie Henry
University of New South Wales (from 15 Jun 2007)

Professor Graham Johnston
University of Sydney (from 1 Jan 2007)

Dr Frini Karayanidis
University of Newcastle

Dr Robyn Langdon
Macquarie University

Dr Carmel Loughland
SRI Senior Research Fellow

Dr Gin Malhi
Royal North Shore Hospital

Mr Damien Mannion
SRI Research Assistant (until 31 Dec 2006)

Dr Pamela Marsh
Macquarie University (from 1 Feb 2007)

Ms Kathryn McCabe
SRI Research Assistant

Professor Patricia Michie
University of Newcastle

Mr Paul Rasser
SRI Senior Research Officer

Dr Tamara Russell
Macquarie University (until 31 Aug 2007)

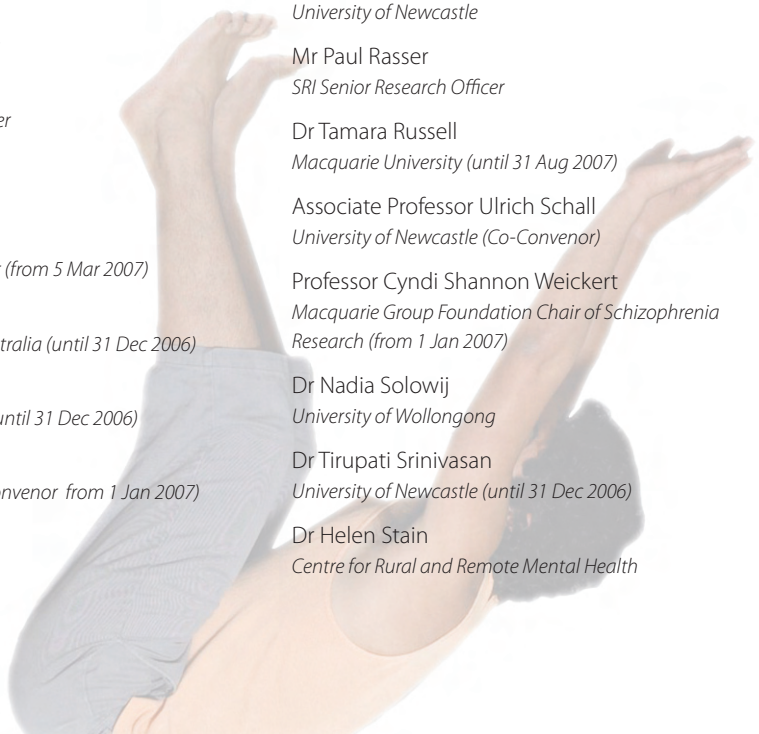
Associate Professor Ulrich Schall
University of Newcastle (Co-Convenor)

Professor Cyndi Shannon Weickert
Macquarie Group Foundation Chair of Schizophrenia Research (from 1 Jan 2007)

Dr Nadia Solowij
University of Wollongong

Dr Tirupati Srinivasan
University of Newcastle (until 31 Dec 2006)

Dr Helen Stain
Centre for Rural and Remote Mental Health



Assistant Professor Paul Thompson
University of California Los Angeles (until 31 Dec 2006)

Dr Juanita Todd
University of Newcastle (until 31 Dec 2006)

Dr Thomas Weickert
Prince of Wales Medical Research Institute (from 1 Jan 2007)

Dr Thomas Whitford
Westmead Hospital (until 31 Dec 2006)

Associate Professor Lea Williams
Westmead Hospital

Developmental Neurobiology Research Panel

Dr Jonathon Arnold
University of Sydney

Dr Nikola Bowden
University of Newcastle (from 1 Jan 2007)

Dr Murray Cairns
SRI Senior Research Officer

Ms Emily Cappas
SRI Research Assistant (from 5 Feb 2007)

Professor Vaughan Carr
SRI Scientific Director

Associate Professor Loris Chahl
University of Newcastle (until 31 Dec 2006)

Dr Albert Chetcuti
SRI Research Officer

Dr Mary Collins
University of Sydney (until 31 Dec 2006)

Dr Irina Dedova
SRI Senior Research Officer

Dr Chao Deng
University of Wollongong

Mr Daren Draganic
SRI Research Manager

Ms Liesl Duffy
SRI Research Coordinator

Professor Clive Harper
University of Sydney (until 31 Dec 2006)

Dr Jasmine Henderson
University of Sydney (until 31 Dec 2006)

Associate Professor Herbert Herzog
The Garvan Institute of Medical Research

Dr Tina Hinton
University of Sydney

Professor Xu-Feng Huang
University of Wollongong (Co-Convenor from 1 Jan 2007)

Professor Graham Johnston
University of Sydney (Co-Convenor until 31 Dec 2006)

Dr Tim Karl
SRI Senior Research Officer (until 30 Jun 2007)

Associate Professor Izuru Matsumoto
University of Sydney (until 30 Jun 2007)

Professor David Pow
University of Newcastle

Professor Peter Schofield
Prince of Wales Medical Research Institute (Co-Convenor until 31 Dec 2006)

Professor Rodney Scott
Hunter Area Pathology Service

Professor Cyndi Shannon Weickert
Macquarie Group Foundation Chair of Schizophrenia Research (Co-Convenor from 1 Jan 2007)

Dr Sinthuja Sivagnanasundaram
SRI Senior Research Officer (until 30 Jun 2007)

Dr Yean Yeow Tan
SRI Research Officer (until 30 Mar 2007)

Dr Paul Tooney
University of Newcastle

Dr Bryce Vissel
The Garvan Institute of Medical Research

Dr Katerina Zavitsanou
Australia Nuclear Science and Technology Organisation

Schizophrenia Research Infrastructure Panel

Ms Lisa Azizi
SRI Clinical Assessment Officer (until 23 Dec 2006)

Professor Vaughan Carr
SRI Scientific Director

Dr Irina Dedova
SRI TRC Coordinator/Senior Research Officer

Dr Marcus Doebrich
University of Newcastle (from 1 January 2007)

Mr Daren Draganic
SRI Research Manager

Dr Irne Du Plessis
ASRB Research Fellow (from 8 Jan to 30 Jun 2007)

Ms Liesl Duffy
SRI Research Coordinator (from 5 Mar 2007)

Associate Professor Jo Duflou
Department of Forensic Medicine

Ms Cheryl Filippich
ASRB Technical Officer (from 1 Dec 2006)

Ms Therese Garrick
University of Sydney

Professor Clive Harper
University of Sydney (Co-Convenor)

Dr Anthony Harris
Westmead Hospital (until 31 Dec 2006)

Ms Julie Houston
ASRB Clinical Assessment Officer (from 5 Feb 2007)

Ms Sarah Howell
University of Western Australia (from 1 Jan 2007)

Ms Gali Lawrence
SRI Clinical Assessment Officer (until 21 Jul 2006)

Mr Terry Lewin
University of Newcastle

Ms Yen Lim
ASRB Clinical Assessment Officer

Dr Carmel Loughland
SRI Senior Research Fellow / ASRB Manager (Co-Convenor)

Associate Professor Izuru Matsumoto
University of Sydney (until 31 Dec 2006)

Dr Kelly Mouat
ASRB Clinical Assessment Officer (from 10 Jan 2007)

Ms Sacha Pauly
ASRB Clinical Assessment Officer (from 18 Jun 2007)

Prof Rodney Scott
Hunter Area Pathology Service

Dr Marc Seal
Melbourne Neuropsychiatry Centre (from 1 Jan 2007)

Ms Donna Sheedy
University of Sydney (until 31 Dec 2006)

Dr Latha Srinivasan
SRI Clinical Assessment Officer (until 30 Jun 2007)

Ms Antonia Stuart
ASRB Clinical Assessment Officer (from 4 Jun 2007)

Ms Nina Sundqvist
SRI Clinical Liaison Officer

Dr Paul Tooney
University of Newcastle

Ms Melissa Tooney
ASRB Technical Officer (from 14 January 2007)

Dr Thomas Weickert
Prince of Wales Medical Research Institute (from 1 Jan 2007)

Ms Rebecca Wilson
ASRB Clinical Assessment Officer (from 28 May 2007)

Publications

The following publications were supported by the Institute via direct funding and/or infrastructure support.

PUBLISHED

Andresen R, Caputi P, Oades L. Stages of recovery instrument: development of a measure of recovery from serious mental illness. *Australian and New Zealand Journal of Psychiatry* 2006; 40: 972-980.

Baker A, Richmond R, Haile M, Lewin T, Carr V, Taylor R, Constable P, Jansons S, Wilhelm K, Moeller-Saxone. Characteristics of smokers with a psychotic illness and implications for smoking interventions. *Psychiatry Research* 2007; 150: 141-152.

Baker A, Richmond R, Haile M, Lewin T, Carr V, Taylor R, Jansons S, Wilhelm K. A randomized controlled trial of a smoking cessation intervention among people with a psychotic disorder. *American Journal of Psychiatry* 2006; 163: 1934-1942.

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Bowden N, Scott R, Tooney P. Altered expression of regulator of G-protein signalling 4 (RGS4) mRNA in the superior temporal gyrus in schizophrenia. *Schizophrenia Research* 2007; 89: 165-168.

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Chahl L. Tachykinins and neuropsychiatric disorders. *Current Drug Targets* 2006; 7: 993-1003.

Clark D, Dedova I, Cordwell S, Matsumoto I. Altered proteins of the anterior cingulate cortex white matter proteome in schizophrenia. *Proteomics - Clinical Applications* 2007; 1: 157-166.

Das P, Kemp A, Flynn G, Harris A, Liddell B, Whitford T, Peduto A, Gordon E, Williams L. Functional disconnections in the direct and indirect amygdala pathways for fear processing in schizophrenia. *Schizophrenia Research* 2007; 90: 284-294.

Deng C, Weston-Green K, Han M, Huang XF. Olanzapine treatment decreases the density of muscarinic M2 receptors in the dorsal vagal complex in rats. *Progress in Neuro-Psychopharmacology & Biological Psychiatry* 2007; 31: 915-920.

Draganic D, Catts S, Carr V. The Neuroscience Institute of Schizophrenia and Allied Disorders (NISAD): 10 years of Australia's first virtual research institute. *Australian and New Zealand Journal of Psychiatry* 2007; 41: 78-88.

du Bois T, Huang XF. Early brain development disruption from NMDA receptor hypofunction: relevance to schizophrenia. *Brain Research Reviews* 2007; 53: 260-270.

Felmingham K, Kemp A, Williams L, Das P, Hughes G, Peduto A, Bryant R. Changes in anterior cingulate and amygdala after cognitive behavior therapy of post-traumatic stress disorder. *Psychological Science* 2007; 18: 127-129.

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Huang XF, Han M, Huang X, Zavitsanou K, Deng C. Olanzapine differentially affects 5-HT2A and 5-HT2C receptor mRNA expression in the rat brain. *Behavioural Brain Research* 2006; 171: 355-362.

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Nicholson R, Karayanidis F, Davies A, Michie P. Components of task set reconfiguration: differential effects of switch-to and switch-away cues. *Brain Research* 2006; 1121: 160-176.

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Skilbeck K, O'Reilly J, Johnston G, Hinton T. The effects of antipsychotic drugs on GABAA receptor binding depend on period of drug treatment and binding site examined. *Schizophrenia Research* 2007; 90: 76-80.

Solowij N, Michie P. Cannabis and cognitive dysfunction: parallels with endophenotypes of schizophrenia? *Journal of Psychiatry and Neuroscience* 2007; 32: 30-52.

Weidenhofer J, Yip J, Zavitsanou K, Huang XF, Chahl L, Tooney P. Immunohistochemical localisation of the NK1 receptor in the human amygdala: preliminary investigation in schizophrenia. *Progress in Neuropsychopharmacology and Biological Psychiatry* 2006; 30: 1313-1321.

Wheeler D, Harper C. Localised reductions in gyrification in the posterior cingulate: schizophrenia and controls. *Progress in Neuropsychopharmacology and Biological Psychiatry* 2007; 31: 319-327.

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Whitford T, Grieve S, Farrow T, Gomes L, Brennan J, Harris A, Gordon E, Williams L. Progressive grey matter atrophy over the first 2-3 years of illness in first-episode schizophrenia: A tensor-based morphometry study. *Neuroimage* 2006; 32: 511-519.

Williams L, Das P, Liddell B, Kemp A, Rennie C, Gordon E. Mode of functional connectivity in amygdala pathways dissociates level of awareness for innate signals of fear. *Journal of Neuroscience* 2006; 26: 9264-9271.

Williams L, Das P, Liddell B, Olivieri G, Peduto A, Harris A. Fronto-limbic and autonomic disjunctions to negative emotion distinguish schizophrenia subtypes. *Psychiatry Research: Neuroimaging* 2007; 155: 29-44.

Zavitsanou K, Nguyen K, Han M, Katsifis A, Huang XF. Effects of typical and atypical antipsychotic drugs on rat brain muscarinic receptors. *Neurochemical Research* 2007; 32: 525-532.

IN PRESS

Alexander K, Dedova I, Harper C, Matsumoto I. Proteome analysis of the dorsolateral prefrontal region from healthy individuals. *Neurochemistry International.*

Bhindi R, Fahmy R, Lowe H, Chesterman C, Dass C, Cairns M, Saravolac E, Sun L-Q, Khachigian L. Brothers in arms: DNAzymes, siRNA and the emerging wave of small molecule nucleic acid-based gene silencing strategies. *American Journal of Pathology.*

Carroll A, Wong J, Cairns M. Designs and antiviral activity of gene-based drugs. *Communicating Current Research and Educational Topics and Trends in Applied Microbiology.*

Chahl L. TRP's: Links to schizophrenia? *Biochimica et Biophysica Acta.*

Green M, Waldron J, Simpson I, Coltheart M. Visual processing of social context during mental state perception in schizophrenia. *Journal of Psychiatry and Neuroscience.*

Han M, Newell K, Zavitsanou K, Deng C, Huang XF. Effects of antipsychotic medication on muscarinic M1 receptor mRNA expression in the rat brain. *Journal of Neuroscience Research.*

Henry J, Green M, de Lucia A, Restuccia C, McDonald S, O'Donnell M. Emotion dysregulation in schizophrenia: reduced amplification of emotional expression is associated with emotional blunting. *Schizophrenia Research*.

Henry J, Rendell P, Kliegel M, Altgassen M. Prospective memory in schizophrenia: Primary or secondary impairment? *Schizophrenia Research.*

Karl T, Duffy L, Scimone A, Harvey R, Schofield P. Altered motor activity, exploration, and anxiety in heterozygous neuregulin 1 mutant mice: implications for understanding schizophrenia. *Genes Brain Behaviour.*

Kemp A, Felmingham K, Das P, Hughes G, Peduto A, Bryant R, Williams L. The influence of comorbid depression on fear in posttraumatic stress disorder: an fMRI study. *Psychiatry Research: Neuroimaging.*

McKay R, Langdon R, Coltheart M. Jumping to delusions? Paranoia, probabilistic reasoning and need for closure. *Cognitive Neuropsychiatry.*

Newell K, Zavitsanou K, Huang XF. Short and long term changes in NMDA receptor binding in mouse brain following chronic phencyclidine treatment. *Journal of Neural Transmission.*

Paulik G, Badcock J, Maybery M. Poor intentional inhibition in individuals predisposed to hallucinations. *Cognitive Neuropsychiatry.*

Rahardjo G, Huang XF, Tan YY, Deng C. Decreased plasma PYY accompanied by an elevated PYY and Y2 receptor binding sites in the medulla oblongata of diet-induced obese mice. *Endocrinology.*

Russell T, Green M. The neuropsychology of social cognition: implications for psychiatric disorders. In Wood S, Allen N, Pantelis C (eds), *The Neuropsychology of Mental Illness.* UK: Cambridge University Press.

Shannon Weickert C, Rothmond D, Hyde T, Kleinman J, Straub R. Reduced dysbindin (DTNBP1) mRNA in hippocampus of patients with schizophrenia. *Schizophrenia Research.*

Sivagnanasundaram S, Crosset B, Dedova I, Cordwell S, Matsumoto I. Abnormal pathways in the genu of the corpus callosum in schizophrenia pathogenesis: a proteome study. *Proteomics: Clinical Applications.*

Todd J, Michie P, Schall U, Karayanidis F, Yabe H, Naatanen R. Deviant matters: duration, frequency and intensity deviants reveal different patterns of mismatch negativity reduction in early and late schizophrenia. *Biological Psychiatry.*

Yucel M, Lubman D, Solowij N, Brewer W. Neurobiological and neuropsychological pathways into substance use and addictive behaviour. (Chapter) in Wood S, Allen N, Pantelis C (eds), *The Neuropsychology of Mental Illness.* UK: Cambridge University Press.

Research Grants

Grants Administered by the Institute

The following grants were awarded and administered by the Institute:

Carr V, Draganic D. The Australian Schizophrenia Research Bank. Perpetual Trustees (Patrick Brennan Trust and Baxter Charitable Trust), 2007-2008 ($50,000).

Carr V, Loughland C, Schall U, Scott R, Jablensky A, Mowry B, Michie P, Catts S, Henskens F, Pantelis C. Clinical and neuropsychological assessment instruments for the Australian Schizophrenia Research Bank. NHMRC Equipment Grant, 2006 ($7,592).

Dedova I, Garrick T, Matsumoto I, Harper C. Identifying the causes of antipsychotic drug-induced parkinsonism: in search of better treatments for schizophrenia. Rebecca Cooper Medical Research Foundation, 2007 ($10,500).

Karl T. The transmembrane domain neuregulin 1 mutant mouse: a valuable tool for schizophrenia research? Ian Potter Foundation Travel Grant, 2007 ($1,500).

Willcox D, Draganic D, Loughland C, Carr V. Australian Schizophrenia Research Bank. The Pratt Foundation, 2007-2012 ($1,500,000).

Grants Administered by Institute Scientist's Host Institutions

The following grants were awarded to Institute researchers and administered by their host institutions. Institute infrastructure support played a key role in the award of this funding:

Cairns M, Tooney P, Scott R. Investigation of miRNA's in schizophrenia. University of Newcastle Pilot Grant, 2006-2007 ($20,000).

Cairns M. Post transcriptional gene silencing in schizophrenia. NARSAD Young Investigator Award, 2007-2008 ($73,000).

Campbell L. Functional brain imaging of prepulse inhibition in 22q11.2 deletion syndrome (22qDS). NHMRC Australian Training Research Fellowship, 2007-2010 ($134,500).

Chetcuti A, Schofield P. Characterisation of schizophrenia associated genes using a model of antipsychotic drug action. UNSW Early Career Researcher Grant, 2007 ($32,250).

Dedova I, Garrick T, Harper C. Human brain bank and donor programs for biomedical research into schizophrenia. Rebecca Cooper Medical Research Foundation, 2007 ($17,300).

Deng C. Antipsychotic drug-induced weight gain and expression of cholecystokinin receptors in the brainstem of rats. University of Wollongong Health & Behavioural Science Small Grant, 2007 ($12,500).

du Bois T. Brain development disruption from PCP causes behavioural deficits in the forced swim test in later life. Australasian Schizophrenia Conference Travel Award, 2006 ($500).

Jin J, Aisbett J, Schall U, Luo S, Rasser P, Regan B. Improving Alzheimers disease diagnosis by analysing brain tissue using pathology/radiology informatics. CSIRO Flagship Project, 2006-2007 ($110,000).

Karl T. Knockout mice for NPY and its various receptor subtypes potential new animal models for mental illnesses. The Bill Ritchie Postdoctoral Research Fellowship, 2007-2010 ($300,000).

Loughland C. Early Career Award. Hunter Medical Research Institute, 2006-2007 ($10,000).

Loughland C. Eyelink II Eye Tracker Equipment. University of Newcastle School of Medicine & Public Health Research Infrastructure Grant, 2006 ($70,000).

Loughland C. OU-2500 Hydraulic Chair. University of Newcastle, 2007 ($7,000).

Michie P, Schall U, Stain H, Carr V. Predictors of transition to psychosis in an 'at-risk' population: a pilot study. University of Newcastle Strategic Pilot Grant, 2006-2008 ($20,000).

Newell K. Cognitive behavioural changes induced by a double hit during brain development: Implications for schizophrenia. University of Wollongong Health and Behavioural Sciences Early Career Research Grant, 2007 ($2,285).

Schall U (On behalf of: Brain Imaging Research Group at the PRC Brain & Mental Health). Upgrade of visual stimulus delivery facilities of new MRI scanner at John Hunter Hospital. University of Newcastle, 2007 ($79,000).

Schall U, Campbell L. An investigation of the precursors of psychosis in 22q11.2 deletion syndrome. Hunter Medical Research Institute Postdoctoral Fellowship, 2006-2009 ($300,000).

Solowij N. Cannabis use, stress and fatty acids. University of Wollongong Health and Behavioural Sciences /Illawara Institute for Mental Health Collaborative Research Small Grant, 2006 ($4,000).

Solowij N. Learning and memory deficits in cannabis users: neural substrates of strategy utilisation. University of Wollongong Research Council NHMRC Near Miss Grant, 2006 ($15,000).

Solowij N, Seal M, Lubman D, McGuire P. Quantifying the neurocognitive impact of cannabis across the life span: the evolution of memory deficits. NHMRC Project Grant, 2007-2009 ($497,250).

Zavitsanou K. In vitro and in vivo imaging of cannabinoid-related targets. ANSTO Senior Research Fellowship, 2007-2009 ($450,000).

Research Students

DEGREES AWARDED

The Institute supported the following students who were awarded higher degrees:

Doctor of Philosophy

Dr Nikola Bowden
University of Newcastle, 2006

Dr Nathan Clunas
University of New South Wales, 2007

Dr Kelly Newell
University of Wollongong, 2007

Dr Rebecca Nicholson
University of Newcastle, 2006

Dr Sonja Schleimer
University of Sydney, 2006

Honours

Ms Natalie Beveridge
University of Newcastle, 2006

Ms Nicole Caixeiro
University of Sydney, 2006

Mr Adam Carroll
University of Newcastle, 2006

(Hons graduates cont.)

Ms Julijana Eftimovska
University of Wollongong, 2006

Ms Ching-Wen Hsu
University of Wollongong, 2006

Ms Maryam Nesvaderani
University of Sydney, 2006

Mr David Van der Weyde
University of Newcastle, 2006

Ms Katrina Weston
University of Wollongong, 2006

Summer Student Scholars

Mr Adam Carroll
University of Newcastle

Ms Amy Dawson
University of Wollongong

Ms Madeleine DeVille
University of Newcastle

Mr Scott McGreal
Macquarie University

Mr Aditya Vyas
University of Sydney

Information on Directors

Vaughan Carr

Executive Director
Chief Executive Officer, SRI; Professor of Psychiatry, University of Newcastle; Director, Centre for Brain and Mental Health Research, University of Newcastle; Past President, Australasian Society for Psychiatric Research.
Board Member since 2004

Stanley Victor Catts

Non-Executive Director
Founding Chair of SRI (formerly NISAD) 1995-1999; Professor of Community Psychiatry, University of Queensland, and Royal Brisbane and Women's Hospital; Fellow Royal Australian and New Zealand College of Psychiatrists; Member of SRI Scientific Advisory Committee.
Board Member since 1995. Chairman 1995 -1999

Matthew Cullen

Deputy Chairman, Non-Executive Director
Co-President of McKesson Asia-Pacific Pty Ltd and Visiting Medical Officer St Vincent's Hospital Sydney; Fellow Royal Australian and New Zealand College of Psychiatrists; Member Australian Institute of Company Directors, and Associate Fellow Australian College of Health Service Executives. Previously Member NSW Mental Health Review Tribunal and Board Member Schizophrenia Fellowship of NSW.
Board Member since 2004

Peter Dempsey

Non-Executive Director
Director, Monadelphous Ltd, advisor to a range of private companies; formerly Chief Executive Officer Baulderstone Hornibrook Group.
Board member since 2001, Chairman 2003 to 2006.
Resigned from Board 29 Nov 2006.

Sam Lipski AM

Non-Executive Director
Chief Executive of The Pratt Foundation. President of the State Library of Victoria 2000 - 2006; former columnist for the Melbourne Age, The Sydney Morning Herald, The Australian and The Bulletin; former Executive Editor of Quadrant.
Board member since July 2007.

Peter James Maher

Chairman, Non-Executive Director
Group Head of Macquarie Bank Ltd's Financial Services Group. Current Chairman of Macquarie Equities, board member of Macquarie Investment Management Ltd and board member of the Investment & Financial Services Association. General Manager of the Marketing Group, Westpac from April 1997 to October 2000, prior to 2000 General Manager at DB Breweries.
Board member since 2003.

Janet McDonald

Non-Executive Director
Advisory Council of Caner Australia appointed 2006. Chair, National Breast Cancer Board 2003-2006: Member since 1997. Member Drug Utilisation Sub-Committee since 2002.
Board Member since 2005.
Resigned from Board 9 May 2007.

Rita Mallia

Non-Executive Director
Senior Legal Officer / Co-ordinator for Construction Forestry Mining Energy Union, formerly Workers Compensation Officer; Director of the Asbestos Diseased Research Foundation; Director of NSW Dust Disease Board; Member of Construction Industry Reference Group.
Board Member since 2003

Patricia Michie

Non-Executive Director
Pro-Vice Chancellor (Research), University of Newcastle; Professor of Psychology, School of Psychology, Faculty of Science and Information Technology University of Newcastle; Adjunct Professor in the School of Psychiatry & Clinical Neuroscience, University of Western Australia.
Board member since 2000.

Andrew Mohl

Non-Executive Director
Managing Director and Chief Executive Officer, AMP Limited since October 2002. Previous roles in AMP included Managing Director of AMP Financial Services and Managing Director, AMP Asset Management. Worked with ANZ for ten years including Group Chief Economist and Managing Director, ANZ Funds Management. Worked with Reserve Bank of Australia 1978-1986 including Deputy Head of Research. Chairman of the Investment and Financial Services Association 2001 and 2002.
Board member since 2002.

Irene Moss AO

Non-Executive Director
Previously Commissioner, Independent Commission Against Corruption (1999-2004); Ombudsman NSW (1995 - 1999); Magistrate (1994-1995); Federal Race Discrimination Commissioner, Human Rights and Equal Opportunity Commission (1986-1994); Officer in the General Division of the Order of Australia (AO) 1995.
Board member since 2005.

Trish Oakley

Company Secretary, Non-Executive Director
Associate Director, Elton Consulting, specialising in strategic communications. Formerly Director, Meridian Media; Chief of Staff, Andrew Refshauge's Office, NSW Government (1995-1999); Press Secretary and Political Strategist for Dr Refshauge as Deputy Leader of the Opposition (1990-1995); former Journalist, Australian Broadcasting Corporation.
Board member since 2001.

(Cont. overleaf)

Christos Pantelis

Non-Executive Director
Foundation Professor of Neuropsychiatry and Scientific Director of the Melbourne Neuropsychiatry Centre at The University of Melbourne and Melbourne Health; Honorary Principal Research Fellow, Howard Florey Institute and the Centre for Neuroscience Victoria; Board Member of the Mental Illness Fellowship of Victoria; Member of the Scientific Advisory Council of Neurosciences Victoria.
Board Member since 2004.

Michael Reid

Non-Executive Director
Adjunct Professor in the Faculty of Medicine at the University of Sydney and the Faculty of Public Administration at the University of Western Sydney; Former Director General of the Ministry for Science and Medical Research in New South Wales; Former Director General of Health in New South Wales; Former Director of the Policy and Practice Program at the George Institute for International Health, University of Sydney.
Board Member since 2006.

Alexandra Rivers

Non-Executive Director
Carer. Psychologist, Faculty of Education, University of Sydney until 2000; Member Guardianship Tribunal, NSW; Guardian ad Litern, Children's Court, NSW; Guardian ad Litern, Administrative Decisions Tribunal NSW; Vice President Schizophrenia Fellowship of NSW; Vice President, Aboriginal Education Council of NSW; Governing Committee Member Australian Consumers' Health Forum.
Board Member since 2003.

Christopher Rex

Non-Executive Director
Chief Operating Officer of Ramsay Health Care since 1995; Former General Manager of Macquarie Hospital Services.
Board member since 2006.

Cynthia Shannon Weickert

Non-Executive Director
Macquarie Group Foundation Chair of Schizophrenia Research. Formerly Unit Chief, MiNDS (Molecules in the Neurobiology and Development of Schizophrenia), Clinical Brain Disorders Branch, National Institutes of Health, 2004-2007; Senior Staff Fellow, NIH, NIMH, Clinical Brain Disorders Branch, April 1999-April 2004; Postdoctoral Intramural Research Training Award-NIH, NIMH Clinical Brain Disorders Branch, 1995-1999.
Board Member since 2007.

Deborah Willcox

Executive Director 2004 –2007
Director NSW Health Partnership project, formerly a Registered Nurse and Intensive Care Clinical Nurse Specialist. Completed a Diploma in Law with the Legal Practitioners Admission Board. A policy adviser to the New South Wales Minister for Health and subsequent Chief of Staff to the Deputy Premier, Minister for Planning, Minister for Housing and Minister for Aboriginal Affairs. Most recently, Solicitor (in training) with Abbott Tout Solicitors, Sydney in the area of employment and industrial relations law. Other interests, President Assistance Dogs Australia
Board Member since 2004.
Resigned from the Board 28 Feb 2007.

The abridged consolidated financial position accounts and financial performance for the year ended 30 June 2007 have been prepared from audited financial statements, passed by the Board of Directors, who are responsible for the presentation of those financial statements and the information they contain. For a better understanding of the scope of the audit by KPMG, this report should be read in conjunction with KPMG's report on the unabridged financial statements. This report may be obtained from:

Schizophrenia Research Institute
384 Victoria Street
Darlinghurst NSW 2010
Ph: (02) 9295 8407

Financial Performance for the year ended 30 June 2007:

Income	**2007**	**2006**
Fundraising	772,785	785,524
External grant income	2,598,988	1,520,803
Sundry income	82,635	29,707
Total	3,454,408	2,336,034
Less Expenses		
Research	2,689,372	1,727,044
Marketing & Fundraising	506,536	494,710
Administration	251,777	322,189
Total	3,447,685	2,543,943
Net Surplus (loss)	6,723	(207,909)
Opening retained earnings	763,876	971,785
Transfer to retained earnings	11,520	–
Closing retained earnings	782,119	763,876
Retained earnings	782,119	763,876

Grants, Partnerships, Sponsorships, Supporters

Government

Government Partner

NSW Health

Government Support

National Health and Medical Research Council

NSW Office of Science and Medical Research

Parliamentary Friends of Schizophrenia

Grants, Foundations and Trusts

AMP Foundation

Australian Rotary Health Research Foundation

Baxter Charitable Foundation

Ian Potter Foundation

Macquarie Group Foundation

NARSAD Research (USA)

Paint a Rainbow Foundation

Patrick Brennan Trust

Perpetual Trustees

The Pratt Foundation

Rebecca L Cooper Medical Research Foundation

Ron & Peggy Bell Family Foundation

Thyne Reid Charitable Trust

Individual Sponsors

Mrs Margarete Ainsworth

Mr Peter Hunt

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Australand Holdings Ltd

ASX-Reuters Charity Foundation

Baulderstone Hornibrook

Construction Forestry Mining and Energy Union (CFMEU)

Investment and Financial Services Association (IFSA)

Janssen-Cilag Pty Ltd

Leighton Holdings

Lundbeck Australia Pty Ltd

Paynter Dixon

Ramsay Health Care

Corporate Supporters

Bovis Lend Lease

Bradcorp Holdings Pty Ltd

Coverforce

Ernst & Young

Hawker Britton

Initiative Media Australia

InterContinental Sydney

Martin Place Chambers

MBF Health

McKesson Asia Pacific Pty Ltd

Medibank Private

Payce Consolidated

Pricewaterhouse Coopers

Schweizer Kobras

SMF Recruitment

St George Bank

Tony Bleasdale & Associates

University of Newcastle

Workplace Giving Programs

ABN AMRO

Deutsche Bank

Insurance Australia Group

Wollongong City Council

AMP Foundation

Pro Bono Partnerships

AMP Limited

Australian Public Affairs

Black Dog Communications

Chubb Insurance Company of Australia

Ernst & Young

KPMG Audit and Risk Advisory Services

McKesson Asia Pacific Pty Ltd

Ogilvy PR Health

Plush Films

Singleton Ogilvy & Mather

Community Support

ARAFMI Cowra Branch

ARAFMI

Charities Aid Foundation (CAF)

Lions Club of Kiama Inc

Mental Illness Fellowship of Australia Inc

Schizophrenia Fellowship of NSW

Dedications and In Memoriam

Dr Robin Haig

Mohamed Nasr

Private Supporters

Ms Lee Burnett

Mr Lewis Cabot

Mr Tony cole

Mr & Mrs Ed & Diane Federman

Mr Robert Felton

Mr & Mrs Jack & Judy Gibson

Mr David Handley

Mr Ian Hemmings

Mr Thomas Henley

Mr & Mrs Peter & Barbara Hoadley

(Cont. overleaf)

Mr Abraham James
Mr Garry Keane
Ms Christine McLoughlin
Mrs Anne Mortimer
Ms Catherine Man
Ms Penny Plumbe
Mr & Mrs Bruce & Jenny Shepherd
Mr John Strutt
Mrs Josephine Strutt
Dr Peter Wakeford
Ms Carla Zampatti A.M
Mr John Webster Q.C.

Schizophrenia Research Society Members

Steve & Lee Alley
Vicki Austin
Karen Behrens
Darren Berry
Anne Black
Helen Blethyn
Dan Blyde
Kevin Bowering
Tony Bray
Brian Brooker
Don Bulgin
Kriselda Lee Burnett
Carly Burnham
Dr Charles Campbell
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Daniel McKeage
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Priscilla Veit
Steven Vidal
Muneesh Wadhwa
Joan Wakeford
Keith Warren
Jason West
Dick & Judy Whitehead
John Whitworth
Peter Williams
Margaret Willings
Richard Woodward

NISAD Friends

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D & B Dyer
Amanda Fazio
Alan & Joyce Jackson
Allan Johansson
April Kohlmann
Belinda Lewis
Abelia May
Vickie McFadden
Sandra Moriarty
Duncan & Mirrel Ropper
Michael Roper
Susan Sheather
Jean Spiers
Janet Sprigge
Gillian Sutherland

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Telstra Friends

Awesome Screenprinting

Government Partners

NSW Health

NSW Office of Science & Medical Research

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Tony Bilson
Peter Bloomfield
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Jonathan (Jono) Coleman
Andrew Denton
Khoa Do
David Egan
Ian Elliot
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Prof Geoff Gallop
Jack Gibson
Bill Granger
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David Handley
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Wendy McCarthy AO
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Lex Marinos OAM
Lyndey Milan
Allan Moss AO
Cameron Murphy
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Allan Pease
Wayne Pearce
Mikey Robins
Jane Rutter
Cheryl Salisbury
Naomi Simson
Prof Cyndi Shannon Weickert
John Symond AM
Maria Venuti AM
Dr Robyn Williams AM
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Cocktails & Consciousness 2006

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Supported by

National Institute of Dramatic Art (NIDA)

ArtsACT

The Street Theatre

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Prof Vaughan Carr

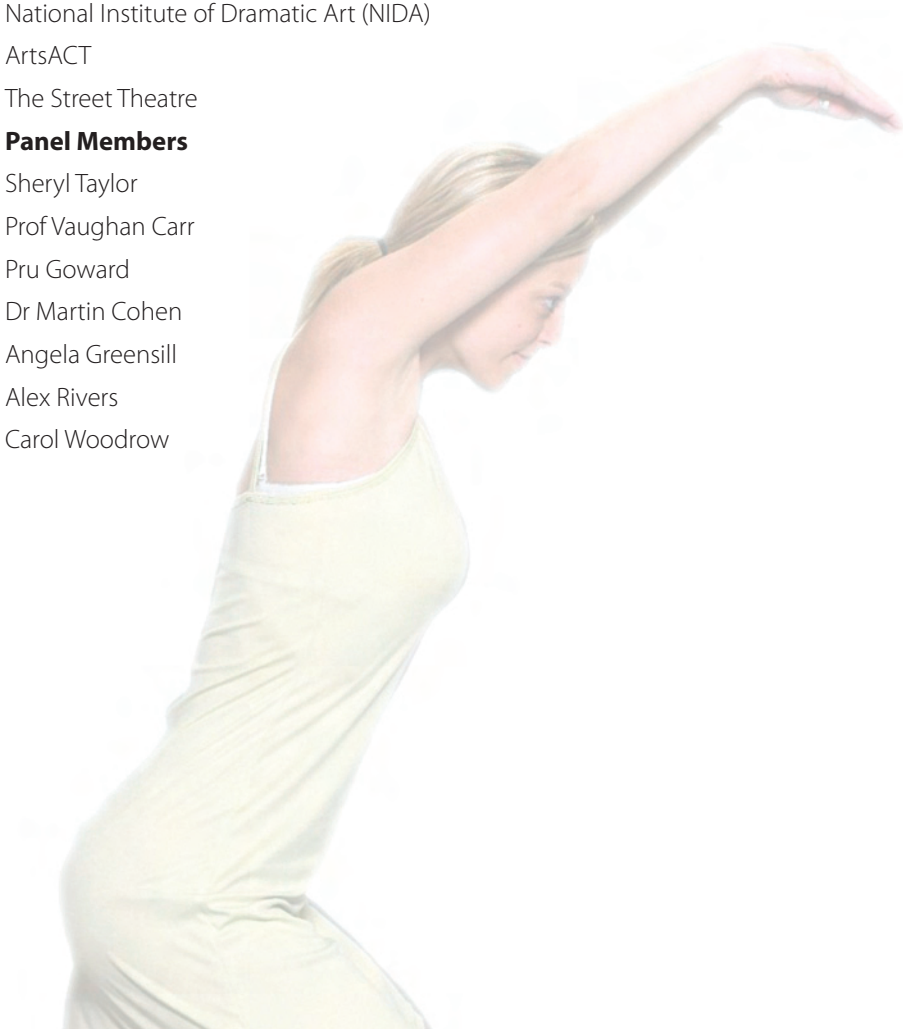
Pru Goward

Dr Martin Cohen

Angela Greensill

Alex Rivers

Carol Woodrow



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Website: www.schizophreniaresearch.org.au