

# **Annual Report**

2014 / 2015

Transforming lives across the lifespan



Australian Government Department of Industry, Innovation and Science Business Cooperative Research Centres Programme

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# A unique whole of life approach will enhance the lives of millions living with autism.



# About Autism CRC



#### Vision

To transform the lives of people living with autism across their lifespan through end-user driven research.

### **Mission Statement**

To build a self-sustaining, collaborative venture that facilitates world-class research focused on diagnosis and best-practice lifetime interventions, underpinned by a commitment to inclusive research practices and ultimately enhancing the lives of those living with autism. The Cooperative Research Centre for Living with Autism (Autism CRC) is the world's first national, cooperative research effort focused on autism. We are taking a whole-of-life approach to autism focusing on diagnosis, education and adult life.

Autism is amongst the most complex, prevalent and heritable of all neurodevelopmental conditions, affecting at least 1 in 100 people. There has been a 25-fold increase in the number of diagnoses in the past 30 years. A recent Murdoch Children's Research Institute study indicates that 1.5% of all 10 and 11 year olds have an autism diagnosis, compared to 2.5% of four and five year olds \*.

It is a lifelong condition with estimated annual support costs to Australia alone potentially exceeding \$7 billion.

\* Randall, M., Sciberras, E., Brignell, A., Ihsen, E., Efron, D., Dissanayake, C., and Williams, K. Autism spectrum disorder: Presentation and prevalence in a nationally representative Australian sample. *Australian & New Zealand Journal* of *Psychiatry, August 2015, 1 – 11.* 



### **Objectives**

Autism CRC's three core research programs support our whole-of-life approach to autism, focusing on improving diagnosis, educational outcomes and participation of adults on the spectrum in society.

#### **Research Program 1**

**Program 1** aims to harness existing knowledge of autism to ensure earlier and more accurate identification and diagnosis, and use breakthroughs in biological research together with behavioural analysis, to identify subtypes of autism and the most effective interventions for these.

#### Research Program 2

**Program 2** aims to provide appropriate educational environments and programs that work together to optimise students' social, behavioural and academic development, and equip teachers to enhance performance and to manage complex behaviours.

#### **Research Program 3**

**Program 3** aims to enhance opportunities for people on the autism spectrum to successfully transition to post school life, participate in higher education, further training and employment, and experience improved health and wellbeing.

#### **Our end-users**

As a core tenet of its philosophy, Autism CRC engages with end-users at all levels to ensure that the research priorities and findings are grounded in user needs, and have the greatest chance of translation and utilisation.

The end-user environment is comprised of three major groups.

- Individuals on the autism spectrum and their families or carers, who are the ultimate end-users of the outcomes of the research conducted by Autism CRC. Given that autism is a lifelong condition, the impact on families and carers is both long term and pervasive.
- Professionals who provide advice, assessment and intervention for individuals on the autism spectrum (paediatricians, general practitioners, psychiatrists, community nurses, early childhood educators, teachers, psychologists, occupational therapists and speech therapists). These professionals work across the public, not-for-profit and private sectors.
- Service providers that employ professionals to provide services to individuals on the autism spectrum and their families. These include peak bodies, such as the autism associations in each state; private providers; state government departments of education, health and disability; children's hospitals; and health service districts and practices.

Autism CRC research findings will be made available to all service organisations to optimise their impact, utility and translation into policy and practice.

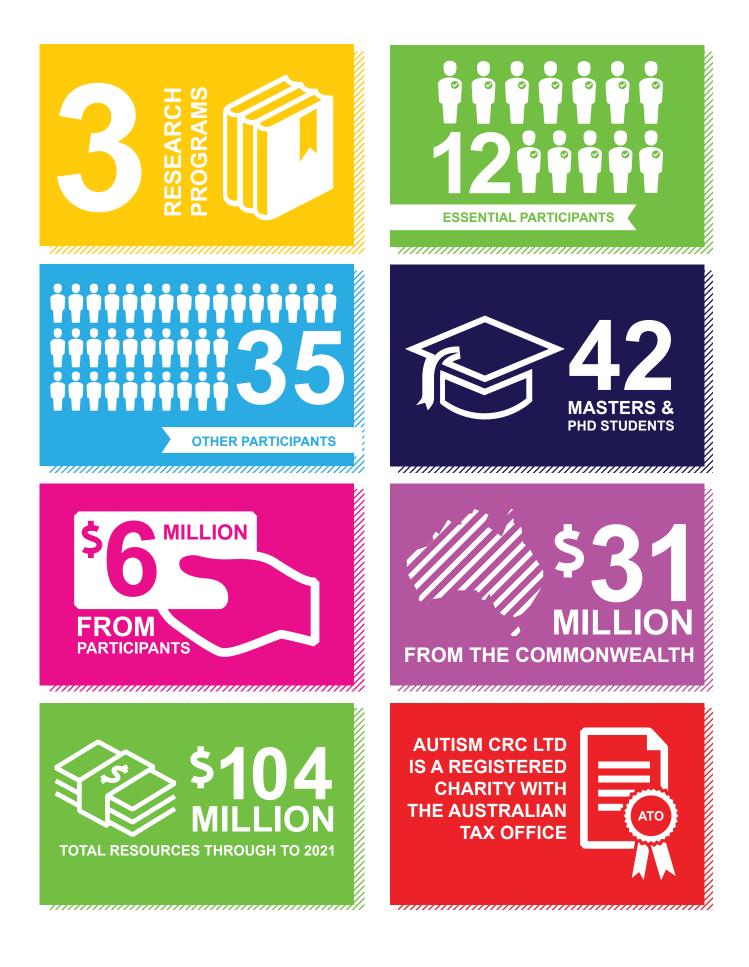
In addition to participation in its research projects, Autism CRC seeks to involve end-users in all aspects of its operations, such as advisory groups for its programs, and CRC policy and program development.

Through the outcomes of its research and its participation in the autism community, Autism CRC also aims to inform the policy debate in Australia relating to education, therapy service provision, health, employment and disability support services for individuals and carers.

Finally, both the autism community and the general Australian public stand to benefit directly and indirectly from the outcomes of the research conducted by Autism CRC, thereby fulfilling the objective of embracing inclusion and diversity. Greater participation in education, employment and society in general will deliver significant social and economic outcomes, as well as improved health and wellbeing.

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# Eight Year Overview





If the first year of the Autism CRC was one of careful planning and building the structure for our research to commence, then this year has been the one when the starting gun has truly been fired and the participants are powering along, extending themselves to seize the many opportunities our unique collaboration has created.



As you read through this report, you will see the breadth of discovery and connection that has already been established through the mechanism of the CRC program. Our research is happening across Australia, from micro-projects working with individuals and small groups, to some of the largest studies ever conducted in autism in Australia; from project teams that have already reported on findings, to the commencement of longitudinal studies that will hopefully live on for many years adding to the growing understanding and appreciation of people with autism in our community.

It is fair to say that this year's achievements are more than delivering on our dreams. As we enter our third year, we have thirty-two projects under contract and a further ten approved for contract, moving us towards the objectives for our three core programs. Fifteen of these projects got underway in 2014/15, and three others were completed. In our education program, fifteen PhD scholarships have been approved, thirteen of these during 2014/15. The progress of our research and education programs, detailed in this report, is most pleasing.

Equally as pleasing is the level of engagement of Autism CRC, its researchers and its scholars with our end-user CRC Participants and the broader autism community. As the first national cooperative research program focused on autism across the lifespan, Autism CRC continues to attract interest and engagement in our program from individuals and organisations at regional, state and national levels, as well as internationally. Our commitment to a more cooperative and inclusive framework for the conduct and translation of research is helped enormously through the direct links between those doing the research and those who will work with and benefit from the findings. This extended reach to the professionals, paraprofessionals, educators, service providers, policy makers and families grows stronger with each project that is commissioned.

Further, the links we are establishing with the real experts in autism, those with the lived experience, have been an important focus of our establishment period. There is much more that we hope to do in this area, but we are already seeing the benefits of



mandating that every project is informed by the voice of people on the autism spectrum and ensuring that key autism organisations and self-advocacy networks are a central part of our network.

In the next year, we are looking to further develop our world leading inclusive practices work with further presentations and publications, and in particular through the inaugural Autism Peer Research Academy which we hope will foster the co-production of research through every stage of the research and translation cycle.

The excitement that the board, staff and researchers at Autism CRC shared at the commencement of our work plan has only increased with time. The managed expansion of our footprint has enabled new skilled people to join our team and to share our passion for transforming lives through cutting edge and practical research. There is much to look forward to in the year ahead and beyond.

On behalf of the Board and the other members of the Autism CRC team, our thanks go to all those who have contributed to our activities in the past year. We look forward to working further with you all in developing and translating evidence-based programs, policies and practices that truly transform the lives of those living with autism across the lifespan.

Judy M Brewer Chair

Andrew Davis Chief Executive Officer

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# Highlights 2014/2015



### **1.1 Research and Education Program**

- A total of ten projects were approved in the 2015 Investment Round, bringing the total number of projects to forty-two.
  - Program 1 "A Better Start through Better Diagnosis" had two projects approved in the 2015 Investment Round, adding to the eleven approved in the previous two rounds.
  - Program 2 "Enhancing Teaching and Learning" had four projects approved in the 2015 Investment Round, adding to the twelve approved in the previous two rounds.
  - Program 3 "Finding a Place in Society" had four projects approved in the 2015 Investment Round, adding to the nine approved in the previous two rounds.

- Three projects have been completed Project 1.003RC "Genetic Screening of Autism (Phase 1)", Project 3.017RC "Optimisation of Recruitment" and Project 3.031RI "Career Pathways Recommender System".
- Of the participants engaged in our research program in 2014/15, 33 were end-users and 15 were small and medium enterprises (SMEs).
- Nine PhD positions were approved, bringing the total number of PhD scholars to fifteen.
- Six new publications were accepted.
- Twenty conference papers and posters were presented.



# Research Program 1 DIAGNOSIS

#### **Research Progress**

- The Australian-first Autism CRC Biobank has been established.
- 400+ primary healthcare professionals have been trained in a behavioural surveillance tool to enable earlier diagnosis of autism.
- A family support package is in development for families at the time of diagnosis.
- A research project aiming to identify homogeneous subgroups of children on the autism spectrum is underway to assist in more targeted and more effective early intervention.
- The Graduate Certificate in Autism Diagnosis has commenced.
- A comprehensive survey of 100 clinicians to establish a baseline of current diagnostic assessment processes for autism has been undertaken.



## Research Program 2 EDUCATION

#### **Research Progress**

- A six-year study following children on the spectrum and identifying the pathways to academic and social success at school is underway.
- Projects to provide an evidencebase to enhance the classroom environment, including the effect of improved acoustics and strategies for

helping children transition between tasks, are underway.

- A website is being produced to assist all students in the classroom to develop better writing strategies.
- A range of social-emotional interventions are being developed

to help all students recognise and regulate their emotions and deal with bullying.

 A school connectedness program has been developed and will be evaluated to support schools to develop a more inclusive culture.



## Research Program 3 ADULTHOOD

#### **Research Progress**

- Two landmark four-year longitudinal studies have been launched and are actively recruiting. The first is focusing on the transition from school into postschool life and the second on adults over 25 years of age.
- One completed project identified the most effective methods of recruitment and retention of adults on the spectrum for autism research.
- Two tools have been developed and are being evaluated in clinical trials to assist in career planning and successful long term employment.
- A range of evidence-based interventions (eg. mentoring at university, exploring digital media) are being developed for young adults on the spectrum to assist them to confidently engage in social

relationships, tertiary education and community activities.

 The Health Hub has been launched on the Autism CRC website providing access to tools, strategies and techniques to enhance the health and wellbeing of adults on the spectrum.

# Highlights 2014/2015



### **1.2 Key Achievements**

#### The First Participant Day and Scholar's Day

In December 2014, Autism CRC hosted the first Participant Day and Scholars' Day in Melbourne. More than 70 people attended these events, which featured updates from our three research programs and progress from the CRC's first year in operation.

#### **Australia Day Honour**

Professor Sylvia Rodger, Autism CRC Director of Research and Education, was named as a Member of the Order of Australia in the 2015 Australia Day Honours list. The citation recognised her significant service to medical education in the field of occupational therapy and to community health as a clinician working with autism in children.

#### The Inaugural Directors' Art Prize

Autism CRC called for artists on the spectrum to participate in the Inaugural Directors' Art Prize portraying 'autism across the lifespan'. We received artwork from across Australia with the prize going to Connor McMahan. The prize money was donated by the Autism CRC Board and was used by Connor to purchase an iPad when he started high school in 2015.

#### **DSS Contracts to Fund Transition Study**

Autism CRC secured two research contracts through the Department of Social Services. The first project is examining diagnostic practices for autism across Australia. The second will investigate the most effective interventions for children transitioning into primary school.

#### The Social Skills Training Institute

Social Skills Training Pty Ltd (SST) was established as a wholly-owned subsidiary of Autism CRC to commercialise the social and behavioural skills training program, The Secret Agent Society, and future program developments. In 2014/15, SST generated \$539,000 in revenue, which included \$50,000 in exports.

# Launch of the Inclusive Research Practice Guides

The Australian-first Inclusive Practice Guides and Checklists for Autism Research were launched in December 2014. These guides were developed to assist researchers both within the CRC and around the world to engage with individuals on the spectrum in all stages of the research process.

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# Research Project Updates in Sydney, Melbourne and Brisbane

The Board held meetings in Sydney, Melbourne and Brisbane throughout the year incorporating research updates, visits to Participant organisations, and networking opportunities. These activities gave the Board and researchers the opportunity to see first-hand the progress across Programs and to engage with Participants.

#### **CRC Association Conference**

In May 2015, Autism CRC participated in the CRC Association Conference in Canberra. Two adults on the spectrum, Jeanette Purkis and Tori Haar, joined other Autism CRC representatives and met the Minister for Industry, the Hon Ian Macfarlane MP and helped to raise awareness of the work of Autism CRC.

# Australasian Society for Autism Research (ASfAR) Conference

Together with presentations by a number of CRC researchers, Autism CRC hosted a poster session at the ASfAR Conference in December. Megan Hatfield, a CRC PhD Scholar, received the highest rating for her PhD poster on the transition from school to adulthood.

#### **Battery World Scholarships**

Battery World chose Autism CRC as a recipient of a very generous donation allowing part scholarships to be offered to support clinicians or recent graduates to undertake the Graduate Certificate in Autism Diagnosis. Four clinicians were awarded the scholarship and commenced the Graduate Certificate in Semester 2 at the University of Western Australia.

#### Autism CRC Attended by Invitation:

- Policy Roundtable on Teacher Education to Support Students with Disability and Learning Difficulties (August 2014)
- Hon Kevin Andrews MP, Minister for Department of Social Services Round Table on Life Course, Transitions and Social Services (October, 2014)
- Human Rights Commission Roundtable on Australian Disability Policy Research and Direction (March 2015)
- DSS Disability Employment Framework Taskforce Forums and Meeting (May 2015)

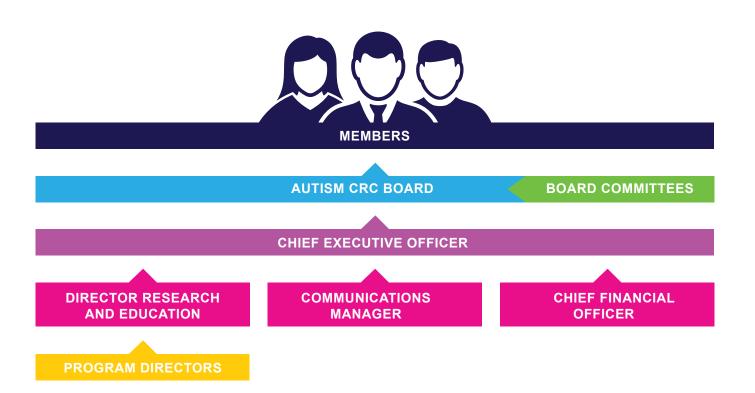
### 2.1 Structure

Autism CRC Ltd was established in March 2013 as a company limited by guarantee. The governance and management structure promote effective cooperation between the participants and end-users, which ensures translation-focused research and development.

This is achieved by:

- including significant industry and end-user representation on the Board of Autism CRC and its various committees, along with representatives of research participants;
- involving end-users directly in Autism CRC research and development as participants, enhancing project design and the applicability and uptake of outcomes; and
- engaging the three Program Directors heavily with end-users and in the management of Autism CRC activities.

#### **Organisation Chart**





## 2.2 Essential Participants

The Essential Participants in Autism CRC are:

























\*All Essential Participants are members of the Company except for the Queensland Department of Education and Training.

A full list of Participants in the Cooperative Research Centre for Living with Autism is given in Appendix 1.

# Structure and Governance

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Front (I-r) Andrew Davis (CEO), Judy Brewer (Chair), Robert van Barneveld (Deputy Chair), Andrew Borneman (CFO) Back (I-r) Carole Green, Garry Allison, Ian Harris, Adrian Ford, Paul Field, Scott Reading, Paul Vincent, Shirley Lanning Absent: Dr Vicki Pattemore (retired 27 July 2015).

### 2.3 Autism CRC Board

The Autism CRC Board is accountable to the Members of Autism CRC Ltd (the Company), Participants of the Cooperative Research Centre for Living with Autism and the Australian Government for the operations and affairs of the CRC. The Board is responsible for decisions relating to Autism CRC Ltd strategy, the investment of funds, the research program, the translation of research outcomes to application, and the overall management of the CRC.

The present Board consists of:

- an Independent Chair;
- five other Independent Directors, including the Deputy Chair;
- two Nominee Directors representing end-user Participants; and
- three Nominee Directors representing research
   Participants.

A number of the Directors are also active members of the broader Australian autism community.

The Board met nine times during the reporting period.

The Board members bring skills and experience across a range of disciplines of direct relevance to the goals and operations of Autism CRC Ltd, including:





#### Ms Judy Brewer Independent Chair

BBus (Public Admin), GDipTax, GAICD

Judy is a regular speaker and writer on issues relating to families caring for family members with special needs. As a parent of a young adult on the autism spectrum, she has been actively involved in a number of autism and carer organisations and is a life member of Autism Spectrum Australia, convenor of the Autism Future Leaders program and founder of Autism Aspergers Advocacy Australia. In 2013, she was a recipient of the Asia Pacific Autism Award

Alongside these organisational roles, Judy has also been appointed to a range of Federal and State Government Committees, including as Chair of the National Family Carers Voice, panel member for the 2004 Review of the Disability Carer Allowance, the 2005 Ministerial Advisory Group on the reforms to Disability Trusts, the Victorian Government Autism State Plan Working Party 2007/08 and the DEEWR Advisory Committee for the Positive Partnerships program.

Before autism became such a key part of Judy's life, she worked for many years in tertiary education and political research with both State and Federal Parliamentarians. She has been a Board member or Chair of numerous organisations, including philanthropic foundations. Judy lives on a farm in north east Victoria and is the owner/manager of Grossotto Poll Herefords.

#### Prof Robert van Barneveld Independent Deputy Chair

BAgrSc(Hon), PhD, RAnNutr, FAICD

Robert is an experienced director of small and large businesses, not-for-profits, peak bodies and ASX Top 300 companies which comprise partnerships, proprietary limited companies, incorporated associations, companies limited by guarantee and publically listed entities. He has extensive experience in corporate governance, research commercialisation, research management and government liaison at state and federal levels.

He is a past President of Autism Queensland Inc. and is familiar with the needs of families and carers of people with autism. His daughter was initially diagnosed with autism but later re-diagnosed with Rett Syndrome.

He is a Director of the Pork CRC Ltd, has led three successful CRC bids, including the Autism CRC bid, has been involved in the establishment and transition of CRCs, and has worked as a researcher within the Pork, Aquaculture and Aquafin CRCs.

Robert is an Adjunct Professor within the School of Environmental and Rural Science at the University of New England and has received numerous presentation, excellence, and research awards.

#### Prof Garry Allison Nominee Director

BEd(Hons), BAppSc (Physio)(Hons), MEd, PhD, GAICD.

Garry has experience in motor control and learning during recovery and rehabilitation of individuals with neurological injury and elite athletes.

He has research and practical experience with inter-professional health care and educational delivery through his teaching degree and subsequently health systems research and funded research.

He is currently Dean, Research and Graduate Studies at Curtin University Faculty of Health Sciences, and Professor of Neuroscience and Trauma Physiotherapy. These positions enabled him to develop extensive experience in research management, RHD student issues, research consultancy management, and partnerships with external stakeholders, and contractual obligations.

He has significant experience with strategy, risk and governance both within the tertiary sector for research conduct and within professional associations and government bodies.

#### Mr Paul Field Independent Director

BA(Hons), MA, FAICD

Paul brings skills and experience in the management and commercialisation of life science research, including research into biomarkers and therapeutic candidates for neurological disorders and intellectual disabilities.

He is currently Senior Investment Specialist at the Australian Trade Commission (Austrade), facilitating foreign direct investment into the advanced manufacturing and scientific sectors in Australia.

He was previously Executive Chairman of Bio-Link, a business development company which worked with biotech companies, research institutes and universities to facilitate international licensing deals. Paul has also consulted to charities and medical research institutes on issues of strategy and corporate governance. Before Bio-Link, he held senior management positions at ATP Innovations, the University of Technology, Sydney (UTS), Cellabs Diagnostics and Itochu Corporation.

#### Mr Adrian Ford Nominee Director

BSocStu, FAICD

Adrian is the Chief Executive Officer and Company Secretary of Autism Spectrum Australia (Aspect), Australia's largest national service provider focusing on people with autism and their families. This provides him with first-hand experience of the needs, issues, concerns and research priorities of people with autism and their families/carers.

He has extensive experience with not-for-profit boards, governance structures and strategic planning, risk management, finances, HR and policy framework. He has worked with governments at all levels and autism organisations, and developed partnerships with disparate organisations with a common interest and commitment.

He chairs the national consortium that auspices Positive Partnerships, a program that supports school aged students with autism by providing professional training to teachers and workshops to parents to better support their child in school.

Adrian is also a Director and the current Chair of the Australian Advisory Board on ASD (AABASD), the national peak body for autism in Australia. He has experience with the roll out of the National Disability Insurance Scheme (NDIS) in NSW.

#### Ms Carole Green Independent Director

BAppSc (Computing), GDipCorpGov, GDipEd, MIT, MBA, Certificate of Teaching, GAICD

Carole has held positions within a number of Cooperative Research Centres including Strategic Manager, Wound Management Innovation CRC, as well as Chief Operating Officer, Construction Innovation CRC. She has also been Company Secretary within CRC contexts.

She has experience in establishment, strategic direction, implementation of processes and systems within CRCs, and exploitation of research outputs. Carole also has more than 15 years' experience working with tertiary education, government, and industry across science, health, education, business, and IT.

She has a wealth of experience in complex environments with multiple stakeholders, establishing and operating business structures, quality assurance and risk management.



#### Mr Ian Harris Nominee Director

BSc(Agriculture), GDipAdmin, MEd, GAICD

Ian has specific expertise in IP commercialisation, research and development management, risk analysis and corporate governance, as well as broad experience with ARC Centres of Excellence and CRCs, including membership of advisory boards.

He is currently Director Research Partnerships within the Office of the Deputy Vice Chancellor Research at The University of Queensland. In this role he has developed strategic research partnerships with industry and government, and has responsibility for the University's corporate engagement with CRCs, and management of research legal services.

His previous appointments include Chief Operating Officer and Chief Executive Officer in ARC Centres and a start-up company within UniQuest. He has held a number of Directorships and Executive Officer roles at various universities and spent three years managing a university's aid program in the Philippines.

#### Dr Shirley Lanning Independent Director

BSc(Biological Sciences)(Hons 1), PhD(Microbiology), FAICD

Shirley has over 20 years' senior management experience in commercial and not-for-profit organisations in UK and Australia, focusing on corporate affairs, business development, marketing and communications, and general management in the area of science and technology.

She has served as a non-executive Board Director of a number of not-for-profit organisations, including NanoVentures Australia, Nanotechnology Victoria, the Pig Research and Development Corporation and the Australian Biotechnology Association (now AusBiotech), and as a Member of Government Advisory Councils, including the Federal Government's Advisory Council on Intellectual Property and the Victorian Cancer Agency Consultative Council. She was the inaugural Executive Director of the UK Biolndustry Association.

Dr Lanning has been involved with the CRC Program for many years and has served as Federal Government Visitor to the CRC for Viticulture and the CRC for Cellular Growth Factors. She is a Fellow of the Australian Institute of Company Directors.

#### Dr Vicki Pattemore Nominee Director

BSc(Hons 1), Certificate Small Business Management, PhD(Terrestrial Ecology), GAICD

Vicki brings extensive experience in research management and policy, major bid development, risk analysis and governance, and government liaison to the Autism CRC Board.

She has coordinated Griffith University's involvement in 13 CRCs and has helped develop a number of CRC bids. Vicki has also served on the boards of several CRCs, including Tropical Environment and Management and eWater Ltd, as well as the Australian Canopy Crane Company Ltd. She was the inaugural Chair of the Participants' Forum for the Desert Knowledge CRC.

She has experience with CRC establishment and the setting up of governance policies and processes, and works regularly in this area for both incorporated and unincorporated research collaborations.

Dr Pattemore retired from the Autism CRC Board effective 27 July, 2015.

#### Mr Scott Reading Nominee Director

MCom, MBus(Logistics Management), MAICD

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Scott is a Founding Director of the AEIOU Foundation for Children with Autism where he is currently an active board member. He has been an advocate for children with epilepsy and has been a management representative for Nutrimetics charity E3.

He understands first-hand the daily challenges that autism brings through his son William, who has been diagnosed with low functioning autism.

Scott has over 21 years in senior management and leadership roles in the retail, media, direct selling and small business sectors. He has held senior management roles with national and international companies, including Coles Myer, Gordon & Gotch, Sara Lee, Tupperware and Nutrimetics.

He has experience in sales, marketing, finance, operations, IT, events management, CRM and fundraising initiatives. Scott also brings extensive experience in securing funding and developing key government relationships to the Autism CRC.

#### Mr Paul Vincent Independent Director

BBus (Acc), FCA, GAICD

Paul is a Chartered Accountant and has been a Director of Vincents Chartered Accountants since 1989. He has extensive experience in commercial litigation, providing evidence for criminal matters (fraud, family law property settlements), professional negligence actions, corporate governance and directors' duty breaches. Paul also mediates and arbitrates financial disputes.

His accounting experience covers audit, insolvency, management, taxation and general accounting.

He is a regular presenter at conferences across Australia on a range of forensic accounting topics including, commercial dispute resolution, quantifying damages in commercial disputes, fraud detection and prevention and proceeds of crime related topics.

Directors have been in office since the beginning of the financial period to the date of this report unless otherwise stated.



Researchers from Program 2, Education, were part of a large group of Brisbane-based researchers who presented to the Autism CRC Board at the Queensland Brain Institute in March.

(I-r) Assoc Prof Kate Sofronoff (UQ), Prof Jacqui Roberts (Griffith), Ms Jacky den Houting (PhD scholar), Mrs Anne Ozdowska (PhD scholar), Mr Jay Hobbs (Brisbane Catholic Education).



The Autism CRC Board travelled to Sydney in August 2014 to meet with CRC researchers and hear about the progress across a number of projects. (I-r) Dr Kitty Foley (UNSW), Prof Julian Trollor (UNSW), Dr Debra Costley (Aspect), Ms Judy Brewer, Prof Valsamma Eapen (UNSW), Dr Irena Voineagu (UNSW).



### 2.4 Board Committees

The Board has established a number of Committees to assist in the execution of its duties and to allow detailed consideration of various issues. All matters determined by these Committees are submitted to the Board of Autism CRC Ltd for approval.

#### **Research and Development Committee:**

The Research and Development Committee is comprised of Essential Participant nominees and members appointed by the Board. The Committee provides a forum for consultation among the Essential Participants, a point of interaction between the Essential Participants and the Board, and guidance and recommendations to the Board in relation to research and development undertaken within the CRC.

During the reporting period, the Research and Development Committee met once and consisted of:

- Professor Robert van Barneveld (Chair);
- Professor Garry Allison;
- Mr Adrian Ford;
- Ms Penny Beeston (Autism Qld);
- Dr Jessica Paynter (AEIOU);
- Dr Debra Costley (ASPECT);
- Dr Sharon Mullins (Qld DETE);
- Professor James Semmens (Curtin University);
- Professor Jacqueline Roberts (Griffith University);
- Professor Cheryl Dissanayake (La Trobe University);
- Professor Michael McGuckin (Mater Medical Research Institute);
- Professor Wendy Patton (Queensland University of Technology);
- Professor Virginia Slaughter (University of Queensland);
- Professor Valsamma Eapen (University of New South Wales); and
- Professor Murray Mayberry (University of Western Australia).

Mr Andrew Davis (CEO), Professor Sylvia Rodger (Director of Research and Education), Professor Andrew Whitehouse (Program 1 Director), Professor Suzanne Carrington (Program 2 Director), Professor Torbjorn Falkmer (Program 3 Director), and Mrs Robyn Synnott (Committee Secretary) also attend Research and Development Committee meetings.

On 8 October 2014, responsibilities for the provision of oversight on intellectual property and commercialisation matters were assumed by the Research and Translation Executive. The Executive provides advice and reports on such matters, together with management of the research programs, to the Research and Development Committee and to the Board. The prior Commercialisation Committee ceased operating with the formation of the Research and Translation Executive.

# Remuneration, Nominations and Selection Committee:

The Remuneration, Nominations and Selection Committee assists the Board in fulfilling its corporate governance responsibilities in regard to:

- the selection and nomination of Directors to the Board;
- appointment and review of performance of the Chief Executive Officer (CEO), and overview of the Executive Team; and
- the system of remuneration and benefits for the Executive Team.

During the reporting period, the Remuneration, Nominations and Selection Committee met four times and consisted of:

- Ms Judy Brewer (Chair);
- Dr Vicki Pattemore (from February 2015);
- Dr Shirley Lanning;
- · Professor Robert van Barneveld; and
- Ms Carole Green (until February 2015),

with the CEO and CFO, as Secretary, in attendance.

#### Audit, Risk and Finance Committee:

The Audit, Risk and Finance Committee assists the Board in its oversight of the integrity of financial reporting, internal control structures, audit functions and also compliance and risk management systems relating to the finance and audit functions. This Committee ensures appropriate policies and procedures are in place to underpin best practice governance and to identify and manage corporate risk for the Company.

On 8 October 2014, the Audit, Risk and Finance Committee assumed the duties and responsibilities of the Governance and Risk Committee, with the latter Committee being disbanded.

During the reporting period, the Audit, Risk and Finance Committee met five times and consisted of:

- Mr Paul Vincent (Chair);
- Mr Ian Harris;
- Ms Carole Green; and
- Mr Scott Reading,

with the CEO and CFO, as Secretary, in attendance.

### 2.5 Autism CRC Management Team

Name	Role	Organisation
Mr Andrew Davis	Chief Executive Officer and Company Secretary	Autism CRC
Prof Sylvia Rodger	Director of Research and Education	Autism CRC
Ms Kristina Frawley	CFO and Company Secretary (to Feb 2015)	Autism CRC
Ms Janine Smith	Interim CFO (Feb – 30 June, 2015)	Seconded from Vincents Chartered Accountants
Prof Andrew Whitehouse	Program 1 Director	University of Western Australia
Prof Suzanne Carrington	Program 2 Director	Queensland University of Technology
Prof Torbjörn Falkmer	Program 3 Director	Curtin University

\*Mr Andrew Borneman commenced as CFO on 10 August, 2015.

#### **Management Committees**

#### **Research and Translation Executive**

The Research and Translation Executive provides strategic advice and oversight of the research programs, intellectual property management and commercialisation to the Board and the Research and Development Committee.

The Research and Translation Executive:

- provides oversight of the research project commissioning and investment process;
- reviews research project performance;
- reviews CRC research outcomes to identify new commercialisation opportunities;
- provides strategic direction on commercial activities and identifies opportunities for partnerships with the commercial sector; and
- makes recommendations in relation to the protection of intellectual property.

During the reporting period, The Research and Translation Executive met twice and consisted of:

- Professor Robert van Barneveld (Chair of Research and Development Committee);
- Mr Andrew Davis;
- Professor Andrew Whitehouse;
- Professor Suzanne Carrington;
- Professor Torbjorn Falkmer; and
- Professor Sylvia Rodger,

with Ms Robyn Synnott in attendance as Secretary.

#### **Biobank Operations Committee**

The Biobank Operations Committee oversees the management and collection of biological samples and clinical data at four sites in Perth, Melbourne, Sydney and Brisbane.

During the reporting period, The Biobank Operations Committee met eight times and consisted of:

- Professor Sylvia Rodger (Chair);
- Mr Andrew Davis;
- Professor Andrew Whitehouse;
- Professor Cheryl Dissanayake;
- Dr Paul Dawson;
- Professor Valsamma Eapen; and
- Dr Ramesh Narayanan,

with Ms Robyn Synnott in attendance as Secretary.

#### **Biobank Access Committee**

The Biobank Access Committee oversees and approves specific requests from internal and external researchers to access the bio-specimens and associated data.

During the reporting period, The Biobank Access Committee met six times and consisted of:

- Professor Sylvia Rodger (Chair);
- Ms Judy Brewer;
- Mr Andrew Davis;
- Professor Andrew Whitehouse;
- Ms Jacky den Houting; and
- Dr Nik Zeps,

with Ms Robyn Synnott in attendance as Secretary.

#### **Communications Management Committee**

The Communications Management Committee oversees the development, implementation and review of Autism CRC's communications strategy, supporting the delivery of the strategic and operational objectives of Autism CRC.

During the reporting period, the Communications Management Committee met two times and consisted of:

- Ms Judy Brewer;
- Dr Shirley Lanning;
- Mr Andrew Davis;
- Professor Sylvia Rodger; and
- Ms Tess Cosgrove

### 3.1 Research and Development

The Cooperative Research Centre for Living with Autism is undertaking three major research programs:

RESEARCH PROGRAM 1

A Better Start through Better Diagnosis

### RESEARCH PROGRAM 2

Enhancing Learning and Teaching

### RESEARCH PROGRAM 3

Finding a Place in Society



progress and developments in<br/>science and industry, ensuring that<br/>its investment in research projects<br/>takes account of such developments,<br/>incorporating changes in project<br/>design accordingly.

Autism CRC is on target to meet its

research outputs. To date, there have

been no major technical or scientific

progress towards these objectives.

impediments that would prevent

At the same time, Autism CRC

continues to assess research

#### Autism CRC invests in three types of research projects:

**Commissioned Projects** are those commissioned by the Board of Autism CRC Ltd to meet specific Commonwealth milestones, where the investment is large and feedback from the Project team occurs at Board level, rather than through the Research and Development Committee.

Strategic Projects relate to specific Autism CRC Ltd Milestones and must involve at least two, preferably more, CRC Participants, including end-users.

Innovation Projects provide seed funding for innovation consistent with the Autism CRC Ltd's overall objectives, with a maximum investment of \$50,000 and maximum term of one year. These projects seek creative and novel ideas that will assist in meeting CRC research objectives.

Strategic and Innovation research project proposals are reviewed by the Research and Development Committee after independent scientific review and assessment by the Research and Translation Executive, with recommendations made to the Board for approval.

Project progress, including assessment of project milestone performance, schedule, expenditure and risks, is monitored via a number of mechanisms, including:

- six monthly project milestone and project cash reporting and quarterly in-kind reporting;
- the Research and Development Committee oversight of project investments and progress;
- the Research and Translation Executive review of progress and investment priorities;
- the Director of Research and Education reporting to the Autism CRC Board on research project execution status, progress and exceptions; and
- regular meetings between the Director of Research and Education and Program Directors.

#### Research Program 1-A Better Start through Better Diagnosis



Program Director Professor Andrew Whitehouse BSc (Speech Pathology), PhD (Psychology).

This program focuses on improving the validity, precision, timeliness and reliability associated with the diagnosis of autism by combining advanced behavioural analysis (developmental surveillance) from an early age with novel and existing biological markers. The primary goal of Research Program 1 is to harness existing knowledge of autism behaviour, develop tools and improve training for end-users to accurately diagnose 50% of children with autism prior to their second birthday and over 70% by their third birthday. A secondary goal of Research Program 1 is to incorporate breakthroughs in biological research with existing behavioural and clinical observations to identify subtypes of autism and improve understanding of the most efficacious interventions that match these subtype profiles.

To date, including the 2013 and 2014 Investment Rounds, the following projects have commenced in Program 1.

#### **Program 1 Projects**

Project	Short Title	Years	Lead Investigator/Institution	Project Funds	In-Kind Value
Strategic:					
1.001RC	Program 1 Base Resources #	2013-16	Andrew Whitehouse / UWA Cheryl Dissanayake / LTU Valsamma Eapen / UNSW Honey Heussler / MMRI	\$2,057,500	\$4,095,500
1.002RC	Creation of Autism BioBank	2013-16	Andrew Whitehouse / UWA	\$151,700	\$750,757
1.003RC	Genetic Screening of ASD (Phase 1)*	2013-16	Charles Claudianos / UQ	\$537,076	\$1,845,430
1.004RC	Graduate Certificate	2013-15	Murray Mayberry / UWA	\$120,000	\$556,458
1.005RC	Developmental Surveillance SACS-R	2013-16	Cheryl Dissanyake / LTU	\$315,973	\$1,756,342
1.021RS	Diagnostic Practices and Reliability in Australia	2014-15	Lauren Taylor / UWA	\$92,998	\$490,600
1.022RS	Family Support Program	2014-16	Josephine Barbaro / LTU	\$54,141	\$172,935
1.023RS	ASD Subtype Project	2014-16	Valsamma Eapen / UNSW	\$480,453	\$3,399,847
Total Progra	am 1 Strategic			\$3,809,840	\$13,067,869
Innovation:					1
1.018RI	Validating Putative Autism Genes	2014-15	Brian Key / UQ	\$50,000	\$503,600
1.019RI	ASD Post Mortem Brain	2014-14	Irina Voineagu / UNSW	\$50,000	\$333,000
1.020RI	BrainsTorm Study	2014-15	Paul Dawson / MMRI	\$40,150	\$174,000
Total Progra	am 1 Innovation			\$140,150	\$1,010,600
Total Progra	am 1 Projects			\$3,949,990	\$14,078,469

# Base resources refers to postdoctoral fellows, research assistants in each of four sites who are working together on projects 1.002RC, 1.003RC, 1.005RC. \* Project completed



#### **Performance against activities**

**Output 1.1** A behavioural surveillance tool to enable correct diagnosis of at least 50% of children with ASD before 2 years and at least 70% by 3 years

The Social, Attention and Communication Surveillance-Revised (SACS-R) tool will be used by community-based, primary care professionals to identify children in need of further assessment for autism during their early years.

Project 1.005RC SACS-R project is well underway and is to date addressing this output with a key focus in Victoria. A PhD scholar has been appointed and a postdoctoral fellow is in place at La Trobe University with both having made significant progress to date. Milestone R.1.1.01 has been met with both the SACS-R training program content and the Family Support Package presented to and approved by Autism CRC. To date, training of 126 Maternal and Child Health Nurses in Victoria has resulted in more than 14,000 children being monitored between 12 - 42 months. Of the children referred in Victoria as being 'at risk' of ASD on the SACS-R, 81% meet criteria for autism. The remaining children have either a language and/or developmental delay. This partly meets Milestone R1.1.02 within the Victorian site. The process for data collection in Tasmania is currently being planned and, subject to further agreements with Tasmanian Health Services, will enable the Milestone R1.1.02 to be met in a second site.

Training of health and early childhood professionals has also been completed in NSW and QLD with over 300 community professionals having been trained in these states. Training in Tasmania is planned for September 2015 with approximately 200 professionals currently enrolled. This will complete Milestone R1.1.03 and U1.1.1.

The development and testing of a Family Support Package (FSP) (Project 1.022RS) is also progressing well. Initially, a hard copy version was developed which has now been translated into a website for the research trial. This Package (along with counselling) aims to help with resolution of parental anxiety and grief around the time of diagnosis of autism, to enhance parental wellbeing, and to increase their sense of competence and family coherence during and after the diagnostic process. The first aim is to investigate whether parental education and support including counselling during the period immediately following a child's diagnosis of autism improves parental resolution, decreases parental grief/stress, increases a sense of competence and contributes to family coherence. A further aim is to investigate whether children's outcomes are improved as a result of their parents' access to the FSP related to the ensuing outcomes for the parents. Focus groups with health professionals and parents to inform the content of the Family Support Package have been finalised. The FSP will be made available immediately to families in the trial however more general dissemination on the Connect Hub will occur once the Package has been evaluated and further revised.

In addition to these developments, Autism CRC has invested in a Project (1.021RS) to determine current diagnostic practices in Australia and how consistently diagnosticians establish an autism diagnosis. With joint funding from the Department of Social Services, Autism CRC researchers have undertaken a survey of current diagnostic practice nationally. To date, 100 practitioners have completed a very detailed electronic survey providing an overview of their current practices with respect to diagnosis. The data are currently being fully analysed, however, preliminary findings indicate the following.

- Respondents contributing to diagnoses were most likely to be psychologists, followed by speech pathologists and paediatricians.
- There is a discrepancy in length of waiting time in obtaining an autism diagnosis in regional/rural/remote areas of Australia compared to metropolitan areas although the difference was not statistically significant.
- The cost of assessment for diagnosis was very variable, with costs higher in the private vs public sector and significant discrepancies across Australian states with Western Australian diagnosticians charging significantly more than those in other states.
- Over the past 12 months, respondents completed a total of 6802 autism assessments (M = 68.71, range = 4-400). While 72.21% (range 22-100%) of these assessments resulted in a diagnosis on the autism spectrum, only 143 (2.1%) resulted in a Social Communication Disorder diagnosis with no significant differences between states.

A second stage will determine how consistently (reliably) diagnosticians provide an autism diagnosis based on a series of videotaped assessments of young children. These two stages will provide a baseline for later comparison regarding diagnostic practices in Australia and how they may have changed as a result of the initiatives implemented by the Autism CRC. **Output 1. 2** Integrated diagnostic protocol (IDPA) and ASD software analysis tool to enable better diagnosis of ASD and prediction of developing ASD.

The development of the protocol and autism software analysis tool will be based on the following process:

- collection of detailed behavioural and biological (genetic and biochemical) information on autism families from four states to form an Autism CRC Biobank;
- research into potential genetic and biochemical markers for ASD;
- development and refinement of the autism software analysis tools for predicting genetic risk for autism within individual genotypes; and
- development of IDPA by combining with SACS-R to provide a world-first approach for increasing the robustness (sensitivity, validity, specificity, reliability) of early autism diagnosis.

Two projects (Projects 1.002RC and 1.003RC) have been commissioned to address this output, and a third was approved with the 2015 investment round.

The Australian Autism Biobank Project (Project 1.002) has employed Postdoctoral staff and research assistants in each of four data collection sites. All behavioural/clinical data collection protocols, methods and processes have been developed and harmonised. In three of the four sites, extensive phenotypic (behavioural/clinical) data collection has commenced and in one site biological samples are being collected. The protocols for transportation of specimens to the central blood processing site at The University of Queensland (Queensland Brain Institute) have been developed and The ABB Wesley-St. Andrew's Research Institute Tissue Bank has been selected for long term biobanking.

The Biobank Operations and Biobank Access Committees continue to meet regularly to oversee the data collection processes, quality assurance, and management of the Autism CRC Biobank (Operations) and data access protocols and material transfer agreements (Access). Both committees report to the Board annually. The Access Committee has representation from an individual on the autism spectrum and an internationally recognised expert in biobanking to ensure both sets of expertise are incorporated. Data management services at the Wesley have been procured and researchers and staff at the sites have been finalising the data collection and upload procedures, data base, and data dictionary. This will enable the data and specimens to be stored and managed together. With respect to milestone R.1.2.01, participant recruitment has commenced in four sites and data collection for the Autism CRC Biobank is in progress at three of the four states (WA, Victoria, NSW) with Queensland ready to commence at the Lady Cilento Children's Hospital, which commenced operations late last year following the merger of Brisbane's two previous children's hospitals.

With respect to Genetic Screening Project 1.003RC Phase 1, two papers have been produced related to the AXAS™ tool in relation to Australian ASD specific data on gene variants that provide proof of principle validation of the use of AXAS<sup>™</sup> meeting Milestone U1.2.01. The first paper by An et al. (2014) found that the software could be used to understand the molecular basis of autism, helping to engage genetic screening data with hypothesis-driven biological paradigms. In the second, using high-density SNP array analysis with the Affymetrix CytoScan® system copy number variations (CNVs) were screened in 40 Australian families with a child on the autism spectrum. Twenty-four de novo CNVs and two CNVs inherited from parents with broader autism phenotypes were found (An et al, under review). Ten of these CNVs were found in genes previously identified in autism and are highly expressed during neurocortical brain development. While approximately 10% of autism cases may be attributed to CNVs, most other cases are caused by de novo genetic variations or rare inherited SNPs. It has become increasingly clear that there is a need to utilise multiple lines of evidence and 'omics' data in order to further characterise the range of DNA variations including CNVs that may contribute to the phenotypic spectrum of autism (An et al., under review).

With this work and this finding, supported by results of other international research into similar approaches, the Board of Autism CRC decided to review the genetic screening program at the end of Phase 1 of the Project 1.003 in light of contemporary research within the CRC and internationally, independent expert review of the CRC program to date, and genetic and technological advances. As a result Autism CRC has approved a new project, focusing on system genomics, contributing to our objective of earlier and more accurate diagnosis by deriving and validating systems genomicsbased predictors for autism and integrating these with a clinical diagnostic instrument based on behavioural surveillance.

The systems genomics project will include genome-wide SNP genotyping to identify children carrying de novo CNVs known to be associated with increased risk of autism and generate genomic profile risk scores based on results from the largest available genome-wide association studies (GWAS), along with DNA methylation profiling to derive preliminary methylation-based predictors of autism risk, and of environmental exposures relevant to autism. Profile risk scores will be analysed together with clinical variables to explore genetic heterogeneity in relation to autism subtypes. Additionally, two pilot studies will be undertaken to assess the predictive potential of case-control differences in gut microbiota and urine-based metabolites.

Output 1. 3 Output 1.3 Identification of biological subtypes of ASD.

Using the data from the six Autism Specific Early Leaning and Care Centres (ASELCCs), behavioural profiles will be matched with that of neurocognitive parameters and genotypes to develop homogeneous subtypes of autism.

The autism subtypes identified will be matched with the early intervention outcomes to ascertain the most efficacious interventions that yield the best outcome for each subtype profile. By following up cohort participants as they transition into school programs, it is possible to develop prognostic indicators of outcomes as they relate to each of the genotype, neurocognitive (endophenotype) and clinical (phenotype) profiles. The identification and validation of accurate subtypes of autism will expedite decision making about early intervention strategies.

The database for autism subtypes has been constructed (Milestone R.1.3.01) and ethical approval for data collection at sites was completed at the end of 2014. Data collection is now underway with entry data collected from children enrolled in the six ASELCCs across Australia (R.1.3.02). Both the entry and exit data and as well as neurocognitive data have been determined and protocols developed (meeting Milestone R 1.3.03). Exit data will be collected in December 2015 following the completion of one year of intervention and combined with neurocognitive data, the protocols of which are currently being piloted. Ethical clearance and the development of a protocol for genetic data collection is currently underway. Neuroimaging equipment was received in January 2015 and the equipment is being tested in readiness to begin data collection of neurocognitive data on a subgroup of 30 children. The neurocognitive data will be applied to the genotypic data produced through Output 1.2.

**Output 1. 4** Implementation of a Graduate Certificate for Autism Diagnosticians and education of 12 PhDs, 5 postdoctoral fellows and generation of 72 scholarly publications.

The Graduate Certificate in Autism Diagnosis (GCAD) (Project 1.004RC) has been developed at The University of Western Australia (UWA) with students completing two coursework units followed by a third unit that provides training in the Autism Diagnostic Observation Schedule (ADOS) and then a fourth practical placement unit. In tandem with UWA, the Autism CRC is exploring mechanisms for enabling practitioners who are students within this program to undertake placements in various sites across Australia that are associated with our extensive range of essential and other participant partners. The Program was advertised online by UWA from December 2014 (Milestone R 1.4.01). Online content for the first two courses has been developed (Milestone R 1.4.01) and further content is being developed and housed on the UWA learning management platform BlackBoard<sup>™</sup> for enrolled students.

The course will take its first intake in Semester 2 of 2015 at UWA. with national advertising having been directed at graduates with a degree in speech pathology, psychology or medicine. Eleven applications were received, nine were interviewed and seven were offered places to commence the program this year meeting Milestone R.1.4.02. Drawn from four states and territories, the successful applicants are practicing speech pathologists or psychologists, with three working in rural/remote settings and four in capital cities. A generous donation from Battery World franchisees across Australia has enabled Autism CRC to offer eight part scholarships over 2015 and 2016. Four have been offered in the first intake with two of these going to practitioners in rural /remote settings. The first year courses are being offered at UWA in Semester 2 2015 with seven places offered and six people taking up these offers (Milestone R.1.4.04).

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There was substantial additional interest from practitioners in completing the unit that provides ADOS training. Therefore, places will be provided in this unit for an additional nine practitioners, a group that includes psychiatrists, psychologists and speech pathologists. This enables Autism CRC to extend its reach in a continuing professional development capacity to health professionals who wish to further enhance their autism diagnostic capacity without undertaking a formal qualification. This CPD offering brings enrolment numbers in one course on the ADOS to twelve, approximating the hoped for 15 enrolments. It is intended that the certificate program will be reviewed at the end of 2015 and then offered in the first semester of 2016 and subsequent years. The switch to first semester in 2016 is aimed at attracting applications from students who graduate from their first degree in late 2015, increasing the likelihood of enrolments in future.

Three Post-Doctoral Fellows at UWA, La Trobe University and UNSW, four research assistants (one at each Biobank site) and one research associate, to support the Biobank data collection

as well as provide input into other Program 1 studies, have also been appointed meeting the staffing aspects of Milestone R1.4.03. With regard to PhD Scholars to date, three have commenced within Program 1, two less than anticipated (partially meeting the target of 5 described in Milestone R1.4.03). This is due to the change in direction of the genetics program as a result of the Phase 1 project findings (1.003RC), which had one PhD Scholar attached, and the change of sites for the SACS-R from Western Australia to Tasmania. Strategies are in place to engage PhD Scholars on both these projects in order to meet Milestone R1.4.03.

Five presentations have been given at conferences during the reporting period with three to be provided at the forthcoming APAC Conference (Brisbane 2015). One manuscript has been published on the AXAS<sup>™</sup> pilot work and a second has been submitted.

The following projects were considered by the Board in the 2015 Investment Round and approved in June 2015.

#### Program 1 Projects approved in 2015 Investment Round

Project	Short Title	Lead Investigator/Institution	Project Funds	In-Kind Value
Innovation:				
1.033RI	Brain Connectivity in ASD	Linda Richards / UQ	\$49,990	\$103,639
Total Program 1 Innovation				\$103,639
Total Program 1 Projects			\$49,990	\$103,639



#### **Program 2 - Enhancing Learning and Teaching**



#### Program Director Professor Suzanne Carrington DipTeach, BEd, MEd, PhD

Research Program 2 will enable educators, therapists, carers, families, and the general community to effectively and successfully respond to the unique learning needs of students on the autism spectrum. Identifying appropriate educational environments and programs will optimise students' social, behavioural and academic development, and equip teachers to enhance performance and to manage complex behaviours. Research Program 2 researchers are developing and testing evidence-based teaching strategies, techniques, tools and programs in mainstream classrooms to optimise the learning and educational environments for students on the autism spectrum.

To date, including the 2013 and 2014 Investment Rounds, the following projects have commenced in Program 2.

#### **Program 2 Projects**

Project	Short Title	Years	Lead Investigator/Institution	Project Funds	In-Kind Value	
Strategic:						
2.006RC	Program 2 Base Resources #	2013-17	Suzanne Carrington / QUT	\$480,000	\$992,000	
2.007RC	Trajectory Study	2013-16	Jacqueline Roberts / GU	\$408,162	\$2,555,688	
2.008RS	Secret Agent Society - Classroom Project	2015-18	Kate Sofronoff / UQ	\$145,924	\$1,767,500	
2.009RC	ASD Educational Needs Analysis	2013-15	Beth Saggers / QUT	\$40,000	\$295,000	
2.010RC	Overcoming Difficulties in Written Expression	2013-16	Jill Ashburner / AQ	\$176,684	\$1,467,116	
2.011RC	Helping Students Stay on Task and Move Between Tasks	2013-16	Jill Ashburner / AQ	\$164,684	\$1,479,516	
2.027RS	Early Years Behaviour Support	2014-17	Beth Saggers / QUT	\$522,756	\$2,372,454	
2.028RS	Improving Classroom Acoustics	2014-17	Jill Ashburner / AQ	\$340,051	\$1,298,949	
2.029RS	School Connectedness	2014-17	lan Shochet and Beth Saggers / QUT	\$504,384	\$2,077,500	
Total Program 2 Strategic				\$2,782,646	\$14,305,722	
Innovation:						
2.024RI	Emergent Literacy	2014-15	Marleen Westerveld / GU	\$49,746	\$108,282	
2.025RI	ASD, Anxiety and School Functioning	2014-14	Jeneva Ohan / UWA	\$49,920	\$293,685	
2.026RI	Robotics Social Clubs in Mainstream Schools	2014-15	Jay Hobbs / BCE	\$48,880	\$350,000	
Total Program 2 Innovation				\$148,546	\$751,967	
Total Progra	m 2 Projects			\$2,931,192	\$15,057,689	

# Base resources refers to the School Coordinator who is working across all Program 2 projects.

#### The Australian Educational Needs Analysis Project

The Australian Educational Needs Analysis Project (2.009 RC) was approved in the 2013 Investment Round and is almost completed. This project used a nationwide survey to obtain information from five stakeholder groups: school administrators; teachers and specialist support staff; ancillary support staff such as teacher aides; parents of students on the autism spectrum; and students on the spectrum. The Needs Analysis will help the Autism CRC research team to:

- gain a comprehensive profile of the educational support needs of students (5-16 years) with autism;
- identify the needs of educators, allied health professionals and parents in effectively supporting the educational needs and school connectedness of students with autism;
- describe the goals identified by parents, students, educators and allied health professionals that form the basis of intervention and support of students with autism within educational settings;
- identify and provide for the professional learning needs of educators, allied health professionals and parents in supporting the educational needs of students with autism; and
- develop resources, professional development and publications which will better address the needs of key stakeholders involved in supporting the educational needs of students on the spectrum.

In total, 1468 participants from every state of Australia completed on line surveys. The participants included 248 educators, 179 specialists, 107 students on the spectrum, and 934 parents. The survey was followed with qualitative interviews.

Educators, specialists and parents showed strong agreement in relation to the top four needs of students on the spectrum within educational contexts which had the most impact and needed the highest level of support in schools. These were social emotional, behavioural, communication and sensory, as well as academic/ learning needs. All participant groups were in agreement that the key factors influencing participation, engagement and learning of students on the spectrum in educational settings are anxiety, organising self and thoughts, rigidity to change, and attention to task. Students on the spectrum rated handwriting and coping with bullying and teasing equally as two of the most difficult tasks they had to manage at school. Researchers in this program aim to transform the capacity of school professionals and parents to effectively accommodate the needs of students on the autism spectrum at school. Three training packages will be generated for a wide range of end-users and disseminated on the Connect Hub.

#### Performance against activities

**Output 2.1** Evidence-based programs to optimise the learning environment ensuring successful social, behavioural and academic outcomes for students with ASD.

Consistent with the findings of the Educational Needs Analysis survey, research within Program 2 is focusing on the development and evaluation of:

- strategies to enhance students' capacity to process instructions, express knowledge (written expression), and engage in/transition between learning tasks;
- methods of transition between and within classrooms, and into and across the school;
- programs to facilitate students' transition between educational settings (primary to high school); and
- whole of class and whole of school social emotional programs.

In the 2013 and 2014 Investment Rounds, projects were approved and have commenced addressing written expression difficulties (2.010RC), transitioning between tasks (2.011RC), emergent literacy (2.024RI), robotics social clubs (2.026RI), behavioural support for challenging behaviours (2.027), classroom acoustics (2.028 RS), school connectedness (2.029RS) and anxiety (2.025RI). These relate to Stage 1 of the Classrooms of Excellence Projects (CoEP) (R2.1.2) with schools and classrooms identified for involvement and many already involved (R2.1.1). Information sharing and program development in the CoEP projects have been developed with teachers and school professionals and information about these projects shared at a number of state wide education meetings within and across school systems (R2.3.1)

# Some of the Classrooms of Excellence Projects are outlined below:

In collaboration with teachers and other educational professionals (2.010RC), a website and teacher guidelines have been developed on assessment and support of students on the autism spectrum who often have difficulty with written expression (handwriting and written construction). A software engineer has been engaged to work with a PhD Scholar (with a computer science background) to develop a website with three modules that will be used to instruct students in the use of Self-Regulated Strategy Development integrated with TextHelp<sup>™</sup>. The guidelines and the intervention are being trialled in selected classrooms in a range of educational systems in Queensland and other states and will be refined according to feedback. The website will be made available through the Connect Hub. SMEs Spectronics<sup>™</sup> and TextHelp<sup>™</sup> have provided significant in-kind support to enable the development of this website.

Project 2.011RS involves a PhD Scholar working with researchers and end-user organisations, Autism Queensland and Autism Spectrum Australia (Aspect), in providing strategies to assist children on the spectrum to transition between tasks. An information package has been developed to introduce mainstream classroom teachers to the concept of Structured Teaching. An action research approach is being used to work with teachers in a mainstream classroom to develop and test a number of strategies and tasks that can be used for the intervention trial which will proceed in Term 3, 2015. Information and feedback will be gathered from teachers on their implementation of these strategies and the prototype intervention will be piloted in more schools.

Emergent literacy was identified as an under-researched area in autism with limited understanding of how children on the spectrum develop literacy (Project 2.024 RI). The early literacy skills of 53 preschool children on the spectrum have been assessed using a battery of language, reading, comprehension, story recount, phonological, and literacy skills, including parent reading practices with children at home (via video tapes). The preliminary findings suggest that comprehension and story retelling skills are significantly impaired. Analysis of videotapes of reading to children at home will lead to the development of an intervention for parents (funded in the 2015 round). A paper has been submitted for review. A checklist for teachers to assist with identification of early literacy difficulties is under development. Significant interest from Brisbane City Council libraries has led to a partnership with Autism CRC researchers with the aim of a library-based roll out of literacy initiatives for this group of children and parents.

A Robotics Social Club Resource Kit/Manual for educators relating to the implementation of Robotics Social Clubs in mainstream schools is being developed through Project 2.026RI, a one year innovation project evaluating the social and academic outcomes for students on the spectrum and neurotypical students engaging in Robotics Clubs. This will incorporate elements that include classroom, whole school and system implementation to enable roll out in other schools as a result of the preliminary evaluation. Consistent with the CRC's philosophy of focusing on the strengths and interests of individuals on the spectrum, this project allows students to engage in a club based on a specific interest with others with similar interests. This approach is thought to support social networks and friendships, however, the impact on academics and ability to integrate learnings from the Robotics Club into the curriculum has not previously been researched. The Classroom Acoustics Project (2.028) has commenced and aims to compare the educational outcomes of students on the spectrum with those of their typically developing peers in classrooms with sound field amplification provided by Hear and Learn, an SME industry partner and Other Participant, and classrooms without sound field amplification. This project is currently recruiting a PhD Scholar. It is hypothesised that modifying the physical environment and amplifying the sound of the teacher's voice will improve learning outcomes for students on the spectrum as well as other students in the class with a range of learning needs.

**Output 2.2** Evidence-based tools and protocols for supporting students with ASD with high impact social, emotional and behavioural needs.

Research and development under this output is being conducted via three projects: Early Years Behaviour Support Project (EYBSP), School Connectedness Project, and Secret Agent Society (Whole of Classroom Program) (SAS-WC).

The first to commence EYBSP (Project 2.027RS), focuses on the development of innovative assessment tools, support protocols and technologies to enable social emotional wellbeing, academic progress, and behavioural regulation through the development of Tele-Classroom Consultation (TCC) approaches for regional teachers and students on the spectrum with emotional/ behavioural challenges. All primary and secondary ethics approvals have been gained and the team is in the process of obtaining ethics approval from school organisations involved in Queensland and New South Wales.

Appropriate technologies for the teleconsulting process have been identified using a commercially available product and a University of Queensland innovation eHAB<sup>™</sup> developed by Associate Professor Trevor Russell, one of the CRC Researchers (R2.2.3). Other Participant, iiNET, is also providing considerable in-kind through the provision of mobile technologies to schools identified in regional areas of NSW and Queensland. The multidisciplinary team is currently using results from the Australian Educational Needs Analysis to help inform the behavioural support needs and challenges in schools (R2.2.2 and R2.2.4). EYBSP tools and protocols are currently being identified and will be finalised once the needs of the student participants in the specific schools are identified (R2.2.5). Schools are currently being recruited in both New South Wales and Queensland and the PhD position has been advertised. Project 2.029RS, the School Connectedness Project, has commenced with the aim of promoting resilience and well-being in schools. School connectedness has been defined by Goodenow (1993) as "the extent to which students feel personally accepted, respected, included, and supported by others in the school social environment"<sup>1</sup>. School connectedness has been viewed as a protective factor that is correlated with important school outcomes. Working with the Resourceful Adolescents Program (RAP) for parents, teachers and adolescents, developed by Professor Ian Shochet at QUT, an adaptation for autism is being refined as a prototype for trial in 10 schools (R.2.2.19).

The School Connectedness Project has had primary ethics and all secondary ethics approved and is currently in the process of obtaining ethics approval from school organisations involved in Queensland, New South Wales and Western Australia. Recruitment of appropriate specific school settings within Queensland, New South Wales and Western Australia is also underway. Master of Psychology: Educational and Developmental students in Queensland have been trained in the Resourceful Adolescent Program (RAP) and RAP has been refined and tailored to more specifically meet the needs of students on the autism spectrum. Interview questions have been drafted for implementation in New South Wales and Western Australia rural and remote school communities to provide insights into how school connectedness and inclusion is perceived in urban as well as remote schools.

Anxiety is recognised as a major social emotional issue for children on the spectrum and this is being addressed in Project 2.025RI. Anxiety can lead to school refusal, distress at school, poor learning outcomes and difficulty with social interactions. An existing anxiety program "Cool Kids" has been augmented in this Project, with an additional teacher support component, and is being compared with the standard program. Clinical psychology students at the University of Western Australia have been trained to provide the program. Ten families have participated in the group program and a further 19 families screened for further group programs. The project is due for completion at the end of 2015. The Secret Agent Society Whole of Classroom Project (SAS-WC) (Project 2.008RC) is under development (R2.1.12) by Dr Renae Beaumont, however, this has been slower than expected as Dr Beaumont was involved with supporting the establishment of Social Skills Training Pty Ltd (SST), the whollyowned subsidiary of Autism CRC, formed to commercialise the SAS program. This commenced commercial operations during the year, generating \$539,000 in revenue from the delivery of SAS small group program training and resources. SST will be responsible for commercialising SAS-WC once developed and trialled. Hence, the training of teachers in delivery of SAS-WC will not occur until early 2016 (R2.1.13, R2.3.1, U2.1.1). Teachers have been consulted about the delivery of the program and its utilisation in classrooms.

**Output 2.3** Three training packages to increase skilled, confident teachers and support personnel capable of educating a spectrum of ASD students.

This output includes the development of training packages that will initially be trialled by professionals (eg, Secret Agent Society-Whole Classroom) in order to build capacity and inform development of the penultimate training packages. Three training packages with 4 modules in each package for education professionals, GPs, paediatricians, psychologists, therapists and undergraduate students will be developed, tested, evaluated and disseminated through the Connect Hub.

These packages have not yet been completed and are awaiting the findings of research projects prior to their completion. However, preliminary research is leading to a range of packages and modules for upskilling teachers and parents which are already under development. In addition, information sharing and program development is involving teachers and school professionals ensuring that the outputs are relevant and able to be sustained in school classrooms (R2.3.5).

<sup>1</sup>Goodenow, C.(1993). The psychological sense of school membership among adolescents: Scale development and educational correlates. *Psychology in the Schools*, 30, 79-90

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**Output 2.4** Validation of ASD subtypes (Output 1.3) and their predictive value for long term outcomes for children with ASD through a longitudinal study.

Through the Longitudinal Study of Australian Students with Autism (LASA) the experiences and outcomes of two cohorts, each of 125 students (4-5 years and 9-10 years), are being followed up biennially for four years. The cohorts will be observed as they progress through their schooling and subtypes of autism, identified within Research Program 1, will be validated with participants in this study. This study seeks the perspectives of parents, teachers and school principals over time. This survey is the first of its kind in Australia to track the educational progress of cohorts of students on the spectrum over time and has required more than 30 separate ethical clearances to be obtained to date. There will be three points of assessment which will include collection of demographic and education intervention data from parents and teachers. Two PhD Scholars commenced in early 2015 and are involved with this study, each focusing on one of the two cohorts.

Participant recruitment commenced in January 2015 and is continuing with 109 questionnaires completed to the end of June 2015. The data from completed parent questionnaires is currently being analysed with initial results sent to participating families. Ethics applications to conduct research in schools were submitted to various education departments across Australia and principal, teacher and early childhood teacher surveys have been developed. Contact with schools will start in July 2015. The validation of subtypes will be take place in the second three year phase (November 2016 – November 2019) of the project.



Program 2 researchers meet regularly at Autism CRC's Brisbane-based headquarters.

**Output 2.5** This output will train 18 PhD students, employ 6 postdoctoral fellows and generate 60 scholarly publications.

To date, four PhD Scholars and one postdoctoral fellow have been engaged in Program 2. Two further PhD Scholars are currently being recruited to make up the 6 PhD students in the R2.5.1 milestone. This has been slower than anticipated due to the need to build capacity in the education sector with regard to research higher degree studies, with strategies in place to harness honours students at the end of 2015 in allied health and psychology.

One publication has been accepted (May 2015), two are under review, and two conference presentations have been provided (R2.5.02) with six being given at the forthcoming APAC Conference (September 2015).

The following projects were considered by the Board in the 2015 Investment Round and approved in June 2015.

Project	Short Title	Lead Investigator/Institution	Project Funds	In-Kind Value
Strategic:				
2.037RS	Primary School Transition MoP	Debra Costley / ASPECT	\$597,972	\$1,839,089
Total Progr	am 2 Strategic		\$597,972	\$1,839,089
Innovation	:		`	
2.034RI	Shared Book Reading Intervention	Marleen Westerveld / GU	\$49,900	\$188,160
2.035RI	Literacy Predictors	Marleen Westerveld / GU	\$50,000	\$117,300
2.036RI	How was your day?	Lesley Stirling / UMelb	\$49,986	\$151,804
Total Progr	am 2 Innovation	\$149,886	\$457,264	
Total Program 2 Projects				\$2,296,353

#### Program 2 Projects approved in 2015 Investment Round

#### Program 3 - Finding a Place in Society



Program Director Professor Torbjorn Falkmer BSc(Occupational Therapy), MSc(Teaching), PhD (Medicine)

Research Program 3 focuses on the transition from school to further education, employment, health care and leisure activities, with the ultimate goal being to assist people with autism to find a valued place in society. Tools are being developed and evaluated to identify the key

attributes, interests and strengths of individuals on the autism spectrum that can be matched to tertiary or vocational education and employment pathways. Furthermore, modules to assist access to relevant health care and transportation are under development.

Research Program 3 aims to directly facilitate paths towards fulfilling lives for people with autism after school and to inform government policy regarding employment and post school options. It gathers information on profiles of Australian adults on the autism spectrum through two longitudinal studies, informing all aspects of the program and is developing modules and tools to fully optimise social and community engagement, health and wellbeing, and support employment opportunities for adults with autism.

To date, including the 2013 and 2014 Investment Rounds, the following projects have commenced in Program 3.

#### **Program 3 Projects**

Project	Short Title	Years	Lead Investigator/Institution	Project Funds	In-Kind Value
Strategic:					
3.012RC	Program 3 Base Resources #	2013-16	Torbjorn Falkmer / Curtin Amanda Richdale / LTU Nick Lennox / UQ Julian Trollor / UNSW	\$1,440,000	\$2,008,212
3.013RC	Longitudinal Study Middle Aged Adults	2014-17	Julian Trollor / UNSW	\$88,661	\$728,539
3.014RC	EVAP and IEST +	2013-16	Torbjorn Falkmer / Curtin	\$48,000	\$1,690,600
3.015RC	Health and Wellbeing for Adults	2013-16	Nick Lennox / UQ	\$87,484	\$940,916
3.016RC	Unique ASD Profile School Leavers	2013-16	Amanda Richdale / LTU	\$87,484	\$1,140,876
3.017RC	Optimisation of Recruitment*	2013-13	Debra Costley / Aspect	\$120,000	\$332,305
3.032RS	Enhancing Social Relationships of Young Adults	2014-17	Tele Tan; Sonya Girdler / Curtin	\$416,000	\$2,145,604
Total Progr	am 3 Strategic	1		\$2,287,630	\$8,987,051
Innovation:					
3.030RI	Studio G: Multimedia Program for Young Adults	2014-15	Jill Ashburner / AQ	\$50,000	\$153,800
3.031RI	Career Pathway Recommender System*	2014-15	Tele Tan / Curtin	\$48,000	\$130,012
Total Progr	am 3 Innovation			\$98,000	\$283,812
Total Progr	am 3 Projects			\$2,385,630	\$9,270,863

# Base resources refers to postdoctoral fellows in each of four sites who are working together on projects 3.013, 3.014, 3.015, 3.016RC.

+ Education and Vocational Assessment Protocol (EVAP) and Integrated Employment Success Tool (IEST).

\* Project Completed



#### **Performance against activities**

**Output 3.1** Comprehensive and unique profile of Australian adults with ASD, through two longitudinal studies, to provide them with the capacity to find a meaningful place in society.

The one year Recruitment Optimisation Study (Project 3.017) has been completed and has provided critical findings to enhance recruitment into and retention within the two longitudinal studies. In total, 129 adults on the autism spectrum took part in focus groups and 38 completed online surveys. The findings have informed the recruitment and engagement strategies being used in the longitudinal surveys. A report, executive summary and visual snapshot have been produced and are on the Autism CRC website.

Two longitudinal studies for two cohorts have been launched: school leavers on the autism spectrum and middle aged adults on the spectrum (Australian Longitudinal Study of Adults with Autism – ALSAA). Each cohort will comprise 160 participants with autism and 160 participants without autism. Each participant will be tracked over 4 years and outcomes on productivity, physical and mental health, well-being, and societal participation will be documented. The data collected from these studies will inform ongoing research within Program 3 and regular reports will be provided on the Connect Hub.

The two studies have recruited more than 160 people (more than 80 in each) meeting Milestone R3.1.02 and are well on the way to meeting the next milestone of 160 (R.3.1.03), however, did not obtain this by end of June due to the time taken to obtain the considerable number of ethics clearances in health, education and community systems across Australia required to undertake these studies. Once these two longitudinal studies are completed, 640 people will have been followed over four years. The data from these two Australian studies will be internationally unique.

Both longitudinal studies are utilising consistent measures where appropriate, allowing capacity to combine data. Four Post-Doctoral Fellows (with two leading the surveys) are engaged in recruitment and two PhD Scholars are specifically working with the survey research teams. Additional strategies are being implemented to attract a comparison group of school leavers. Questionnaires have been piloted extensively to avoid ambiguous language and ensure appropriateness of content. Time taken to do this will pay dividends in minimising missing data over time. Opinions from individuals on the spectrum, carers and family members were sought to identify areas which were missing or required adjustment. Efforts continue to be focused on advertising and dispersing information regarding the two studies across Australia, with assistance from all sites and in-kind supporters, conference attendance, social media and relevant networks. Preliminary work from this output will be presented at the forthcoming APAC Conference in Brisbane in September 2015.

**Output 3.2** Conducting empirically based interventions for adults with ASD to assist them to confidently engage in social relationships, tertiary education, employment, and community activities.

Research into interventions will contribute information and resources on relevant themes for adults with autism as identified by end-users and informed by the longitudinal studies. Modules are being developed in relation to:

- inclusion and success in higher education;
- social relationships;
- driving and hazard perception; and
- community access/participation via public transportation.

Supporting inclusion, social relationships, and successful participation at University is being undertaken via three projects that commenced in the latter half of 2014. The first addresses Peer Mentoring at University through the development of Peer Mentoring Modules for mentors and resources for mentees (completed June 2015 meeting milestone R3.2.01). Successful evaluation of this program developed at Curtin University, and involving 27 mentees and 24 mentors, is now being replicated at the University of Western Australia. The resources will be made available through the Connect Hub once the submitted peer reviewed papers have been accepted.

A qualitative study has been completed exploring the lived experiences of families of individuals on the spectrum transitioning to adulthood to identify factors enabling and hindering successful transitioning from families' perspectives. A manuscript has been submitted for review. The evaluation of the Curtin mentoring program includes two studies that have led to manuscripts that are under review. Based on findings from these studies to date, and in consultation with Autism Association of Western Australia, a work experience component of the Peer Mentoring Program is being developed. In acknowledgement of the exceptional work being undertaken in this research program, Autism West (an autism service provider in Perth) has provided \$20,000 to support the ongoing delivery of the peer mentoring program and a \$50,000 donation from Norton Gold Fields is being used to develop a common room for students on the spectrum at Curtin University. The financial support of these organisations is testament to both the need for and promising results of this project.

A second project at The University of Queensland (UQ), is investigating science, technology, engineering and maths (STEM) courses and the supports needed by students on the spectrum enrolled in these programs (Project 3.039RI). Trialled initially in Engineering, Information Technology and Architecture at UQ, the researchers are providing input and evaluating tutor training workshops, upskilling tutors in recognising the difficulties experienced by students on the spectrum, and assisting them to structure curriculum and assessment tasks to appropriately support these students. Informed by both teaching staff and students on the spectrum, this research will develop resource materials for both academic staff and students on the spectrum to support their learning within STEM courses. These materials will be trialled at other universities and disseminated through the Connect Hub.

The Studio G Multimedia Program for young adults on the spectrum (Project 3.030RI) developed at Autism Queensland, is being evaluated to determine whether the participants (young adolescents and adults 16-25 years) experience greater social competence and confidence, and develop pre-vocational skills through engagement in their multimedia projects. Based at The Edge at the Queensland State Library, and through mentoring by Creative Arts and Digital Media students at Griffith University, Studio G participants have engaged in social networking, vocational site visits, and each is working on an individual multimedia project. Through a participatory action research design, a program manual will be developed.

With regard to social relationships, a computer-based emotion recognition training intervention is being developed using primary neurofeedback (EEG and eye tracking) responses

to computer-based social emotional stimuli (Project 3.032). Two PhD Scholars are working on this project along with psychologists, software engineers and occupational therapists. Emotion recognition is considered an important preliminary skill set required for the establishment of effective social relationships. The development of this intervention/module will be met by December 2015 (R3.2.02). The first publication out of this project is now published, but further papers emanating from all of these projects are being presented at the biennial APAC Conference in September 2015.

In June 2015, the Board approved both a driving project and public transportation project to assist adults on the spectrum to more easily navigate the community through the effective use of public transport and, where possible and appropriate, gaining drivers' licences. These projects are yet to commence however both engage broadly with transport departments, independent living centres, autism associations, driving schools, and universities across three Australian states. International experts in these fields are also providing in-kind support to these projects. It is anticipated that manuals for driving instructors and adults on the spectrum learning to drive, and a transportation app will be outputs.

**Output 3.3** Tools, strategies and techniques developed to improve the health and wellbeing for adults with ASD.

Empirically based health and wellbeing information, tools and resources will be developed through research involving adults on the autism spectrum and their health care providers. An integrated and interactive suite of interventions (referred to as the Health Hub – see **autismcrc.com.au/health-hub**) using validated strategies, techniques and tools are being developed, implemented and evaluated. Previously referred to as the AWell Suite, this has now been branded as the Health Hub and will be part of the Connect Hub.

Project 3.015RC commenced in June 2014, with a Post-Doctoral Fellow overseeing this study with the project leader and PhD Scholar. The project team has already published information and resources on the Health Hub, including a systematic review of anxiety interventions for adults on the autism spectrum (meeting milestone R3.3.02), a scoping review of online tools for health professionals, and questions to help adults on the spectrum to better understand the quality of health-related autism websites. Health care providers have been identified across four states to trial the suite of tools and resources being developed (R3.3.01) and older adults have been recruited to inform the development of the Health Hub (R3.3.02).

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Qualitative interviews (n=12) and five focus groups with 34 health professionals to further inform the development of the Health Hub have been completed (milestone R3.3.04), and results will appear as a 'visual snapshot' on the Hub. The tools and resources that will be delivered have been identified and these will be uploaded once rigorously tested from both research and end-user acceptability perspectives. An online forum, *My Health Stories*, is being developed and an adult nutrition/cooking intervention is being evaluated. An oral health survey for adults on the spectrum is also underway, as dental health was identified as an area of concern by adults and health professionals.

Narratives of adults' health and wellbeing experiences are currently underway, as is the development of evidence-based tools including an anxiety intervention for adults and a health assessment tool for adults with comorbid intellectual disability. There has been significant networking with adults on the spectrum (including co-production of peer review publications and resources for the Health Hub) and healthcare providers. The team has presented at several national and international conferences, submitted one peer-reviewed publication, and has several other publications under development.

**Output 3.4** Developing tools to assist adolescents/ adults with ASD and their advisors in making informed choices regarding higher education and employment and ultimately creating more opportunities for people with autism to gain successful long term employment.

Two new evidence-based tools, the Successful Transition to Employment Protocol – ASD (STEP-A)<sup>™</sup> and Integrated Employment Success Tool (IEST)<sup>™</sup> have been developed that consider the personal traits, job search supports, and job/ environmental characteristics that influence the success of job placements for people on the autism spectrum. The STEP-A<sup>™</sup> was previously referred to as the Education and Vocation Assessment Protocol (EVAP).

This output has been a major focus of the first Investment Round in Program 3 with two PhD Scholars working with the Curtin based Post-Doctoral Fellow and Project Leader on developing these tools.

A systematic review of non-autism specific protocols in education and employment models has been undertaken and was submitted to PLOS One in December 2014 (under review) meeting milestone R3.4.01. A survey on vocational assessment practices and post-secondary educational placements for people on the spectrum, targeting autism relevant NGOs, tertiary educational institutions, Centrelink, and other relevant stakeholders was finalised and a manuscript submitted in January 2015 to Career Development and Transition for Exceptional Learners and is under review (meeting milestone R3.4.02). A further survey on the use of autism employment models targeting autism relevant NGOs, Centrelink, and other relevant stakeholders has been completed (R3.4.03) and submitted to PLOS One focusing on factors for successful employment of adults. Once manuscripts are accepted, the visual snapshots already developed will be uploaded to the Connect Hub. The delay takes into account protection of Centre IP.

A survey of 162 people and interviews with 13 people were conducted (R3.4.03), which led to the development of the STEP-A<sup>™</sup>. The STEP-A<sup>™</sup> has been piloted with six adolescents on the spectrum and their transition teams and has been reviewed by 76 health professionals who have provided feedback (milestone R3.4.05). Based on this feedback, the tool has been revised and updated, and preparations are being made for the conduct of a large scale trial of the STEP-A<sup>™</sup> with 80 adolescents (and their transition teams) across Australia. Ethics has been approved by almost all Catholic Education and Department of Education systems in Australia.

Based on eight individual case studies and two organisational case studies, factors that lead to employment success for adults on the spectrum has been identified (meeting milestone R3.4.04). These detailed 'success' case studies have informed the development of the IEST™ workplace tool that is now in its final stages of development before piloting (meeting milestone R.3.4.06 a year in advance). The IEST™ has been developed according to the different stages of the employment process from recruitment, job interviews, commencement and placement, workplace modification/adjustment and ongoing support/review, and includes a series of checklists and strategies to assist employers with modifying various aspects of the workplace environment for people on the autism spectrum. Once the IEST<sup>™</sup> has been piloted, it will be trialled in a Randomised Controlled Trial to test its effectiveness. This will occur over the next 12 months.

Researchers within Program 3 and members of the executive team have attended nationwide forums and invited meetings held by the Disability Employment Taskforce auspiced by the Federal Department of Social Services. The Taskforce is interested in the work undertaken within this area, particularly the development of the STEP-A<sup>™</sup> and IEST<sup>™</sup> tools. This work will also be presented at the forthcoming APAC 2015 conference in Brisbane.

**Output 3.5** Development of the web portal 'ASD Connect Hub'.

A dedicated web portal 'Connect Hub' is being developed as a one-stop, evidence-based resource/information shop for people across the lifespan living with autism.

This portal will also be the link between the three programs, as well as being an essential link between the CRC researchers and adults and adolescents with autism, parents, autism organisations and all relevant stakeholders/end-users. The portal will include social networking options, information and resources, health and well-being information, and collaborative research/evaluation domains and present continually updated 'best practice' examples to speed up the process of facilitating adults with autism to find a place in society. Usability of the portal will be tested annually as part of ongoing review and maintenance to meet the needs of end-users.

Milestones R3.5.02 and U3.1.02 are under development for the Autism CRC website (www.autismcrc.com.au). The website now includes MyCRC (an intranet site for Autism CRC researchers, board members, CRC committees, PhD Scholars and specific research teams). The Health Hub has been established on the website and will be transferred to the Connect Hub when it is fully operational (December 2015). In order to ensure that the Connect Hub site is fully accessible for adults on the spectrum and autism-friendly, extensive consultation with the autism community is being undertaken with focus groups in Brisbane, Melbourne and Western Australia. Features and elements of an autism-friendly website have been identified in the workshops and the development of a research paper on web usability and accessibility for those on the spectrum will be developed. While this piece of research was considered a necessary step in building a sustainable and usable website, no research milestones involving the website or Connect Hub have been affected.

The Autism CRC website is being used for recruitment of participants to studies across all programs including the longitudinal studies (U3.3.01) and has been promoted extensively through relevant end-user organisations across Australia. The Qualtrics Survey platform is being used by research teams to collect the longitudinal data as our needs assessment indicated that this platform provided the sophistication needed for longitudinal and linked data. A report will be produced from initial data on school leavers and older adults once sufficient numbers have been recruited (U3.3.02).

**Output 3.6** This output will train 12 PhD students, employ 6 postdoctoral fellows and generate 60 scholarly and additional lay publications.

Program 3 milestones related to PhD students in this reporting period (R3.6.03) and postdoctoral fellows (R3.6.04) have been achieved. To date there are four Post-Doctoral Fellows and eight PhD Scholars working within Program 3. The projects approved by the Board in the 2015 will see another three PhD students joining the researchers within this Program. With regard to publications in Program 3 in the past year, two have been published, six are submitted and under review, with another four under revision, and one report, one lay publication (visual snapshot) have been produced. Two other reports have been produced that are embargoed pending acceptance of associated manuscripts submitted for publication. Seven conference posters or presentations have been given with ten at the forthcoming APAC Conference in September 2015.



The following projects were considered by the Board in the 2015 Investment Round and approved in June 2015.

#### Program 3 Projects approved in the 2015 Investment Round

Project	Short Title	Lead Investigator/Institution	Project Funds	In-Kind Value	
Strategic:					
3.040RS	Driving Project	Hoe Lee / Curtin	\$571,528	\$2,662,599	
3.041RS	Public Transportation Mobility	\$252,511	\$1,371,127		
Total Progra	am 3 Strategic	\$824,039	\$4,033,726		
Innovation:			'		
3.038RI	Big Data, Important Questions, Health & Welbeing	Julian Trollor / UNSW	\$50,000	\$179,481	
3.039RI	Supporting Staff and Students with HFA in STEM Programs	\$50,000	\$145,294		
Total Progra	am 3 Innovation	\$100,000	\$324,775		
Total Progra	am 3 Projects	\$924,039	\$4,358,501		

#### **Research Collaboration**

Autism CRC has ensured that collaborations between research participants, and research participants and end-user participants are operationalised. The Autism CRC Board requires that each project funded must involve at least one end-user/industry partner participant, the only exception being base resources projects (1.001RC, 2.006RC, 3.012RC). The collaborations implemented in the 2013 and 2014 investment round are research collaborations in which research participants and end-user participants are working together to undertake a range of research projects which are critical to Autism CRC's milestones and deliverables. Over time, it is anticipated that there will be an increased focus on utilisation and commercialisation collaborations.

Almost every project in the 2013 and 2014 Investment Rounds involved end-users and a research participant. Autism CRC anticipates that end-users will engage with each other in the research endeavours further as the CRC matures and as end-user research capacity is enhanced. Only a few end-users have researchers employed within their organisations with the exception of larger peak bodies, such as Aspect, Autism Queensland and private service provider, AEIOU. Over time, it is also anticipated that end-users will be more specifically engaged together in utilisation activities as key research projects are completed.

The following table provides a breakdown of projects in the 2013 and 2014 Investment Round involving collaborations between Essential and Other Participants. The majority of Other Participants are end-users and industry partners, whereas the majority of Essential Participants are research providers.

#### Investment Round 2013 and 2014

Project Numbers	Research Participant	End User/Industry Participant	Total
1.001RS	4	N/A	4
1.002RS	4	9	13
1.003RS	1	1	2
1.004RS	2	2	4
1.005RS	4	3	7
1.018RI	1	0	1
1.019RI	2	0	2
1.020RI	2	0	2
1.021RS	2	7	9
1.022RS	3	5	8
1.023RS	4	10	14
2.006RS	1	N/A	1
2.007RS	3	7	10
2.008RS	1	5	6
2.009RS	3	6	9
2.010RS	1	5	6
2.011RS	2	6	8
2.024RI	1	3	4
2.025RI	2	1	3
2.026RI	1	1	2
2.027RS	3	5	8
2.028RS	1	5	6
2.029RS	3	6	9
3.012RS	4	N/A	4
3.013RS	4	7	11
3.014RS	5	5	10
3.015RS	4	2	6
3.016RS	4	8	12
3.017RS	3	2	5
3.030RI	1	2	3
3.031RI	1	1	2
3.032RS	2	1	3

N/A - Not Applicable as Base Resource

### 3.2 Education and Training

During Autism CRC's second year of operation, nine more scholars commenced studies bringing our total number of research higher degree scholars to 15. One of these Masters by Research scholars, Ms Ru Cai, has recently upgraded to PhD. Another, Ms Kristin Ody commenced an educational doctorate with a plan to upgrade to PhD at the one year confirmation milestone. Three of these scholars are working in Program 1, four in Program 2 and eight in Program 3. They come from backgrounds in psychology, occupational therapy, education, and computer science. Early findings from our research into their motivations to undertake a PhD with the Autism CRC highlight the desire "to contribute something meaningful ... make a difference", "to find out what are the needs of these individuals and how we can support them", and "...actually developing tools that can be used, and that are going to be guided by the individuals (on the spectrum) themselves".

PhD Scholars are being supervised by researchers and Post-Doctoral Fellows at research organisations with input from end-user service providers, such as researchers at Autism Queensland and Aspect, and from advisory groups involving end-users on the autism spectrum. To date, advisory groups have been established in New South Wales, Queensland, Victoria and Western Australia. These are meeting regularly providing the firsthand, lived experience of autism to our PhD scholars, particularly in Program 3 where research focuses on the adult years.

Autism CRC continues to provide a range of activities and educational experiences for PhD Scholars and Post-Doctoral Fellows that will enable them to contribute significantly to the autism community in Australia through research, its dissemination, the continuing development of professionals and community education. To this end, the CRC also strives to engage PhD Scholars and Post-Doctoral Fellows with interprofessional teams of researchers from a range of disciplinary backgrounds and provide exposure to and engagement with the different professionals who work with individuals with autism and their families.

To date, the PhD Scholars have been involved with monthly virtual meetings that have focused on a range of topics including intellectual property and commercialisation, thriving through a PhD, writing success tips, social media, and tracking PhD progress. Our Post-Doctoral Fellows have also contributed to these discussions and provided input from their doctoral experiences. The first Scholars' Day was held on 3 December 2014 in Melbourne and focused on presentations by PhD Scholars who provided three minute elevator pitches about their PhD topics. The audience was comprised of Board members,



Autism CRC hosted an oral poster session at the ASfAR Conference in December 2014 in Melbourne. Melissa Scott (Curtin) pictured.

researchers, end-users and industry partners who are CRC participants. The presentations led to invigorating discussion with significant input from industry regarding the topics, plans, and real world relevance.

Ms Megan Hatfield won the Inaugural Patricia Howlin Autism CRC Prize for her poster presentation at the 2014 Australasian Society for Autism Research (ASfAR) Conference held at La Trobe University 4-5 December, co-sponsored by Autism CRC. The Patricia Howlin Prize, initiated by Autism CRC, acknowledges a lifetime of commitment to excellence in autism research by Prof Howlin (Professor Emeritus Kings College London) and honorary professor The University of Sydney and contributor to the Autism CRC.

Over the past year, Scholars and Fellows have had opportunities to present to the Board and participant organisations at meetings held in Sydney and Brisbane. Our second Scholars' Day is scheduled on 6 September, 2015 prior to APAC and will comprise masterclasses and neuroscience and laboratory visits at The University of Queensland. Scholars and Fellows have been provided access to Vitae Professional Development Framework (http://www.vitae.ac.uk/).

Autism CRC PhD Scholars and Post-Doctoral Fellows are, and will continue to be, actively engaged in these activities as they evolve throughout the life of the CRC through the following programs:

- Lab to Life scholar visits in Autism CRC laboratories, diagnostic clinics, classrooms and adult services/ employment settings;
- Meet the Researcher community education sessions; and
- Annual Autism CRC Scholars Meeting for researchers and PhD scholars.

PhD Scholars in Perth and members of the Curtin Autism Research Advisory Group organised an Autism Open Day at Curtin University, engaging with researchers at the University of Western Australia, Telethon Kids Institute and Curtin University. This provided opportunities for members of the autism community in Perth and surrounds to 'meet the researchers' and learn about research being undertaken in these three organisations within the CRC and beyond. Regular talks by researchers during the day and booths promoting various research projects and early outputs were well received. Some 350 members of the community attended this event that originated from discussion at an Advisory Group meeting with adults on the spectrum. Not only did this promote recruitment to various studies, but also promoted a greater awareness of research being undertaken and an ability for Scholars to meet with and talk to members of the public, honing their skills in science communication in the community.

In addition to PhD Scholars, 10 Honours and Coursework Masters students have become involved with research within Autism CRC with three further approvals underway. They are being supervised by PhD Scholars and Post-Doctoral Fellows providing them with the opportunity to develop research supervision capacity. 14 developmental educational psychology trainees and 12 psychology students have also undertaken training in school-based interventions associated with the School Connectedness Project at Queensland University of Technology in Brisbane and anxiety intervention Cool Kids in Perth through University of Western Australia.

University	Student Name	Program	Project Code	Research Project	Start Date	Study Mode	Term
Curtin	Megan Hatfield	3	3.014RS	EVAP and IEST +	1-Jan-14	PhD	3 years
Curtin	Melissa Scott	3	3.014RS	EVAP and IEST +	1-Jan-14	PhD	3 years
UQ	Cindy Nicollet	3	3.015RS	Health and Wellbeing for Adults	Vellbeing 3-Apr-14 Ph		3 years
GU	Elizabeth MacDonald	2	2.011RS	Helping Students Stay on Task and Move Between Tasks	2-May-14	PhD	3 years
LTU	Stacey Rabba	1	1.005RS	Developmental Surveillance SACS-R	1-Jun-14	PhD	3 years
LTU	Ru Ying Cai	3	3.016RS	Unique ASD Profile School Leavers	1-Jul-14	PhD/Masters	3 years
QUT	Anne Ozdowska	2	2.010RS	Overcoming Difficulties in Written Expression	8-Sep-14	PhD	3 years
QUT	Kristen Ody	2	2.007RS	Trajectory Study	12-Jan-15	PhD	3 years
Curtin	Julia Tang	3	3.032RS	Enhancing Social Relationships of Young Adults	2-Feb-15 PhD		3 years
Curtin	Melissa Black	3	3.032RS	Enhancing Social Relationships of Young Adults	2-Feb-15	PhD	3 years
GU	Jacky Den Houting	2	2.007RS	Trajectory Study	16-Feb-15	PhD	3 years
UNSW	Jane Hwang	3	3.013RS	Longitudinal Sudy Middle Aged Adults	9-Mar-15	PhD	3 years
Curtin	Craig Thomson	3	3.032RS	Enhancing Social Relationships of Young Adults	17-Mar-15	PhD	6 years
UNSW	Lidan Zheng	1	1.023RS	ASD Subtype Project	30-Mar-15	PhD	3 years
UNSW	Amanda Mazzoni	1	1.023RS	ASD Subtype Project	31-Mar-15	PhD	3 years
15 Student	s	·	·		·	·	

#### CRC PhD Students - 1 July 2014 to 30 June 2015

+ Education and Vocational Assessment Protocol (EVAP) and Integrated Employment Success Tool.

### 3.3 Engagement

#### **SME Engagement**

SME engagement is embedded within Autism CRC as many of our end-user participants are SMEs, some of whom are represented on the Board and others on the Research and Development Committee.

Autism CRC engages with SMEs throughout Australia and internationally with the largest footprints in New South Wales, Queensland, Victoria and Western Australia. The Autism CRC Board has taken the initiative to engage more fully with SMEs and other industry.

The majority of the SMEs engaged with Autism CRC are service providers or businesses that supply equipment or technology to schools, parents or service providers. The SMEs within the CRC can be categorised as:

- autism peak bodies and service providers which are medium enterprises (AEIOU, Autism Queensland, Autism South Australia, Aspergers Services Australia, Autism Awareness);
- companies, such as Renae Beaumont Enterprises, SA Group Enterprises Inc., Social Skills Training Pty Ltd and Assistiveware;
- Autism Specific Early Learning and Care Centres (ASELCCs) in Queensland, NSW, Victoria, Tasmania, South Australia and Western Australia;
- professional groups (Rural Health Alliance, Australian College of Rural and Remote Medicine); and
- private autism clinics, which are small enterprises (Minds and Hearts, Queensland; The Asperger's Syndrome Clinic, Queensland)



Prof Sylvia Rodger and Dr Lauren Taylor (UWA) presented at the National Rural Health Conference in Darwin in May 2015.

As a guiding principle, Autism CRC and its researchers continue to prioritise the engagement of end-user SMEs. By engaging end-users from the outset, the CRC is better able to ensure its research is grounded in their needs and to ensure multiple pathways for dissemination and utilisation of research findings through engagement throughout the CRC's lifespan.

It is incumbent on the CRC's researchers who are project leaders to ensure that end-users and SMEs are engaged with their research projects prior to projects being submitted for funding. Staff from SMEs are often project leaders and recipients of direct funding from the CRC which is a clear indication that the Autism CRC is assisting SMEs to build their innovation capacity.

The strategic ASD Subtyping Project, has engaged all the Autism Specific Early Learning and Care Centres (ASELCCs). The CRC has funded a part time 0.2 research assistant position in each centre to support data collection, as well as train these individuals in a diagnostic assessment tool called the 3Di instrument, which will be of use to the ASELCCs beyond the CRC project itself. This exemplifies SME capacity building and also training in an evidence-based, gold standard diagnostic assessment for regular use within these centres, enhancing their diagnostic assessment practices and research capacity.

Autism CRC will continue to engage with other end-user SMEs to extend our reach and remain relevant to the needs of the autism community. This includes state peak bodies and service providers which are not currently not participants.

#### **Other Industry Engagement**

Autism CRC continues to seek and build partnerships with industry in support of its vision. There are many ways in which Autism CRC is engaging with business.

Strategic partnerships are providing in-kind support to deliver project outcomes. For example, Other Participant, iiNET, is currently providing considerable in-kind through the provision of mobile technologies to schools identified in regional areas of NSW and Queensland. Spectronics Pty Ltd and TextHelp Ltd (UK company), who are not participants in the CRC, have provided significant in-kind support to enable the development of a structured writing website being developed in Program 2.

There are a number of large entities and enterprises who, as participants, are engaged in current project activities, such as Autism Spectrum Australia (Aspect), Autism Association of Western Australia, F.Hoffman-La Roche Ltd, and iiNet Ltd. Autism CRC is also engaged with State, Catholic and Independent Schools in a number of States. As with SME engagement, Autism CRC seeks the involvement of industry in the design of projects and the evaluation, often through trials, of project outcomes. As an example, schools and school systems are parties to a number of projects in Program 2. This aids the development of practical and translatable research outcomes, and utilisation of outputs.



As a registered charity, Autism CRC is also building philanthropic relationships with business. In the reporting period, Battery World chose Autism CRC as a recipient of a very generous donation allowing part scholarships to be offered

to support clinicians or recent graduates to undertake the Graduate Certificate in Autism Diagnosis. The \$32,000 raised through Battery World franchisees is currently supporting four clinicians including two from regional areas of Australia. This will assist us to ensure excellent diagnostic practices can be provided irrespective of a family's geographic location in Australia. The next four scholarships will be awarded in the Semester 1, 2016 intake.



A 'Pathways to Employment' working group has been established in Queensland to provide better employment opportunities for adults on the spectrum. A number of CRC researchers and end-users are involved in this group.

#### **Engagement with the Autism Community**

Individuals on the autism spectrum and their families are the ultimate end-users of our research and hence their voices, perspectives and involvement are critical to each stage of our work.

Autism CRC researchers are committed to engaging with people on the spectrum and their families throughout the research process from the development of research ideas and priorities, through stages of planning, implementation, reflection, dissemination and provision of feedback.

There are many ways in which Autism CRC is currently engaging with the autism community.

Each of our project advisory groups must include a person on the spectrum. In addition, from the 2015 investment round

onwards, all project applications must be reviewed by an individual on the spectrum to ensure that what is being researched and how it is being researched is relevant to and appropriate for people on the spectrum.

The development of Australia's first Inclusive Research Practice Guides and Checklists for Autism Research has enhanced the capacity of researchers both within the CRC, and others around the world, to engage with individuals on the spectrum throughout the research process.

Listening and valuing the perspective of the lived experience of autism throughout the research process will lead to higher quality research practices and outcomes that will truly benefit people on the spectrum.

Finally, Autism CRC will upskill both adults on the spectrum and researchers in peer research processes through the Autism CRC Research Academy. This will enable increased involvement of adults in peer research or co-production of research. Plans for the first Researching Autism Together Workshop were finalised within the reporting period and participants have been selected. This workshop will be held in October 2015.

The Autism CRC Research Academy aims to enhance the ability of researchers and adults on the autism spectrum to work together as peers who contribute to what questions are asked, how research is carried out, ensuring that questionnaires and interview questions are "autism friendly," and helping to interpret research findings.

Benefits for Autism CRC through peer research include improved research processes and better targeted measures and interventions; better community engagement and knowledge translation; improved trust of, and communication with, researchers; and better directed research funding.

Our final research reports also include a full report, executive summary and visual snapshot of findings that are designed to be autism friendly, assisting with dissemination within the autism community.

These activities recognise that people on the autism spectrum and their families have significant expertise to share with CRC researchers. In particular, they have a unique and valuable perspective gained through their lived experience. Through partnerships with researchers we can share our respective expertise to conduct research which will transform lives.

Autism CRC will continue to engage with adults on the autism spectrum, as individuals and through participants such as ASA and advocacy organisations such as ASAN and ICAN, to find new and better ways for the voice of the lived experience to inform our work.

#### **Engagement with Government**

Meaningful engagement with government at the State and Federal level is critical in order to ensure outcomes produced through the CRC can be translated into policy. Autism CRC research outcomes cover a range of portfolios including employment and training, health, education, disability and social services. Our strategy must therefore incorporate a whole of government focus.

Within the reporting period, Autism CRC successfully secured grants for two additional projects through the Department of Social Services. These studies will enhance our existing research portfolio and will further our goal to transform lives across the lifespan.

Dr Lauren Taylor heads a project examining diagnostic practices for autism across Australia. With no established biomarker for autism, 'gold standard' diagnosis relies on a best estimate clinical judgement based on the behavioural presentation of the individual. This project will help to establish a baseline of current assessment processes for autism, and is an essential first step on the path towards national standards for autism diagnosis in Australia.

Professor Valsamma Eapen heads a project which will investigate the most effective interventions that enable children to make a positive transition from specialised early intervention settings into mainstream classrooms. The study will produce evidence-based guidelines to support children in making a positive transition to school in order to enhance academic development and social success.



Senator the Hon Mitch Fifield, then Assistant Minister for Social Services, announced a significant investment in a national pilot study undertaken through Autism CRC at the La Trobe ASELCC in June.

Autism CRC staff and researchers have also been invited to attend a range of forums and meetings in view of their expertise in autism as it impacts on policy.

- The Hon Christopher Pyne MP, Minister for Education invited CRC representative to attend a policy roundtable on teacher education, to support students with disability and learning difficulties. This was held in Perth on 20 August 2014 and was hosted by the Minister and the Australian Government Department of Education. Invitees included academics, representatives from peak education bodies, disability advocacy groups and selected school staff. Dr Marita Falkmer who is a Postdoctoral Fellow in Program 3 at Curtin University and who has a special education background attended for Autism CRC.
- The Hon Kevin Andrews MP, Minister for Department of Social Services invited 25 individuals representing expertise in mental health, unemployment, homelessness, children and women's health, domestic violence, families, aged care, and disability, who are involved with Australians with vulnerabilities leading to social welfare support. Professor Rodger was the only invited researcher in the disability field. A paper on social welfare reform grounded in a life course perspective with a particular focus on transition points was discussed in Canberra at Parliament House at a one day Round Table on Life Course, Transitions and Social Services on 15 October, 2014. This enabled the CRC to provide input on work across all our programs and how they impact policy.
- Professor Sylvia Rodger was an invited attendee at the Human Rights Commission Workshop in Sydney on 11 March, 2015 on Disability Policy Research. A written submission was also provided.
- Professor Rodger and Mr Andrew Davis attended an invited meeting with the Director of the Taskforce for the Disability Employment Framework, Mr Paul Millar, regarding the development of employment and vocational tools (STEP-A and IEST) in Brisbane on 2 June 2015 and attended a Brisbane-based employment service provider forum following this. A written submission was also provided.
- A written submission is to be made to the Senate Enquiry into the Education of Children with Disabilities.



# 3.4 Financial Performance

#### **Financial Management**

#### **Financial Overview**

Autism CRC Ltd is a company limited by guarantee.

On 10 July 2014 Autism CRC Ltd formed Social Skills Training Pty Ltd (SST), a wholly-owned subsidiary to further develop and commercialise the social and behavioural skills training program, Secret Agent Society. SST results are incorporated into the Consolidated Group for the 2015 Financial Statements. For further information on the consolidation treatment please refer to the Financial Statements included at Appendix 2.

The Consolidated Group reported net surplus for the period ending 30 June 2015 was \$75,030 of which \$60,720 (2014: \$40,176) related to Autism CRC Ltd activities.

The Consolidated Group total expenditure for the period was \$13,111,776, of which \$12,660,768 (2014: \$7,591,406) related to Autism CRC Ltd activities. Total research expenditure was \$11,140,803, made up of \$2,022,657 cash (2014: \$953,163) and \$9,118,146 in-kind (2014: \$5,173,425). The complete set of financial statements are located at Appendix 2.

#### **Participant Cash Contributions**

For the period ending 30 June 2015, Autism CRC received \$4.1 million in cash from the Commonwealth, \$712,000 from Participants and \$62,000 from Other Sources. All cash contributions from Essential Participants were received prior to 30 June 2015. As at 30 June, some Other Participant contributions had yet to be received.

#### **In-kind Contributions**

As of 30 June 2015, Autism CRC had committed over \$15.9 million across 42 projects. These projects are expected to generate in-kind (staff and non-staff) contributions in excess of \$45 million, approximately two-thirds of the total Commonwealth Agreement in-kind contribution target.

Staff in-kind contribution to date from Essential Participants total 32.8 FTE, with non-staff in-kind contributions totalling \$4.5 million.

## 3.5 Communications

The Australian autism community is a large and diverse one. With a commitment to end-user driven research, Autism CRC has developed a communications program to ensure effective communications both within the CRC and with external stakeholders. Its objectives are:

- to aid the development of an Autism CRC culture across the organisation based on the mission, vision and shared values;
- to support internal stakeholders in recognising their roles as ambassadors and their importance in the long term success of the organisation;
- to engage with end-users and the autism community more generally to inform our research program objectives and conduct; and
- to support the dissemination and utilisation of our research outcomes.

A number of mechanisms are employed to meet these objectives:

- establishing and expanding the Connect Hub as the 'knowledge hub' of Autism CRC to disseminate research outcomes for end-users including those living with autism;
- delivering a digital presence through the website, social media and enewsletters ensuring multiple gateways to research activities and outcomes;
- establishing an intranet "MyCRC" for communications and information for all researchers, scholars, Board members and staff;
- gaining coverage in metropolitan and national print, radio and TV; and
- participation in relevant industry and policy conferences and forums.

The range of organisations collaborating within Autism CRC including researchers, service providers, universities and other organisations is a world first. Autism CRC requires a multi-faceted approach to internal communication ensuring all stakeholders are informed of developments. This includes providing clear channels for researchers to communicate findings and collaborate across programs and projects.

Autism CRC has established a strong online presence, through its website, Facebook and Twitter, allowing the community to engage more fully with the CRC, such contacts often prompted by news items through online and traditional media. Autism CRC has engaged with people on the spectrum to aid in the design of our online presence, particularly Connect Hub, to optimise usability. Autism CRC aims to improve life outcomes for people living with autism. All projects are rigorously conducted with end-users at the centre, in order to provide practical, evidence-based outcomes that can be utilised in real life contexts. It is imperative then to ensure the research findings are communicated not only to endusers, but to inform government policy development and industry intervention and service development.

Activities in the reporting period include the following.

- The website, autismcrc.com.au, was further developed and had almost 3,000 visitors a month. This is an increase of 30% on the last reporting period.
- A strong social media presence emerged though Facebook and Twitter building an engaged community of diverse stakeholders.
- The Connect Hub website is currently being built following wide consultation with adults on the spectrum in the reporting period. The Connect Hub will become the gateway to all CRC outcomes, information, resources, training modules and tools. It is crucial therefore that this website is autism-friendly and accessible for people on the spectrum.
- An enewsletter providing research highlights and news along with calls to participate in studies, is currently sent to 770 subscribers and continues to grow.
- Marketing collateral was produced to promote the CRC at various events and conferences.
- Media coverage was secured in a range of health, education and industry publications across print, TV and radio with an audience of over 600,000.
- Regular support was given to researchers and scholars on Autism CRC branding, project promotion and participant recruitment.
- MyCRC, Autism CRC's intranet, was established which is a portal for all relevant information for researchers, participants and staff.
- Regular internal updates were sent to all participants, project leaders, researchers and staff.

- Team building events were held across the year aiming to not only provide updates on the progress of the CRC but to build a team culture among all participants.
  - The Scholars' Day and Participant Day were held in December 2014.
  - A Project Leader Development Day was held in May 2015 with 23 Project Leaders in attendance.
  - Interstate Board meetings were held in Sydney and Melbourne which included research updates and networking opportunities.
  - A research update for Brisbane-based researchers was also held in conjunction with the May 2015 Board Meeting.
- Corporate style guidelines were expanded to incorporate CRC-owned initiatives such as the Biobank and the Research Academy.
- Several presentations were delivered by Autism CRC researchers on behalf of Autism CRC throughout the year.
   A list of presentations is given at **Appendix 4**.



# 3.6 Intellectual Property

Autism CRC recognises the value of intellectual property (IP) and its importance in enabling the utilisation and commercialisation of research outcomes, and strives to develop a culture where this is recognised and respected. A number of mechanisms are employed for the identification, protection and management of IP, including:

- the Research and Translation Executive, as a sub-committee of the R&D Committee, oversees the IP development, protection and commercialisation activities of the CRC;
- identification and recording of Background IP (BIP) on the Autism CRC IP register, updated regularly as to the status of IP assets;
- identification and recording of new CRC Centre IP (CIP) created through CRC programs on the Autism CRC IP register, updated regularly as to the status of IP assets;
- publication approval processes for written and oral publications and posters and PhD theses overseen by the Director of Research and Education;
- maintenance of a Publications Register in which all manuscripts submitted for publication and eventually published are registered along with pdf copies of the publication;

- Project Agreements and Project Plans include items on Background IP required for the conduct of the project and Centre IP likely to be developed/created by the project;
- inclusion of IP identification, status and translation considerations in Project Progress and final Project Reports; and
- up-skilling CRC staff and researchers/PhD Scholars through education and training on intellectual property matters relevant to the Autism CRC.

These practices ensure that the Autism CRC complies with the National Principles of Intellectual Property Management for Publically Funded Research.

The following key items of intellectual property currently held by Autism CRC (or its subsidiary Social Skills Training Pty Ltd) can be found in the table below.

Description	Nature of Intellectual Property	Background Intellectual Property	Centre Intellectual Property
Project Intellectual Property			
AXAS™ Autism related risk prediction software Project 1.003RC	Copyright Trademark	University of Queensland	
Australian Autism Biobank Data base Project 1.002RC.	Copyright Confidential information		X
3 Units in Graduate Certificate on: Intro to ASD Diagnosis of ASD Practicum Project 1.004RC	Copyright		x
The original and revised Social Attention and Communication Surveillance system, developed by La Trobe University (SACS-R); and the training materials for SACS-R. Project 1.005RC	Copyright	La Trobe University	
BrainSTorm Stem cell transduction from blood Project 1.020RI	Confidential Information		X
Pathways to Diagnosis – family support package (online and paper form) website, facilitator manual Project 1.022RS	Copyright		x
Trajectory Study Survey - parent, teacher, principals questionnaires Project 2.007RS	Copyright		x
ASD Educational Needs Analysis Study – Surveys for teachers, parents, students Project 2.009RC	Copyright		x

# Report on Activities

Description	Nature of Intellectual Property	Background Intellectual Property	Centre Intellectual Property
Project Intellectual Property			
Videos, website, source code, manuals and teachers' materials web and pdf based to support written expression in children with ASD. Project 2.010RS	Copyright		x
Teacher training packages and resources for structured teaching. Classroom Structure and Technology Project 2.011	Copyright		X
Lego Robotics Club Evaluation – robotics resource kits, manual for teachers, website YouTube clips, source code Project 2.026RI	Copyright		x
Early Years Behaviour Support Project – protocols and tools Project 2.027RS.	Copyright		x
School Connectedness Resourceful Adolescents Program Parents, Teachers, ASD. Project 2.029RS	Copyright	Queensland University of Technology	
Adults Longitudinal Survey – questionnaire and data Project 3.013RC	Copyright Confidential Information		x
Successful Transition to Employment Protocol - Autism Spectrum Conditions (STEP-A <sup>™</sup> ), name, design, materials, source code, format of tool (paper and online) Project 3.014RC and 3.031RI	Copyright Trademark		x
The Integrated Employment Success Tool (IEST™)– name, content, format, design, tool. Project 3.014RC	Copyright Trademark		x
Health Hub– website, content, materials, design, name Project 3.015RC	Copyright		x
Longitudinal Study of School Leavers Survey – questionnaires for adults and parents and data Project 2.007RS	Copyright Confidential Information		x
Peer Mentoring Modules –manuals, facilitator, mentees materials. Project 3.032RS	Copyright		x
Brain Computer Interface Game — content, source code, design. Project 3.032RS	Copyright		x
Inclusive Research Practice Guides and Checklists	Copyright		x
Research Academy Workshop Curriculum Modules	Copyright		x
Non Project Intellectual Property held by Autism CRC			
CRC logo and livery	Trademark		x
autismcrc.com.au	Domain Name		X
ASD Hub Connect	Domain Name		x



Intellectual Property (Copyright) related to the Secret Agent Society (SAS) Computer Game owned by Social Skills Training Pty Ltd, a wholly-owned subsidiary of Autism CRC Ltd established for the purpose of commercialising the SAS Program

Item	Ownership
The software (the computer program, including the source code, and protected as a literary work) in the computer game.	Social Skills Training Pty Ltd
The graphics, fonts, images of characters and concept artwork (protected as artistic works) included in the computer game.	Social Skills Training Pty Ltd and Renae Beaumont Enterprises as tenants in common.
The animated visual elements of the computer game which are seen as a moving picture (protected as a film).	Social Skills Training Pty Ltd and Renae Beaumont Enterprises Pty Ltd as tenants in common.
The composition of the sound effects and in-game audio of the computer game (protected as musical works).	Social Skills Training Pty Ltd.
The sound samples of the computer game (protected as sound recordings).	Social Skills Training Pty Ltd.

#### Trademarks wholly-owned by Social Skills Training Pty Ltd

The following marks are registered in Australia, Canada, Madrid Protocol (TM), European Community (designated on Madrid Protocol), Japan (designated on Madrid Protocol) and United States of America (designated on Madrid Protocol).







## 3.7 Utilisation and Commercialisation

During the second year of the CRC's operation there has continued to be a focus on the approval and commencement of research projects within the three core programs with 32 projects underway and another ten approved in June 2015. The utilisation and commercialisation of research outcomes from these projects is a core objective of Autism CRC. To date, the CRC is on target to meet its utilisation and commercialisation outputs.

End-user driven research, and therefore engagement, is a core principle for the operation of the CRC. Research projects have at least one end-user involved as a participant. This not only ensures application-focused project definition, but also promotes the utilisation of project outcomes.

With the focus on the commencement of research projects during the first two years of operation, it is too early to report substantively on the utilisation of outputs. However, it is noted that within the first round of projects commissioned there were two one-year projects and some other initiatives that have led to early utilisation opportunities.

- 2.009RC comprised a national first Australia-wide educational needs survey in which more than 1800 people participated. The results of this survey have already started to inform decisions about key end-user needs within Program 2, influence further research directions and provide particular input into the Early Years Behaviour Support Project (2.029RS). These findings will be presented at the forthcoming Asia Pacific Autism Conference (September 2015).
- 3.017RC has been completed and adults on the spectrum surveyed regarding recruitment optimisation. The final report presented to the Board in October 2014 has already significantly influenced the two adult longitudinal studies within Program 3. Based on the findings of this study and recommendations of this report, participant recruitment and engagement strategies are already in place and adults on the spectrum have provided significant input into these strategies as well as the development, wording and content of the questionnaires that are part of the online survey. These findings were presented at the Australasian Society for Autism Research Conference (December 2014). The full report has been downloaded 91 times and executive summary 64 times from our website (as at August 2015).

- The Inclusive Research Practice Guides and Checklists developed for use within and beyond the CRC, have been downloaded 108 times with almost 1,000 visitors to the information on the website. They are being extensively utilised within the CRC and have formed the basis of some of the sessions in the forthcoming Research Academy workshops (October 2015). They are being used by a number of Australian university ethics committees (providing best practice details on engaging adults on the spectrum at various stages of the research process) as well as by autism researchers beyond the CRC nationally and internationally.
- 2.024RI Emergent Literacy Project early findings on story reading between parents and their children on the spectrum have been well received by Brisbane City Council librarians and early discussions are continuing regarding roll out of workshops on autism to library staff, advice on book purchasing and parent and kids reading sessions, among other initiatives. Embedding research outcomes in the community will ensure capacity building, accessibility, utilisation opportunities and sustainability with the ability to scale up to library systems more broadly across the country.
- Project 1.005RC SACS-R has trained over 300 health and early childhood professionals in NSW and QLD. Training in Tasmania is planned for September 2015 with approximately 200 professionals currently enrolled. To date, training of 126 Maternal and Child Health Nurses in Victoria has resulted in more than 14,000 infants and children being monitored between 12 - 42 months with a small number being followed up as being at risk for an ASD diagnosis.

The Research and Translation Executive, as a sub-committee of the Research and Development Committee, has oversight of the IP development, protection and commercialisation activities of the CRC.



Dr Josie Barbaro (La Trobe) training early childhood teachers on the Gold Coast on the SACS-R developmental surveillance tool (Project 1.005RC).

### Social Skills Training Pty Ltd

Social Skills Training Pty Ltd (SST) is a wholly-owned subsidiary of Autism CRC, which will further develop and commercialise a social and behavioural skills training program, Secret Agent Society (SAS). SST holds the exclusive commercialisation rights to the SAS program and future program developments. It is responsible for the production and distribution of SAS materials, in addition to providing and facilitating practitioner training courses within Australia, initially with the CRC's end-user participants, and internationally.

The SAS program was originally developed by Dr Renae Beaumont of Renae Beaumont Enterprises Pty Ltd, an Other Participant, for use by 8-12 year olds with high functioning autism and their families and teachers.

During the reporting period, SST had turnover of \$539,000 including \$50,000 in export sales.

Facilitator Training Courses and Computer Game Workshops were held across Australia and two courses were run internationally. A total of 345 professionals attended training events during the reporting period.

- 162 people attended Practitioner Training.
- 126 people attended the Computer Game Workshops.
- 57 (both Practitioner & Computer Game Workshop) 2 for 1 and complimentary places.
- 1,126 Family Kits were sold in the reporting period which means more than 1,000 families have benefitted from the Secret Agent Society Program during the past twelve months.

The Social Skills Training Pty Ltd Board has been appointed by Autism CRC Ltd as the sole shareholder. Its members are:

- Professor Robert van Barneveld (Chair);
- Ms Judy Brewer;
- Mr Paul Vincent; and
- Mr Andrew Davis.

Mr Davis also presently serves as Company Secretary.

The SST Board met seven times during the reporting period.



**Board**: (I-r) Robert van Barneveld (Chair), Judy Brewer, Paul Vincent, Andrew Davis

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# Appendix 1: List of Autism CRC Participants

Participant name	Туре	Organisation type	ABN
AEIOU Foundation	Essential	Industry / Private Sector / End-user	19 135 897 255
Autism Queensland Ltd	Essential	Industry / Private Sector / End-user	79 253 351 418
Autism Spectrum Australia (Aspect)	Essential	Industry / Private Sector / End-user	12 000 637 267
Curtin University	Essential	University	99 143 842 569
Griffith University	Essential	University	78 106 094 461
La Trobe University	Essential	University	64 804 735 113
Mater Medical Research Institute Ltd	Essential	Industry / Private Sector / End-user	28 109 834 719
Queensland Department of Education and Training	Essential	State Government / End-user	76 337 613 647
Queensland University of Technology	Essential	University	83 791 724 622
University of New South Wales	Essential	University	57 195 873 179
University of Queensland	Essential	University	63 942 912 684
University of Western Australia	Essential	University	37 882 817 280
Affymetrix Inc	Other	Industry / Private Sector /End-user / International	
Asperger Services Australia	Other	Industry / Private Sector / End-user	14 389 908 238
AssistiveWare	Other	Industry / Private Sector/ International	
Australian Advisory Board for Autism Spectrum Disorders	Other	Other / End-user	53 085 018 408
Australian College of Rural and Remote Medicine	Other	Other / End-user	12 078 081 848
Australian Council for Educational Research	Other	Industry / End-user	19 004 398 145
Autism Association of South Australia Inc	Other	Industry / Private Sector/ End-user	41 905 977 886
Autism Association of Western Australia Inc	Other	Industry / Private Sector/ End-user	54 354 917 843
Autism Awareness	Other	Industry / Private Sector/ End-user	42 130 217 962
Autism Specific Early Learning and Care Centre - Anglicare SA	Other	Industry / End-user	69 187 578 153
Autism Specific Early Learning and Care Centre - KU Children's Services	Other	Industry / End-user	89 000 006 137
Autism Specific Early Learning and Care Centre - La Trobe University Community Children's Centre	Other	Industry / End-user	64 804 735 113
Autism Specific Early Learning and Care Centre - Nathan QLD (AEIOU)	Other	Industry / End-user	19 135 897 255
Autism Specific Early Learning and Care Centre - North West Tasmania (Burnie City Council)	Other	Industry / End-user	29 846 979 690
Autism Specific Early Learning and Care Centre - WA (AAWA)	Other	Industry / End-user	54 354 917 843

Participant name	Туре	Organisation type	ABN
Brisbane Catholic Education	Other	Private sector / End-user	49 991 006 857
Catholic Education Commission of Victoria	Other	Private Sector / End-user	92 119 459 853
Catholic Education Office of WA	Other	Private Sector / End-user	97 244 688 522
Children's Health Services	Other	State Government / End-user	66 329 169 412
Disability Services Commission, WA	Other	State Government / End-user	36 922 715 369
F. Hoffmann-La Roche Ltd	Other	Industry / Private Sector / End-user/ International	
Hear and Learn	Other	Industry / Private Sector	26 125 822 479
iiNet Ltd	Other	Industry / Private Sector	48 068 628 937
Joseph Piven	Other	Individual / International	
Minds and Hearts	Other	Industry / Private Sector/ End-user	51 128 736 103
National Rural Health Alliance	Other	Other / End-user	68 480 848 412
Pathwest Laboratory Medicine WA	Other	State Government	13 993 250 709
University of Sydney	Other	University	15 211 513 464
Renae Beaumont Enterprises Pty Ltd	Other	Industry	
SA Group Enterprises Inc	Other	Private Sector/ End-user	40 005 498 775
The Aspergers Syndrome Clinic	Other	Industry / Private Sector / End-user	39 090 503 601
The Association of Independent Schools of QLD	Other	Industry / Private Sector/ End-user	88 662 995 577
The Royal Children's Hospital	Other	State Government / End-user	35 655 720 546
The Sydney Children's Hospital Network	Other	State Government / End-user	53 188 579 090
Western Australian Autism Diagnosticians Forum Inc	Other	Other / End-user	51 286 721 089

\* Note that during the reporting period, Autism Spectrum Australia, an Essential Participant, acquired the operations of Alpha Autism Inc., which had been another participant in Autism CRC.

## Appendix 2: Annual financial report for financial period ended 30 June 2015

Autism CRC Ltd ABN 55 162 632 180

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Annual Financial Report For the financial period ended 30 June 2015

Autism CRC Ltd

ABN 55 162 632 180

Annual Financial Report For financial period ended 30 June 2015

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Autism CRC Ltd ABN 55 162 632 180

Annual Financial Report For the financial period ended 30 June 2015

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Annual Financial Report For the financial period ended 30 June 2015

#### **Company Directory**

#### Directors

Judy Brewer, Chair Robert van Barneveld, Deputy Chair Paul Field Carole Green Shirley Lanning Paul Vincent Garry Allison Adrian Ford Ian Harris Vicki Pattemore Scott Reading

#### **Company Secretary**

Andrew Davis

#### **Registered Office**

Autism CRC Ltd Level 3 Foxtail Building, Long Pocket The University of Queensland, Brisbane Queensland Australia 4072

#### Auditors BDO Audit Pty Ltd Level 10, 12 Creek Street Brisbane, Queensland

#### Solicitors

FAL Lawyers Level 16, 356 Collins Street Melbourne Victoria



#### Annual Financial Report For the financial period ended 30 June 2015

#### **Directors' Report**

The Directors of Autism CRC Ltd ("the Company" or "CRC") present their report with the financial statements of the Company for the twelve months ended (or "financial period ended") 30 June 2015.

Autism CRC Ltd is established and operates under its Constitution and is subject to the Commonwealth Agreement and Essential Participants Agreement.

Autism CRC Ltd is a company limited by guarantee, incorporated and domiciled in Australia.

Autism CRC Ltd formed Social Skills Training Pty Ltd (SST) on 10 July 2014. SST is a whollyowned subsidiary which will further develop and commercialise a social and behavioural skills training program. SST results are incorporated into the Consolidated Group for the 2015 financial statements. For further information on consolidation refer to the *Principles of consolidation* in Note 2 summary of accounting policies.

#### Directors

The Company's Board of Directors includes an independent Chairperson, five Independent Directors, and five Nominee Directors. The Directors, appointed at the Company's first annual meeting on 29 July 2013 through to the end of the reporting period are:

Judy Brewer	B.Bus (Public Admin), Grad Dip Taxation, GAICD
Independent Chair	
Chair Remuneration,	
Nominations & Selection	
Robert van Barneveld	B.Agr.Sc (Hon), PhD., RAnNutr. FAICD
Independent Deputy Chair	
Chair Research &	
Development Committee	
Chair Social Skills Training	
Pty Ltd Board	
Paul Field	BA (Hons)., MA. FAICD
Independent Director	
Carole Green	MBA, Master of Information Technology, Grad Diploma Computer
Independent Director	Education, Grad Diploma Corporate Governance, B. Applied
	Science (Computing), Certificate of Teaching, GAICD
Shirley Lanning	PhD (Microbiology), BSc (Hons 1) (Biological Sciences), FAICD
Independent Director	
Paul Vincent	Bachelor of Business (Accountancy), FCA, GAICD
Independent Director	

Annual Financial Report For the financial period ended 30 June 2015

Chair Audit, Risk &	
Finance Committee	
Garry Allison	B.Ed(Hons), B.App. Science (Physio)(Hons), M.Ed., PhD
Nominee Director	
Adrian Ford	Bachelor of Social Studies, FAICD
Nominee Director	
Ian Harris Nominee Director	Master Education, Grad Dip Administration, Bachelor of Science (Agriculture), GAICD
Vicki Pattemore Nominee Director	PhD (Terrestrial Ecology), B.Sc (Hons 1), Certificate Small Business Management, GAICD
Scott Reading Nominee Director	Master of Commerce, Master of Business (Logistics Management), MAICD

Directors have been in office since the beginning of the financial period to the date of this report unless otherwise stated.

#### **Company Secretary**

The Company Secretary as at 30 June 2015 was Mr Andrew Davis, who also acts as Chief Executive Officer (CEO) of the Company.

#### **Board Committees**

The Board has established a number of Committees to assist in the execution of its duties and to allow detailed consideration of various issues. Current Committees of the Board are: Audit, Risk and Finance Committee; Remuneration, Nominations and Selection Committee and Research and Development Committee. Each of the Committees has its own formal charter setting out the authority delegated to it by the Board. All matters determined by these Committees are submitted to the full Board for approval.

#### Audit, Risk and Finance Committee

The Audit, Risk and Finance Committee assists the Board in its oversight of the integrity of financial reporting, internal control structures, audit functions and also compliance and risk management systems relating to the finance and audit functions. This Committee ensures appropriate policies and procedures are in place to underpin best practice governance and to identify and manage corporate risk for the Company.

The Audit, Risk and Finance Committee assumed the duties and responsibilities of the Governance and Risk Committee, with the latter Committee being disbanded.

During the reporting period, the Audit, Risk and Finance Committee met five times and consisted of Mr Paul Vincent (Chair), Mr Ian Harris, Ms Carole Green and Mr Scott Reading with the CEO and CFO in attendance.



Annual Financial Report For the financial period ended 30 June 2015

#### The Remuneration, Nominations and Selection Committee

The Remuneration, Nominations and Selection Committee assists the Board in fulfilling its corporate governance responsibilities in regard to:

- the selection and nomination of Directors to the Board
- appointment and review of performance of the Chief Executive Officer (CEO), and overview of the Executive Team; and
- the system of remuneration and benefits for the Executive Team.

During the reporting period, the Remuneration, Nominations and Selection Committee met four times and consisted of Ms Judy Brewer (Chair), Dr Vicki Pattemore, Dr Shirley Lanning, Ms Carole Green and Professor Robert van Barneveld with the CEO and CFO in attendance. Ms Carole Green stepped down from the Committee following the February 2015 meeting.

#### **Research and Development Committee**

The Research and Development Committee is comprised of Essential Participant nominees and members appointed by the Board. The Committee provides a forum for consultation among the Essential Participants, a point of interaction between the Essential Participants and the Board, and guidance and recommendations to the Board in relation to research and development undertaken within the CRC.

During the reporting period, the Research and Development Committee met once and and consisted of Professor Robert van Barneveld (Chair), Professor Garry Allison, Mr Adrian Ford, Mr Andrew Davis (CEO), Professor Sylvia Rodger (Director of Research and Education), Professor Andrew Whitehouse (Program 1 Director), Professor Suzanne Carrington (Program 2 Director), Professor Torbjorn Falkmer (Program 3 Director), and Mrs Robyn Synnott (Committee Secretary) also attended in addition to the Essential Participant nominees representatives.

Responsibilities for the provision of oversight on intellectual property and commercialisation matters were assumed by the Research and Translation Executive. The Executive provides advice and reports on such matters, together with management of the research programs, to the Research and Development Committee and to the Board. The prior Commercialisation Committee ceased operating with the formation of the Research and Translation Executive.

#### Social Skills Training Pty Ltd Board

The Company acquired the Secret Agent Society (SAS) Program Business from Triple P International. Autism CRC Ltd made a \$200,000 equity investment and formed Social Skills Training Pty Ltd (SST) on 10 July 2014. SST is a wholly-owned subsidiary of Autism CRC, which will further develop and commercialise a social and behavioural skills training program, Secret Agent Society (SAS). SST holds the exclusive commercialisation rights to the SAS program and future program developments. It is responsible for the production and distribution of SAS materials, in addition to providing and facilitating practitioner training courses within Australia, initially with the CRC's end-user participants, and internationally.

The Social Skills Training Pty Ltd Board has been appointed by Autism CRC Ltd as the sole shareholder. Its members are Professor Robert van Barneveld (Chair), Ms Judy Brewer, Mr Paul Vincent and Mr Andrew Davis. Mr Davis also presently serves as Company Secretary.

Annual Financial Report For the financial period ended 30 June 2015

#### **Directors' and Committee Meetings**

The number of Directors' meetings and various Committee Meetings held during the financial period and the numbers of meetings attended by each Director are:

	Direc Mee	ctors' tings		Audit, Risk and Finance Committee		Remuneration and Selection Committee		Research and Development Committee	
	А	В		А	В	А	В	А	В
Judy Brewer	9	9		n/a	n/a	4	4	n/a	n/a
Robert van Barneveld	9	9		n/a	n/a	4	4	1	1
Paul Field	9	9		n/a	n/a	n/a	n/a	n/a	n/a
Carole Green	8	9		4	4	3	3	n/a	n/a
Shirley Lanning	8	9		n/a	n/a	4	4	n/a	n/a
Paul Vincent	7	9		5	5	1 (by invitation)	1 (by invitation)	n/a	n/a
Garry Allison	9	9		n/a	n/a	n/a	n/a	n/a	n/a
Adrian Ford	8*	9		n/a	n/a	n/a	n/a	1	1
Ian Harris	9*	9	Ē	5	5	n/a	n/a	n/a	n/a
Vicki Pattemore	7	9		n/a	n/a	4	4	n/a	n/a
Scott Reading	9	9		5	5	n/a	n/a	n/a	n/a

\* Adrian Ford and Ian Harris participated in the 25th September Directors' Meeting via flying minute

A = Attended

B = Number of eligible to attend

#### Short and Long Term Objectives

The Company undertakes to build a self-sustaining, collaborative venture that facilitates world-class research focused on diagnosis and best-practice lifetime interventions, underpinned by a commitment to inclusive research practices and ultimately enhancing the lives of those living with autism.

The Company aims to:

- invest in research projects that can be translated to make a practical difference in the lives of people living with autism;
- build capacity in autism research with a robust educational program for early career scholars;
- build the capacity of researchers and those living with autism to engage authentically in peer research and its translation;
- provide exceptional governance in managing investment responsibly;
- secure additional funding from diverse sources to develop our organisational and research capacity;
- promote awareness of our activities and research outcomes among the general community and other key stakeholders;



Annual Financial Report For the financial period ended 30 June 2015

- develop a program of engagement with people who have the lived experience of autism both to inform our work and to facilitate the translation of research outcomes; and
- build a committed team of Autism CRC researchers, scholars, Directors and staff who are ambassadors for the brand.

#### **Principal Activities**

The Company's principal activity during the reporting period is facilitating research, supporting diagnosis, education and adult life in the field of autism. Further details of activities can be found in the published Annual Report.

#### **Results of Operations**

The operating surplus of the Consolidated Group for the financial period ended 30 June 2015 was \$75,030 (2014: \$40,716).

#### **Review of Operations**

To 30 June 2015, the Consolidated Group had operating income of \$13,141,889 (2014: \$7,605,435).

The Company uses a range of mechanisms to measure its performance.

#### Dividends

The Company is limited by guarantee and has no share capital. The Directors of Autism CRC Ltd are precluded by the Company's Constitution from declaring a dividend. No dividends were paid or declared by Autism CRC Ltd for the year ended 30 June 2015.

#### Options

No options over unissued shares or interests in the Company were granted during or since the end of the financial period, and there are no options outstanding at the date of this report.

#### State of Affairs and Events Subsequent to Balance Date

In the opinion of the Directors, there were no other significant changes apart from those stated above that occurred during the reporting period. There has not arisen in the interval between the end of the financial period and the date of this report any matter or circumstances which has or may significantly affect the operations of the Company, the results of those operations or the state of affairs of the Company in subsequent periods.

#### Indemnification of Officers and Auditors

The Company entered into agreements to indemnify all Directors and Officers of the Company against all liabilities to persons (other than the Company or a related body corporate), which arise out of the performance of their normal duties as director or executive officer unless the liability relates to conduct involving a lack of good faith. The Company has agreed to indemnify the Directors and Executive Officers against all costs and expenses incurred in defending the action that falls within the scope of the indemnity and any resulting payments.

Annual Financial Report For the financial period ended 30 June 2015

The Company provided for directors' and officers' liability insurance. The Company provides indemnification against all costs and expenses involved in defending legal actions and any resulting payments arising from a liability to persons (other than the Company or a related body corporate) incurred in their position as director or executive officer unless the conduct involves a wilful breach of duty or an improper use of inside information or position to gain advantage. No indemnity was provided for the auditors.

#### **Environmental Regulations**

The Company's operations are not regulated by any significant environmental regulation under a law of the Commonwealth or of a State or Territory.

#### Likely Developments and Expected Results

As the Company continues its activities, the financial result for next year will be consistent with 2015. Expenditure will increase as project payments are made towards projects authorised by the Autism CRC Ltd Board in the 2013, 2014 and 2015 investment rounds.

#### Proceedings on behalf of the Company

No proceedings have been entered into on behalf of the Company.

#### Members' Guarantee

The Company is limited by guarantee. If the company is wound up, the Constitution states that each member is required to contribute a maximum of \$100 towards meeting any outstanding obligations of the Company. The total amount members are liable to contribute if the company is wound up is \$1,100.

#### Auditor's Independence Declaration

The auditor's independence declaration is attached to this financial report.

This report has been made in accordance with a resolution of the directors of the Company.

Judy Brewer Chair

Dated on the 14th October 2015 in Brisbane.



Auditor's Declaration of Independence



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#### DECLARATION OF INDEPENDENCE BY C J SKELTON TO THE DIRECTORS OF AUTISM CRC LIMITED

As lead auditor of Autism CRC Limited for the year ended 30 June 2015, I declare that, to the best of my knowledge and belief, there have been:

- 1. No contraventions of the auditor independence requirements of the Professional Accounting Bodies in relation to the audit; and
- 2. No contraventions of any applicable code of professional conduct in relation to the audit.

This declaration is in respect of Autism CRC Limited and the entity it controlled during the period.

Uni UNS

C J Skelton Director

**BDO Audit Pty Ltd** 

Brisbane, 14 October 2015

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Annual Financial Report For the financial period ended 30 June 2015

### Statements of Comprehensive Income For the financial period ended 30 June 2015

		Consolidated Group	Parent Company	
		30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	Note	\$	\$	\$
Revenue from continuing operations				
Revenues	3	13,141,889	12,670,768	7,605,435
Other income				
Interest received		51,050	50,720	26,147
Expenses				
Research costs	4	11,140,803	11,140,803	6,126,589
Employee benefits expense	5	1,035,944	857,202	590,243
Board fees and related expense		244,161	244,161	270,049
Depreciation and amortisation expense		18,425	14,925	12,823
Other Expenses	6	672,443	403,677	591,703
Total expenses		13,111,776	12,660,768	7,591,406
Surplus/(Deficit) before tax		81,163	60,720	40,176
Income tax expenses	7	(6,133)	-	-
Profit after tax		75,030	60,720	40,176
Other comprehensive income		-	-	-
Total comprehensive income for the period		75,030	60,720	40,176
Profit/(loss) for the year attributable to: Owners of Social Skills Training Pty Ltd		14,310	-	-



#### Annual Financial Report For the financial period ended 30 June 2015

### Statements of Financial Position For the financial period ended 30 June 2015

		Consolidated Group	Parent Company	
	Note	30 June 2015 \$	30 June 2015 \$	30 June 2014 \$
				·
Current assets				
Cash and cash equivalents	8a	3,236,261	3,104,426	2,273,118
Trade receivables	9	332,871	300,000	63,750
Prepayments	10	73,954	72,401	11,888
Inventory		125,994	-	-
Total current assets		3,769,080	3,476,827	2,348,756
Non-current assets				
Property, plant and equipment	11	47,405	42,001	53,367
Trade and other receivables - non-current	9	-	76,381	-
Investment in wholly owned subsidiary		-	200,000	-
Intangible Assets	12	205,847		-
Total non-current assets		253,252	318,382	53,367
Total assets		4,022,332	3,795,209	2,402,123
Current liabilities				
Trade and other payables	13	378,073	174,334	524,430
Provisions	14	47,648	38,888	18,178
Deferred revenues	15	3,388,738	3,388,424	1,802,672
Total current liabilities		3,814,459	3,601,646	2,345,280
Non-current liabilities				
Deferred revenues	15	92,667	92,667	16,667
Total non-current liabilities		92,667	92,667	16,667
Total liabilities		3,907,126	3,694,313	2,361,947
Net assets		115,206	100,896	40,176
Equity				
Retained earnings	16	115,206	100,896	40,176
Total equity		115,206	100,896	40,176

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Annual Financial Report For the financial period ended 30 June 2015

# Statements of Cash Flows

### For the financial period ended 30 June 2015

		Consolidated Group	Parent Company	
		30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	Note	\$	\$	\$
Cash flows from operating activities				
Receipt from Commonwealth Government		4,163,000	4,163,000	3,332,000
Receipts from Participants		711,750	711,750	792,820
Receipts from other sources		1,081,691	519,401	64,028
Payments to suppliers and employees		(4,799,044)	(4,410,005)	(1,875,687)
Interest received		51,050	50,720	26,147
Net cash provided by operating activities	8b	1,208,447	1,034,866	2,339,308
Cash flows from investing activities				
Payments for property, plant and equipment		(11,001)	(3,558)	(66,190)
Payments for acquisition of Intellectual Property		(226,995)	(200,000)	-
Formation Costs		(7,308)	-	-
Net cash used by investing activities		(245,304)	(203,558)	(66,190)
Cash flows from financing activities				
Cash proceeds from members' contributions		-	-	-
Net cash provided for financing activities		-	-	-
Net (decrease)/increase in cash and cash equivalents		963,143	831,308	2,273,118
Cash and cash equivalents at the incorporation date		2,273,118	2,273,118	_,_, _, _,
Cash and cash equivalents at 30 June 2015	8a	3,236,261	3,104,426	2,273,118
		-,,	-, -,	, -, -



Annual Financial Report For the financial period ended 30 June 2015

### Statement of Changes in Equity For the financial period ended 30 June 2015

_	Consolidated Group Total \$	Parent Total \$
Balance at Incorporation Date Surplus after income tax expense for the year Other comprehensive income for the year, net of tax	40,176	40,176
Total comprehensive income for the year	40,176	40,176
Balance at 30 June 2014	40,176	40,176
Balance at 1 July 2014	40,176	40,176
Surplus after income tax expense for the year	75,030	60,720
Other comprehensive income for the year, net of tax	-	-
Total comprehensive income for the year	75,030	60,720
Balance at 30 June 2015	115,206	100,896

Annual Financial Report For the financial period ended 30 June 2015

#### Notes to the financial statements For the financial period ended 30 June 2015

#### Note 1. Introduction

Autism CRC Ltd is a company limited by guarantee incorporated and domiciled in Australia.

#### Authorisation of financial report

The financial report was approved by resolution of the Board of Directors on 7 October 2015.

#### Note 2. Summary of accounting policies

In the Directors' opinion, the Company is not a reporting entity as users of the financial report are unlikely to exist who are unable to command the preparation of reports tailored to satisfy their information needs. Therefore, this financial report is a 'special purpose financial report' and has been prepared to meet requirements of the Australian Charities and Not-for-profits Commission Act 2012.

#### Statement of compliance

The financial statements have been prepared in accordance with the recognition and measurement requirements specified by the Australian Accounting Standards and Interpretations issued by the Australian Accounting Standards Board and the disclosure requirements of AASB 101 "Presentation of Financial Statements", AASB 107 "Cash Flow Statements", AASB 108 "Accounting Policies, Changes in Accounting Estimates and Errors", AASB 1031 "Materiality" and AASB 1048 "Interpretation and Application of Standards". These financial statements do not conform to International Financial Reporting Standards as issued by the International Accounting Standards Board.

#### **Basis of Preparation**

The financial report has been prepared on an accrual basis, and is based on the historical cost method unless otherwise stated. Accounting policies are selected and applied in a manner which ensures that the resulting financial information satisfies the concepts of relevance and reliability, thereby ensuring that the substance of the underlying transactions or other events is reported. The financial report is presented in Australian dollars and rounded to the nearest dollar.

#### **Financial Period**

The current financial period is the 12 months from 1 July 2014 to 30 June 2015. As Autism CRC Ltd was incorporated on 1 March 2013, the comparative figures are for the 16 month period from 1 March 2013 to 30 June 2014.

#### Principles of consolidation

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of Autism CRC Ltd ('company' or 'parent entity') as at 30 June 2015 and the results of its subsidiary for the year then ended. Autism CRC Limited and its subsidiary together are referred to in these financial statements as the 'consolidated entity'.

Subsidiaries are all those entities over which the consolidated entity has control. The consolidated entity controls an entity when the consolidated entity is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power to direct the activities of the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the consolidated entity. They are de-consolidated from the date that control ceases.



Annual Financial Report For the financial period ended 30 June 2015

#### Notes to the financial statements For the financial period ended 30 June 2015

#### Note 2. Summary of accounting policies (continued)

Intercompany transactions, balances and unrealised gains on transactions between entities in the consolidated entity are eliminated. Unrealised losses are also eliminated unless the transaction provides evidence of the impairment of the asset transferred. Accounting policies of subsidiaries have been changed where necessary to ensure consistency with the policies adopted by the consolidated entity.

The acquisition of subsidiaries is accounted for using the acquisition method of accounting. A change in ownership interest, without the loss of control, is accounted for as an equity transaction, where the difference between the consideration transferred and the book value of the share of the non-controlling interest acquired is recognised directly in equity attributable to the parent.

Non-controlling interest in the results and equity of subsidiaries are shown separately in the statement of comprehensive income, statement of financial position and statement of changes in equity of the consolidated entity. Losses incurred by the consolidated entity are attributed to the non-controlling interest in full, even if that results in a deficit balance.

Where the consolidated entity loses control over a subsidiary, it derecognises the assets including goodwill, liabilities and non-controlling interest in the subsidiary together with any cumulative translation differences recognised in equity. The consolidated entity recognises the fair value of the consideration received and the fair value of any investment retained together with any gain or loss in profit or loss.

Interests in subsidiaries are accounted for at cost, less any impairment, in the parent entity. Dividends received from subsidiaries are recognised as other income by the parent entity and its receipt may be an indicator of an impairment of the investment.

The following significant accounting policies have been adopted in the preparation and presentation of the financial report.

#### (a) Foreign currency translation

The financial statements are presented in Australian dollars, which is Autism CRC Ltd's functional and presentation currency.

#### Foreign currency transactions

Foreign currency transactions are translated into Australian dollars using the exchange rates prevailing at the dates of the transactions. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at financial year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in profit or loss.

(b) Current and non-current classification

Assets and liabilities are presented in the statement of financial position based on current and non-current classification.

Annual Financial Report For the financial period ended 30 June 2015

#### Notes to the financial statements For the financial period ended 30 June 2015

#### Note 2. Summary of accounting policies (continued)

(b) Current and non-current classification (continued)

An asset is classified as current when: it is either expected to be realised or intended to be sold or consumed in normal operating cycle; it is held primarily for the purpose of trading; it is expected to be realised within 12 months after the reporting period; or the asset is cash or cash equivalent unless restricted from being exchanged or used to settle a liability for at least 12 months after the reporting period. All other assets are classified as non-current.

A liability is classified as current when: it is either expected to be settled in normal operating cycle; it is held primarily for the purpose of trading; it is due to be settled within 12 months after the reporting period; or there is no unconditional right to defer the settlement of the liability for at least 12 months after the reporting period. All other liabilities are classified as non-current.

Deferred tax assets and liabilities are always classified as non-current.

(c) Cash and cash equivalents

Cash and cash equivalents comprise cash on hand and at bank with original maturity of three months or less.

(d) Employee Benefits

Provision is made for benefits accruing to employees in respect of wages and salaries, annual leave and long service leave when it is probable that settlement will be required and they are capable of being measured reliably.

Provisions made in respect of employee benefits expected to be settled within 12 months, are measured at their nominal values using the remuneration rate expected to apply at the time of settlement.

Provisions made in respect of employee benefits which are not expected to be settled within 12 months are measured at the present value of the estimated future cash outflows to be made by the Company in respect of services provided by employees up to reporting date.

(e) Receivables

Receivables are carried at nominal amounts due less any provision for doubtful debts and are non-interest bearing. A provision for doubtful debts is recognised when collection of the full amount is no longer probable.

#### (f) Property, plant and equipment

Plant and equipment is stated at historical cost less accumulated depreciation and impairment. Historical cost includes expenditure that is directly attributable to the acquisition of the items.

Depreciation is calculated on a straight-line basis to write off the net cost of each item of property, plant and equipment (excluding land) over their expected useful lives as follows:

Plant and equipment 3-8 years



Annual Financial Report For the financial period ended 30 June 2015

#### Notes to the financial statements For the financial period ended 30 June 2015

#### Note 2. Summary of accounting policies (continued)

The residual values, useful lives and depreciation methods are reviewed, and adjusted if appropriate, at each reporting date.

An item of property, plant and equipment is derecognised upon disposal or when there is no future economic benefit to the Company. Gains and losses between the carrying amount and the disposal proceeds are taken to profit or loss.

#### (g) Goods and services tax

Revenues, expenses and assets are recognised net of the amount of goods and services tax (GST) except:

- where the amount of GST incurred is not recoverable from the taxation authority, it is recognised as part of the cost of acquisition of an asset or as part of an item of expense; or
- (ii) for receivables and payables which are recognised inclusive of GST.

The net amount of GST recoverable from, or payable to, the taxation authority is included as part of receivables or payables.

Cash flows are included in the cash flow statement inclusive of GST.

(h) Income Tax

The Company has been endorsed by the Australian Tax Office as income tax exempt under Subsection 50-5 of the Income Tax Assessment Act 1997 as a not-for-profit entity.

A 100% owned subsidiary of Autism CRC Ltd, Social Skills Training Pty Ltd, has been established and is regarded as a taxable, for-profit entity.

#### Income tax

The income tax expense or benefit for the period is the tax payable on that period's taxable income based on the applicable income tax rate for each jurisdiction, adjusted by the changes in deferred tax assets and liabilities attributable to temporary differences, unused tax losses and the adjustment recognised for prior periods, where applicable.

Deferred tax assets and liabilities are recognised for temporary differences at the tax rates expected to be applied when the assets are recovered or liabilities are settled, based on those tax rates that are enacted or substantively enacted, except for:

- When the deferred income tax asset or liability arises from the initial recognition of goodwill
  or an asset or liability in a transaction that is not a business combination and that, at the time
  of the transaction, affects neither the accounting nor taxable profits; or
- When the taxable temporary difference is associated with interests in subsidiaries, associates or joint ventures, and the timing of the reversal can be controlled and it is probable that the temporary difference will not reverse in the foreseeable future.

Annual Financial Report For the financial period ended 30 June 2015

#### Notes to the financial statements For the financial period ended 30 June 2015

#### Note 2. Summary of accounting policies (continued)

Deferred tax assets are recognised for deductible temporary differences and unused tax losses only if it is probable that future taxable amounts will be available to utilise those temporary differences and losses.

The carrying amount of recognised and unrecognised deferred tax assets are reviewed at each reporting date. Deferred tax assets recognised are reduced to the extent that it is no longer probable that future taxable profits will be available for the carrying amount to be recovered.

The carrying amount of recognised and unrecognised deferred tax assets are reviewed at each reporting date. Deferred tax assets recognised are reduced to the extent that it is no longer probable that future taxable profits will be available for the carrying amount to be recovered. (h) Income Tax (continued)

Previously unrecognised deferred tax assets are recognised to the extent that it is probable that there are future taxable profits available to recover the asset.

Deferred tax assets and liabilities are offset only where there is a legally enforceable right to offset current tax assets against current tax liabilities and deferred tax assets against deferred tax liabilities; and they relate to the same taxable authority on either the same taxable entity or different taxable entities which intend to settle simultaneously.

(i) Payables

These amounts represent liabilities for goods and services provided to the Company prior to the end of the financial year and which are unpaid. Due to their short-term nature they are measured at amortised cost and are not discounted. The amounts are unsecured and are usually paid within 30 days of recognition.

#### (j) Research and Development

Expenditure on research and development activities, undertaken with prospect of gaining new scientific or technical knowledge and understanding, is recognised in the year when incurred.

#### (k) Revenue recognition

Interest revenue

Interest revenue is recognised on a time proportionate basis that takes into account the effective yield on the financial asset.

#### Cash Contributions

Cash contributions from members and participants are recognised when the Company is in control of or has the right to receive the contributions.



Annual Financial Report For the financial period ended 30 June 2015

#### Notes to the financial statements For the financial period ended 30 June 2015

#### Note 2. Summary of accounting policies (continued)

(k) Revenue recognition (continued)

#### Government grants

Government grants received on the condition requiring specified services delivered or conditions fulfilled are considered reciprocal. Such grants are initially recognised as deferred income and then subsequently recognised in the periods necessary to match them with related costs and the fulfilment of services delivered or conditions fulfilled.

Government grants of a non-reciprocal nature are recognised when the Company obtains control of the funds.

#### Donations

Donations are recognised at the time the pledge is made.

#### Other revenue

Other revenue is recognised when it is received or when the right to receive payment is established.

(I) In-kind contributions

In-kind contributions as reported from Participants are brought to account as revenue and expenditure. In-kind contributions are measured at fair value based on reported in-kind consistent with the valuation principles agreed to in the terms of Autism CRC Participants' Agreements.

The types of in-kind expenditure recorded by the Company mainly include staffing costs and direct research expenditure. This expenditure was incurred by Participants in conducting research and other CRC activities on behalf of the Company.

#### (m) Critical Accounting Estimates & Judgements

In the application of the Company's accounting policies, management is required to make judgements, estimates and assumptions about carrying values of assets and liabilities that are not readily apparent from other sources. The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances, the results of which form the basis of the judgements. Actual results may differ from these estimates. The estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimate is revised if the revision affects only that period or in the period of the revision and future periods if the revision affects both current and future periods.

The judgements, estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities (refer to the respective notes) within the next financial year are discussed below.

# Appendix

Autism CRC Ltd ABN 55 162 632 180

Annual Financial Report For the financial period ended 30 June 2015

#### Estimation of useful lives of assets

The Company determines the estimated useful lives and related depreciation and amortisation charges for its property, plant and equipment and finite life intangible assets. The useful lives could change significantly as a result of technical innovations or some other event. The depreciation and amortisation charge will increase where the useful lives are less than previously estimated lives, or technically obsolete or non-strategic assets that have been abandoned or sold will be written off or written down. Acquired intangible assets have not been amortised and none will be booked until a valuation is undertaken in the 2016 financial year.

Impairment of non-financial assets other than goodwill and other indefinite life intangible assets The Company assesses impairment of non-financial assets, other than goodwill and other indefinite life intangible assets, at each reporting date by evaluating conditions specific to the Company and to the particular asset that may lead to impairment. If an impairment trigger exists, the recoverable amount of the asset is determined. This involves fair value less costs of disposal or value-in-use calculations, which incorporate a number of key estimates and assumptions.

#### (n) New standards and interpretations not yet adopted

Australian accounting standards and interpretations that have recently been issued or amended but are not yet mandatory have not been early adopted by the Company for the reporting period ended 30 June 2015. The Company has not yet assessed the impact of these new or amended accounting standards or interpretations.

	Consolidated Group	Parent Company	
	30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	\$	\$	\$
Note 3. Revenue			
Commonwealth government – CRC program grant	2,711,248	2,711,248	1,662,662
Participant Cash Contributions	770,000	770,000	755,320
Participant In-kind Contributions	9,118,146	9,118,146	5,173,425
Other Income	542,495	71,374	14,028
	13,141,889	12,670,768	7,605,435
Note 4. Research Costs			
Research Expenditure - Cash	2,022,657	2,022,657	953,163
Research Expenditure - In-Kind	9,118,146	9,118,146	5,173,425
	11,140,803	11,140,803	6,126,589
	11,140,005	11,140,005	0,120,505
Note 5. Employee Expenses			
WorkCover	5,978	5,713	4,102
Salary & Wages	900,160	739,243	520,701
Superannuation	89,054	74,121	47,263
Accrued Leave	40,752	38,125	18,177
	1,035,944	857,202	590,243
Note C. Other Evenence			
Note 6. Other Expenses	20 71 4	20 74 4	16 207
Audit Fees Cost of Goods Sold	20,714	20,714	16,397
	102,747	-	-



# Annual Financial Report

For the financial period ended 30 June 2015

	Consolidated Group	Parent Company	
	30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	\$	\$	\$
Note 6. Other Expenses (continued)			
External Support	105,788	98,038	124,804
General & Administrative	331,275	204,783	274,107
Gift Fund Expense	1,375	1,375	-
Insurance	13,819	13,338	12,604
IT Support	41,267	22,944	22,175
Legal	16,395	15,625	123,686
Travel	39,062	26,860	17,931
	672,442	403,678	591,703
Note 7. Income Tax Expense			
Surplus before income tax	81,163	60,720	40,176
Income tax using domestic tax rate of 30%	24,349	18,216	12,053
Add/(less) adjustments for			
Tax exempt income	(18,216)	(18,216)	(12,053)
Other non-deductible/(non-assessable) items		-	-
Income Tax Expense	6,133		-

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### Annual Financial Report For the financial period ended 30 June 2015

	Consolidated Parent Company		Company
	Group 30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	\$_	\$	\$
Note 8. Notes to the cash flow statement			
(a) Reconciliation of Cash For the purposes of the cash flows statement, cash and cash equivalents includes cash on hand and in banks and deposits at call. Cash and cash equivalents at the end of the financial year as shown in the cash flow statement is reconciled to the related items in balance sheet as follows:			
Cash on hand	41	41	71
Cash at bank Short term bank deposits	244,682	112,847	36,608
Total cash and cash equivalents	2,991,538 3,236,261	2,991,538 3,104,425	2,236,438 2,273,118
(b) Reconciliation of profit for the period to net cash flows from operating activities			
Profit for the period Add:	75,030	60,720	40,176
Depreciation	18,425	14,925	12,823
(Increase)/decrease in assets Trade and other receivables	(269,121)	(312,631)	(63,750)
Prepayments Increase/(decrease) in liabilities	(62,066)	(60,513)	(11,888)
Trade creditors and other liabilities	(245,358)	(350,097)	524,430
Unearned income	1,662,066	1,661,752	1,819,339
Provisions for employee benefit & income tax	29,471	20,711	18,178
Net cash provided by operating activities	1,208,447	1,034,866	2,339,308
Note 9. Trade and Other receivables			
Current			
Trade Receivables	22,000	22,000	63,750
Other Receivables	<u> </u>	278,000 300,000	63,750
Non-Current	332,071	500,000	05,750
Other Receivables: Non-Current	-	76,381	-
	-	76,381	-



# Annual Financial Report

For the financial period ended 30 June 2015

	Consolidated Group	Parent Company	
	30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	\$	\$	\$
Note 10. Prepayments			
Prepayments	63,044	63,044	11,888
Prepaid Employment Expenses	10,910	9,357	-
	73,954	72,401	11,888
Note 11. Property, plant and equipment			
Plant & Equipment	76,282	68,839	66,190
Less: Accumulated Depreciation	(28,877)	(26,837)	(12,823)
	47,405	42,001	53,367
Note 12. Formation Costs & Intellectual Property			
Formation Costs	7,308	-	-
Less: Accumulated Amortisation	(1,462)		-
	5,847		-
Intellectual Property	200,000	-	-
Less: Accumulated Amortisation			-
	200,000	-	-
	205,847	-	-
Note 13. Trade and other payables			
Trade Payables	203,108	48,215	415,492
Other Payables	70,716		5,790
Accrued Expenses	72,531	69,637	71,220
GST payable	31,717	56,482	31,928
	378,073	174,334	524,430
Note 14. Provisions			
Provision for Income Tax	6,133	-	-
Employee Entitlements	41,515	38,888	18,178
	47,648	38,888	18,178
Note 15. Deferred Revenues			
Comment.			
Current	2 1 2 1 0 0 1	2 1 2 1 0 0 1	1 660 220
Commonwealth Government CRC program grant	3,121,091	3,121,091	1,669,339
The University of Queensland Other Government grants	- 235,333	- 235,333	100,000
Other Deferred Revenue	235,333 32,314	32,000	33,333
	3,388,738	3,388,424	1,802,672
Non-current	3,300,730	5,300,424	1,002,072
Other Government grants - Non-Current	92,667	92,667	16,667

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## Annual Financial Report For the financial period ended 30 June 2015

	Consolidated Group	Parent Company	
	30 June 2015	30 June 2015	1 March 2013 to 30 June 2014
	\$	\$	\$
Note 16. Retained Earnings			
Net income for the period end	75,030	60,720	40,176
Accumulated surplus	115,206	100,896	40,176
Note 17. Operating Leases Leases as lessee			
Non-cancellable operating lease rentals are payable as follows (including GST):			
Within one year	2,112	2,112	2,112
One year or later but no more than five years	4,048	4,048	6,160
Later than five years	6,160	6,160	- 8,272
Note 18. Remuneration of Auditors During the financial year the following fees were paid or payable for services provided by BDO Audit Pty Ltd, the auditor of the company			
Audit Services – BDO Audit Pty Ltd	20,714	20,714	16,250



Annual Financial Report For the financial period ended 30 June 2015

## **Directors' Declaration**

The directors have determined that the company is not a reporting entity and that this special purpose financial report should be prepared in accordance with the accounting policies described in Note 2 to the financial statements.

The directors of the company declare that:

- The financial statements, comprising the statement of comprehensive income, statement of financial position, statement of cash flows, statement of changes in equity, and accompanying notes, are in accordance with the Division 60 of the Australian Charities and Not-for-profits Commission Act 2012 and:
  - a. comply with Australian Accounting Standards to the extent described in Note 2, and Division 60 of the Australian Charities and Not-for-profits Regulation 2013; and
  - b. give a true and fair view of the company's financial position as at 30 June 2015 and of its performance for the period ended on that date.
- 2. In the directors' opinion, there are reasonable grounds to believe that the company will be able to pay its debts as and when they become due and payable.

This declaration is made in accordance with a resolution of the Board of Directors and is signed for and on behalf of the directors by:

Judy Brewer Chair

Dated on the 14th of October 2015 in Brisbane.

# Appendix



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# INDEPENDENT AUDITOR'S REPORT

To the members of Autism CRC Ltd

#### Report on the Financial Report

We have audited the accompanying financial report, being a special purpose financial report of Autism CRC Ltd, which comprises the consolidated statements of financial position as at 30 June 215, the consolidated statements of profit or loss and other comprehensive income, the consolidated statements of changes in equity and the consolidated statements of cash flows for the year then ended, notes comprising a summary of significant accounting policies and other explanatory information, and the responsible entities' declaration of the consolidated entity comprising the company and the entities it controlled at the year's end or from time to time during the financial year.

### Responsible Entities' Responsibility for the Financial Report

The responsible entities of the registered entity are responsible for the preparation of the financial report that gives a true and fair view and have determined that the basis of preparation described in Note 2 to the financial report is appropriate to meet the requirements of the *Australian Charities and Not-for-profits Commission Act 2012 (ACNC Act)* and the needs of the members. The responsible entities' responsibility also includes such internal control as the responsible entities determine is necessary to enable the preparation of a financial report that gives a true and fair view and is free from material misstatement, whether due to fraud or error.

#### Auditor's Responsibility

Our responsibility is to express an opinion on the financial report based on our audit. We have conducted our audit in accordance with Australian Auditing Standards. Those standards require that we comply with relevant ethical requirements relating to audit engagements and plan and perform the audit to obtain reasonable assurance whether the financial report is free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial report. The procedures selected depend on the auditor's judgement, including the assessment of the risks of material misstatement of the financial report, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the responsible entities' preparation of the financial report that gives a true and fair view in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the registered entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by the responsible entities, as well as evaluating the overall presentation of the financial report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.





#### Independence

In conducting our audit, we have complied with the independence requirements of the professional accounting bodies. We confirm that the independence declaration required by the professional accounting bodies, which has been given to the directors of Autism CRC Ltd, would be in the same terms if given to the directors as at the time of this auditor's report.

#### Opinion

In our opinion the financial report of Autism CRC Ltd has been prepared in accordance with Division 60 of the Australian Charities and Not-for-Profits Commission Act 2012, including:

- (a) giving a true and fair view of the company's and consolidated entity's financial position as at 30 June 2015 and of its performance for the year ended on that date; and
- (b) complying with Australian Accounting Standards to the extent described in Note 2 and the Division 60 the Australian Charities and Not-for-profits Commission Regulation 2013.

#### Basis of accounting

Without modifying our opinion, we draw attention to Note 2 to the financial report, which describes the basis of accounting. The financial report has been prepared for the purpose of fulfilling the responsible entities' financial reporting responsibilities under the *ACNC Act*. As a result, the financial report may not be suitable for another purpose.

### **BDO Audit Pty Ltd**

BDO Chini Mits

C J Skelton Director

Brisbane, 14 October 2015

# **Appendix 3: Publications**

#### 2013-2014

Horlin, C., Parsons, R., Falkmer, M., Albrecht, M., & Falkmer, T. (2014). The cost of autism spectrum disorders, *PLOS One*, 9(9):e106552.doi:10.1371/journal.pone.0106552.

An, J.Y., Cristino, A.S., Zhao, Q., Edson, J., Williams, S.J., Ravine, D., Wray, J., Marshall, V. M., Hunt, A., Whitehouse, A.J.O., & Claudianos, C. (2014) Towards a molecular characterization of autism spectrum disorders: An exome sequencing and systems approach, *Translational Psychiatry*, (2014) 4, e394; doi:10.1038/tp.2014.38.

#### 2014-2015

Falkmer, M & Scott, M (2015). *Success factors enabling employment for adults on the autism spectrum: Case studies.* Internal Report. Cooperative Research Centre for Living with Autism Spectrum Disorders, Brisbane. Embargoed until manuscript accepted for publication.

Haas, K., Costley, D., Richdale, A., Falkmer, T., Sofronoff, K. (2014). *Optimising the recruitment and retention of adults for longitudinal autism spectrum research: a mixed methods study. Full report.* Cooperative Research Centre for Living with Autism Spectrum Disorders, Brisbane. ISBN: 978-0-9941641-0-0. Copies of this report can be downloaded from the Autism CRC website www.autismcrc.com.au.

Keen, D., Webster, A & Ridley, G. (2015). How well are children with ASD doing academically at school? An overview of the literature. *Autism: International Journal of Research and Practice*. DOI: 10.1177/1362361315580962.

Sim A., Cordier R., Vaz S., Netto J., Falkmer T., (2015) Factors associated with positive and negative co-parenting relationships in families of a child with Autism Spectrum Disorder. *Developmental Neourorehabilitation* DOI: 10.3109/17518423.2015.1069414

Soon, S., & Tan, T. (2015). Career Pathway Recommender System - STEP-A (Successful Transition to Employment Protocol - Autism Spectrum Disorder). Final Report. Embargoed until manuscript on STEP-A accepted for publication.

Tang, J., Falkmer, M., Horlin, C., Tan, T., Vaz, S., Falkmer, T.. (2015) Face Recognition and Visual Search Strategies in Autism Spectrum Disorders: Amending and Extending a Recent Review by Weigelt et al. *PLoS ONE 10(8):* e0134439. doi:10.1371/ journal.pone.0134439



# Appendix 4: 2014-2015 Presentations

Ridley, G. & Keen, D (2014) *Predictors of outcomes in children and adolescents with Autism Spectrum Disorder*, Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

An, J. Y. (2014) *Characterization of autism spectrum disorders using exome sequencing and complex networks analysis*, Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Rene, A., Dissanayake, C., Eapen, V., Heussler, H., Claudianos, C., Muniandy, M., Grove, R., Alvares, G., & Whitehouse, A. (2014) *The CRC Australian Autism Biobank (poster),* Big Biology and Bioinformatics (B<sup>3</sup>) 2014 Symposium, Queensland University of Technology, Brisbane.

Rodger, S. & Van Dooren, K. (2014) *Engaging Individuals with ASD and their Families using Inclusive Research Practices,* Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Rabba, S., Dissanayake, C., & Barbaro, J. (2014) Supporting parents following their child's early diagnosis of Autism Spectrum Disorder: The development and efficacy of a family support package (poster), Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Hatfield, M., Falkmer, M., Ciccarelli, M., & Falkmer, T. (2014) "Allow Them Their Dreams" Current vs. Ideal Transition Planning Processes for Young People with ASD (poster), Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Scott, M., Falkmer, M., Girdler, S. & Falkmer, T. (2014) *Finding a Job, Keeping a Job: Understanding Key Factors for Employment for Adults with ASD (poster),* Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Dooren, K., Lennox, N. & Nicollet, C. (2014) *Health and wellbeing for adults with ASD Resources to assist health professionals to better respond to the needs of adults with ASD (poster)*, Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Dooren, K., Lennox, N. & Nicollet, C. (2014) *The efficacy of psychological interventions for adolescents and adults with ASD to reduce anxiety: A systematic review (poster),* Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Costley, D. (2014) *Optimising the recruitment and retention of participants in longitudinal studies for autism spectrum research: A mixed methods study,* Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Haas, K., Costley, D., Falkmer, T. Richdale, A. & Sofronoff, K. (2014) *How to recruit people with ASD for research (poster),* Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Williams, S. An, J. Y., Cristino, A. S., Claudianos, C. (2014) *Exploring microRNA-disrupting SNPs in autism,* Big Biology and Bioinformatics (B<sup>3</sup>) 2014 Symposium, Queensland University of Technology, Brisbane.

Haas, K., Costley, D., Falkmer, T. Richdale, A. & Sofronoff, K. (2014) *Optimising the recruitment and retention of participants in longitudinal studies for autism spectrum research : A mixed methods study,* Australasian Society for Autism Research Conference, La Trobe University, Melbourne.

Rodger, S. & Brewer, J. (2015) *Autism CRC – Engaging Rural Practitioners with Autism Spectrum Disorder Research and Outcomes*, Asperger Services Australia Conference, Brisbane.

Den-Houting, J. (2015) *Mental Health in Children on the Autism Spectrum: A Review of the Research,* Asperger Services Australia Conference, Brisbane

Carrington, S. & Harper-Hill, K. (2015) *CRC for living with ASD: Program 2 Enhancing teaching and learning,* DETE Education Research Symposium, Australia.

Rodger, S. (2015) Autism CRC – Engaging Rural Practitioners with Autism Spectrum Disorder Research and Outcomes, National Rural Health Alliance Conference, Darwin.

Taylor, L. (2015) *Diagnostic Practices for Autism Spectrum Disorder in Australia,* National Rural Health Alliance Conference, Darwin.

Rodger, S. & Whitehouse, A. (2015) *Cooperative Research Centre for Living with Autism (Autism CRC),* Queensland Brain Institute Conference Workshop on Autism, Brisbane.

Whitehouse, A (2015) *Tracking the causes of autism spectrum disorders from prenatal life,* Queensland Brain Institute Conference Workshop on Autism, Brisbane.

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# Appendix 5: Glossary of Terms

AAWA	Autism Association of Western Australia
ACNC	Australian Charities and Not-for-profits Commission
AEIOU	AEIOU Foundation
ASAN AUNZ	Autistic Self Advocacy Network of Australia and New Zealand
ASD	Autism Spectrum Disorder
ASELCC	Autism Specific Early Learning and Care Centre
ASPECT	Autism Spectrum Australia
BIP	Background IP
CEO	Chief Executive Officer
CFO	Chief Financial Officer
CIP	Centre IP
CRC	Cooperative Research Centre
EVAP	Education and Vocational Assessment Protocol
EYBSP	Early Years Behaviour Support Project
GCAD	Graduate Certificate in Autism Diagnosis
GP	General Practitioner
ICAN	The I Can Network
IDPA	Integrated Diagnostic Protocol
IEST	Integrated Employment Success Tool
IP	Intellectual Property
MYBSP	Middle Years Behaviour Support Project
PhD	Doctor of Philosophy
QId DET	Queensland Department of Education and Training
RHD	Research Higher Degree
SACS-R	Social, Attention and Communication Scale- Revised
SAS	Secret Agent Society
SME	Small and Medium Enterprise
STEP-A	Successful Transition to Employment Protocol - Autism Spectrum Conditions
ТСС	Tele-Classroom Consultation
WRI	Wesley Research Institute



# Autism CRC Ltd

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