

2027

Student research projects at The Kids Research Institute Australia

A Guide for
Postgraduate
Opportunities

DISCOVER • PREVENT • CURE



WELCOME TO THE KIDS RESEARCH INSTITUTE AUSTRALIA

The Kids Research Institute Australia is one of the largest and most successful medical research institutes in Australia, dedicated to the health and wellbeing of children and young people. Drawing on three decades of cutting-edge discoveries, preventative treatment and the quest for cures for the most baffling childhood diseases, The Kids' purpose is to find solutions to improve the health and happiness of children and young people everywhere.

Led by Executive Director Professor Jonathan Carapetis, The Kids is based at Perth Children's Hospital in Nedlands, Western Australia and with offices around WA and in South Australia.

At The Kids, we do research differently. We work hard to find solutions to important problems, but that's not enough. Our job is not done until that solution is changing young lives for the better. Our multidisciplinary approach brings together clinical researchers, laboratory scientists and epidemiologists all under the one roof to tackle the many complex childhood diseases and issues from a range of different angles.

Our Vision

Happy healthy kids.

Our Purpose

To find solutions to improve the health and happiness of children and young people.

Our Mission

To improve the health, development and lives of children and young people through excellence in research and the application of that knowledge.

Our Values

Our values underpin how we work and make decisions. We value:

- Collaboration
- Courage
- Evidence
- Respect

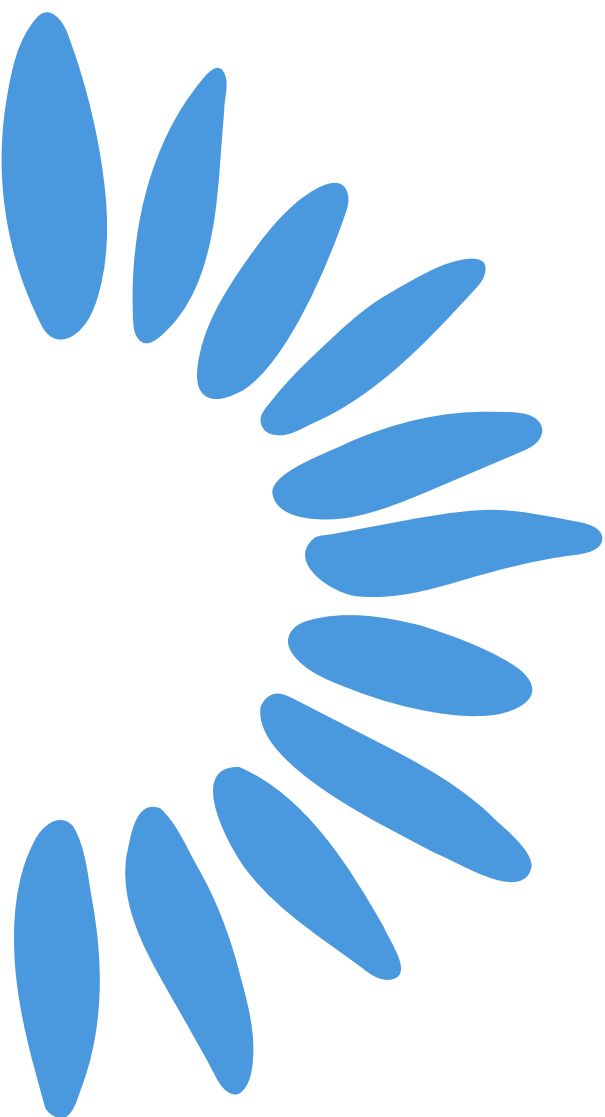
The Kids has strong affiliations with The University of Western Australia, Curtin University, and The Australian National University. We additionally have strong relationships with a range of other universities as well as wide-reaching collaborations with leading research organisations around the world.

You can find out more about our current projects, research teams, and being a student with us by:

- Visiting our website: www.thekids.org.au
- Contacting our researchers listed within this booklet
- Contacting our Student Team at StudentAdmin.SMB@thekids.org.au

Acknowledgement of Country

The Kids Research Institute Australia acknowledges Aboriginal and Torres Strait Islander people as the Traditional Custodians of the land and waters of Australia. We also acknowledge the Nyoongar Wadjuk, Yawuru, Kariyarra and Kaurna Elders, their people and their land upon which the Institute is located and seek their wisdom in our work to improve the health and development of all children.



RESEARCH THEMES

Our Research Themes are hubs that will facilitate the development, delivery and translation of high-quality collaborative projects that make a difference to child health. Each Research Focus Theme is designed to attract a diversity of expertise and a range of disciplines, in a coalescence of activity and creativity.



FIRST NATIONS HEALTH AND EQUITY

Aboriginal health is everyone's business. The needs of Aboriginal and Torres Strait Islander families and kids is integrated into all relevant areas of our work. Improving the health and wellbeing of Aboriginal and Torres Strait Islander kids and families is an overarching priority for every team at The Kids.



CHRONIC DISEASE

Dedicated to preventing and managing chronic conditions in children, such as respiratory disease, diabetes, and cancer. This theme focuses on research to reduce the long-term impact of these conditions on quality of life and healthcare systems.



INFECTIOUS DISEASE

Aims to prevent, diagnose, and treat infectious diseases, with a strong focus on developing effective vaccines and improving immunity across populations. This theme addresses both emerging and persistent infections that impact children's health worldwide.



PRECISION HEALTH

Uses personalised approaches to healthcare, aiming to tailor prevention and treatment strategies based on genetic, environmental, and lifestyle factors. This theme strives to make healthcare more targeted and effective for each child's unique needs.



STRONG BEGINNINGS

Focuses on understanding and improving early childhood health and development to set the foundation for lifelong wellbeing. By addressing factors from pregnancy through early years, this theme aims to optimise health outcomes from the very start.



WELLBEING AND MENTAL HEALTH

Our Wellbeing and Mental Health research focuses on improving the emotional and psychological health of children. We develop evidence-based interventions and strategies to promote resilience, prevent mental health challenges, and help kids thrive.

OUR STUDENT PROGRAM

In recognition of the vital role that students play, The Kids provides a comprehensive program to support their professional growth and development. Some of the key elements include:

SCHOLARSHIPS

Each year, thanks to the generosity of the Stan Perron Charitable Foundation and other corporate and individual donors, we offer a pool of competitive top-up scholarships valued at over \$500,000. For PhD students, some of these scholarships offer top-up stipends for up to three years, and for Masters students, up to two years.

STUDENT DEVELOPMENT PROGRAM

Each year, we host a free two-day Student Development Program (SDP) focussed on developing students personally and professionally through fun team-building activities, workshops, networking opportunities and presentations.

Other ad hoc training opportunities are also offered for free throughout the year, based on student feedback and needs.

STUDENT EXCHANGE PROGRAM

In winter each year, we host up to 10 undergraduate students from Princeton University's Center for Health and Wellbeing, and every two years, we in turn support an Institute student to attend Princeton for up to three months, to audit classes relevant to their course of study.

HEALTH & WELLBEING SUPPORT

To help students be the best they can be, we offer access to our Flourish wellbeing program including financial advice and health and wellbeing events and experiences, and access to our Employee Wellbeing Service with four free counselling sessions available to students per calendar year.

CADETSHIPS & INTERNSHIPS

Our Wesfarmers Centre of Vaccines & Infectious Diseases and Embrace teams offer students paid cadetship and internship opportunities, offering hands-on work experience and professional development rotations throughout the Institute.

PROFESSIONAL DEVELOPMENT FUNDING

As we recognise that professional development is crucial to those operating in research contexts, we offer PhD students Professional Development Funding of up to \$2,000 per year for three years, to cover conference attendance costs, books, software, laptops, and other items associated with completing a PhD.

STUDENT LEADERSHIP GROUP & STUDENT ADMIN TEAM SUPPORT

Our Student Leadership Group (SLG) and Student Admin team work closely together to provide students with practical support, and advocacy. The SLG also takes the lead in organising key student social and training events like the annual SDP, Three Minute Thesis competition and Student Symposium, where students have the opportunity to practice their presentation and science communication skills.

AWARDS AND PRIZES

We invest significantly in student awards and prizes to incentivise student participation in professional development activities like our Three Minute Thesis and Student Symposium competitions, and in full recognition of the cost of living pressures students face.



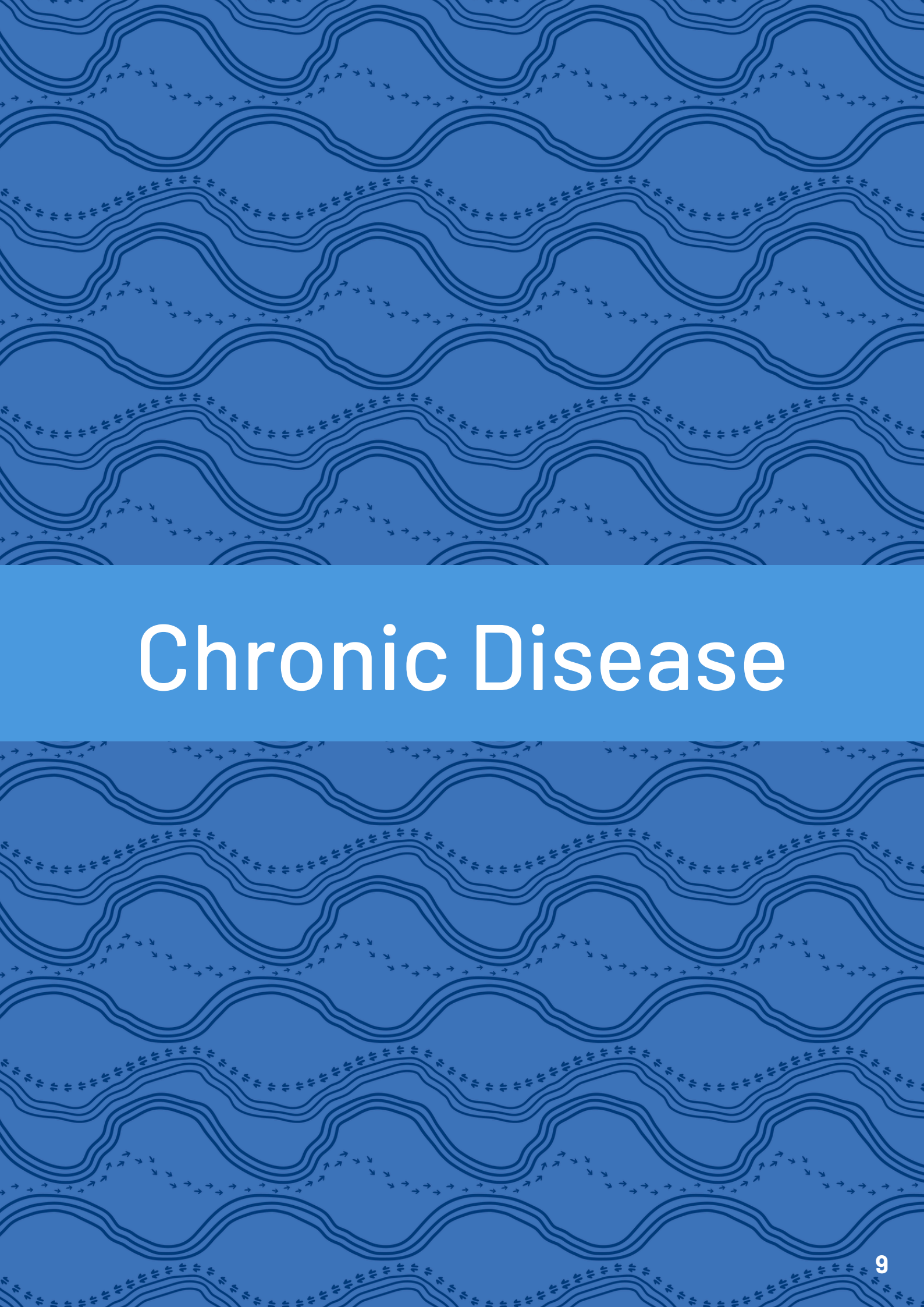
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Chronic Disease

Adapting the Diabetes Stigma Assessment Scale for Youth with Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Keely Bebbington
Other Supervisors	Professor Jane Speight Dr Anna Boggiss
Project Outline	Youth living with Type 1 Diabetes (T1D) frequently encounter stigma that can significantly impact their mental health and diabetes care. While the Diabetes Stigma Assessment Scale – Type 1 Diabetes (DSAS-1) provides a validated tool for adults, no equivalent exists for paediatric populations, creating a critical gap in identifying and addressing stigma among young people living with T1D. Youth may experience stigma differently than adults due to developmental emphasis on personal identity, peer relationships and establishing their own autonomy. Without age-appropriate tools, healthcare providers cannot accurately assess stigma's impact nor develop targeted support. This project aims to adapt and validate the DSAS-1 for paediatric use, creating the first comprehensive youth diabetes stigma assessment tool. Research activities may include interviews with youth, pilot testing, psychometric validation, and examining associations with clinical and mental health outcomes.
Suitable For	☐ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Psychology, or related field initiative and dedication • Strong written communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Great interpersonal skills and willingness to collaborate with community members, healthcare professionals, and young people
Ethics Approval	☐ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Keely Bebbington: Keely.Bebbington@thekids.org.au

Assessing Physical Activity Levels and Patterns of Healthcare Professionals and Parents of Children Living with Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Craig Taplin
Other Supervisors	Professor Elizabeth Davis Dr Vinutha Shetty
Project Outline	Healthcare professionals (HCPs) play an important role in promoting a physically active lifestyle by prescribing regular physical activity (PA) to children and adolescents living with Type 1 Diabetes (T1D), to improve their health and intervene in their T1D management. In this regard, HCPs possess the knowledge that puts them in a key position to advise on PA and T1D. Previous research has shown that HCPs lifestyle habits can potentially influence the attitudes and counselling of their patients. Additionally, previous research indicate that parents strongly determine the social and physical environment of their children and this influence may also provide an unexplored, but potentially important link between parents' PA levels and that of their children. As such, the overarching aim of the project is to assess both the HCPs' and parents' physical activity levels as measured by triaxial accelerometry (Actigraph GT3x). In addition, the project will examine the associations between HCPs/parental PA with that of their patient/child living with T1D.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	- Undergraduate degree in Psychology, Health Science, Education, Health Promotion or related degree - Excellent communication skills
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au

Developing a New Class of Therapeutics to Heal Airway Damage in Asthma

Research Theme	Chronic Disease
Research Program	Airway Epithelial Research Team
Start Date	September 2026 onwards
Chief Supervisor/s	Dr Thomas Iosifidis
Other Supervisors	To be determined based on final project selection but may include Dr John Deadman Associate Professor Alexander Larcombe Associate Professor Anthony Kicic Dr David Hancock Mr Aaron Gomes, et al.
Project Outline	Asthma is a substantial global health care burden with more than 300 million sufferers worldwide. It is the most common chronic respiratory disorder in children and remains one of the main causes of their hospitalisation. Thus, there is a pressing need for identification of novel therapeutic strategies that target the principal cause of asthma in early life and not just its clinical sequelae. Work by our team and others has established that the airway epithelium of children with asthma has intrinsic abnormalities relating to dysregulated responses to injury, infection and inflammation. Defective airway epithelial repair associates with symptom recurrence and poor respiratory outcomes. Our team is developing novel therapeutics that target the airway epithelial repair with the goal to improve health outcomes for children with asthma. There is now an opportunity for a motivated student/multiple students to contribute towards the assessment of new therapeutics for asthma that enhance airway repair. The project aims to test the preclinical efficacy of repurposed and novel therapeutics to enhance airway epithelial repair. Specifically, patient-derived airway epithelial cell cultures will be established to validate drug safety and efficacy in vitro. Also, preclinical mouse models of in vivo injury will be utilised to assess therapeutic efficacy to enhance epithelial repair. Some of the experimental techniques involved include: • expression of epithelial/mesenchymal cell markers by qPCR, transcriptomics, ELISA and immunohistochemistry • cell proliferation, cell differentiation, wound repair and barrier integrity function using differentiated airway epithelial cell in vitro and mouse in vivo injury models. This project will also determine the efficacy of new medications for childhood asthma targeting the airway epithelium.
Suitable For	 Honours  Masters  MD  PhD

Essential Skills & Qualifications	• Bachelor of Science or equivalent • Excellent written and oral communication skills • Ability to work with clinical samples • Knowledge of, or interest to learn coding-based and/or bioinformatics analyses (desirable)
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Thomas Iosifidis: Thomas.iosifidis@thekids.org.au

Developing Innovative Treatments for Paediatric Brain Cancer

Research Theme	Chronic Disease
Research Program	Brain Tumour Research
Start Date	Flexible. Available immediately
Chief Supervisor/s	Dr Annabel Short Dr Brittany Dewdney Dr Alison McDonnell
Other Supervisors	Associate Professor Raelene Endersby
Project Outline	Project 1: Watching Paediatric Brain Tumours in Real Time: Live In Vivo imaging of the immune Response Most of what we know about the brain tumour immune environment comes from single snapshots in time, yet the interactions between immune cells and tumour cells are highly dynamic, particularly during and after treatment. This project will develop and apply live in vivo imaging techniques to directly visualise how brain-resident immune cells, especially microglia, respond to tumours and treatment in the developing brain. Using cranial window surgery and multiphoton microscopy in fluorescent reporter mice, the student will track these cellular interactions over hours, days and weeks, building a new imaging pipeline that can reveal age-specific immune dynamics never previously observed in real time. This work lays the foundation for identifying when and how to intervene therapeutically: • Develop and refine a cranial window and live-imaging technique for young and adult mice • Use multiphoton microscopy to track immune cell and tumour cell interactions over time • Characterise how imaging-based measures of immune activity change with treatment. Project 2: New Treatment Options for Babies and Toddlers with Rare, Deadly Brain Cancers Atypical teratoid/rhabdoid tumour, pineoblastoma and embryonal tumour with multilayered rosettes are rare but almost always fatal cancers affecting babies and toddlers, and no clinical trials currently exist for these diseases in Australia. Building on our own drug screening work and Australia's first preclinical models of these cancers, this project will test whether drugs that block DNA repair can improve the effectiveness of radiotherapy, and whether newer, brain-penetrant chemotherapies offer a safer alternative to current regimens. Work will span both standard and paediatric-specific models to help ensure findings translate to real patients, with safety and long-term side effects considered throughout: • Test DNA repair inhibitors in combination with radiotherapy • Validate promising drug combinations in paediatric-specific models • Assess safety and long-term effects of candidate treatments.

Project Outline Cont.	Project 3: How Brain Tumour Surgery Shapes the Immune Response, and New Perioperative Immunotherapies Surgery is the most important treatment for most children with brain cancer, yet little is known about how operating on the brain changes its immune environment, or how this affects any cancer cells left behind. This project will develop a paediatric mouse model of brain tumour surgery to study the wound healing response using live imaging and immune profiling. With this knowledge, the project will explore whether a specially designed hydrogel that releases immune-stimulating therapy at the surgical site could sensitise residual tumour cells to immunotherapy and help prevent the cancer returning: • Develop a paediatric mouse model of brain tumour resection surgery • Characterise how surgery changes immune activity in the developing brain • Test a hydrogel-based immunotherapy delivered at the time of surgery.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Ability to work in a multi-disciplinary team • Willingness to learn new skills and work with animals • Good organisational skills • Initiative and dedication • For Honours/ Masters students: A greater than credit average • For PhD candidates: First-Class Honours degree or equivalent (e.g. Masters by Research) in biological discipline
Ethics Approval	☒ Obtained* ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Annabel Short: Annabel.Short@thekids.org.au Dr Brittany Dewdney: Brittany.Dewdney@thekids.org.au Dr Alison McDonnell: Alison.Mcdonnell@thekids.org.au Associate Professor Raelene Endersby: Raelene.Endersby@thekids.org.au

*Project Dependent

Developing Novel RNA Therapeutics for Local Cancer Immunotherapy During Surgery

Research Theme	Chronic Disease
Research Program	Sarcoma Translational Research
Start Date	March 2027
Chief Supervisor/s	Dr Ben Wylie Professor Joost Lesterhuis
Other Supervisors	Dr Tao Wang Dr Lizeth Orozco-Morales
Project Outline	Surgery remains a first line therapy for solid cancers. However, if the tumour cannot be completely removed during surgery it will often regrow, causing recurrence of the cancer. Sarcomas are a group of cancers derived from muscle, fat or connective tissue that are often characterised by aggressive local growth. Soft tissue sarcomas in particular have a high risk of local recurrence. Sarcomas are the third most common cancer in children and adolescents. Current treatments options are limited, and often ineffective once patients suffer a recurrence. The Sarcoma Translational Research team aims to discover and develop safer and more effective treatments, through innovative and rigorous research. We apply our knowledge of cancer immunology to develop new RNA-based immunotherapies using bioinformatics, molecular and cell biology and unique preclinical cancer models. We are currently developing RNA-based immunotherapeutics to enhance anti-tumour immunity and modify the tumour microenvironment. To deliver these RNA-based therapies we use biomaterials which can be applied locally, during surgery and are broken down slowly by the body, releasing immunotherapy slowly into the surgical area. We aim to: 1. Understand how to best activate the immune system locally and modulate the surgical environment, to stop cancer coming back after surgery. 2. Develop new RNA-based therapies to signal the immune system and modulate the tumour/wound environment in this fashion. 3. Design new biomaterial constructs to deliver RNA with defined spatial and temporal kinetics. 4. Determine the best way to combine new local therapies with current systemic immunotherapies to enhance response rates and development biomarkers for clinical translation.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in biomedical science or related discipline • First Class Honours or equivalent for PhD • Good organisational skills, motivation and dedication • Keen interest in the immunology • Excellent communication skills
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Ben Wylie: Ben.Wylie@thekids.org.au Dr Tao Wang: Tao.Wang@thekids.org.au Dr Lizeth Orozco-Morales: Lizeth.Orozco@thekids.org.au

Effects of Brief Meditation on the Overall Wellbeing of Adolescents with T1D and Caregivers

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Vinutha Shetty
Other Supervisors	Dr Mary Abraham
Project Outline	Type 1 diabetes (T1D) is one of the most common chronic diseases of childhood, associated with significant psychological burden for young people and their families. Adverse impacts on mental health are high for patients, families and caregivers. Adolescence represents a particularly vulnerable period, with high rates of diabetes distress, anxiety, reduced quality of life and declining engagement in self-management in young people, all of which contribute to poorer glycaemic outcomes and an increased risk of long-term complications. Addressing mental wellbeing is therefore a major research priority within the Children's Diabetes Centre and has been identified as an unmet need by our Consumer Reference Group. Mind body intervention practice improves mental clarity, emotional well-being, productivity, and inner peace while reducing perceived stress and compulsive behaviours. However, young adults live very busy lives in modern society, and adding another responsibility to one's daily routine is not manageable for most people as it would only increase stress and negative experiences. While many know that meditation is beneficial on a variety of outcomes, a common reason for not beginning meditation is that the time commitment is too great, or they do not know where to begin. This project will evaluate the feasibility of delivering a four-week smartphone-based guided meditation programme using the 3Cs (Consciousness, Cognition and Compassion) research platform, developed by our collaborating institution at Harvard University. Thirty adolescents aged 12-18 years with T1D and thirty caregivers will be randomised to either a daily guided meditation intervention (7-21 minutes) or an attention-control condition involving neutral audio delivered through the same application. Following the feasibility study, consumer workshops will be conducted to co-design a larger multicentre randomised controlled trial (RCT).
Suitable For	☐ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in science • Initiative and dedication • Strong written communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Good interpersonal skills
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au

Evaluating the Impact of the DiabHQ App for Patients and Families living with Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Rebecca Pedruzzi
Other Supervisors	Ms Helen Clapin
Project Outline	Type 1 diabetes (T1D) is the most common chronic disease in children, resulting in long-term morbidity and reduced life expectancy. However, it has been shown that these adverse consequences can be prevented with effective treatment and good self-management. Despite intensive research, guidelines, new therapies and innovative technologies, fewer than one in five children and young people living with T1D in Australia achieve international glycaemic control targets that are associated with reduced complications. Diabetes management is complex, requiring an estimated 180 health-related decisions per day, and with only four clinic visits per year, effective self-management is critical. The DiabHQ patient app, scheduled for implementation at Perth Children's Hospital in Q3, 2025, has been co-designed with consumers to support families and patients in self-management. Functionality includes access to health data and pathology results, the ability to create a care circle, access to resources, appointment management and access to triage support. The proposed project will explore the impact of the DiabHQ app on a range of outcomes. Qualitative and quantitative methods will be used to assess app usage and the acceptability, usability and usefulness of the app, as well as measuring its impact on diabetes self-efficacy, health and well-being outcomes, and clinical processes. Findings will inform future app development and provide evidence for broader uptake at paediatric diabetes clinics across Australia and New Zealand.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in health science, or related field initiative and dedication • Strong written and verbal communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Great interpersonal skills and willingness to collaborate with community members, healthcare professionals, and young people
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pedruzzi: Rebecca.Pedruzzi@thekids.org.au

Evaluating the Lived Experiences of Caregivers of Infants with Hyperinsulinism Commenced on Continuous Glucose Monitors at Diagnosis

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Clinical Associate Professor Mary Abraham
Other Supervisors	Dr Vinutha Shetty
Project Outline	Continuous glucose monitors (CGM) are regularly used for management of Type 1 diabetes as part of standard care. CGMs are also subsidised for Hyperinsulinism (HI) and offered as an adjunct tool glucose monitoring tool to monitor for hypoglycaemia. The sensitivity of CGM in detection of hypoglycaemia is 50% with a high negative predictive value of >95%. However, there is minimal data on the lived experiences of CGM use in newborns and infants with HI. Our centre is one of the few centres worldwide commencing CGM in the newborn period in babies with HI and hence the project has the opportunity to provide evidence in this space. This proposed research study is a qualitative research project. All newborns with hyperinsulinism utilising CGM will be eligible. A semi structured interview will be offered to families to explore the caregiver perspectives of CGM use on anxiety, sleep and impact on their daily lives. The findings of this study will help inform the clinical pathway for newborns with HI commenced on CGM and to improve education to families to provide more comprehensive care.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in Health Science, Psychology, Education • Excellent communication skills • Proficiency with Excel/SPSS/R/data analysis is desirable
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au

Evaluating the Prevalence of Contact Dermatitis with Technology Use in Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Mary Abraham
Other Supervisors	Dr Vinutha Shetty
Project Outline	Diabetes technologies (pumps and sensors) are regularly used for management of Type 1 diabetes as part of standard care. However, this has led to an increase in contact dermatitis. Young children and those with history of allergies, skin reactions are more likely to be susceptible. The reactions are sometimes significant enough to warrant cessation of device, trial of different devices and dermatology and immunology inputs are sought to help the child with Type 1 diabetes continue use of these technologies. There is lack of data on the prevalence of these skin reactions and the clinical severity. This project is aimed to gather preliminary evidence on the prevalence and the evaluate the risk factors predisposing them to these reactions. This proposed research study is a cross-sectional study. All children with Type 1 diabetes utilising diabetes technology will be eligible. All identified eligible participants will be invited to respond to an online survey which will be designed based on clinical and research diabetes team in conjunction with the dermatology department. A validated questionnaire will be used to assess skin reaction. Clinical and glycaemic data will be captured from the WA Children's Diabetes Database. The findings of this study will help inform the clinical pathway for children commencing diabetes technologies and to improve education to health care professionals in addressing these issues to provide more comprehensive care.
Suitable For	☒ Honours ☐ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in Health Science, Education • Excellent communication skills. • Desirable skills: Proficiency with Excel/SPSS/R/data analysis
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au

Examining the Experiences of Culturally and Linguistically Diverse (CALD) Families During Childhood Cancer Treatment and Survivorship

Research Theme	Chronic Disease
Research Program	Brain Tumour Research
Start Date	Flexible
Chief Supervisor/s	Dr Jenny Davies Mr Gordon Miles
Other Supervisors	Dr Denny Mironova
Project Outline	There is currently limited research examining the experiences of culturally and linguistically diverse (CALD) families during childhood cancer treatment and survivorship, particularly in Australia. CALD families are often underrepresented because studies require participants to speak English, while providing translated materials and trained interpreters can involve additional funding, time and methodological complexity. Studies suggest that caregivers who speak a language other than English may not receive appropriate interpreting services, have reduced access to information and support, and report lower satisfaction with their child's care. Few peer-reviewed Australian studies have directly examined the experiences and survivorship needs of children with cancer and families who speak languages other than English. Understanding the demographics of CALD culturally and linguistically diverse families is essential for developing appropriate and inclusive survivorship services. As this project seeks to understand patient and family needs, it is important to gather information about the number of families with CALD backgrounds in the WA paediatric cancer population. The student will thus: • complete an audit in order to determine the number of families (and their demographics) from a CALD background • request information through business and language services for interpreter use, which will provide information about families from CALD backgrounds • gather data, including children's ages, ethnicities, number of children, and disease demographics (type, age of onset, etc.), to understand current needs.
Suitable For	☒ Honours ☒ Masters ☒ MD ☐ PhD
Essential Skills & Qualifications	• Good organisational skills • Initiative and dedication • Credit average • Experience with data collection valued
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Jenny Davies: Jenny.Davies@thekids.org.au

Finding New Cure for Childhood Leukaemia

Research Theme	Chronic Disease
Research Program	Translational Genomics in Leukaemia, Comprehensive Kids Cancer Centre
Start Date	February/March 2027
Chief Supervisor/s	Dr Sébastien Malinge
Other Supervisors	
Project Outline	Leukaemia is the most common type of cancer in children. Remarkable therapeutic advances have been made over the past sixty years. Despite this success, it remains the second cause of death by Cancer in Australia, mostly due to treatment-related toxicity and relapses. Thus, current treatments have reached their maximum potential and specific subtypes of leukaemia continue to have a poor prognosis, highlighting the need for new efficacious therapies. Our group is focused on finding new key vulnerabilities in the leukaemia cells to develop novel and less toxic targeted therapies and to better understand the microenvironment surrounding the leukaemia cells to design new immune-based therapies. To achieve this, we are using primary patient samples from which we developed sophisticated and clinically relevant models named Patient-derived Xenografts (PDX), as well as novel immunocompetent models of childhood leukaemia (B-ALL, DS-ALL and AML). Our current projects are focused understanding the molecular and cellular bases of leukaemia development and response to standard of care or targeted treatments, using the following techniques: • Molecular biology (CRISPR/Cas9, transduction...) • Tissue culture, drug screen • Flow cytometry • Animal work (tissue preparation and drug testing). Ultimately, our goal is to develop new therapeutic strategies that target key weaknesses of the leukaemia cells, harness the tumour environment to develop novel synergistic approaches, to improve prevention, diagnosis, long-term survival and quality of care for all children with leukaemia.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• BSc or BSC (Hons) • Excellence communication skills (oral and written)
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Sébastien Malinge: Sebastien.Malinge@thekids.org.au

First Nations Childhood Cancer Research

Research Theme	Chronic Disease
Research Program	First Nations Childhood Cancer Research
Start Date	Flexible
Chief Supervisor/s	Dr Jessica Buck
Other Supervisors	Project dependent
Project Outline	Ours is a small, welcoming research group focussed on closing the gap in outcomes for First Nations kids with cancer. Our team is led by Kamilaroi scientist Dr Jessica Buck, and we are a majority First Nations team. We are recruiting students at all levels and all backgrounds to be a part of our research team. Projects can be designed to suit your experience and interests. - For students interested in qualitative, community-based research, a project is available which involves developing workshops and surveys to understand the Indigenous community's attitudes and opinions around childhood cancer research, including laboratory-based cancer research, genomics and precision medicine. - For students interested in health promotion, a project is available to develop resources to help communities understand childhood cancer and cancer research concepts. This could include developing resources to aid in community understanding of laboratory research and to boost health literacy. - For PhD students with an interest in bioinformatics, genomics or cancer biology, a project could be designed around understanding the genomics of cancer and long-term side effects in Indigenous children. - For PhD students with an interest in laboratory cancer research, a project could be designed to understand the effects of traditional and bush medicines on cancer growth, and potential interactions with chemotherapy drugs. Students with other interests in the First Nations Childhood Cancer Research field are encouraged to contact Jessica Buck to discuss their interests and potential opportunities.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	- No previous experience in research or knowledge of cancer biology is required - First Nations students will be prioritised but the projects are open to anyone interested in First Nations health
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jessica Buck: Jessica.Buck@thekids.org.au

Impact and Sustainability of Implementing Physical Activity in Routine Clinical Care: Clinician Perspectives

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, Move to Improve
Start Date	February 2027
Chief Supervisor/s	Dr Claire Willis
Other Supervisors	Mrs Emily Davey Professor Elizabeth Davis
Project Outline	Move to Improve (M2I) is an eight-week physical activity program co-designed by and for children with chronic health conditions and their families at Perth Children's Hospital (PCH). M2I is delivered by a multidisciplinary team including a physiotherapist, exercise physiologist, dietitian, and clinical psychologist to support children improve active living behaviours and psychosocial wellbeing. It is currently being piloted with children with cancer, cerebral palsy, stable neurological conditions, burn injuries, and type 1 diabetes. A scale-up trial of Move to Improve is upcoming. This trial aims to generate evidence of integrating physical activity into routine clinical care across a larger, diverse clinical cohort. Effective implementation strategies for embedding M2I as an ongoing clinical service will also be determined. Knowledge and practice of clinicians delivering Move to Improve is integral to this, providing critical insight into how the intervention is delivered, adapted, and experienced in practice. The aim of this study is to explore the perspectives of clinicians delivering Move to Improve at PCH. A mixed methods approach will be employed to understand the impact of Move to Improve, and factors affecting implementation and sustainability. Findings from this study will help shape the delivery of a clinical service model at PCH.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in exercise science/physiology, physiotherapy, dietetics, psychology, health science, or related degree • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Strong written communication skills • Well-developed interpersonal skills and willingness to work together with clinicians, young people, and families
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Claire Willis: Claire.Willis@thekids.org.au

Mapping Childhood Cancer Survivorship in Rural, Regional and Remote Australia: Demographics, Geography and Service Needs

Research Theme	Chronic Disease
Research Program	Brain Tumour Research
Start Date	Flexible
Chief Supervisor/s	Dr Jenny Davies Mr Gordon Miles
Other Supervisors	Dr Denny Mironova
Project Outline	Existing Australian research indicates that families living in rural, regional and remote areas face substantial challenges following a childhood cancer diagnosis. These include long-distance travel, relocation for treatment, financial hardship, family separation, disruption to employment and education, reduced access to psychological support, and difficulties maintaining continuity between tertiary cancer centres and regional healthcare services. Families living in remote areas have reported the broadest range of out-of-pocket expenses and the greatest effects on family lifestyle. Young people living with cancer in regional and remote Australia described how travelling for treatment disrupted important connections with their home, family, peers, education, lifestyle and community, and expressed a preference for receiving more care closer to home. Rurality has also been identified as a barrier to families seeking or accessing psychological support following childhood cancer diagnosis. There is currently limited research on the experiences of families of children diagnosed with cancer in the survivorship phase, including families' access to survivorship care, rehabilitation and educational support. To develop services that meet the needs, this project will: • map the existing evidence, clarifying the geographical distribution and needs of regional and remote families • complete analysis to determine the number of families (and their demographics) who live in rural or remote areas after end of treatment in the survivorship and surveillance phases • request information through business services on postcodes and locations, and write up the distances, demographics and disease descriptions.
Suitable For	☒ Honours ☒ Masters ☒ MD ☐ PhD
Essential Skills & Qualifications	• Good organisational skills • Initiative and dedication • Credit average • Experience with data collection valued
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jenny Davies: Jenny.Davies@thekids.org.au

Measuring What Matters Most for Youth Living with Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Anna Boggiss
Other Supervisors	Dr Keely Bebbington
Project Outline	Understanding the experiences and challenges faced by youth living with Type 1 Diabetes (T1D) and their families is essential to providing care that meets their unique needs. To accurately measure these experiences, Person-Reported Outcome Measures (PROMs) are vital, as they capture individuals' subjective health experiences, including physical, mental, and social wellbeing. In this research agenda, we hope to identify the PROMs used among youth living with T1D and consult with international youth living with T1D, families, clinicians and researchers to inform a consensus on the most appropriate PROMs to be used in routine clinical screening. Depending on degree type and research interests this may include conducting systematic reviews to uncover existing measurement tools and identify critical gaps, facilitating focus groups with families to capture their unique perspectives, or collaborating with international stakeholders, clinicians and researchers through expert consensus studies using Delphi study designs, or creating new psychometric tools to fill measurement gaps.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Psychology, or related field initiative and dedication • Strong written communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Great interpersonal skills and willingness to collaborate with community members, stakeholders and young people
Ethics Approval	☐ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Anna Boggiss: Anna.Boggiss@thekids.org.au

Neurodiversity and Type 1 Diabetes: Tailoring Care for Youth with Unique Needs and Strengths

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Anna Boggiss
Other Supervisors	Dr Keely Bebbington
Project Outline	Living with Type 1 Diabetes (T1D) requires daily attention to a complex interplay of factors, including fluctuating blood glucose levels, dietary intake, hormone levels, and emotional wellbeing. For neurodiverse youth and their families, these demands are often amplified due to unique sensory sensitivities, challenges in social interaction, behavioural preferences, and differences in executive function. While neurodiverse youth living with T1D may benefit from protective factors such as strengths in advanced reasoning and increased parental involvement, clinical outcomes for this population are not fully understood. The proposed project will address key evidence gaps by establishing the prevalence of neurodiversity in youth living with T1D in Australia and explore associations with important clinical and psychosocial outcomes. Depending on degree types, interviews with key stakeholders may also be conducted to identify unmet needs, barriers, and facilitators to care to inform neuro-affirming and safe clinical practices. The project aims to lay the groundwork for tailored models of care to support neurodiverse youth living with T1D and their families and inform interventions that better address the unique needs of this population.
Suitable For	☒ Honours ☐ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Psychology, or related field initiative and dedication • Strong written communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Great interpersonal skills and willingness to collaborate with community members, healthcare professionals, and young people
Ethics Approval	☐ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Anna Boggiss: Anna.Boggiss@thekids.org.au

Reprogramming Childhood Cancer Immunity for Better Immunotherapies

Research Theme	Chronic Disease
Research Program	Developmental Cancer Immunology
Start Date	February/March 2027
Chief Supervisor/s	Dr Anthony Buzzai
Other Supervisors	Additional supervisors from the WA Comprehensive Kids' Cancer Centre, selected according to the project's focus
Project Outline	Immunotherapy has transformed cancer treatment for many adults, but most children with solid tumours still do not benefit. Existing immunotherapies were developed for adult cancers and are applied to children. However, children are not simply smaller adults, and effective immunotherapies for childhood cancers need to be designed around the biology of young patients. Using an age-stratified preclinical platform established at the WA Comprehensive Kids' Cancer Centre, we can directly compare how the same tumour behaves in young and adult hosts. Across multiple tumour models, genetically identical tumours grow faster in young hosts, recruit fewer anti-tumour immune cells, and respond poorly to immunotherapy. What drives immunotherapy resistance in young hosts remains poorly understood. We hypothesise that host age reprograms tumour cells, altering the signals they release and the way they are recognised by the immune system. This project will identify the tumour programs that drive immune suppression in young hosts, and determine whether targeting these programs improves immunotherapy responses across multiple models of childhood cancer. Students will gain experience in preclinical mouse models of childhood cancer and high-dimensional flow cytometry. Depending on the direction of the project, this may extend into CRISPR-based engineering of tumour cells, confocal imaging, single-cell multi-omic analysis, immunopectidomics and functional immune cell assays. The project offers the opportunity to contribute to the development of a new generation of immunotherapies designed specifically for children with cancer.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Willingness to learn new skills and work with animals • Good organisational skills • Initiative and dedication • First-Class Honours degree or equivalent (e.g. Masters by Research) in biological discipline
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Anthony Buzzai: Anthony.Buzzai@thekids.org.au

Supporting Youth Living with T1D and Disordered Eating Behaviours

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Anna Boggiss
Other Supervisors	Dr Keely Bebbington
Project Outline	Youth living with Type 1 Diabetes (T1D) face unique vulnerabilities to disordered eating behaviours due to the required daily focus on food intake, weight monitoring, and insulin doses. The intersection of medical necessity and typical adolescent developmental concerns creates conditions where diabetes-specific eating disorders can emerge, including insulin omission for weight control. While international research indicates higher prevalence rates of disordered eating behaviours among youth living with T1D compared to their peers without diabetes, comprehensive and current data for Australian youth remains limited and little is known what identification and intervention strategies may be most appropriate. The research program's overall aim is to lay the groundwork for trauma-informed and developmentally appropriate models of care that better support the unique needs of youth living with T1D and disordered eating behaviours. Research projects will vary by degree level and address critical knowledge gaps by characterising disordered eating behaviours among youth living with T1D, examining associations with clinical outcomes and psychosocial functioning, mapping current referral pathways, and conducting interviews with young people, families, and healthcare providers to identify barriers to disclosure and perspectives on current screening practices.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Psychology, or related field initiative and dedication • Strong written communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Great interpersonal skills and willingness to collaborate with community members, stakeholders and young people
Ethics Approval	☐ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Anna Boggiss: Anna.Boggiss@thekids.org.au

The Impact of Early Morning Exercise Performance on Acute Post-Prandial Glucose Time in Range and 24 Hour Glycaemic Control in Youth with Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	January 2027
Chief Supervisor/s	Dr Craig Taplin
Other Supervisors	Professor Elizabeth Davis Dr Vinutha Shetty Dr Shaun Teo
Project Outline	Although regular physical activity (PA) is a key recommendation for the management of Type 1 Diabetes (T1D), participation in exercise presents unique challenges for children living with T1D. These challenges result in them having significant barriers towards exercise-related diabetes management, with the most frequently reported barrier being fear of hypoglycaemia. Consequently, previous research has focused on the manipulation of exercise variables such as: 1. exercise type 2. intensity, and 3. duration, to provide the evidence needed to address the concerns relating to PA and T1D management. However, despite the availability of this evidence, PA levels in children remain lower than their non-T1D peers. As such, new contemporary methods of manipulating exercise variables are needed to help improve upon exercise prescription for children and adolescents living with T1D. The diurnal timing of exercise could be an important factor that has started to gain attention in recent times and may play a crucial role in T1D management during exercise performance. Hence, the overarching aim of the project is to explore the effect of a morning exercise session on acute glycaemic control measures when compared to a no-exercise control session in youth with T1D. This study will involve working with the team to recruit participants, supervise participants during in-clinic exercise sessions, and collect and analyse data.
Suitable For	☒ Honours ☐ Masters ☒ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in Psychology, Health Science, Education, Health Promotion or related degree • Excellent communication skills
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au

Understanding Experiences of Children and Families in Move to Improve: A Qualitative Study

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, Move to Improve
Start Date	February 2027
Chief Supervisor/s	Dr Claire Willis
Other Supervisors	Mrs Emily Davey Professor Elizabeth Davis
Project Outline	Chronic health conditions comprise a major proportion of childhood disease burden, with high co-occurrence between physical conditions and mental health disorders. Physical activity has established benefits for improving physical and psychosocial outcomes of children with chronic health conditions. Despite this evidence, and the recognised role of exercise as medicine, coordinated, tertiary-based physical activity intervention services for children with chronic disease are yet to form part of routine clinical care. To address this, a team of researchers, clinicians, families, and young people at Perth Children's Hospital (PCH) have co-designed a physical activity program called Move to Improve (M2I). A pilot trial is underway, with over 100 children and families from five participating conditions (cancer, cerebral palsy, stable neurological conditions, post-burn injury, and type 1 diabetes) referred to date. Understanding the lived experience of children and families is essential in the evaluation of interventions, providing insight into the acceptability, relevance, and impact of clinical care. The proposed study aims to explore the experiences of children and primary caregivers following participation in M2I, to inform upcoming expansion of the intervention across a broader cohort of children at PCH.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in exercise science/physiology, physiotherapy, dietetics, psychology, health science, or related degree • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Strong written communication skills • Well-developed interpersonal skills and willingness to work together with clinicians, young people, and families
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Claire Willis: Claire.Willis@thekids.org.au

Understanding the Mental Health in Youth with Type 1 Diabetes: A National Routine Screening Initiative

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Keely Bebbington
Other Supervisors	Dr Anna Boggiss
Project Outline	Youth living with Type 1 Diabetes (T1D) experience psychological distress at rates two to four times higher than their peers without diabetes, while one-third of parent's report trauma and distress persisting years after diagnosis. Despite these concerning statistics, Australia's most recent national data on diabetes-related distress dates back to 2016, creating a critical knowledge gap. While international guidelines recommend comprehensive psychosocial screening, many Australian clinics struggle to implement these recommendations due to limited mental health expertise. The research project will leverage valuable data from screening programs across Western Australia, South Australia, and Queensland, using validated diabetes-specific measures to conduct a longitudinal assessment of diabetes distress and quality of life across multiple Australian states. Research activities may include analysing large-scale psychosocial screening data over time, conducting qualitative research with families and clinicians to examine the facilitators and barriers to screening, or developing recommendations for improved screening practices. This research will provide essential evidence to transform psychosocial care for Australian families living with T1D, directly informing clinical practice guidelines and supporting psychosocial service development.
Suitable For	☐ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Psychology, or related field initiative and dedication • Strong written communication skills • High level of organisation and time management skills • Excellent ability to work independently and as part of a team • Great interpersonal skills and willingness to collaborate with community members, healthcare professionals, and young people
Ethics Approval	☐ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Keely Bebbington: Keely.Bebbington@thekids.org.au

Vulnerable From the First Breath: Epithelial Dysfunction and Respiratory Outcomes in Children

Research Theme	Chronic Disease
Research Program	Airway Epithelial Research
Start Date	September 2026 onwards
Chief Supervisor/s	Dr Thomas Iosifidis
Other Supervisors	To be determined based on final project selection but may include Associate Professor Anthony Kicic Dr David Hancock Dr Yuliya Karpievitch Dr David Martino Dr Liz Starceвич Mr Danush Murali, et al.
Project Outline	Our pioneering studies of airway epithelium from infants and children, have led us to the challenging proposal that asthma is an example of a condition arising from an intrinsic epithelial vulnerability to environmental exposures. In order to better understand how the epithelium contributes to the development of respiratory conditions we need to determine its pre-morbid characteristics. Also, there is a need to understand the role of in utero exposures and epigenetic imprinting on epithelial programming and development of respiratory disease in early childhood. This study will allow us to address the following critical questions systematically in a well powered birth cohort study: • Is a vulnerable respiratory epithelium identifiable at birth? • Does a vulnerable respiratory epithelium contribute to respiratory outcomes? • What is the epigenetic topography of the vulnerable epithelium at birth? This project is incorporated within the AERIAL study nested under The ORIGINS cohort. It combines access to well-characterised clinical phenotypes, biological samples, in vitro mechanistic models and cutting-edge multi-omic sequencing applications. There are opportunities to incorporate bioinformatics analysis pipelines, such as integration of multi-omics datasets with clinical phenotypes. Projects could be solely data focused projects (biostatistics, bioinformatics), or combined with laboratory-based activities. In addition, the project may involve processing of clinical samples, establishment of primary epithelial cell cultures to assess epithelial function (e.g., injury, infection, inflammation, barrier integrity). There may also be opportunities to be involved in the analysis of lung function tests used to ascertain respiratory health. Through this project, you would contribute to understanding susceptibility to respiratory infections and wheeze development and identify candidate biomarkers and therapeutic targets to modulate epithelial function and respiratory outcomes.
Suitable For	 Honours  Masters  MD  PhD

Essential Skills & Qualifications	• Bachelor of Science or equivalent • Excellent written and oral communication skills • Ability to work with clinical samples • Knowledge of, or interest to learn coding-based and/or bioinformatics analyses (desirable)
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Thomas Iosifidis: Thomas.iosifidis@thekids.org.au

What is the Burden of Cardiovascular Disease in Western Australian Children and Adolescents Diagnosed with Type 1 and Type 2 Diabetes?

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Jeffrey Cannon
Other Supervisors	Dr Aveni Haynes Dr Matthew Cooper Dr Michael Hancock
Project Outline	Childhood diabetes is associated with significant long term health complications and an average 14-year reduced life expectancy. Adverse clinical complications including cardiovascular outcomes are a significant contributor to the high morbidity and mortality associated with childhood diabetes. Previous research from our group, led by Dr Cooper, investigated the incidence of hospitalisations and risk factors for health complications experienced during early adulthood in children diagnosed with type 1 diabetes in Western Australia between 1992-2012. This project aims to determine the incidence of health complications and premature mortality in children diagnosed with type 1 and type 2 diabetes in Western Australia from 1992 to 2023, including an additional 10 years of new onset cases and follow-up period for those included in the previous study. Children with diabetes will be identified from the Western Australian Children's Diabetes Database (WACDD) maintained at Perth Children's Hospital and record linkage conducted by the Western Australian Data Linkage Unit (https://www.datalinkage-wa.org.au/) to the Hospitalisations and Morbidity Data System (HMDS) and Mortality Register to determine the incidence of cardiovascular outcomes in this cohort. The findings of this study will not only be novel but also make a significant impact on informing future models of care for children diagnosed with diabetes which aim to minimise the risk of long-term adverse effects for individuals affected by this lifelong condition so that they can be prevented in future generations.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	- Undergraduate degree in Health Science or related degree - Excellent organisational and communication skills. - Desirable skills: Proficiency with Excel/SPSS/R/data analysis.
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au

What is the Prevalence of Obesity in WA Children and Adolescents with Type 1 Diabetes?

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research, The Rio Tinto Children's Diabetes Centre
Start Date	February 2027
Chief Supervisor/s	Dr Aveni Haynes
Other Supervisors	Dr Rebecca Pavlos Dr Elizabeth Davis
Project Outline	The Western Australian Children's Diabetes database is a prospective, longitudinal diabetes registry containing data on all consenting children and adolescents diagnosed with type 1 diabetes in Western Australia since 1987. Ethics approval is currently granted to conduct epidemiological studies using deidentified data from this data collection to address research questions aimed at improving the lives of young people at risk of, or living with, the condition. Research is lacking on how to optimise treatment in young people who with type 1 diabetes who are also living with obesity, as both conditions adversely impact longer term health e.g. cardiovascular disease. Furthermore, obesity may influence glycaemia via insulin resistance in addition to the insulin deficiency characterising type 1 diabetes. As treatment options for obesity are increasing, and have been shown to have positive benefits, it is vital that more research is conducted to inform treatment guidelines for young people living with both conditions. This research aims to determine the prevalence of obesity in Western Australian young people living with type 1 diabetes, and investigate differences by age group at diagnosis, sex assigned at birth, socioeconomic status and region of residential postcode. The findings of this research will guide future initiatives aimed at improving the clinical care of these young people.
Suitable For	☒ Honours ☐ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in Health Science or related degree • Excellent organisational and communication skills. • Desirable skills: Proficiency with Excel/SPSS/R/data analysis.
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rebecca Pavlos: Rebecca.Pavlos@thekids.org.au



Precision Health

Automated Assembly of Cross-Species Model-Organism Evidence for Gene-Disease Pairs: A Verified, Machine-Readable Pipeline Component for Rare Disease Research

Research Theme	Precision Health
Research Program	Translational Intelligence
Start Date	September 2026 onwards
Chief Supervisor/s	Associate Professor Timo Lassman Ms Isabelle Bond
Other Supervisors	Dr Rafael Peres da Silva
Project Outline	When researchers or clinicians ask whether a particular gene causes a particular disease, some of the most useful supporting evidence can come from model organisms. Today that evidence can be scattered and/or incomplete. Resources such as Open Targets and Monarch curate model-organism data, but their inputs require manual curation, which can leave resources incomplete or lagging behind newly published data. The consequence is that a substantial amount of rare-disease model-organism data remains in the primary literature, uncaptured by current databases. Assembling a complete picture for a single gene-disease pair currently means visiting several databases and searching the literature by hand, then reconciling the results - work that takes hours and is easily incomplete. This project will build a software tool that aims to answer one focused question automatically: what model-organism evidence exists for a given gene-disease pair? The tool will flag the variation in a phenotype across model organisms, pull together evidence from the major curated databases and add a pass over the primary literature to capture findings the databases miss. Its output is a single, machine-readable record in which every row is traceable to its source and carries a verification status, so it can be trusted as an input to a larger automated rare-disease analysis pipeline. A human-readable view is a secondary output built by displaying the same verified records. The tool is designed to be organism-agnostic, however initial validation will focus where the supporting cross-species resources are most mature (mouse and zebrafish). Its performance will be benchmarked against the model-organism evidence that expert curators cited in ClinGen gene-disease validity curations. The value of the tool is completeness and trustworthiness for pipeline: no existing resource assembles all these sources, plus a literature pass, into one verified, pipeline-ready record scoped to a gene-disease pair. Its impact spans both rare-disease research and experimental planning: surfacing as much evidence as possible before experimentation may contribute to both a reduction in animal research, as well as speeding up the path to diagnosis and treatment for individuals with rare disease. The student will gain hands-on experience working with major genomics databases and their programming interfaces as well as automating literature mining. They will leave with knowledge and hands on experience of the application of trustworthy agentic systems in rare disease. No ethics approval is necessary as all data are in the public domain.

Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• A background in molecular biology or genetics with strong enthusiasm to learn agentic AI and coding • Some programming experience is desirable but not essential • A background in bioinformatics, computer science or AI with a strong enthusiasm to learn the basics rare disease genetics
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact Ms Isabelle Bond: Isabelle.Bond@thekids.org.au	

CellPilot: Agentic AI for Prioritising Experimental Cell Models in Rare-Disease Research

Research Theme	Precision Health
Research Program	Translational Intelligence
Start Date	September 2026 onwards
Chief Supervisor/s	Dr Rafael Peres da Silva Associate Professor Timo Lassman
Other Supervisors	Ms Isabelle Bond
Project Outline	Identifying a candidate gene or variant is only the beginning of rare-disease functional investigation. Researchers must also decide which human cell model is most likely to reproduce the relevant disease biology and provide a measurable result. The most biologically relevant cell type may be difficult to obtain, may require a particular developmental stage, or may not be suitable for the assay needed to test the suspected mechanism. Evidence that can guide this decision is spread across gene-expression resources, single-cell atlases, disease phenotypes and published functional studies. Existing computational methods can associate diseases or phenotypes with likely cell types, but they generally stop at biological relevance. They do not usually determine which experimentally available model is most suitable for testing a specific gene or variant, explain how conflicting evidence should be interpreted, or clearly indicate when the available evidence is insufficient. This project will develop an agentic AI tool to prioritise experimental cell models for rare-disease research. Given a gene or variant and a phenotype description, the system will coordinate searches of public biomedical resources and the scientific literature, use appropriate bioinformatics analyses, and produce a ranked set of possible models, such as patient-derived cells, cell lines, stem-cell-derived cells or organoids. Each recommendation will be linked to its supporting evidence and will include important limitations, uncertainty and cases where no confident recommendation can be made. The approach will be evaluated using selected rare-disease studies in which functional experiments have already been reported. The project will assess whether the system identifies biologically plausible and experimentally useful models, whether its evidence is traceable and accurate, and whether agentic reasoning adds value beyond a simple database search or a single-pass AI response. The resulting tool could support researchers during early experimental planning while retaining human scientific oversight. The student will gain hands-on experience with major genomics and biomedical resources, scientific literature, bioinformatics software development and trustworthy agentic AI. They will leave with practical experience in applying AI to human-disease research and up-to-date knowledge of the present and future of AI research and bioinformatics for human diseases. No ethics approval is expected to be necessary because the project will use public, non-identifiable data.

Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• A background in bioinformatics, computer science, data science, genetics, molecular biology or a related area, with a strong interest in learning how agentic AI and bioinformatics can be applied to human disease • Some programming experience is desirable but not essential
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rafael Peres da Silva: Rafael.Peresdasilva@thekids.org.au

CRISPR Editing for Rapid Diagnosis of Rare Genetic Diseases in Children

Research Theme	Precision Health
Research Program	Translational Genetics
Start Date	February 2027
Chief Supervisor/s	Associate Professor Vanessa Fear
Other Supervisors	Dr Nicole Shaw Dr Linda Wijaya
Project Outline	Rare diseases collectively affect more than 190,000 Western Australians, including 63,000 children, and have been identified as a public health priority. Approximately 80% of all rare diseases have a genetic basis. The advent of Next Generation Sequencing has allowed high speed, affordable sequencing, with targeted panel and whole genome sequencing now implemented in WA as the diagnostic method of choice for rare diseases. However, diagnosing a child with a rare disease requires that the genetic variant identified using has previously been functionally characterised, validated and reported. Consequently, many children with rare diseases present with previously unseen single nucleotide variants (SNVs) that are of uncertain significance. Even in cases where the new mutation is localised to a region known to be important to gene function, providing the patient with a diagnosis requires validation of the effects of the new variant. This means that many patients and their families endure years or even decades of not knowing the cause and best treatment for their disease, with the psychological burden this entails. CRISPR technology provides a new way to rapidly validate the effects of rare genetic variants found in patients. This project will use CRISPR/Cas9 gene-editing to integrate the SNV of interest into human induced pluripotent stem cells (iPSCs). The impact of these SNVs on mesoderm, endoderm and ectoderm development, and subsequently tissue specific iPSC differentiation to cardiac, neural or lung cells is utilised to investigate disease relevance. Key techniques include RNAseq, genome sequencing, epigenetics, flow cytometry and protein analysis. This project will add to our genetic and rare disease studies that aim to reduce the time to diagnosis for paediatric patients with variants of unknown significance. The project is directly translational delivering a diagnosis to children in WA. This is highly valuable as an early, accurate diagnosis may alleviate disease progression, reduce complications and co-morbidities, and improve patient quality of life.
Suitable For	☒ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• For Honours: An undergraduate degree in Biochemistry, Molecular Biology or similar • For PhD: Minimum 1st class Honours degree • Excellent communication and writing skills
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Associate Professor Vanessa Fear: Vanessa.Fear@thekids.org.au Dr Nicole Shaw: Nicole.Shaw@thekids.org.au

From Data to Answers: AI and Computational Biology for Rare Disease Discovery

Research Theme	Precision Health
Research Program	Translational Intelligence
Start Date	September 2026 onwards
Chief Supervisor/s	Associate Professor Timo Lassman
Other Supervisors	Dr Rafael Peres de Silva Ms Isabelle Bond
Project Outline	Rare diseases have a major impact on children and their families. Many families face a long and uncertain journey before receiving a diagnosis, while others may never receive a definitive answer. Even when genomic sequencing identifies a candidate variant, determining whether it causes disease, how it affects cells and tissues, and which experiments or treatments should be prioritised remains challenging. Our laboratory develops artificial intelligence, bioinformatics and computational biology approaches to accelerate rare disease diagnosis and discovery. We integrate genomic, transcriptomic, single-cell and phenotype data with public databases and scientific literature to identify disease-associated genes, variants, cell types and biological mechanisms. Our previous work has developed methods for variant prioritisation, identifying disease-relevant cell types, discovering and reanalysing public datasets, and interpreting complex biological results. Building on this foundation, we aim to develop trustworthy and explainable AI systems that automate time-consuming research tasks while retaining human scientific oversight. A particular focus is agentic AI: systems that can plan analyses, use specialised bioinformatics tools, evaluate evidence and communicate uncertainty. Potential student projects may include prioritising genes and variants, linking diseases to relevant cells or tissues, generating testable hypotheses, integrating evidence across publications and databases, supporting experimental design, and identifying therapeutic opportunities. Students will work in a collaborative environment connecting computational researchers, laboratory scientists and clinicians. Projects can be tailored to Honours, Master's and PhD students from computational, biomedical or clinical backgrounds. Students may gain experience in bioinformatics, genomics, machine learning, software development, data interpretation and responsible AI. Our long-term goal is to shorten the path from complex biomedical data to an informative diagnosis and, ultimately, better treatment for children living with rare diseases in Western Australia and beyond. Join us in developing AI and computational tools that make rare disease research faster, more transparent and more useful to patients and families. No ethics approval is expected to be necessary for projects using public, non-identifiable data. Any project involving clinical or patient data will be subject to the appropriate approvals.

Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Students from bioinformatics, computer science, data science, statistics, genetics, molecular biology, biomedical science, medicine or a related area are encouraged to apply • A strong interest in AI and rare disease research is essential • Programming experience is desirable for computational projects but is not required for all projects
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Rafael Peres da Silva: Rafael.Peresdasilva@thekids.org.au Ms Isabelle Bond: Isabelle.Bond@thekids.org.au



Infectious Disease

Burden of Disease Models to Support Development and Implementation of Strep A Vaccines

Research Theme	Infectious Disease
Research Program	Strep A Translation
Start Date	Semester 1, 2027
Chief Supervisor/s	Dr Jeff Cannon
Other Supervisors	
Project Outline	Group A Streptococcus (Strep A) causes an extensive range of diseases. This includes pharyngitis ('strep throat'), impetigo, scarlet fever, sepsis, necrotising fasciitis ('flesh-eating disease'), and rheumatic heart disease. Due to severe diseases, Strep A has been posted to be the fifth most lethal human pathogen in the world. However, dated and incomplete estimates for the burden of Strep A disease have hindered investment in prevention strategies such as vaccines. Recognising the imperfect Strep A burden of disease estimates and the implication on investment strategies, the Burden of Disease Working Group (BoDWG) was established in 2020 through the Strep A Global Vaccine Consortium. The BoDWG comprises 19 members from seven geographically diverse countries with expertise in clinical medicine, epidemiology, surveillance, health economics and global vaccine policies. Key aims of the group are to support the beneficial flow of knowledge between the BoDWG and Strep A stakeholders in vaccine development and implementation. There is an opportunity for a student interested in mathematical modelling and statistical analyses of disease burden data to contribute to the BoDWG aims. Under the BoDWG, the student will develop or advance models to achieve one or more of the following model-based objectives: (1) estimate the contemporary country, regional, and global burden of Strep A disease; (2) explore and parametrise the mechanistic relationship between Strep A exposure, infection, transmission, acute clinical disease, and sequelae; (3) guide revisions of the Preferred Product Characteristics for Strep A vaccines; and (4) estimate the future burden of disease among vaccine-eligible cohorts and evaluate the impact of vaccination.
Suitable For	☐ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in a related field • For prospective PhD students, a First-Class Honours Degree or Masters Degree in a suitable discipline (e.g., mathematics, statistics, public health, infectious diseases) • Strong data analysis skills • Excellent communication skills • Demonstrated ability to work both independently and as a member of a team • Good organisational skills and high personal motivation
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jeffrey Cannon: Jeffrey.Cannon@thekids.org.au

Clinical Language-Enabled Evaluation and Assessment of Representative SKIN Images (CLEAR-SKIN)

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	Flexible. January 2027 or most suitable date
Chief Supervisor/s	Dr Stephanie Enkel
Other Supervisors	Dr Harry Smallbone Professor Asha Bowen
Project Outline	Childhood skin infections are common in everyday clinical and community settings, but the way they are described, taught and digitally assessed has not always reflected the children most affected. For Aboriginal children and children with skin of colour, this creates a risk that infection appearance, severity and progression are under-recognised or poorly represented in research and education. The Healthy Skin and ARF Prevention Team holds a large, ethically governed collection of clinical photographs from a decade of skin health studies in urban and remote Australia. These images, mostly from Aboriginal children, are currently reviewed and graded manually by clinicians and researchers. This process is time intensive and can vary between assessors. Clinical Language-Enabled Evaluation and Assessment of Representative SKIN images (CLEAR-SKIN) will test whether secure, locally hosted artificial intelligence can support the research classification, grading and description of childhood skin infection photographs. Existing de-identified photographs and non-identifiable clinical descriptors will be analysed on MERLIN, a high-performance computing platform located within Perth Children's Hospital and the WA Health network. AI-generated classifications and descriptions will be compared with clinician-selected reference standards, including review by clinical experts. The project will assess accuracy, consistency, usefulness and potential bias across infection types, severity categories, setting and skin tone where available. CLEAR-SKIN will support better research, clinician education and future equity-focused digital health tools.
Suitable For	☒ Honours ☐ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in a relevant field • Experience or interest in computer science is desirable
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Stephanie Enkel: Stephanie.Enkel@thekids.org.au Professor Asha Bowen: Asha.Bowen@thekids.org.au

Clinical Translation of a Child-Friendly Oral Terbinafine Formulation for the Treatment of Paediatric Tinea Infections

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	Flexible. January 2027 or most suitable date
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Hannah Thomas Dr Okhee Yoo
Project Outline	Superficial fungal infections are among the most common childhood skin conditions worldwide and disproportionately affect Aboriginal children living in remote Australia. Although oral terbinafine is the recommended treatment for extensive tinea infections, its extremely bitter taste is a major barrier to treatment adherence in young children. A novel chocolate-based chewable terbinafine formulation has recently been developed and has demonstrated excellent palatability. The next step is to generate the evidence required to support its clinical translation. This PhD will generate the evidence required for the clinical translation of this innovative formulation through an interdisciplinary program spanning clinical pharmacology, paediatric infectious diseases, and implementation science. The candidate will: (1) support and contribute to a pharmacokinetic and bioavailability study comparing the chewable formulation with conventional terbinafine tablets in healthy adults; (2) develop population pharmacokinetic models to inform paediatric dosing and the design of future clinical trials; and (3) investigate the acceptability, feasibility, and implementation considerations for introducing the formulation into routine clinical practice through qualitative research with parents, clinicians, pharmacists, and Aboriginal community members. The project will be undertaken through a collaboration between The Kids, The University of Western Australia, and clinical pharmacology partners, providing training in clinical trials, pharmacometrics, implementation science, and consumer engagement. By generating the evidence required for regulatory approval and future paediatric efficacy studies, this research has the potential to improve access to child-friendly antifungal treatment while providing a translational framework for developing medicines that address unmet paediatric health needs.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree and Honours in a relevant field • Excellent interpersonal and communication skills
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Professor Asha Bowen: Asha.Bowen@thekids.org.au Dr Hannah Thomas: Hannah.Thomas@thekids.org.au

Evaluating the Acceptability, Usability and Early Impact of the Strong Skin App

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	Flexible. January 2027 or most suitable date
Chief Supervisor/s	Dr Hannah Thomas
Other Supervisors	Professor Asha Bowen
Project Outline	For Aboriginal children and families in Western Australia, access to culturally appropriate, evidence-based skin health information is limited. The Strong Skin app was co-designed with Aboriginal families, health professionals, and community partners to improve access to trusted information on the prevention, recognition, and management of common childhood skin conditions. Recently released, the app now requires evaluation to understand how the app is being used, whether it meets the needs of users, and how it can be refined for wider implementation. This Honours project will evaluate the acceptability, usability, and early impact of the Strong Skin app using a mixed-methods design. The student will analyse survey data collected from parents and caregivers to assess user satisfaction, perceived usefulness, confidence in managing childhood skin conditions, and intentions to use or recommend the app. Semi-structured interviews and yarning sessions with a purposive sample of parents and healthcare professionals will explore user experiences, barriers and facilitators to engagement, and opportunities for improvement. Where available, app analytics will be integrated to describe patterns of engagement and feature use. The project will be undertaken through The Kids in partnership with Aboriginal community advisors and health service partners. This opportunity offers a student training in community-engaged research, qualitative interviewing, survey analysis, and mixed-methods evaluation. The student will gain experience working within a culturally responsive research framework and contribute to the evaluation of a co-designed digital health intervention. Findings will directly inform future refinement, implementation, and scale-up of the Strong Skin app, while contributing to the evidence base for digital health tools that support child skin health and improve access to culturally safe health information for Aboriginal families.
Suitable For	☒ Honours ☐ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	- Undergraduate degree in a relevant field - Excellent interpersonal and communication skills
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Hannah Thomas: Hannah.Thomas@thekids.org.au Professor Asha Bowen: Asha.Bowen@thekids.org.au

Healthy Skin Guidelines

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	Flexible. January 2027 or most suitable date
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Ingrid Amgarth-Duff
Project Outline	Healthy skin is fundamental to overall health and wellbeing, yet Aboriginal and Torres Strait Islander Australians continue to experience a disproportionate burden of common skin infections and inflammatory skin conditions. The National Healthy Skin Guideline provides evidence-based recommendations for the prevention, diagnosis and management of these conditions. This Honours project will contribute to the development of the 3rd Edition of the guidelines by undertaking an updated systematic review on new evidence to treat skin infections. The student will be involved in literature searching, study screening, critical appraisal, evidence synthesis, and grading the certainty of evidence using the GRADE framework. There may also be opportunities to contribute to guideline development discussions and peer-reviewed publications. This project offers experience in evidence synthesis and guideline development while contributing to a nationally significant resource that supports culturally safe, evidence-based healthcare for Aboriginal and Torres Strait Islander Australians.
Suitable For	☒ Honours ☐ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Undergraduate degree in a relevant field • Good interpersonal and communication skills
Ethics Approval	☐ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Professor Asha Bowen: Asha.Bowen@thekids.org.au Dr Ingrid Amgarth-Duff: Ingrid.Amgarth-Duff@thekids.org.au

IntraNasal Influenza Vaccine: Effectiveness, Societal Benefits & School Based Trials (INVEST)

Research Theme	Infectious Disease
Research Program	Infectious Diseases Epidemiology
Start Date	January 2027 or most suitable date
Chief Supervisor/s	Professor Chris Blyth
Other Supervisors	
Project Outline	Influenza is common with children at high risk of infection and hospitalisation. School-aged children are most likely to spread influenza in the community. Despite free injectable vaccines, too few children are vaccinated. A new nasal vaccine will be available in 2026 with 4 states funding programs. INVEST will assess whether availability of the nasal vaccine improves coverage, whether school-based programs further drive coverage and whether the nasal vaccine protects children and the community.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Masters of Public Health or equivalent • Statistical analysis training desirable
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☒ Full Scholarship offered by project group
For more information, please contact	Mr Dhruv Shah: Dhruv.Shah@thekids.org.au

Modelling RSV Immunisation Strategies for Evidence-Based Policy (RISE)

Research Theme	Infectious Disease
Research Program	Infectious Diseases Epidemiology
Start Date	January 2027 or most suitable date
Chief Supervisor/s	Professor Hannah Moore
Other Supervisors	
Project Outline	Respiratory syncytial virus (RSV) causes significant burden. Immunisation strategies are now available but decisions need to be made for effective policy. The RISE project will guide equitable and efficient RSV immunisation policy by using real-world data and mathematical models. We will assess the health and economic impact of different immunisation strategies, develop communication tools for effective policy advice, and refine these with two-way communication between key stakeholders.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Masters of Public Health or equivalent • Statistical analysis training desirable
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☒ Full Scholarship offered by project group
For more information, please contact	Mr Dhruv Shah: Dhruv.Shah@thekids.org.au

Sero-Epidemiology of Streptococcus Pyogenes Pharyngitis

Research Theme	Infectious Disease
Research Program	Strep A Vaccines
Start Date	Flexible. Semester 1, 2027
Chief Supervisor/s	Dr Alma Fulurija Mr Michael Morici
Other Supervisors	Associate Professor Glenn Pearson Professor Jonathan Carapetis
Project Outline	<i>Streptococcus pyogenes</i> (Group A Streptococcus, Strep A) causes over 500,000 deaths globally each year, with disease ranging from common throat and skin infections to life-threatening conditions such as acute rheumatic fever (ARF) and rheumatic heart disease (RHD). In Australia, Aboriginal and Torres Strait Islander communities experience some of the highest rates of ARF and RHD worldwide, reflecting a stark and preventable health inequity. The Perth Aboriginal Sore Throat Study conducted in partnership with Derbarl Yerrigan Health Service is a prospective surveillance study investigating the epidemiology of Strep A throat infections in Aboriginal children aged 3–14 years. Alongside clinical, laboratory and symptom data, the study has collected paired serum samples, allowing measurement of antibody responses to a panel of Strep A antigens, including candidate vaccine targets. This project will investigate the sero-epidemiology of Strep A pharyngitis, characterising antibody responses to key Strep A antigens in relation to infection status, strain exposure and clinical presentation. Findings will help define natural immune responses to Strep A in this population and inform which antigens and antibody responses are most relevant to future vaccine design. Depending on your interests, your project may include: • Measurement and analysis of antibody responses to Strep A antigens using established immunoassays (e.g. multiplex, bead-based or ELISA platforms) • Comparison of antibody responses between children with confirmed infection, exposed but uninfected children, and uninfected controls • Investigation of associations between antibody titres and clinical symptoms, strain type and infection history • Evaluation of age-related patterns in antibody acquisition and boosting following natural infection • Assessment of the immunogenicity of specific vaccine candidate antigens in this cohort, to help prioritise targets for vaccine development. This project is well suited to students interested in translational research, bridging immunology and epidemiology to address real-world vaccine development questions.

Project Outline Cont.	You will gain hands-on experience in: • Sero-epidemiology and infectious disease immunology • Immunoassay data analysis and interpretation • Integration of serological, clinical and epidemiological datasets • Statistical analysis of antibody response data • Data visualisation and scientific reporting • Translational research supporting Strep A vaccine antigen selection and development. This project is ideally suited to students with interests in immunology, infectious diseases, vaccinology and public health. Students will have the opportunity to work with a unique paired clinical and serological dataset and contribute to identifying immune correlates relevant to Strep A vaccine development.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Enrolled in or completed an undergraduate degree in health sciences, medical sciences, epidemiology, public health, biostatistics, medicine, nursing, pharmacy, or a related discipline • Strong analytical and problem-solving skills • Excellent attention to detail and organisational skills • Ability to work both independently and as part of a multidisciplinary research team • Strong written and verbal communication skills • Willingness to learn data management and statistical analysis techniques • Ability to critically appraise scientific literature and interpret research findings
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact Dr Alma Fulurija: Alma.Fulurija@thekids.org.au	

SNAP-PY: Staphylococcus Aureus Network Adaptive Platform Trial for Paediatrics and Youth

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	January 2027 or most suitable date
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Anita Campbell Ms Keerthi Anpalagan
Project Outline	SNAP-PY is a clinical trial aimed at finding the best treatment for Staphylococcus aureus bacteraemia (SAB) bloodstream infections. A range of student projects are available. SAB is common, is not vaccine-preventable and optimal treatment has not been determined for children or adults. Each year, approximately 400 Australian children are hospitalised with SAB, remaining for an average of 2 weeks for treatment. This means time away from family, school and sometimes travelling a long way from home to hospital. Aboriginal children have double the rate of SAB compared to non-Aboriginal children (Campbell et al 2021). The Staphylococcus aureus Network Adaptive Platform (SNAP) is the most ambitious clinical trial for bloodstream infection globally to date, involving 14 countries, 165 hospitals and >6000 patients including > 300 children. It is a perpetual trial. The clinical trial aims to identify which antibiotic treatment options result in the least patients dying and in improved outcomes. In contrast to a traditional clinical trial, the trial is examining multiple different antibiotic treatment options at the same time. There are a variety of student options to explore, from extending cultural safety to analysis of trial outcomes. There is an opportunity for employment one day a week at The Kids if this is of interest.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in a relevant field • Good interpersonal and communication skills • Have data analysis skills, writing skills and clinical experience
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Professor Asha Bowen: Asha.Bowen@thekids.org.au

Understanding Strep A Infections: From Symptoms to Diagnosis of a Sore Throat

Research Theme	Infectious Disease
Research Program	Strep A Vaccines
Start Date	Flexible. Semester 1, 2027
Chief Supervisor/s	Professor Jonathan Carapetis Dr Alma Fulurija
Other Supervisors	Associate Professor Glenn Pearson Mr Michael Morici Dr Matt Cooper
Project Outline	<i>Streptococcus pyogenes</i> (Group A Streptococcus, Strep A) is responsible for over 500,000 deaths globally each year and causes a wide spectrum of diseases, ranging from common throat and skin infections to life-threatening conditions such as acute rheumatic fever (ARF) and rheumatic heart disease (RHD). In Australia, Aboriginal and Torres Strait Islander communities experience some of the highest rates of ARF and RHD worldwide, reflecting a stark and preventable health inequity. The Perth Aboriginal Sore Throat Study, conducted in partnership with Derbarl Yerrigan Health Service, is a prospective surveillance study investigating the epidemiology of Strep A throat infections in Aboriginal children aged 3–14 years. The study has collected extensive demographic, clinical, laboratory and symptom data to better understand the burden of Strep A pharyngitis and inform future Strep A vaccine trials. This project will utilise data from The Perth Aboriginal Sore Throat Study to investigate the epidemiology, clinical presentation and risk factors associated with Strep A pharyngitis in Aboriginal children. The student will analyse an established surveillance dataset to identify clinical signs and symptoms associated with laboratory- and serologically-confirmed Strep A infection, examine incidence and seasonal patterns of disease, and explore factors associated with infection risk. Depending on your interests, your project may include: • Analysis of incidence and prevalence of confirmed Strep A pharyngitis • Analysis of demographic and clinical factors associated with Strep A infection • Investigation of symptom profiles and correlation with cause of sore throat and immune response to natural infection • Evaluation of temporal trends and seasonal patterns of infection • Integration of clinical, laboratory, and epidemiological data to improve understanding of disease burden. This project is well suited for students interested in translational research, using clinical and epidemiological data sets to address important health questions. You will gain hands-on experience in: • Clinical epidemiology and infectious disease surveillance • Statistical analysis of clinical and epidemiological datasets • Data management, cleaning, and interpretation • Epidemiological study design, data visualisation and scientific reporting • Translating research findings to inform public health and vaccine development strategies.

Project Outline Cont.	This project is ideally suited to students interested in infectious disease epidemiology, public health, and clinical research. Students will have the opportunity to work with a unique prospective surveillance dataset and contribute to a greater understanding of the burden, epidemiology and clinical presentation of Strep A pharyngitis in Australian children. Findings will contribute to understanding the burden and epidemiology of Strep A disease in Australian children and help inform future prevention and vaccine strategies.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Enrolled in or completed an undergraduate degree in health sciences, medical sciences, epidemiology, public health, biostatistics, medicine, nursing, pharmacy, or a related discipline • Strong analytical and problem-solving skills • Excellent attention to detail and organisational skills • Ability to work both independently and as part of a multidisciplinary research team • Strong written and verbal communication skills • Willingness to learn data management and statistical analysis techniques • Ability to critically appraise scientific literature and interpret research findings
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Alma Fulurija: Alma.Fulurija@thekids.org.au

Understanding the Molecular Epidemiology of Streptococcus Pyogenes Infections

Research Theme	Infectious Disease
Research Program	Strep A Vaccines
Start Date	Flexible. Semester 1, 2027
Chief Supervisor/s	Dr Alma Fulurija Professor Jonathan Carapetis Mr Michael Morici
Other Supervisors	Associate Professor Glenn Pearson Dr Mark Davies
Project Outline	<i>Streptococcus pyogenes</i> (Group A Streptococcus, Strep A) is responsible for over 500,000 deaths globally each year and causes a wide spectrum of diseases, ranging from common throat and skin infections to life-threatening conditions such as acute rheumatic fever (ARF) and rheumatic heart disease (RHD). In Australia, Aboriginal and Torres Strait Islander communities experience some of the highest rates of ARF and RHD worldwide, reflecting a stark and preventable health inequity. The Perth Aboriginal Sore Throat Study conducted in partnership with Derbarl Yerrigan Health Service is a prospective surveillance study investigating the epidemiology of Strep A throat infections in Aboriginal children aged 3–14 years. The study has collected extensive demographic, clinical, laboratory and symptom data, together with bacterial isolates that undergo strain typing and whole genome sequencing. This project will investigate the molecular epidemiology of Strep A circulating in the community causing pharyngitis, by analysing strain distribution, genetic diversity and relationships between bacterial genotypes and clinical disease. Findings will contribute to understanding transmission patterns and evaluating the relevance of circulating strains for future vaccine development. Depending on your interests, your project may include: • Characterisation of circulating Strep A strains using molecular typing and genomic data • Analysis of strain diversity across study sites, age groups and time periods • Investigation of associations between bacterial genotypes and clinical presentation and serological immune responses • Evaluation of temporal and seasonal trends in circulating strains • Assessment of genetic variation in target vaccine antigens • Integration of genomic and epidemiological data to better understand disease transmission and burden. This project is well suited for students interested in translational research, bridging laboratory science and real-world clinical applications. You will gain hands-on experience in: • Molecular epidemiology and infectious disease surveillance • Analysis and interpretation of bacterial strain typing and whole genome sequencing datasets • Integration of genomic, laboratory and clinical datasets • Data visualisation and interpretation of molecular epidemiology findings • Translational research supporting future Strep A vaccine development.

Project Outline Cont.	This project is ideally suited to students with interests in infectious diseases, molecular epidemiology, genomics, bioinformatics and public health. Students will have the opportunity to integrate clinical and laboratory data to better understand the epidemiology and diversity of circulating Strep A strains.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Enrolled in or completed an undergraduate degree in health sciences, medical sciences, epidemiology, public health, biostatistics, medicine, nursing, pharmacy, or a related discipline • Strong analytical and problem-solving skills • Excellent attention to detail and organisational skills • Ability to work both independently and as part of a multidisciplinary research team • Strong written and verbal communication skills • Willingness to learn data management and statistical analysis techniques • Ability to critically appraise scientific literature and interpret research findings.
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Alma Fulurija: Alma.Fulurija@thekids.org.au

Strong Beginnings

Can a Simple Change in the Timing of a Life-Saving Treatment Improve Lifelong Health for Children Born Preterm

Research Theme	Strong Beginnings
Research Program	Developmental Chronobiology
Start Date	February 2027
Chief Supervisor/s	Professor Jane Pillow
Other Supervisors	Associate Professor Dominique Blache Dr Luoyang Ding Dr Jane Choi
Project Outline	Circadian rhythms coordinate physiological processes throughout the body, yet little is known about how biological timing influences fetal development before birth. Antenatal corticosteroids are among the most successful treatments in modern medicine, improving survival and respiratory outcomes for babies born prematurely. Emerging evidence suggests that the time of day (e.g., morning vs. evening) at which these treatments are administered may influence developmental trajectories across multiple organ systems, potentially influencing health long after birth. We have various Honours projects available. Extensive biobanked samples are available from multiple fetal organs, including the liver, heart, kidney, and adrenal glands, providing opportunities to investigate how biological timing shapes organ maturation and developmental programming. Students can undertake projects involving tissue histology, microscopy and image analysis, molecular biology techniques, etc. Projects will be tailored to the student's interests and background. We have a PhD project opportunity to investigate the neurodevelopmental consequences of antenatal steroid exposure at different times of the day using brain samples from the abovementioned project, as well as functional and tissue outcomes from a unique longitudinal sheep model. The project will examine how circadian disruption before birth influences neurodevelopment (cognition, social communication, temperament, brain tissue analysis) and long-term health trajectories. Students will work within an interdisciplinary team spanning developmental chronobiology, neuroscience and physiology. Research opportunities may include working with preclinical ovine models, physiological monitoring, bioinformatics and multi-omic approaches, and translational analyses linking preclinical findings with human health outcomes.
Suitable For	☒ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Ability to work independently and as part of a multidisciplinary research team • Interest in animal or translational research • Honours: Bachelor's degree in a relevant discipline (e.g. Biomedical science, Physiology) • For PhD: Honours or Masters degree in relevant discipline
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Professor Jane Pillow: Jane.Pillow@thekids.org.au Dr Jane Choi: Jane.Choi@thekids.org.au

Can Early-Life Immune Development Predict Asthma Risk?

Research Theme	Strong Beginnings
Research Program	Translational Immunology
Start Date	2027
Chief Supervisor/s	Dr Jonatan Leffler
Other Supervisors	Dr Anjali Ghimire Dr Stephanie Trend
Project Outline	The development of the immune system in early life is critical for shaping susceptibility to asthma and allergic disease. Early-life respiratory infections are thought to influence immune maturation, but their precise relationship to asthma development remains unclear. This project will be based on the Childhood Asthma Study cohort, which includes detailed longitudinal data on immune development, clinical records of respiratory infections and allergy and asthma outcomes. To accommodate the interest of the student and project duration, the project is split into two aims: 1. Evaluate the ability of participants to mount viral immune responses during early life by conducting experimental assays and flow cytometry 2. Perform analysis of already collected data on immune cell populations, immune responses and allergy profiles over time, enabling a comprehensive picture of immune development in children with asthma. It is anticipated that the project will lead to new insights into how immune development contribute to asthma risk in children with potential implications for prevention strategies and early interventions.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• The lab-based parts (aim 1) of this project would suit a student in biomedical science, immunology, microbiology or similar • Aim 2 could be suitable for a student with some statistical or computational experience and experience using R. Some understanding of flow cytometry would also be helpful for both aims
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jonatan Leffler: Jonatan.Leffler@thekids.org.au

Cardiopulmonary Preterm Adult & School-Age Screening (COMPASS)

Research Theme	Strong Beginnings
Research Program	Foundations of Lung Disease
Start Date	1 February 2027
Chief Supervisor/s	Associate Professor Shannon Simpson
Other Supervisors	Dr Elizabeth Smith Dr Juliene Dechichi
Project Outline	Each year, approximately 3,000 babies in Western Australia are born prematurely, representing around 10% of all births. While advances in neonatal care have improved survival, many individuals born preterm experience long-term respiratory and cardiovascular consequences that may persist into childhood and adulthood. Previous research has demonstrated increased rates of respiratory symptoms, impaired lung function, elevated blood pressure, and early markers of chronic disease in this population. However, there is currently no coordinated follow-up screening pathway after discharge from neonatal services, and most existing evidence comes from relatively small cohorts recruited from metropolitan centres. Consequently, the broader cardiorespiratory health of people born preterm across Western Australia remains poorly understood. This project will contribute to a statewide screening study assessing respiratory and cardiovascular health in children and adults born before 37 weeks' gestation. As part of the research team, the student will assist with participant recruitment and data collection during research visits conducted both at Perth Children's Hospital and community-based screening events, with opportunities for travel to regional Western Australia. Participants will complete assessments including respiratory questionnaires, lung function testing, blood pressure measurement, and cardiovascular risk screening. The aim of the project is to identify previously unrecognised health issues in people born preterm, examine factors associated with adverse cardiorespiratory outcomes across the lifespan, and generate evidence to support future screening programs, referral pathways, and models of care for this growing population.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Strong academic background • Self-motivated individual • Strong written and oral communications skills • Critical thinking and problem solving abilities • Must comply with CAHS policies relating to working in healthcare • Experience in lung function testing, statistical analyses, and/or cohort studies would be an advantage
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Elizabeth Smith: Elizabeth.Smith@thekids.org.au

Characterising the Impact of Very Preterm Birth on the Lower Airway

Research Theme	Strong Beginnings
Research Program	Ear and Hearing Health
Start Date	1 February 2027
Chief Supervisor/s	Dr Tamara Veselinovic
Other Supervisors	Professor Chris Brennan-Jones Dr Robyn Choi
Project Outline	Deaf or hearing-impaired children require specialised environments that are often acoustically modified to enable the adequate acquisition of speech and language. These modifications are applied to early learning settings due to known difficulties with auditory processing among this population. The same principles are not applied in mainstream settings; however, we know that otitis media (middle ear disease) is highly prevalent in early learning settings, particularly amongst Aboriginal and Torres Strait Islander children, with most of these children also experiencing hearing loss. For Honours/MD, this project will involve conducting baseline qualitative research or quantitative research to establish the perceived impact of noise in early learning centres on childhood behaviour and develop (qualitative) or estimate the burden of OM within early learning centres (quantitative). For MPhil/PhD, this project would involve developing a range of experiments to test the potential benefit of environmental modifications on the listening environment in early learning care centre and their feasibility for wider implementation.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	A Bachelor of Science, Population Health, Public Health, Speech and Language Pathology, Environmental Health or related fields
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Tamara Veselenovic: Tamara.Veselenovic@thekids.org.au

Determining Pathogenic Antigens in Autoimmunity

Research Theme	Strong Beginnings
Research Program	Translational Immunology
Start Date	2027
Chief Supervisor/s	Dr Stephanie Trend
Other Supervisors	Dr Tao Wang Dr Kimberley Parkin
Project Outline	Multiple sclerosis (MS) is an autoimmune condition that can result in episodes of neurological inflammation and progressive disability. Currently, the cause is not known and there is no cure. Our research interests focus on unique populations of B cells found in the blood of people with MS during periods of disease activity. These B cell may play a key role in driving autoimmune responses, and we're interested in understanding what antigens they recognise and how this contributes to disease. We welcome students with a genuine interest in this area to contact us to discuss current research directions and potential opportunities. Depending on background and interests, opportunities may encompass laboratory-based immunology and molecular biology, computational analysis of single-cell datasets, or a combination of both. Students will work in a collaborative and supportive environment while learning valuable research skills. If this area interests you, please get in touch to arrange a time to discuss further.
Suitable For	☒ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Students interested in autoimmunity, MS, and the immune mechanisms behind it • An interest in immunology and bioinformatics • Undergraduate degree in biomedical science (e.g. immunology, microbiology, molecular biology or similar) • Excellent communication skills and strong attention to detail • Well-developed problem-solving abilities • A high level of self-motivation, initiative and professionalism • Experience with coding (e.g. R, Python) is desirable but not essential
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Stephanie Trend: Stephanie.Trend@thekids.org.au

Does Early Restoration of Circadian Rhythms Improve Sleep and Health After Preterm Birth?

Research Theme	Strong Beginnings
Research Program	Developmental Chronobiology
Start Date	February 2027
Chief Supervisor/s	Professor Jane Pillow
Other Supervisors	Dr Natasha Sorensen Dr Jane Choi Dr Caroline Wilson
Project Outline	The CIRCA DIEM Study Premature birth disrupts the development of the body's internal biological clock, which may have lasting effects on sleep, respiratory health, and neurodevelopment. The WA-led CIRCA DIEM Study is the world's largest randomised trial investigating whether cycled light and noise exposure in the neonatal intensive care unit (NICU) can restore healthy circadian rhythms in very preterm infants. This project will use data from the CIRCA DIEM cohort to investigate whether NICU light exposure influences sleep and circadian health during infancy and early childhood. Students will analyse: • actigraphy data • sleep hormones • sleep behaviour questionnaire • light and noise exposure in the NICU, and • clinical outcomes. For potential PhD students, there are additional opportunities to explore biological markers of circadian rhythm development using samples from the CIRCA DIEM Biobank. Depending on the student's interests and level of study, projects may include advanced data analysis within a unique international clinical trial.
Suitable For	☒ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Interest in neonatal health, sleep, or developmental biology • For Honours: Bachelor's degree in related field (e.g. biomedical science, physiology etc) • For PhD: Honours or Masters's degree in related field. Some experience in programming or analysing health data is desirable but not essential
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☒ Full Scholarship offered by project group
For more information, please contact	Professor Jane Pillow: Jane.Pillow@thekids.org.au

Does Extreme Heat Impact Fetal Development?

Research Theme	Strong Beginnings
Research Program	Developmental Chronobiology
Start Date	February 2027
Chief Supervisor/s	Professor Jane Pillow
Other Supervisors	Professor Caitlin Wyrwoll Professor Shane Maloney Dr Jane Choi Mr Harrison Smith
Project Outline	Pregnancy is a dynamic process in which the fetus relies entirely on their mother for temperature regulation. Exposure to extreme temperature in hot climates may hinder maternal ability to dispel heat with follow-on detrimental impacts on fetal outcomes including growth restriction, preterm birth, and disrupted development of fetal systems and organs including the HPA axis, fetal lung, brain and immune outcomes. We have various Honours and/or PhD projects available stemming from a unique project in an ovine model of extreme heat exposure in late pregnancy. Extensive biobanked samples are available from multiple fetal organs, including the lung, liver, brain heart, kidney, and adrenal glands, providing opportunities to investigate how biological timing shapes organ maturation and developmental programming. Students can undertake projects involving tissue histology, microscopy and image analysis, molecular biology techniques, etc. Our team is keen to also interrogate how these exposures impact the circadian clock that normally effectively operates as the “conductor” of development and maturation. Projects will be tailored to the student's interests and background. Students will work within an interdisciplinary team spanning developmental chronobiology, physiology and cellular/molecular biology. Research opportunities may include working with preclinical ovine models, physiological monitoring, bioinformatics and multi-omic approaches, and translational analyses linking preclinical findings with human health outcomes.
Suitable For	☒ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Ability to work independently and as part of a multidisciplinary research team • Interest in animal or translational research • Honours: Bachelor's degree in a relevant discipline (e.g. Biomedical science, Physiology) • For PhD: Honours or Masters degree in relevant discipline
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Professor Jane Pillow: Jane.Pillow@thekids.org.au

Early Detection of Lung Disease to Improve Lifelong Trajectories

Research Theme	Strong Beginnings
Research Program	Foundations of Lung Disease
Start Date	1 February 2027
Chief Supervisor/s	Associate Professor Kathryn Ramsey
Other Supervisors	Dr Elizabeth Smith Associate Professor Shannon Simpson Dr David Hancock
Project Outline	Chronic lung diseases affect over half a billion people worldwide and are a major cause of morbidity and premature death. Measuring respiratory function is central to diagnosis and management, yet assessing lung function in young children remains challenging. The Foundations of Lung Disease team are international leaders in paediatric respiratory physiology, having developed methodologies, clinical guidelines, and interpretation standards that have improved early detection and management of lung disease globally. Our team leads the ELITE study - a national multicentre research program aimed at improving the detection of lung disease in young children. This project will recruit preschool-aged children at high risk of being diagnosed with a chronic respiratory disease, including those with recurrent wheeze, prematurity, or chronic wet cough, alongside healthy controls. Participants will undergo repeated assessments using multiple breath washout and oscillometry, two sensitive lung function tests that assess peripheral airway function during normal breathing. The student will investigate whether these techniques can identify abnormal lung function trajectories before diagnosis of chronic disease. Using longitudinal data, the project will examine relationships between lung function, respiratory symptoms, exacerbations, and clinical outcomes. Expected outcomes include the identification of early predictors of chronic disease and evidence to support the implementation of these tests into routine clinical care, enabling earlier diagnosis and intervention for children at risk of chronic lung disease. The student will gain expertise in respiratory physiology, paediatric cohort studies, longitudinal data analysis, and scientific communication within a large multidisciplinary team with a legacy of outstanding student supervision.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Strong academic background • Self-motivated individual • Strong written and oral communications skills • Critical thinking and problem solving abilities • Must comply with CAHS policies relating to working in healthcare • Experience in lung function testing, statistical analyses, and/or cohort studies would be an advantage
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Associate Professor Kathryn Ramsey: Kathryn.Ramsey@thekids.org.au

Intergenerational Effects of Adverse Childhood Experiences: The Feasibility of Antenatal Screening

Research Theme	Strong Beginnings
Research Program	ORIGINS
Start Date	January 2027
Chief Supervisor/s	Dr Kristjana Einarsdottir
Other Supervisors	Dr Jackie Davis Dr Lisa Gibson
Project Outline	Childhood adversity, such as emotional and physical neglect and abuse, remains a major public health concern. It affects 40-60% of the population in many developed countries and has long-term effects on the emotional and physical health of the affected individuals into adulthood with possible effects into the next generation. Antenatal screening presents a critical window to intervene early, disrupt this intergenerational cycle, and empower mothers to build healthier futures for their children, yet persistent gaps remain in understanding the pathways of transmission and feasibility of screening. Screening women for adverse childhood experiences during maternity care has been identified by obstetricians as important and is implemented in some practices today. This project addresses this gap by leveraging the ORIGINS birth cohort, a large-scale Australian longitudinal study encompassing 10,000 births, to achieve two primary objectives: 1) comprehensively examine how maternal Adverse Childhood Experiences (ACE) affect pregnancy outcomes and child development, and 2) evaluate the feasibility of ACE screening in antenatal care settings. Our project focuses on modifiable protective factors (social support and paternal involvement) and transmission mechanisms (maternal mental health and parent-child attachment), identifying critical intervention targets. The project demonstrates translational research through strategic partnership with the Women and Newborn Mental Health Service (WNMHS) at King Edward Memorial Hospital. This collaboration ensures systematic integration of research outputs into existing healthcare frameworks. By addressing the psychosocial environment of childhood during a critical window of intervention in combination with meaningful stakeholder engagement, we can break the intergenerational cycle of disadvantage and generate actionable evidence that bridges the research-practice gap in maternal and child health.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• We are seeking a motivated PhD candidate with strong quantitative and analytical skills, and an interest in maternal and child health • Experience in epidemiology, biostatistics, or public health is desirable • Familiarity with statistical software (e.g. R, or Stata) and experience working with large datasets will be advantageous • Excellent organisational, problem-solving, and communication skills are essential • Candidates must be able to work independently and collaboratively
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Kristjana Einarsdottir: Kristjana.Einarsdottir@thekids.org.au

Innovative Lung Imaging Methods to Quantify Airway, Parenchymal and Pulmonary Vascular Disease Across the Lifespan After Premature Birth

Research Theme	Strong Beginnings
Research Program	Foundations of Lung Disease
Start Date	February 2027
Chief Supervisor/s	Associate Professor Shannon Simpson
Other Supervisors	Dr Conor Murray Dr Daan Caudri Dr Pier Luigi Ciet
Project Outline	More than two million babies are born very preterm (<32 weeks gestation) annually. Survivors of very preterm birth frequently have progressive chronic respiratory disease. We have previously shown that >50% of children born very preterm have respiratory symptoms, abnormal lung function (49%), and structural lung damage on chest CT scan (93%) at 9 to 12 years of age. Common findings on chest CT include decreased pulmonary attenuation (on both inspiration and expiration), linear opacities, and bronchial wall thickening, with varying rates of bronchiectasis and emphysema (5 to 50%), depending on the group studied. Respiratory symptoms are associated with increased total chest CT score (i.e. more lung damage) in those born very preterm. Our longitudinal cohort of preterm survivors underwent a chest CT scan and lung MRI as part of their respiratory follow up at 19 years. The overarching aim of this PhD project is to comprehensively quantify airway, parenchymal and pulmonary vascular disease in young adults born prematurely. Further, this project aims to evaluate early life predictors of increased lung damage at 19 years, and describe the lung "structure-function" relationship in young adults born prematurely.
Suitable For	☐ Honours ☐ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• We are looking for a driven, self-motivated PhD candidate with attention to detail and exceptional analytical skills • Candidates should have a string interest in radiology/imaging, and familiarity with the respiratory system would offer a clear advantage • Applicants should meet the eligibility criteria for entry into a PhD program at Curtin University • This project is open to both International and Domestic applicants
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Associate Professor Shannon Simpson: Shannon.Simpson@thekids.org.au

The ORIGINS Project: A Platform for Research Discovery

Research Theme	Strong Beginnings
Research Program	ORIGINS
Start Date	February 2027
Chief Supervisor/s	Dr Lisa Gibson
Other Supervisors	Professor Desiree Silva Dr Nina D'Vaz Dr Jacqueline Davis Dr Poonam Pannu
Project Outline	ORIGINS is a longitudinal, birth cohort study investigating how early environments, maternal health and genetics influence child health outcomes. Detailed information at various time points is being collected via biological samples, questionnaires and routine data, creating a comprehensive databank and biobank. There are currently a number of potential projects available within the areas of: • nutrition and metabolism • mental health • allergy, inflammation and immunity • environment and lifestyle • infectious disease • oral health • paternal health • reproduction • growth and development, and • omics studies. Projects may be observational or interventional, including both quantitative or qualitative data collection and analysis. PhD students are eligible for an ORIGINS Student Award to the value of \$15,000.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in a relevant discipline/or minimum of 2A Honours • Interest in child health and development • Proficient writing skills • Good interpersonal and communication skills • Basic statistical analysis skills (SPSS/R)
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Lisa Gibson: Lisa.Gibson@thekids.org.au

The Role of the Airway Epithelium in Paediatric Bronchiectasis

Research Theme	Strong Beginnings
Research Program	Foundations of Lung Disease
Start Date	February 2027
Chief Supervisor/s	Associate Professor Kathryn Ramsey
Other Supervisors	Professor Andre Schultz Dr Craig Schofield
Project Outline	Bronchiectasis is a chronic lung disease characterised by chronic wet cough and irreversible dilatation of the airways. The development of effective preventive and therapeutic interventions for childhood bronchiectasis is an internationally recognised research priority. However, progress towards these goals is limited by an incomplete understanding of the biological mechanisms driving disease onset and progression. Our team established the BRIGHT cohort, a world-leading prospective longitudinal study of children with bronchiectasis in Western Australia. Through the systematic collection of clinical data and respiratory specimens, we have generated novel insights into the roles of airway inflammation, mucus dysfunction, and respiratory microbiology in disease development and progression. Despite these advances, little is known about the contribution of the airway epithelium, the first line of defence against environmental exposures and respiratory pathogens, to bronchiectasis pathogenesis. This project will investigate whether children with bronchiectasis have an intrinsic defect in airway epithelial repair and regeneration. Primary airway epithelial cells will be collected through minimally invasive nasal brushings and expanded in monolayer culture. The student will assess epithelial proliferation, migration, wound repair, barrier integrity, and inflammatory responses, comparing cells from children with bronchiectasis and healthy controls. Findings from this work will advance our understanding of bronchiectasis pathobiology and may reveal novel therapeutic targets aimed at restoring epithelial health and function. In addition to learning a range of new skills in cell biology and immunology, the student will receive mentorship in conducting statistical analysis and manuscript preparation in a large, multi-disciplinary team with a legacy of outstanding student supervision.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Strong academic background • Self-motivated individual • Strong written and oral communications skills • Critical thinking and problem solving abilities • Must comply with CAHS policies relating to working in healthcare • Experience in cell biology, immunology, and/or microbiology would be an advantage
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☒ Full Scholarship offered by project group
For more information, please contact	Associate Professor Kathryn Ramsey: Kathryn.Ramsey@thekids.org.au



Wellbeing and Mental Health

ARC Centre of Excellence

Research Theme	Wellbeing and Mental Health
Research Program	Life Course Centre
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Professor Hayley Christian
Other Supervisors	
Project Outline	The Life Course Centre (LCC) is funded by the Australian Research Council and collaboration partner organisations. The LCC has its headquarters at The University of Queensland, with nodes at The University of Western Australia (via The Kids Research Institute Australia), The University of Melbourne and The University of Sydney. The LCC aims to produce and empower precision methods and adaptive social interventions to optimise support for disadvantaged children and families, helping them to achieve their full potential. The successful HDR candidate will also be a student member of the LCC, which qualifies them to apply for travel grants and attend provisional development courses. The LCC WA node has a PhD scholarship available for a research project related to one of these topics: • Influence of built environment on early child health and development • Disadvantage and child health in early childhood learning settings • Other topics related to deep and persistent disadvantage in Australia will be considered.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Ability to conduct quantitative and qualitative research • Excellent writing skills • AN interest in knowledge transfer • Good interpersonal, communication and team skills • Desirable: Statistical analysis (SAS/R/STATS) • Minimum 2A Honours degree
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☒ Full Scholarship offered by project group
For more information, please contact	Professor Hayley Christian: Hayley.Christian@thekids.org.au

Developing a school built environment audit tool to prevent bullying behaviour and improve the mental health of primary and secondary school students

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Dr Jacinta Francis
Other Supervisors	Professor Hayley Christian
Project Outline	Peer bullying and aggression are key contributors to mental illness among children, contributing to loneliness, distress, and poor academic performance. Although a number of school-based prevention and intervention approaches to prevent bullying have been developed internationally, many of these cease to be effective after Year 9, with some programs inadvertently increasing bullying behaviour. New approaches to prevent bullying are needed. This project aims to develop and validate primary and secondary school audit tools to measure features of the school indoor and outdoor built environment associated with bullying behaviour and mental health. The audit tool will be developed and informed by a review of existing audit tools used in schools, parks and child-care centres and a Delphi survey sent to stakeholders to confirm, add or delete priority audit items. The audit tools will be assessed to determine and enhance their psychometric properties and once validated, used to scan Western Australian schools.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	Undergraduate degree in public health, health promotion, psychology, education, nursing or similar discipline
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jacinta Francis: Jacinta.Francis@thekids.org.au

Digital Parenting ARC Study

Research Theme	Wellbeing and Mental Health
Research Program	Developmental Science of Mental Health
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Professor Kathryn Modecki
Other Supervisors	Dr Yen Kim
Project Outline	The study will investigate how children's digital media use influences their and their parents' functioning, digital coping, and parenting behaviors both on a daily level and across timespan.
Suitable For	☒ Honours ☒ Masters ☐ MD ☐ PhD
Essential Skills & Qualifications	• Able to collect and enter/organise data • Draft communications to participants, stakeholders and collaborators • Conduct brief literature search and/or find background information pertaining to the relevant project/s • Understand various referencing styles and be able to complete reference lists • Liaise with participants for data collection follow-up in a professional, respectful and culturally-responsive manner
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jacinta Francis: Jacinta.Francis@thekids.org.au

Do neighbourhood cohesion and physical activity mediate the relationship between green space and mental health in grandparents?

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Dr Jacinta Francis
Other Supervisors	Professor Hayley Christian
Project Outline	Investigations into green space and mental health have gained momentum in recent decades, with numerous studies linking green space attributes to both mental illness and wellbeing. While the pathways between greenspace and mental health are not fully understood, greenspace has the potential to improve mental health by reducing stress, facilitating physical activity, and fostering positive social ties. As family structures and work roles evolve, grandparents are increasingly assuming the role of caregiver in their grandchildren's lives. Given that greenspace is often a key setting for children's play and development, the role of greenspace on grandparent's physical activity, social relations and mental health is of growing importance. The How Areas in Brisbane Influence health And activiTy (HABITAT) study is a multi-level study of over 8,000 adult participants and 200 neighbourhoods. This project involves the secondary analyses of a longitudinal dataset to explore pathways between neighbourhood greenspace and grandparent's mental health, specifically the potential mediators of social relations, physical activity, and stressful life events across four timepoints. Objectives include: 1. Exploring the role of social ties, physical activity, and stressful life events on the relationship between the built environment and mental health 2. Identifying key park attributes that influence mental health by different sub-populations (i.e., age, gender, parents, grandparents, children living at home, and age of children living at home), and 3. Identifying thresholds for key park attributes that influence mental health for different sub-populations and socio-economic status areas.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in public health, health promotion, psychology, education, nursing or similar discipline
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jacinta Francis: Jacinta.Francis@thekids.org.au

LGBTQ+ Community-Controlled Service Provision in Regional Australia

Research Theme	Wellbeing and Mental Health
Research Program	Youth Mental Health
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Dr Jack Farrugia
Other Supervisors	Associate Professor Yael Perry
Project Outline	LGBTQ+ people living in regional Australia experience disproportionately high rates of mental ill-health and alcohol and other drug (AOD) use compared with LGBTQ+ people in metropolitan areas and the general population. LGBTQ+ community-controlled organisations are uniquely positioned to provide support. But, little is known about how these organisations operate or deliver services in regional Australia. Optimise+ is a multi-phase, four-year national research project aiming to develop an optimised model of care for LGBTQ+ people experiencing mental health and AOD challenges by leveraging the strengths of LGBTQ+ community-controlled organisations. This project focuses on the regional specific data from the first two phases of the project, examining how LGBTQ+ community-controlled organisations deliver mental health and AOD services and how LGBTQ+ people experience accessing these services. Students are able to create a project within the general topic area of Optimise+ and the regional components, and may use available data depending on their degree requirements. The focus of the specific student project will depend on the interests and skills of the student and their time frame. Prospective students may be involved in recruitment, data management, analysis, and/or preparation of publications. There may also be opportunities to become involved in the broader activities of the team.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Health Sciences, Psychology, Public Health or a related field • Excellent written and communication skills • Ability to work with, accept, respect and celebrate diversity
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Jack Farrugia: Jack.Farrugia@thekids.org.au

Play Active Program – National

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	Flexible: 2026 – 2027
Chief Supervisor/s	Professor Hayley Christian
Other Supervisors	Dr Jacinta Francis
Project Outline	Active play is critical during the early years of life for physical and mental health and development. Young children enjoy being active while playing. Yet, many young children do not get enough daily physical activity to support their health and development. With our national and state partners we are scaling-up the Play Active program to evaluate the benefits and costs of supporting childcare services throughout Australia to boost 100,000s of children's daily active play. Our multi-sector partner organisations include major stakeholders in the childcare sector. We are working closely with Goodstart Australia, Australian Childcare Alliance, Early Childhood Australia, state government and our other partners to deliver and evaluate the Play Active program nationally. Play Active is part of the Australia Research Council Centre of Excellence for Children and Families over the Life Course (the Life Course Centre) – an international collaboration of 21 organisations. The successful HDR candidate will also be a student member of the Life Course Centre, which qualifies them to apply for travel grants and attend professional development courses. A full PhD scholarship and top-up scholarship is available for a suitable candidate.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Ability to conduct quantitative and or qualitative research • Excellent writing skills • An interest in knowledge transfer • Good interpersonal, communication and team skills • Desirable: Statistical analysis (R/SAS/STATA) • For PHD candidates: Minimum 2A Honours degree • For Masters candidates: Degree in Public Health, Health Promotion, Data Science or related
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☒ Top-Up Scholarship offered by project group ☒ Full Scholarship offered by project group
For more information, please contact	Professor Hayley Christian: Hayley.Christian@thekids.org.au

PLAYCE Cohort

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Professor Hayley Christian
Other Supervisors	
Project Outline	This research forms part of the PLAYCE program of research – Places Spaces & Environments for the Child Physical Activity, Health & Development team. The PLAYCE cohort study examines the influence of the physical, social and policy environment on young children’s physical activity, sedentary behaviour, eating behaviour, weight status, sun exposure and development: at home, around the neighbourhood, at early childhood education and care and school. This research will provide information on how best to create healthy home, neighbourhood and learning environments. The PLAYCE cohort study details patterns of movement behaviours across childhood and the effect of weight status and socio-emotional, cognitive, and motor development across four waves (2-14). Student projects are quantitative or mixed methods.
Suitable For	☒ Honours ☒ Masters ☐ MD ☒ PhD
Essential Skills & Qualifications	• Ability to conduct quantitative and or qualitative research • Excellent writing skills • Statistical analysis (R/SAS/STATA) • Good interpersonal, communication skills and team skills • For PHD candidates: Minimum 2A Honours degree • For Masters Candidates: Degree in Public Health, Health Promotion, Data Science or related
Ethics Approval	☒ Obtained ☐ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Professor Hayley Christian: Hayley.Christian@thekids.org.au

Trans Pathways 2: The Mental Health and Care Pathways of Trans Young People

Research Theme	Wellbeing and Mental Health
Research Program	Youth Mental Health
Start Date	Flexible: 2026 - 2027
Chief Supervisor/s	Dr Penelope Strauss
Other Supervisors	Associate Professor Yael Perry
Project Outline	In 2016 data collection occurred for the seminal Trans Pathways study, a national online survey – still currently the largest study on the mental health of trans young people aged 14-25 in Australia. This project generated wide-ranging community and clinical practice and policy impact within Australia and internationally, drawing attention to the mental health needs and barriers to services experienced by trans young people. The findings from that study are still being used today to influence community and clinical practice, e.g. through being cited in standards of care. In 2026, on the ten-year anniversary of the initial project, we are launching Trans Pathways 2, collecting data to obtain an updated, comprehensive summary of the mental health and care pathways of contemporary trans young people in Australia. This study will address current knowledge gaps, updating and expanding on existing evidence on trans young people's mental health and support needs. The survey will be co-created with community and stakeholders and will highlight the needs of trans young people, examining how health outcomes have changed over the last 10 years within an ever-evolving health and political landscape. Students are able to create a project using this data depending on their degree requirements. The focus of the specific student project will depend on the interest and skills of the student and the student's time frame. Prospective students may be involved in recruitment, data management, analysis and/or preparation of publications. There may also be opportunities to become involved in the broader activities of the team.
Suitable For	☒ Honours ☒ Masters ☒ MD ☒ PhD
Essential Skills & Qualifications	• Undergraduate degree in Health Sciences, Psychology, Public Health or a related field • Excellent written and communication skills • Ability to work with, accept, respect and celebrate diversity
Ethics Approval	☐ Obtained ☒ Not Obtained
Funding Available	☐ Top-Up Scholarship offered by project group ☐ Full Scholarship offered by project group
For more information, please contact	Dr Penelope Strauss: Penelope.Strauss@thekids.org.au



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