The KIDS RESEARCH INSTITUTE AUSTRALIA

2026 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 fo 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.

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Chronic Disease

Activating the Immune System to Eliminate Cancer

Research Theme	Chronic Disease
Research Program	Sarcoma Translational Research
Start Date	Flexible. From February / March 2026
Chief Supervisor/s	Dr Lizeth Orozco
Other Supervisors	Professor Joost Lesterhuis
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 and current treatments do not provide significant benefits for patients, if they suffer a recurrence after the initial surgery. The Sarcoma Translational Research group believes all kids with sarcoma deserve to live happy, healthy lives. To achieve this, we aim to discover and develop safer and more effective treatments, through innovative and rigorous research. We are currently exploring the role of specific proteins and transcription factors, using genetic mouse models and CRISPR models. Inhibition of these proteins improves immunotherapy efficacy, increasing overall survival and response. Now we need to: • Determine the effect of these proteins inhibition combined with immunotherapy in preclinical models • Determine which immune cells are required for tumour regression when using these treatments. • To characterise how the combination treatment changes the immune cell infiltration and gene expression profiles in sarcoma following treatment. To do this, we employ a range of skills and techniques including preclinical models, systems biology (bulk & single cell RNASeq), cellular and molecular biology (cell culture, flow cytometry, immunohistochemistry, CRISPR, PCR, qPCR, Western Blot). We currently have projects available for self-motivated and enthusiastic students with a keen interest in cancer immunology/immunotherapy and invite you to meet with us to discuss specific projects.
Suitable For	○ Honours ☑ Masters ○ MD ☑ PhD
Essential Skills & Qualifications	• Bachelor of Science in a Biological discipline • Willingness to learn new skills and work with animals • Good organisational skills, dedication and initiative • 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 Lizeth Orozco: Lizeth.Orozco@thekids.org.au

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

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research
Start Date	February 2026
Chief Supervisor/s	Dr Keely Bebbington
Other Supervisors	Dr Anna Boggiss Professor Jane Speight (The Australian Centre for Behavioural Research in Diabetes)
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 determination • Strong written communication 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

Developing Innovative Treatments for Paediatric Brain Cancers

Research Theme	Chronic Disease
Research Program	Brain Tumour Research
Start Date	Flexible. Available immediately.
Chief Supervisor/s	Dr Annabel Short, Dr Brittany Dewdney and Dr Alison McDonnell
Other Supervisors	Associate Professor Raelene Endersby
Project Outline	The Brain Tumour Research team is co-directed by Professor Nick Gottardo and Associate Professor Raelene Endersby. The overarching goals of our group are to define the poorly understood basic biology of several types of childhood brain tumours and improve therapies. We achieve this in the following ways: • Elucidate the molecular basis of different brain tumour types, including medulloblastoma and ependymoma among others, through the analysis of primary patient specimens. • Improve understanding of the molecular events contributing to these diseases, by analysing the impact of altered signalling pathways on survival, proliferation, invasiveness and tumorigenicity of brain tumour cells. • Develop comprehensive preclinical models of paediatric brain tumours in which to test new treatments. We utilise transplantable xenograft, patient derived xenograft, and genetically engineered tumour models representative of paediatric brain cancer in our translational research. • Obtain and test new therapies within our preclinical pipeline that considers all aspects of standard of care treatment, including brain tumour resection surgery, MRI imaging, clinical chemotherapy, and radiation protocols in appropriate brain tumour models. We acquired Australia's first X-RAD SmART platform to model clinical radiation treatment and are currently investigating new therapies that can enhance its efficacy to hopefully reduce the harmful radiation dose. • Translate our findings into improved therapies through clinical collaborations. We have a project opportunity for a self-motivated and enthusiastic individual and invite you to meet with us to discuss specifics. You will develop expertise in a wide range of technologies including: • Animal techniques • Histology such as paraffin sectioning and immunohistochemistry • Cell/tissue culture from mouse and human specimens • Molecular techniques including DNA/RNA analysis, PCR and cloning • Biochemical techniques such as protein extraction, western blotting and IP.
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 • Students are expected to have or develop excellent writing and oral presentation skills • For Honours/Masters students: Greater than Credit average • For PhD candidates: First-Class Honours degree or equivalent (e.g.: Masters by Research) in a Biology 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 Assoc. Prof. Raelene Endersby: Raelene.Endersby@thekids.org.au

Early Immune Development - Building a Resilient Fortress

Research Theme	Chronic Disease
Research Program	Clinical Epigenetics
Start Date	Flexible. From 1 October 2025.
Chief Supervisor/s	Associate Professor David Martino
Other Supervisors	Nikki Schultz
Project Outline	The NIH-funded Immune Development in Early Life (IDEaL) program is a major international collaborative effort, spearheaded by Boston Children's Hospital with key contributions from the University of Western Australia (UWA) and The Kids Research Institute Australia. This program seeks to define the intricate molecular and cellular pathways that govern immune maturation in childhood. A crucial aspect of this research involves understanding how environmental exposures in early life can lead to lasting changes in gene expression without altering the underlying DNA sequence – a process known as epigenetic regulation. This PhD project will leverage the unique resources and collaborative framework of the IDEaL program, specifically focussing on the Australian cohorts, to investigate the role of epigenetics in shaping early life immune development. The successful candidate will aim to: 1. Characterise Epigenetic Signatures: Identify and map age-dependent and exposure-driven epigenetic changes (e.g., DNA methylation patterns) in immune cells from longitudinal birth cohorts. 2. Correlate Epigenetic Marks with Immune Outcomes: Determine how specific epigenetic profiles correlate with key immune phenotypes, vaccine responsiveness, susceptibility to respiratory infections, and the development of allergic or inflammatory conditions in early childhood. 3. Investigate Gene-Environment Interactions: Explore how early life environmental factors (e.g., microbial exposures, diet, maternal factors) interact with genetic predispositions to influence epigenetic programming of the immune system. 4. Identify Novel Biomarkers: Discover epigenetic biomarkers that can predict individual immune trajectories and risk for specific childhood diseases. The project will employ state-of-the-art multi-omics approaches, including but not limited to: • Epigenome-Wide Association Studies (EWAS): Analysing DNA methylation using advanced sequencing platforms (e.g., Illumina arrays, whole-genome bisulfite sequencing). • Transcriptomics: RNA sequencing to assess gene expression profiles linked to epigenetic changes. • Bioinformatics and Systems Biology: Advanced computational analysis to integrate multi-omics data, identify regulatory networks, and derive biological insights. • Access to Longitudinal Cohort Data: Utilising rich clinical and biological data from the IDEaL program's international and local cohorts. This PhD project offers an exciting opportunity to contribute to a globally significant research initiative. The findings are expected to: • Provide fundamental insights into the epigenetic mechanisms that underpin healthy and dysregulated immune development in early life. • Identify novel targets for interventions to optimise immune function and prevent childhood diseases. • Contribute to the development of "precision vaccinology" and personalised medicine approaches tailored to the unique immune landscape of children.

Suitable For	○ Honours ○ Masters ○ MD ☑ PhD
Essential Skills & Qualifications	• We seek a highly motivated candidate with a strong background in Molecular Biology, Immunology, Genetics, Bioinformatics, or a related field. Experience with 'omics' data analysis or a keen interest in developing computational skills would be highly advantageous • Will suit an aspiring Data Scientist/Bioinformatician
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	Assoc. Prof. David Martino: David.Martino@thekids.org.au

Effects of Brief Meditation on Glycaemic Variability and Subjective Well-being in Youth with T1D

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research
Start Date	February 2026
Chief Supervisor/s	Dr Vinutha Shetty
Other Supervisors	Dr Mary Abraham
Project Outline	Type 1 diabetes (T1D) is one of the most prevalent chronic diseases in children in Australia. As compared to their healthy peers, children living with T1D not only have suboptimal glycaemic levels, but they also have an increased risk of developing cardiovascular disease, mental health difficulties and a known reduction in life expectancy. Hence, strategies to optimise the management of T1D, reduce mental health difficulties, and improve cardiovascular health is critically important. Studies claim that 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. With this study, we seek to contribute to the current understanding of the effectiveness of body and mind interventions in adolescents and young adults with Type 1 Diabetes, following one time experience of a combination of mind body intervention distilled from yogic sciences. The proposed study is a pilot research trial in adolescents and young adults with Type 1 Diabetes that is investigating the impact of a brief meditation intervention and an initial survey virtually delivered via a smartphone app to assess the acceptability and participants' internal experiences before and after. The findings arising from the proposed study will help inform the design of a future full-scale randomised control trial to explore further the impact of meditation intervention on glycaemic variability and subjective well-being in young adults with T1D.
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

Epigenetic Modulations in Early Life HIV Vaccine Responses (HVTN-135 Study)

Research Theme	Chronic Disease
Research Program	Clinical Epigenetics
Start Date	Flexible. From 1 October 2025.
Chief Supervisor/s	Associate Professor David Martino
Other Supervisors	Nikki Schultz
Project Outline	The HVTN-135 study is a clinical trial of a new HIV vaccine to protect healthy, HIV-exposed newborns in South Africa. The neonatal immune system, while immature, possesses unique plasticity that may be particularly amenable to shaping long-lasting immune responses. This PhD project will leverage existing biological samples and comprehensive immunological data from the HVTN-135 study. We aim to investigate epigenetic associations with key trial outcomes, specifically: • Vaccine Immunogenicity: Are there specific epigenetic signatures in infant immune cells that correlate with the magnitude, breadth, or durability of antibody responses (e.g., anti-gp120 IgG, broadly neutralising antibody precursors)? • Adjuvant Effects: How does the GLA-SE adjuvant, known to potently stimulate innate immunity, epigenetically prime immune cells for enhanced vaccine responses? • Safety Profile: Are there epigenetic marks associated with reported reactogenicity or adverse events, providing insights into the biological mechanisms underpinning vaccine safety in early life? • Maternal HIV Exposure Influence: Does in utero exposure to maternal HIV (even without infant infection) leave an epigenetic imprint that modulates the infant's vaccine response? • Long-term Immune Programming: Could early life vaccination induce epigenetic changes that contribute to long-term immune memory or "training" against future HIV exposure? This project will involve the analysis of epigenetic data (e.g., DNA methylation arrays) from infant blood samples collected at various time points throughout the HVTN-135 trial. You will integrate these epigenetic profiles with extensive immunological data (antibody titers, cellular immune responses, cytokine profiles) and clinical outcomes. This will involve: • Bioinformatics analysis of epigenetic datasets (e.g., differential methylation analysis, co-expression networks, pathway enrichment). • Correlation of epigenetic signatures with vaccine-induced immune responses. • Investigation of epigenetic changes associated with specific cell types. • Statistical modeling to identify predictive epigenetic biomarkers. This project offers an unparalleled opportunity to contribute to cutting-edge research in HIV vaccine development and to understand the fundamental role of epigenetics in shaping infant immune responses. You will be part of a collaborative international team and gain expertise in high-throughput data analysis and clinical trial research.

Suitable For	◯ Honours ☑ Masters ◯ MD ◯ PhD
Essential Skills & Qualifications	• We are seeking highly motivated candidates with a strong background in Immunology, Molecular Biology, or Genetics. • Bioinformatics and Computational Biology (experience with R, Python, and relevant epigenetic analysis tools is highly desirable). • Statistics. • A keen interest in vaccine research, pediatric health, and early life programming. • Will suit a candidate interested in building a career in bioinformatics and data sciences.
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	Assoc. Prof. David Martino: David.Martino@thekids.org.au

Epigenetic Modulations in Neonatal BCG Vaccine Responses

Research Theme	Chronic Disease
Research Program	Clinical Epigenetics
Start Date	Flexible. From 1 October 2025.
Chief Supervisor/s	Associate Professor David Martino
Other Supervisors	Nikki Schultz
Project Outline	BCG, primarily a tuberculosis vaccine, is renowned for its "non-specific protective effects," reducing infant mortality beyond TB alone. These benefits are thought to stem from its ability to "train" the innate immune system and rapidly mobilise immune defenses. In the vulnerable first week of life, two key mechanisms likely come into play: emergency granulopoiesis (rapid production of neutrophils to fight infection) and the epigenetic priming of innate immune cells that lays the groundwork for trained immunity. This project will delve into the critical first seven days of a neonate's life, leveraging a rich, multi-omics dataset from the EPIC-HIPC consortium. You will investigate how BCG vaccination induces rapid and dynamic changes at the molecular and cellular level in whole blood, providing insights into the very earliest stages of immune system reprogramming. Key Research Questions: • How does BCG vaccination rapidly alter the epigenetic landscape (DNA methylation) in neonatal whole blood? • Can we identify distinct transcriptomic signatures reflecting emergency granulopoiesis and early trained immunity priming? • How do these molecular changes correlate with observed cellular dynamics (e.g., neutrophil and lymphocyte ratios from flow cytometry)? • Can we identify early molecular biomarkers that predict subsequent immune responses or non-specific protective effects? In taking on this project, you will lead the bioinformatics analysis of comprehensive, matched multi-omics datasets from BCG-vaccinated and unvaccinated neonates: • Whole Blood DNA Methylation (EPIC array): Analyse profiles at Day of Life (DOL) 0, 1, 3, and 7 to map epigenetic changes. • Matched Transcriptomics (RNA-seq): Investigate gene expression patterns across these early time points. • Matched Flow Cytometry Data: Integrate cellular immune profiles (including detailed immune cell subsets) to connect molecular changes with cellular dynamics. You will gain expertise in: • Advanced bioinformatics and computational biology for 'omics data. • Epigenetic analysis (DNA methylation, chromatin). • Transcriptomic analysis and pathway inference. • Integration of multi-modal datasets (epigenomics, transcriptomics, flow cytometry). • Computational cell type deconvolution in complex samples. • Immunology of neonatal development and vaccine responses.

Suitable For	○ Honours ○ Masters ○ MD ☑ PhD
Essential Skills & Qualifications	• We are seeking a highly motivated student with an interest in Bioinformatics, Computational Biology, Immunology, Genetics, or a related field. • Strong programming skills (e.g., R, Python) and a keen interest in analysing large biological datasets are highly desirable. • Will suit a candidate interested in building a career in bioinformatics and data sciences.
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	Assoc. Prof. David Martino: David.Martino@thekids.org.au

Epigenetic Modulators of Neonatal Sepsis

Research Theme	Precision Health
Research Program	Clinical Epigenetics
Start Date	Flexible. From 1 October 2025.
Chief Supervisor/s	Associate Professor David Martino
Other Supervisors	Nikki Schultz
Project Outline	Neonatal sepsis, a severe systemic infection in newborns, remains a leading cause of morbidity and mortality globally. Early and accurate diagnosis is critical, yet current clinical signs are often non-specific. This Masters project offers an exciting opportunity to explore novel epigenetic biomarkers for neonatal sepsis, leveraging unique and rich multi-omics data from a well-characterised cohort. Neutrophils are the frontline defenders in innate immunity, and their function is crucial in responding to infection. Emerging evidence suggests that epigenetic modifications, particularly DNA methylation, can profoundly influence neutrophil activity and survival. In this project, you will investigate if specific DNA methylation patterns in neutrophils, detectable within whole blood, are associated with the development of sepsis in the first week of life in a cohort of newborns from the EPIC-HIPC study. While sepsis incidence in this cohort is small, these cases represent a critical opportunity for discovery. You will utilise existing high-resolution multi-omics data (DNA methylation, transcriptomics, and flow cytometry) collected at multiple time points (Day of Life 0, 1, 3, 7) from both healthy and a small but precious group of septic neonates. This project has the potential to identify early molecular markers that could one day contribute to improved risk stratification and management strategies for this devastating condition. Key Research Questions: • Are there specific neutrophil-associated DNA methylation sites in whole blood that are differentially methylated in neonates who develop sepsis compared to healthy controls? • What are the functional implications of these methylation changes on associated genes, particularly those involved in neutrophil function, inflammation, or immune response? • How do changes in these methylation sites correlate with shifts in immune cell composition (e.g., changes in neutrophil or immature neutrophil counts) and gene expression profiles observed in septic neonates? • Do these epigenetic signatures hold promise for early risk stratification of neonatal sepsis? In taking on this project, you will conduct advanced bioinformatics analysis using a unique, matched multi-omics dataset: • Whole Blood DNA Methylation (EPIC array): Identify differentially methylated regions/CpG sites specifically enriched in neutrophils, using computational deconvolution methods. • Matched Transcriptomics (RNA-seq): Correlate methylation changes with gene expression alterations in sepsis cases. • Matched Flow Cytometry Data: Integrate with detailed immune cell counts and proportions to contextualize findings and support cell-type specific interpretations.

	You will gain valuable skills in: • Advanced bioinformatics and computational analysis of large 'omics datasets. • Epigenetic data interpretation, focusing on DNA methylation. • Integration of multi-modal biological data (epigenomics, transcriptomics, flow cytometry). • Computational methods for cell type deconvolution in heterogeneous samples. • Understanding the molecular basis of neonatal immunity and sepsis pathophysiology.
Suitable For	○ Honours ☑ Masters ○ MD ○ PhD
Essential Skills & Qualifications	• We are looking for an enthusiastic and analytical student interested in developing bioinformatic and programming skills (R, Python) • Experience in Bioinformatics and/or Biostatistics and/or Mathematics highly desirable • A basic understanding of Immunology or Genetics would be beneficial, but is not strictly required • Will suit a candidate interested in building a career in Bioinformatics and Data Sciences
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	Assoc. Prof. David Martino: David.Martino@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
Start Date	February 2026
Chief Supervisor/s	Dr Rebecca Pedruzzi
Other Supervisors	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 1 in 5 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. This 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 • 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

Finding New Cures for Childhood Leukaemia

Research Theme	Chronic Disease
Research Program	Translational Genomics in Leukaemia
Start Date	Flexible. From February/March 2026.
Chief Supervisor/s	Dr Sébastien Malinge
Other Supervisors	
Project Outline	Leukaemia is the most common type of cancer in children. Remarkable progress in 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 immunecompetent models of childhood leukaemia (B-ALL, DS-ALL and AML). Our current projects are focused on 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	• A Bachelor of Science or Honours degree • Excellent oral and written 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 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. From 2026.
Chief Supervisor/s	Dr Jessica Buck
Other Supervisors	To be determined based on the project
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

Identifying the Impacts of Climate Change on Child Health Outcomes in Sub-Saharan Africa

Research Theme	Chronic Disease
Research Program	Advancing Innovation in Respiratory (AIR) Health
Start Date	February 2026
Chief Supervisor/s	Dr Melinda Judge Professor Peter Le Souëf
Other Supervisors	Professor Corey Bradshaw
Project Outline	In 2021, the World Health Organization declared that climate change is the single biggest threat facing humanity. It has been estimated that children under the age of five bear 88% of this burden, based on disability-adjusted life years lost because of climate change. Currently, the literature is fragmented and insufficient to plan protective strategies. The Future Child Health team investigates the impacts of a changing climate on all aspects of child health. Through geospatial modelling, we aim to identify which climate variables are affecting which child health outcomes in which regions both locally and globally. We currently have a project available to analyse the impacts of climate variables on childhood undernutrition, respiratory infections and diarrhoeal disease in low- and middle-income countries in sub-Saharan Africa. These countries are both the least studied yet most affected regions.
Suitable For	☑ Honours ☑ Masters ☐ MD ☑ PhD
Essential Skills & Qualifications	• Honours or Masters: An undergraduate degree in Science • PhD: An Honours degree or equivalent in Science • A background in Biostatistics or willingness to learn
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 Melinda Judge: Melinda.Judge@thekids.org.au FutureChildHealth@thekids.org.au

Last Call for Future Children: Changing Climate Change's Impacts on Children's Health by Changing 'Social Constructs'

Research Theme	Chronic Disease
Research Program	Advancing Innovation in Respiratory (AIR) Health
Start Date	February 2026
Chief Supervisor/s	Professor Peter Le Souëf
Other Supervisors	Dr Melinda Judge Professor Corey Bradshaw
Project Outline	Climate change scientists predict with high confidence that without an immediate and comprehensive change in human behaviour, the Earth's climate will reach a 'tipping point' whereby climate will rapidly deteriorate and render much of the planet unliveable, especially for children. Professor Bill Rees has proposed that the major obstacle stopping humans acting decisively is intransigent 'social constructs'. A 'social construct' is defined as a set of beliefs that compel an individual to think in simplistic ways about complex issues. A ubiquitous, incorrect and exceedingly dangerous social construct is the belief that human ingenuity can develop technologies to reverse climate change while preserving high living standards for a global population of 8+ billion people. With this project, a student will explore ways in which individuals with the above social construct can be educated to adopt the more accurate understanding that only massive reversals in economic and population growth have any chance of preventing catastrophic environmental destruction that will endanger all future children. Initially, a survey will establish the scale of the problem of 'dangerous environmental social constructs' in the general population, those with a tertiary education, senior scientists and politicians. A series of educational approaches will then be developed and tested in the above population groups with the aim of changing social constructs from 'dangerous' to 'demanding' (of immediate, decisive action). The successful approaches will then be tested for efficacy in large population groups using multi-media strategies. This project has the potential to make a major contribution to saving the planet and its inhabitants, including humans and especially children, from the ghastly future that we are accelerating towards.
Suitable For	☑ Honours ☐ Masters ☐ MD ☑ PhD
Essential Skills & Qualifications	• Honours: An undergraduate degree in Science • PhD: An Honours degree or equivalent in Science
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 Peter Le Souëf: Peter.LeSouef@thekids.org.au FutureChildHealth@thekids.org.au

Measuring What Matters Most for Youth Living with Type 1 Diabetes

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research
Start Date	February 2026
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

mRNA Immunotherapies for Sarcoma

Research Theme	Chronic Disease
Research Program	Sarcoma Translational Research
Start Date	1 March 2026
Chief Supervisor/s	Dr Ben Wylie
Other Supervisors	Professor Joost Lesterhuis Dr Tao Wang
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 program aims to discover and develop safer and more effective treatments through innovative and rigorous research. We are currently developing mRNA-based immunotherapeutics to enhance anti-tumour immunity and modify the tumour microenvironment. To deliver these mRNA-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 mRNA-based therapies to signal the immune system and modulate the tumour/wound environment in this fashion. 3. Design new biomaterial constructs to deliver mRNA 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 • 2A+ Honours or equivalent for PhD • Good organisational skills, motivation and dedication • Keen interest in 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

Nasal Epigenetic and Transcriptomic Signatures: Identifying Molecular Predictors of Infection Susceptibility in AERIAL Study Newborns

Research Theme	Chronic Disease
Research Program	Clinical Epigenetics
Start Date	1 October 2025 onwards
Chief Supervisor/s	Associate Professor David Martino
Other Supervisors	Dr David Hancock, Dr Thomas Iosifidis, Dr Patricia Agudelo Romero
Project Outline	The respiratory tract is the primary site of infection for many common childhood illnesses. Understanding what makes some newborns more susceptible to respiratory infections than others from birth is crucial for early intervention and prevention strategies. This project offers a unique opportunity to delve into the molecular landscape of the neonatal nose, leveraging an exceptional dataset from the AERIAL study. The AERIAL study has collected unique nasal brushings from 88 newborns at a very early stage of life, providing a direct window into the developing respiratory mucosal immune system. We have already generated and performed preliminary analyses on transcriptomic (RNA-seq) and DNA methylation (TWIST target capture sequencing) data from these samples, establishing the foundational molecular profiles. This project will integrate these powerful datasets to explore the intricate interplay between gene expression and epigenetic regulation in the neonatal nose. Crucially, you will leverage existing computational phenotyping of the AERIAL cohort, which has classified infants based on their susceptibility to infections (e.g., 'infection prone' vs. 'non-infection prone'). Your work will aim to identify distinct epigenetic and transcriptional signatures in the nasal epithelium that correlate with these clinical phenotypes. This project holds the potential to discover early molecular biomarkers and mechanisms that predispose newborns to respiratory infections, informing future preventative and therapeutic strategies. Key Research Questions: • Are there specific DNA methylation patterns in nasal epithelial cells that distinguish 'infection prone' newborns from 'non-infection prone' newborns? • How do these identified methylation differences correlate with changes in gene expression (transcriptomes) in the nasal samples? • Can we identify key epigenetically-regulated genes and pathways that are implicated in neonatal respiratory immune defense and infection susceptibility? • Do these integrated epigenetic and transcriptomic signatures hold promise as early risk stratification tools for respiratory infections in newborns? In undertaking this project, you will conduct cutting-edge bioinformatics and statistical analyses on the AERIAL cohort's nasal samples: • Integrative 'Omics Analysis: Combine TWIST target capture DNA methylation data with matched RNA-seq transcriptomic data to identify co-regulated genes and pathways. • Epigenetic-Transcriptomic Correlation: Explore how DNA methylation changes at specific gene regions are associated with altered gene expression. • Differential Analysis based on Phenotype: Compare nasal epigenetic and transcriptomic profiles between computationally phenotyped 'infection prone' and 'non-infection prone' infant groups.

Project Outline Continued	• Pathway and Network Analysis: Identify biological pathways and gene regulatory networks that are dysregulated in susceptible infants. • Biomarker Exploration: Evaluate the potential of specific epigenetic and/or transcriptomic markers for predicting infection susceptibility. You will subsequently gain valuable and highly sought-after skills in: • Advanced bioinformatics for multi-omics data integration. • Epigenetic and transcriptomic data analysis (DNA methylation, RNA-seq). • Statistical modeling and machine learning for biomarker discovery. • Understanding the molecular basis of neonatal respiratory health and infection susceptibility.
Suitable For	○ Honours ☑ Masters ○ MD ○ PhD
Essential Skills & Qualifications	• Experience in Bioinformatics and/or Biostatistics and/or Mathematics is highly desirable • Would suit a candidate interested in building a career in Bioinformatics and Data Sciences
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	Assoc. Prof. David Martino: David.Martino@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
Start Date	February 2026
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. This project aims to 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. This 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

Supporting Youth Living with T1D and Disordered Eating Behaviours

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research
Start Date	February 2026
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

Systemic Review and Meta Analysis: The Impact of Climate Change on Aspects of Child Health

Research Theme	Chronic Disease
Research Program	Advancing Innovation in Respiratory (AIR) Health
Start Date	February 2026
Chief Supervisor/s	Dr Melinda Judge Professor Peter Le Souëf
Other Supervisors	Professor Corey Bradshaw Dr Syeda Hira Fatima
Project Outline	Climate change is affecting every aspect of human health. Children are the largest and most vulnerable group and work is needed to consolidate the disparate and emerging research in this field. This student project will investigate an aspect of climate change and child health by way of a systematic review using databases such as PubMed, Scopus, PsycINFO, CINAHL, Embase, and Web of Science. Quality appraisal will be conducted using a risk of bias tool. Reporting will follow the Preferred Reporting Items for Systematic Reviews and Meta-analyses (PRISMA) framework. Suggested topics include: • Impact of air pollution on mental health and wellbeing of children and adolescents • Impact of extreme heat and heatwaves on antimicrobial resistance and childhood infectious disease • Alternatively, if you have a specific area of interest, we are open to discussing your suggested topic. Ethical permission is not required as the information is publicly available through databases. The successful student will have the opportunity to be a co-author on the resultant publication.
Suitable For	☑ Honours ☑ Masters ○ MD ○ PhD
Essential Skills & Qualifications	• Undergraduate Science 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	Dr Melinda Judge: Melinda.Judge@thekids.org.au FutureChildHealth@thekids.org.au

Type 1 Diabetes Resource Catalogue for Culturally and Linguistically Diverse (CALD) Families

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research
Start Date	February 2026
Chief Supervisor/s	Dr Rebecca Pedruzzi
Other Supervisors	Dr Sabrina Binkowski Dr Mary Abraham
Project Outline	Current diabetes educational resources provided to families in type 1 diabetes (T1D) clinics are traditionally developed for English-speaking populations with adequate health literacy. With the rate of culturally and linguistically diverse (CaLD) communities set to increase in Australia, combined with the rising incidence of T1D in immigrant families, there is an unmet need for diabetes clinics to respond to diverse community needs by revising their current educational resources provided during clinic appointments. Our previous research highlighted barriers in managing T1D for CaLD families. Parents identified dietary and linguistic challenges, financial difficulties and lack of community support, leading to feelings of isolation impacting their ability to supervise and provide for the complex health needs of their children. In addition, concerns over a lack of visual tools and fit for purpose CaLD-specific resources were raised. Our current research is working on enhancing the health journeys and outcomes of children from CaLD backgrounds by providing meaningful and accessible resources to support their T1D management. This project aims to create a comprehensive catalogue of evidence based and community-endorsed resources tailored to the needs of Western Australian CaLD families to ensure that CaLD families receive equitable access to education and support.
Suitable For	☑ Honours ○ Masters ○ MD ○ PhD
Essential Skills & Qualifications	• Undergraduate degree in 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.Pavloss@thekids.org.au

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

Research Theme	Chronic Disease
Research Program	Diabetes and Obesity Research
Start Date	February 2026
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. This 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
Start Date	September 2025 onwards
Chief Supervisor/s	Dr Thomas Iosifidis
Other Supervisors	To be confirmed pending final project selection: Dr Patricia Agudelo Romero, Dr Jose Caparros-Martin, Dr David Hancock, Dr Yuliya Karpievitch, Associate Professor Anthony Kicic, Associate Professor David Martino, Dr Liz Starcevich-Kicic, Professor Brad Zhang
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. Additionally, 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, and establishment of primary epithelial cell cultures to assess epithelial function (e.g., injury, infection, inflammation, barrier integrity). 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 • Desirable: Knowledge of, or interest to learn, coding-based and/or Bioinformatics analyses

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
Start Date	February 2026
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 (Cooper et al, J Diabetes Complications (2017) 31(5):843-849). 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, Epidemiology or Public Health-related field • Excellent communication, teamwork and organisational skills • Desirable: 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
Start Date	February 2026
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 field • Excellent organisational and communication skills • Desirable: 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

Accelerating Rare Disease Diagnosis and Treatment for Children in WA

Research Theme	Precision Health
Research Program	Translational Genetics
Start Date	1 February 2026
Chief Supervisor/s	Dr 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. In the clinic today, genetic sequencing identifies pathogenic variants in up to half of patients, however, there is also an overwhelming number of novel genetic variants, or variants of uncertain significance identified. Each novel genetic variant needs to be functionally characterised, validated and reported. Accordingly, diagnosis takes six years on average, if it can be achieved at all, and in the interim the patient cannot receive a diagnosis. The window of opportunity for early and appropriate interventions to improve life outcomes is often missed. To compound the issue, 95% of rare diseases have no specific drug treatment. Rare diseases present with complex clinical phenotypes affecting different cells and tissues in the body, and therefore genetic variant interpretation is performed in gene or disease-specific research laboratories where available. There is an urgent need to find new and faster methods for the interpretation of genetic variants. The focus of the Translational Genetics team is to support patient diagnosis and deliver patient-specific treatments to children living with rare disease. An early, and informative, diagnosis enables access to appropriate health services, application of best clinical treatments, and informs life planning for children and families living with rare disease. We use CRISPR/Cas9 gene-editing to introduce genetic variants of interest into human induced pluripotent stem cells (iPSCs) and then perform directed differentiation to model patient disease in heart, nerve, lung, kidney and other tissue. Comparison of healthy and genetic variant cells using transcriptomics and functional assays is informative of disease and patient-specific cellular changes. In a new high throughput assay, termed SCRIPT - **S**ingle **C**ell CRISP**R** **i**n **P**athogenesis and **T**reatment - we are using a 'village in a dish' approach in combination with single cell sequencing for the rapid interpretation of hundreds of genetic variants at once. SCRIPT is relatively gene and disease agnostic, amenable for scaling and clinical application to deliver rapid patient diagnosis in under 12 weeks. Further, these disease models provide a platform to re-purpose drugs used in common disease to treat rare disease.
Suitable For	☑ Honours ☐ Masters ☐ MD ☑ PhD

Essential Skills & Qualifications	• For Honours: An undergraduate degree in Biochemistry, Molecular Biology, Genetics or similar • For PhD: A minimum 2A Honours degree • Excellent verbal and written 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 Vanessa Fear: Vanessa.Fear@thekids.org.au Dr Nicole Shaw: Nicole.Shaw@thekids.org.au Dr Linda Wijaya: Linda.Wijaya@thekids.org.au

Infectious Disease

Headlice Oral Treatment Research

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	Flexible. January 2026
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Ingrid Amgarth-Duff
Project Outline	Head lice is a common global health problem, affecting people of all ages and backgrounds, especially children. Head lice is a Neglected Tropical Disease and on the World Health Organisation priority list for elimination. It spreads easily through close contact or sharing personal items such as hats and pillows. In Australia, head lice outbreaks are particularly prevalent in schools and childcare centres. Topical treatments are first-line for head lice, but pose challenges for families as they are expensive, time-consuming, visible, odorous, and require clean running water to wash off, which is particularly difficult where plumbing is inadequate. This research project is working towards a future clinical trial comparing oral ivermectin with topical permethrin 5% for the treatment of head lice. The project will address several key aspects related to head lice, including systematic reviews; review of existing guidelines and treatment options; and community consultation to understand what Patient Reported Outcome Measures (PROMs) should be included in a clinical trial for head lice. This trial will ensure a cost-effective, validated and community-approved treatment is accessible to families across Australia, including those in remote communities.
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

Infectious Disease Indicators of Inadequate Housing and Living Conditions: An International Review

Research Theme	Infectious Disease
Research Program	Strep A Translation
Start Date	Semester 1, 2026
Chief Supervisor/s	Associate Professor Rosemary Wyber
Other Supervisors	Dr Kate Summer
Project Outline	Reduced access to functional housing and infrastructure can hinder access to health-seeking behaviours, or Healthy Living Practices, and thus capacities to achieve and maintain healthy lives. Despite being a wealthy country, substandard housing continues to undermine the health and wellbeing of some communities in Australia. Tools for routinely monitoring the longitudinal health impacts of inadequate housing and living conditions, as well as improvement initiatives, are urgently needed to identify priorities and effective housing policy options. High rates of preventable infectious diseases are strongly associated with inadequate housing and living conditions. This project aims to collate and compare groups of infectious disease outcomes that have been agreed upon for use as indicators of inadequate housing and living conditions within an international policy or organisational context. Improved understanding of agreed groups of housing-associated ID outcomes will contribute to the potential development of a primary care-based monitoring tool (the Housing Associated Infectious Disease Index) for use in the Australian context. The project will contribute to a suite of landscape analyses, laboratory work, community-based research and translational activities within the STARFISH (STopping Acute Rheumatic Fever Infections to Strengthen Health) program of work. Led by researchers from The Kids, University of Queensland, Menzies, Harvard, Peter Doherty Institute, and others, in partnership with Aboriginal and Torres Strait Islander communities, STARFISH aims to answer, "What are the most effective environmental health initiatives to reduce Strep A infections and prevent ARF among communities with the greatest risk?" STARFISH is funded by the National Health and Medical Research Council Australia. We are open to discussion on a number of other adjacent projects.
Suitable For	☑ Honours ☑ Masters ☑ MD ○ PhD
Essential Skills & Qualifications	• Undergraduate degree in Science • Excellent communication skills • Demonstrated ability to work both independently and as a member of a team • Strong data analysis skills • Good organisational skills and high personal motivation • Microsoft Office (Word, Excel, Teams) • Desirable: Familiarity with systematic review software such as Covidence, Endnote

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	STARFISHProgram@thekids.org.au Assoc. Prof. Rosemary Wyber: Rosemary.Wyber@thekids.org.au Dr Kate Summer: Kate.Summer@thekids.org.au

Ngangk Ngabala Ngoonda (Sun Safety) and Moorditj Marp (Strong Skin)

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	January 2026
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	
Project Outline	**Ngangk Ngabala Ngoonda** in Noongar language translates to Sun Safety. This exciting research project aims to understand the barriers to sun protective behaviours among Aboriginal children and young people in WA, and improve the availability of culturally inclusive, targeted sun safety resources to increase awareness of skin cancer risk. Co-led by Professor Asha Bowen and Dr Heather-Lynn Kessaris, WA's first Aboriginal Dermatology trainee, the team is comprised of Aboriginal clinicians, Elders and community members. It is partnered with Aboriginal Health Services and the Cancer Council of WA. **Moorditj Marp** (Strong Skin) involves the evaluation and development of culturally relevant healthy skin storybooks with a focus to improve health self-efficacy through building awareness and improving confidence in the management of skin conditions. This project aims to fill a gap in the availability of culturally appropriate skin health promotion resources. To date, Aboriginal Consumer Advisory Group members and our team co-created the first-ever healthy skin children's storybook, 'Kaal Tackles Eczema', which is representative of and relevant to Aboriginal children. The project will take a Community Participatory Action Research approach to robustly evaluate and learn from the community co-designed storybook, to inform the development of additional storybooks, and recommendations for culturally respectful health promotion resource development with and for Aboriginal people.
Suitable For	☑ Honours ☑ Masters ☑ MD ☑ PhD
Essential Skills & Qualifications	• Aboriginal and/or Torres Strait Islander student preferred, or experience in Aboriginal health • Experience or interest in health promotion • 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

Reviewing Invasive Group A Strep and Acute Rheumatic Fever Outbreak Response Guidelines

Research Theme	Infectious Disease
Research Program	Strep A Translation
Start Date	Semester 1, 2026
Chief Supervisor/s	Associate Professor Rosemary Wyber
Other Supervisors	Dr Kate Summer
Project Outline	Streptococcus pyogenes (Strep A/Group A Streptococcus [GAS]) is a human-specific pathogen manifesting as diseases ranging from superficial skin infections (impetigo) and pharyngitis (sore throat) to invasive infections of the bloodstream, lungs or deep tissue (iGAS). Recurrent or unresolved Strep A infections can lead to the immune-mediated development of acute post-streptococcal glomerulonephritis (APSGN), Acute Rheumatic Fever (ARF) and rheumatic heart disease (RHD). Despite the common connection between these diseases (i.e., Strep A), environmental health recommendations for the management of outbreaks of ARF, APSGN and iGAS vary between organisations, jurisdictions, and countries. This student project will involve a review of available guidelines for managing ARF, APSGN and iGAS, extracting themes relating to environmental health, housing infrastructure and the Healthy Living Practices (HLPs). This will help to streamline recommendations for managing Strep A infections and sequelae, with particular relevance to Aboriginal and Torres Strait Islander communities where the burden of disease remains high. The project will contribute to a suite of landscape analyses, laboratory work, community-based research and translational activities within the STARFISH (STopping Acute Rheumatic Fever Infections to Strengthen Health) program of work. Led by researchers from The Kids, University of Queensland, Menzies, Harvard, Peter Doherty Institute, and others, in partnership with Aboriginal and Torres Strait Islander communities, STARFISH aims to answer, "What are the most effective environmental health initiatives to reduce Strep A infections and prevent ARF among communities with the greatest risk?" STARFISH is funded by the National Health and Medical Research Council Australia. We are open to discussion on a number of other adjacent projects.
Suitable For	☑ Honours ☑ Masters ☑ MD ○ PhD
Essential Skills & Qualifications	• Undergraduate degree in Science • Excellent communication skills • Demonstrated ability to work both independently and as a member of a team • Strong data analysis skills • Good organisational skills and high personal motivation • Microsoft Office (Word, Excel, Teams) • Desirable: Familiarity with systematic review software (e.g.: Covidence, Endnote)

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	STARFISHProgram@thekids.org.au Assoc. Prof. Rosemary Wyber: Rosemary.Wyber@thekids.org.au Dr Kate Summer: Kate.Summer@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 2026
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Anita Campbell
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 two 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 11 countries, 131 hospitals and 7,000 patients. SNAP aims to identify which antibiotic treatment options result in the least patients dying and improved outcomes. In contrast to a traditional clinical trial, the SNAP trial is examining multiple different antibiotic treatment options at the same time. An Aboriginal or Torres Strait Islander student is warmly invited to apply. There are a variety of options to explore from extending cultural safety to trial results. Scholarships to support an Aboriginal student are available as well as there being 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	• Aboriginal and/or Torres Strait Islander student preferred • Undergraduate degree in a relevant field • Good interpersonal and communication skills • 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

SHARE: Aboriginal Health Practitioner-led Skin Health Care

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	Flexible. January 2026
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Bernadette Ricciardo
Project Outline	Skin infections in Aboriginal Children and Young People (CYP) are under-diagnosed and under-treated in rural hospitals, and diagnostic accuracy for skin conditions in primary care is challenging. Barriers to specialist dermatology care exist, especially for CYP living in rural locations, given pressures on public dermatology services that are primarily located in tertiary hospitals in metropolitan Perth. Underutilisation of dermatology services by Aboriginal CYP is seen and improvements in cultural safety are needed. To overcome both, the strengths of the Aboriginal Health Practitioner (AHP)-led model of care for Aboriginal patients are well recognised. Through a co-design process with Aboriginal Elders and Aboriginal Community Steering Group members, we propose an innovative AHP-led, research-service initiative within Perth Children's Hospital, WA's major tertiary paediatric hospital: SHARE. SHARE will develop an AHP-led Skin Health Assessment Research Evaluation program for Aboriginal children admitted to Perth Children's Hospital. Co-designed with Elders and an Aboriginal community advisory group, the SHARE program aims to establish culturally-relevant frontline services led by Aboriginal Health Practitioners for the treatment of skin health issues for Aboriginal children. The program also aims to compare microbiology of infections between areas of residence.
Suitable For	☑ Honours ☑ Masters ☑ MD ☑ PhD
Essential Skills & Qualifications	• Aboriginal and/or Torres Strait Islander student preferred, or experience in Aboriginal health • 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

The Clue Lies Within: Deciphering the Skin Microbiome in Healing Skin to Design Probiotics to Improve Outcomes for Children Suffering Burns

Research Theme	Infectious Disease
Research Program	Healthy Skin and ARF Prevention
Start Date	January 2026
Chief Supervisor/s	Professor Asha Bowen
Other Supervisors	Dr Huda Ghori
Project Outline	This project aims to identify bacteria contributing to skin healing by analysing the bacterial profile of children who have suffered burns with good healing outcomes. Burn admissions continue to rise in WA, with 28% of all burns affecting children. The skin's ability to function as a barrier is assisted by the good bacteria residing in the skin's top layer which is disrupted following a burn injury and leads to poorer wound healing, scarring, continued need for surgery and increased vulnerability to infection. Knowledge of factors contributing to burn wound healing is scarce. We do not know why children have different outcome from the same treatment. We hypothesise that skin bacterial profiles of children with burns that heal faster (good outcome) differs from those of children with slower wound healing (poor outcome) and can be used to develop probiotics for the latter. In a preliminary study, we found potential skin bacteria that activate an important pathway involved in skin regeneration. In this study, we will further identify the good bacteria contributing to skin healing from the bacterial profile of children with good outcomes. We will then experiment on a laboratory model that mimics the burn to understand the potential of these good bacteria to improve wound healing. This study provides a significant opportunity for the development of biotherapeutics for efficient burn healing and contributes to the vision of scar-free healing for WA children suffering burn injuries.
Suitable For	☑ Honours ○ Masters ○ MD ○ PhD
Essential Skills & Qualifications	• Undergraduate degree in a relevant field • Good interpersonal and communication skills • Have strong data analysis skills, writing skills and lab 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 Fabric Contamination and Effective Laundering to Control Pathogens

Research Theme	Infectious Disease
Research Program	Strep A Translation
Start Date	Semester 1, 2026
Chief Supervisor/s	Dr Kate Summer
Other Supervisors	Associate Professor Rosemary Wyber
Project Outline	Fabrics, such as clothes, bedding and towels, are in close contact with the body and the environment, and likely play a role in the spread of a range of infectious diseases. Washing/laundering fabrics is therefore important for maintaining health and wellbeing. However, there is currently no synthesis of evidence describing the viability of pathogens on fabrics, nor is there clear guidance as to the specifications required to achieve effective antimicrobial laundering (e.g., water temperatures, wash durations, detergents, dryer conditions). This contributes to confusion among families, clinicians and laundry service providers. A systematic review of skin pathogens recovered from fabrics and effective laundering methods to control skin infections is underway. This student project will involve undertaking a parallel systematic review of published literature to collate evidence for the viability of respiratory and gastrointestinal pathogens on fabrics, and effective laundry methods to control respiratory and gastrointestinal infections. Both reviews will contribute to the development of technical guidelines for effective antimicrobial laundering. These guidelines will be of benefit in a range of settings, including in remote Aboriginal and Torres Strait Islander communities where access to effective laundering is a priority. The project will contribute to a suite of landscape analyses, laboratory work, community-based research and translational activities within the STARFISH (STopping Acute Rheumatic Fever Infections to Strengthen Health) program of work. Led by researchers from The Kids, University of Queensland, Menzies, Harvard, Peter Doherty Institute, and others, in partnership with Aboriginal and Torres Strait Islander communities, STARFISH aims to answer, "What are the most effective environmental health initiatives to reduce Strep A infections and prevent ARF among communities with the greatest risk?" STARFISH is funded by the National Health and Medical Research Council Australia. We are open to discussion on a number of other adjacent projects.
Suitable For	☑ Honours ○ Masters ☑ MD ○ PhD
Essential Skills & Qualifications	• Undergraduate degree in Science or Public Health • Excellent communication skills • Demonstrated ability to work both independently and as a member of a team • Data analysis skills • Good organisational skills and high personal motivation • Microsoft Office (Word, Excel, Teams) • Desirable: Familiarity with systematic review software such as Covidence, Endnote

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	STARFISHProgram@thekids.org.au Dr Kate Summer: Kate.Summer@thekids.org.au Assoc. Prof. Rosemary Wyber: Rosemary.Wyber@thekids.org.au

Understanding the Association Between Strep A Transmission and Animal Vectors

Research Theme	Infectious Disease
Research Program	Strep A Translation
Start Date	Semester 1, 2026
Chief Supervisor/s	Associate Professor Rosemary Wyber
Other Supervisors	Dr Kate Summer
Project Outline	Persistent Streptococcus pyogenes (Strep A) infections can have serious consequences, including acute rheumatic fever (ARF), progressing to rheumatic heart disease (RHD). The burden of Strep A infections and sequelae is highest in under-resourced settings, including in remote Aboriginal and Torres Strait Islander communities where access to Healthy Living Practices (HLPs) can be constrained. Transmission of Strep A has been historically attributed to large respiratory droplets. More recently, studies have illuminated the possibility for airborne, vehicle and vector modes of transmission. Little is known about the contribution of these possible additional modes of Strep A transmission, especially the role of animal vectors (i.e., dogs, cats, rodents, and domestic farm animals). This student project will involve undertaking a systematic review of published literature to document the transmission of Strep A between animal vectors and humans. Collating the contemporary evidence for Strep A vector-associated transmission will help to inform further research. Reducing the negative impacts of animals, insects and vermin (whilst recognising their co-existing positive impacts) represents one of the nine HLPs identified as priorities for Aboriginal and Torres Strait Islander people; understanding whether Strep A transmission and animals are associated would help to develop evidence-based environmental health initiatives related to this HLP. The project will contribute to a suite of landscape analyses, laboratory work, community-based research and translational activities within the STARFISH (STopping Acute Rheumatic Fever Infections to Strengthen Health) program of work. Led by researchers from The Kids, University of Queensland, Menzies, Harvard, Peter Doherty Institute, and others, in partnership with Aboriginal and Torres Strait Islander communities, STARFISH aims to answer, "What are the most effective environmental health initiatives to reduce Strep A infections and prevent ARF among communities with the greatest risk?" STARFISH is funded by the National Health and Medical Research Council Australia. We are open to discussion on a number of other adjacent projects.
Suitable For	☑ Honours ☐ Masters ☑ MD ☐ PhD

Essential Skills & Qualifications	• Undergraduate degree in Science • Excellent communication skills • Demonstrated ability to work both independently and as a member of a team • Strong data analysis skills • Good organisational skills and high personal motivation • Microsoft Office (Word, Excel, Teams) • Desirable: Familiarity with systematic review software such as Covidence, Endnote
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	STARFISHProgram@thekids.org.au Assoc. Prof. Rosemary Wyber: Rosemary.Wyber@thekids.org.au Dr Kate Summer: Kate.Summer@thekids.org.au

Strong Beginnings

Characterising the Impact of Very Preterm Birth on the Lower Airway

Research Theme	Strong Beginnings
Research Program	Foundations of Lung Disease
Start Date	1 February 2026
Chief Supervisor/s	Associate Professor Shannon Simpson
Other Supervisors	Dr Denby Evans Dr Rebecca Watkinson
Project Outline	Those born very preterm (<32 weeks gestation) often experience persistent and progressive lung disease across the life course. Without intervention, current lung function trajectories suggest that many individuals born preterm will develop early onset chronic obstructive pulmonary disease (COPD) – a debilitating and life-shortening disease. Intervention is clearly needed, but opportunities to intervene have been limited by the lack of knowledge surrounding the mechanisms that underpin preterm associated lung disease. Recent findings from our team suggest that the cells of the upper airway are impacted by preterm birth and may be a potential disease driver. Specifically, we have shown that nasal epithelial cells from those born preterm have an altered barrier function which is associated with clinical measures of lung function and airway obstruction. However, it is still unknown how well the nasal airway epithelium represents the lower airway of those born preterm. The 'unified airway hypothesis' proposes that airway disease pathology manifests in locations throughout the airway, meaning that cells from the upper airway can be used as a surrogate for the lower airway. However, the unified airway hypothesis has been built around individuals that did not have their airway development interrupted. As the lower airway develops later in the gestational period, it is more adversely affected than the upper airway by preterm birth. Consequently, it is possible that the epithelium may be disproportionately impacted in the lower airway. Yet, epithelial cells from the preterm lower airway have never been directly studied – which means we might be missing crucial disease mechanisms. This PhD project will develop a world-first laboratory model of the preterm lower airway using cell samples collected from infants and children undergoing surgery or in the NICU. The structure and function of the upper and lower airway cells will be compared using techniques such as fluorescent microscopy, air-liquid interface culture, scratch-wound analysis, ELISAs and PCR.
Suitable For	◯ Honours ◯ Masters ◯ MD ☑ PhD
Essential Skills & Qualifications	• A self-motivated student with excellent time-management and organisational skills • You must hold yourself to high standards and be comfortable working both individually and as part of a large team • Basic statistical knowledge, strong communication skills and an ability to adapt/ problem-solve is highly advantageous • Previous experience in cell culture is desired but not essential as all necessary training will be provided

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	Assoc. Prof. Shannon Simpson: Shannon.Simpson@thekids.org.au

Colostrum and Skin Development

Research Theme	Strong Beginnings
Research Program	Immunology and Breastfeeding
Start Date	January 2026
Chief Supervisor/s	Dr Valerie Verhasselt
Other Supervisors	Nivedithaa Divakara
Project Outline	This project is part of a PhD research project led by Nivedithaa Divakara, investigating the role of colostrum in promoting healthy skin development and preventing early-life skin diseases such as allergies and infections. The overarching aim of the project is to provide foundational evidence that colostrum intake supports skin maturation through its rich composition of bioactive compounds. Within this broader context, the successful student will focus on one key objective: the analysis of skin histology in a mouse model. This will involve working with mice to compare skin architecture, inflammation, permeability and hair follicle (HF) morphogenesis between those considered colostrum-deprived (mice nursed from birth by dams at an advanced stage of lactation) and control mice. Skin histology will be analysed at different time points in both groups to define the role of colostrum in skin development. This project will be the first to provide evidence for a causal role of colostrum in healthy skin development, and provide the knowledge required to promote colostrum feeding through investments in breastfeeding support. This may be critically important since, globally, one in three newborns is not receiving the full dose of colostrum. The project may also lead to the discovery of new compounds that are developmentally adapted for the prevention and treatment of diseases in children such allergies and infection and will contribute to our understanding of the biological mechanisms through which colostrum supports immune and barrier function in early life.
Suitable For	☑ Honours ☑ Masters ○ MD ○ PhD
Essential Skills & Qualifications	• A Bachelor degree in a relevant field such as Nutrition, Public Health, Biomedical Science or a related field • An interest in working with animal models and a willingness to engage in detailed analytical work, particularly in histological analysis • Strong organisational skills, with the ability to manage multiple research tasks, meet deadlines, and maintain accurate records • Excellent written and verbal communication skills • Commitment to fostering equity, inclusion, and diversity within research environments • Strong interpersonal skills and the ability to effectively engage with colleagues, students, and external stakeholders

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 Valerie Verhasselt: Valerie.Verhasselt@thekids.org.au

Developing a Novel Assessment of Respiratory Function for Clinical Practice

Research Theme	Strong Beginnings
Research Program	Foundations of Lung Disease
Start Date	1 February 2026
Chief Supervisor/s	Associate Professor Shannon Simpson
Other Supervisors	Dr Elizabeth Smith Associate Professor Kathryn Ramsey
Project Outline	Chronic lung diseases affect over half a billion people globally and cause significant personal and societal burden and premature death. Assessments of respiratory function are central to the diagnosis and management of respiratory disease, however measuring respiratory function in children is notoriously difficult and requires specialised equipment and a tailored approach. In WA, the Foundations of Lung Disease team has become world-leaders in this field, authoring methodological papers, clinical practice guidelines and international interpretation guidelines for reporting physicians. Our work has had global impact, leading to improved diagnostic accuracy and earlier detection of deteriorations in lung function, allowing for preemptive treatment and preventing irreversible lung damage. Through collaboration with international biomedical engineers, manufacturers and external research institutes, we have implemented novel assessments of respiratory function in our clinical research laboratory. This project focusses on the development of intrabreath oscillometry, a novel technique which measures respiratory mechanics throughout the breathing cycle using a single sinusoidal 10Hz waveform. The successful student will leverage a large dataset collected over five years of clinical research to drive translation of this novel test into clinical practice. They will assess the suitability of this novel test for use in a range of paediatric respiratory diseases, including cystic fibrosis, neuromuscular disease and chronic lung disease of prematurity. In addition to learning a range of new skills relating to measuring respiratory mechanics, 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 communication skills • Critical thinking and problem-solving abilities • Must comply with CAHS policies relating to working in health care • Experience in conducting statistical analysis, cohort studies and/or using lung function testing equipment would be a distinct 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	Assoc. Prof. Shannon Simpson: Shannon.Simpson@thekids.org.au

Enhancing Listening Environments for Children with Otitis Media in Early Learning and Care Settings

Research Theme	Strong Beginnings
Research Program	Ear and Hearing Health
Start Date	1 February 2026
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 and pre-school 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 daycare and early learning settings, particularly amongst Aboriginal and Torres Strait Islander children, with most of these children also experiencing hearing loss. For Honours/MD purposes, this project will involve conducting a systematic review of the current literature around acoustic and environmental conditions in daycare and early learning settings and the potential benefits of acoustic modifications for mainstream settings, in improving language and developmental outcomes for children. For PhD purposes, 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 centres and their feasibility for wider implementation.
Suitable For	☑ Honours ☐ Masters ☑ MD ☑ PhD
Essential Skills & Qualifications	• Bachelor of Science in 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 Veselinovic: Tamara.Veselinovic@thekids.org.au

Evaluating Immune Responses to Viruses such as Epstein Barr Virus (EBV)

Research Theme	Strong Beginnings
Research Program	Translational Immunology
Start Date	February/March 2026
Chief Supervisor/s	Dr Jonatan Leffler
Other Supervisors	Dr Stephanie Trend Dr Abbey Figliomeni Dr Kimberley Parkin Alice White
Project Outline	Epstein Barr Virus (EBV) infections are common during childhood and are usually associated with mild symptoms. However, EBV may increase the risk of some autoimmune diseases such as Multiple Sclerosis. In general, females are at in increased risk of developing an autoimmune disease and curiously, females also tend to mount a stronger immune response to EBV compared to males. If this is associated with the increased risk autoimmune diseases later in life remains unknown. This project aims to evaluate how genetic and environmental factors, including sex and sex hormones, impact immune responses to EBV. By leveraging our team's access to unique cohorts, EBV responses will be evaluated in a cohort of young twin pairs to evaluate the genetic contribution to EBV responses as well as a cohort of young transgender individuals to evaluate the impact of sex and sex hormones. Evaluation will include serological assays in the form of ELISAs as well as cell-based assays to assess B and/or T cell responses to EBV across the two cohorts. As a student on this project, you will lead the serological analysis and develop a cellular assay to evaluate immune responses to EBV in our unique cohorts. A considerable part of the project will also consist of data analysis with potential to learn advanced analytical skills of flow cytometry data using statistical programs such as R.
Suitable For	☑ Honours ○ Masters ○ MD ☑ PhD
Essential Skills & Qualifications	• Bachelor of Science in 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 Jonatan Leffler: Jonatan.Leffler@thekids.org.au

Informing Maternal Nutrition Guidelines Investigating the Impact of Maternal Prebiotic Supplementation on Human Milk Composition and Infant Allergy Risk

Research Theme	Strong Beginnings
Research Program	Immunology and Breastfeeding
Start Date	January 2026
Chief Supervisor/s	Dr Valerie Verhasselt
Other Supervisors	Dr Debbie Palmer Dr Patricia Macchiaverni
Project Outline	Our research centre is dedicated to advancing research in immunology, breastfeeding, and infant health. We focus on understanding the complex interactions between maternal diet, breast milk composition, and infant health outcomes, particularly allergic diseases. Our mission is to develop evidence-based strategies to improve breastfeeding practices and child health worldwide. Globally, food allergy is a growing concern for children and their families. In Western Australia (WA), more than 30% of infants show signs of allergic sensitisation before four months of age, highlighting the importance of promoting immune tolerance early in life. Childhood is a critical period for immune imprinting, and human milk (HM) plays a critical role by providing bioactive components that promote immune system development. Prebiotics, non-digestible fibres that stimulate beneficial gut bacteria, have been shown to regulate immune responses both locally (in the gut) and systemically. However, the effect of maternal prebiotic supplementation on HM composition remains unclear. We hypothesise that increasing maternal fibre intake through prebiotic supplementation may lead to a more tolerogenic HM profile, potentially reducing the risk of allergic disease in infants. Our recent publication investigated whether maternal supplementation with prebiotics (scGOS/lcFOS) influences the levels of immunomodulatory proteins in HM. The study was part of the SYMBA trial (ACTRN12615001075572), a double-blind, randomised controlled trial to assess the effect of maternal prebiotic supplementation during pregnancy (from 21 weeks of gestation) and during the first six months of lactation on the outcome of allergic disease in children. Our study included 100 mother-infant dyads (46 receiving prebiotics and 54 receiving placebo) and analysed the concentration of 24 immunomodulatory proteins in breast milk collected at 2, 4 and 6 months postpartum. Our results suggest that prebiotic supplementation affects the levels of four key immunomodulatory proteins in HM (TGF-β, sCD14, TSLP and IgG1), providing new insights into how maternal diet shapes HM composition.

Project Outline Cont.	This project offers a student an opportunity to be involved in the next phase of our research, which aims to further elucidate the role of HM composition in determining infant health outcomes, including allergy prevention. You would focus on analysing clinical data from the SYMBA trial to assess how maternal prebiotic supplementation affects infant health outcomes through the changes in HM composition we have observed. Specifically, we want to define the breast milk profile(s) associated with low allergy risk and determine whether the breast milk composition of mothers supplemented with prebiotics is associated with improved tolerogenic properties. Ultimately, this project will contribute to (1) guiding dietary recommendations for breastfeeding mothers to prevent allergy, (2) providing evidence to promote breastfeeding, and (3) identifying early life factors required for healthy immune development.
Suitable For	◯ Honours ◯ Masters ◯ MD ☑ PhD
Essential Skills & Qualifications	• A Bachelor degree in a relevant field such as Nutrition, Public Health, Biomedical Science, or a related field • Experience in data analysis software (R, or similar) and familiarity with statistical methods, including descriptive statistics, regression analysis, and multivariate analysis • Strong organisational skills with the ability to manage multiple research tasks, meet deadlines and maintain accurate records • Excellent written and verbal communication skills • Commitment to fostering equity, inclusion and diversity within research environments • Strong interpersonal skills and the ability to effectively engage with colleagues, students and external stakeholders.
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 Valerie Verhasselt: Valerie.Verhasselt@thekids.org.au Dr Patricia Macchiaverni: Patricia.Macchiaverni@thekids.org.au https://www.uwa.edu.au/lrf-centre-for-immunology-and-breastfeeding

The Flourishing Child: Targeted Tools to Promote Healthy Pathways

Research Theme	Strong Beginnings
Research Program	ORIGINS
Start Date	Flexible. From 1 January 2026
Chief Supervisor/s	Dr Jacqueline Davis
Other Supervisors	Dr Zenobia Talati Dr Lisa Gibson Professor Desiree Silva
Project Outline	We aim to empower families with strengths-based, timely and accessible solutions and interventions to place children on a flourishing pathway. This project will study families living in the Joondalup/Wanneroo areas through including families from the ORIGINS cohort, an established longitudinal cohort of 10,000 families. Key steps in the project will include: • Development and testing of a questionnaire to assess flourishing in children aged 0 – 5 years • An audit and gap analysis of existing programs (within the Joondalup/Wanneroo areas) that can support families with young children to flourish • Creation of a Pathway Tool: a directory of programs and resources to support flourishing in the early years • Implementation and evaluation of the Flourishing Assessment and Pathway Tool (with a focus on feasibility and acceptability) The successful student can elect to be involved in all or some steps of this research project and will work with the supervisory team to design their own project in line with the broader goals of the Flourishing Child project. Substantial stakeholder consultation has been undertaken and will continue throughout the project's lifespan. This project would suit a student interested in prevention and early intervention initiatives, evaluation and implementation science, and is an opportunity to be part of a large research team. 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 Psychology, Health Promotion, Public Health or related discipline • Excellent communication skills • Excellent organisational 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 Jacqueline Davis: Jackie.Davis@thekids.org.au

The Healthy Ears Trial: Evaluating the Effectiveness of Non-Surgical Interventions for Treating Glue Ear in Children

Research Theme	Strong Beginnings
Research Program	Ear and Hearing Health
Start Date	1 February 2026
Chief Supervisor/s	Professor Chris Brennan-Jones
Other Supervisors	Dr Tamara Veselinovic Dr Robyn Choi
Project Outline	Over 25% of children experience 'glue ear' (known as otitis media with effusion) in Western Australia by three years of age. Our team is looking at ways to promote resolution of otitis media with effusion (OME) without surgical intervention, including the use of health promotion programs, medical devices and antibiotic treatment. This study aims to recruit children with OME into a randomised-controlled trial to assess the effectiveness of non-surgical interventions. The primary focus of the trial is to resolve OME within 4-6 weeks. We will also assess a range of hearing, speech and quality of life outcomes for children in both the intervention and control arm of the clinical trial. Using an adaptive, randomised-controlled design with blinded outcome assessment, the primary outcome is resolution of OME, assessed with tympanometry (type A or C tympanograms), measured at 4-6 weeks and 6-8 months post-randomisation. Hearing and speech outcomes for children in the intervention arm will be compared to controls at 6 weeks and 8 months post-intervention. This is the first trial to assess effectiveness of a low-cost, health promotion program to resolve OME. If efficacious, there is potential for the program to become standard practice for the management of OME, reducing risks and costs associated with surgical intervention. As the trial has already commenced, there is scope to tailor projects to suit single-year Honours studies, or develop them into longer projects suitable for MD, Masters or full PhD projects.
Suitable For	☑ Honours ☑ Masters ☑ MD ☑ PhD
Essential Skills & Qualifications	• Bachelor of Science in Population Health, Public Health, Speech and Language Pathology, Environmental Health or related field (s); Medicine; Speech Pathology; Audiology
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	Prof. Chris Brennan-Jones: Chris.Brennan-Jones@thekids.org.au

The ORIGINS Project: A Platform for Research Discovery

Research Theme	Strong Beginnings
Research Program	ORIGINS
Start Date	Flexible. From 1 February 2026
Chief Supervisor/s	Dr Zenobia Talati
Other Supervisors	Professor Desiree Silva Dr Nina D'Vaz Dr Lisa Gibson Dr Jacqueline David 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 qualitive 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 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 Zenobia Talati: Zenobia.Talati@thekids.org.au

The ORIGINS Project: Women's Perception and Experience of Gestational Weight Gain in Pregnancy

Research Theme	Strong Beginnings
Research Program	ORIGINS
Start Date	Flexible. From 1 February 2026
Chief Supervisor/s	Dr Lisa Gibson Professor Desiree Silva
Other Supervisors	
Project Outline	Excess gestational weight gain is known to have a negative impact on the health of women (e.g. high blood pressure, diabetes, and cesarean section) and their infants (e.g. high birth weight, trauma at birth, asphyxia). In addition, excess weight gain in pregnancy is strongly related to child overweight/obesity and maternal postpartum weight retention. Despite these short and long term risks, further work is needed to understand women's awareness of weight gain guidelines in pregnancy and their adherence to the guidelines. This project will seek to use existing quantitative and qualitative data collected as part of ORIGINS to understand pregnant women's perceptions and experiences of weight gain in pregnancy. This research will be important in identifying barriers and enablers to assist in the promotion of weight gain in pregnancy. 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 • Interest in maternal and child health • Proficient writing skills • Good interpersonal and communication skills • Basic qualitative and quantitative analysis 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 Lisa Gibson: Lisa.Gibson@thekids.org.au

Understanding the Contributions of Neutrophils to Multiple Sclerosis

Research Theme	Strong Beginnings
Research Program	Translational Immunology
Start Date	2026
Chief Supervisor/s	Dr Stephanie Trend
Other Supervisors	Dr Luke Garratt Dr Jonatan Leffler 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, however our team have identified specific sub-populations of neutrophils, an important immune cell, associated with MS episodes. The aim of this project is to further investigate the properties of neutrophils seen in early MS. Neutrophils are an important cell in the immune system that can prime the adaptive immune system through a range of functions. By investigating neutrophils in more detail, and their interactions with other immune cells, we hope to uncover new therapeutic targets to treat or prevent MS. As a student in our team, you will lead the studies of neutrophil phenotypes and functions in blood from people with early MS. You will gain hands-on experience with advanced laboratory techniques, such as flow cytometry and functional cell culture assays utilising neutrophils. In addition, you will have the opportunity to learn and utilise data analysis skills utilising statistical programs such as R. We have opportunities for motivated individuals to contribute to this extremely rewarding field of research, and learn a variety of skills within our team. For more information or to join this exciting project, we invite you to contact us directly to discuss this opportunity.
Suitable For	☑ Honours ○ Masters ○ MD ☑ PhD
Essential Skills & Qualifications	• Undergraduate degree in Biomedical Science (e.g. Immunology, Microbiology, Molecular Biology or similar) • Excellent communication skills • Well-developed problem-solving abilities • Self 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 Stephanie Trend: Stephanie.Trend@thekids.org.au

Wellbeing and Mental Health

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	1 March 2026
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	• An 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

Do Neighbourhood Cohesion and Physical Activity Mediate the Relationships Between Greenspace and Mental Health in Grandparents?

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	1 March 2026
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	• An Undergraduate degree in Public Health, Health Promotion, Psychology, or similar discipline • Experience conducting statistical analyses
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

Improving Mental Health Service Engagement for Marginalised Young People in Regional Western Australia

Research Theme	Wellbeing and Mental Health
Research Program	Youth Mental Health
Start Date	Flexible
Chief Supervisor/s	Dr Jack Farrugia
Other Supervisors	Associate Professor Yael Perry
Project Outline	Young people living in regional Australia experience disproportionate barriers to accessing culturally safe and inclusive mental health support. These barriers are particularly heightened for marginalised young people, including those who are LGBTQA+, Aboriginal and Torres Strait Islander, living with disability, or from culturally and linguistically diverse (CALD) backgrounds. OutLink is a research project aimed at improving mental health service access for marginalised young people living in regional Australia. The project uses qualitative and co-design methods to understand experiences of these young people when navigating mental health services, as well as understanding the experiences of mental health practitioners providing these services. The overall goal of OutLink is to develop practical, evidence-informed tools and recommendations that support both young people and practitioners in accessing and delivering inclusive mental health support in regional Australia. Students are able to create a project within the general topic area of OutLink, 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 - 2025/2026
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 100,000's 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 other partners to deliver and evaluate the Play Active program nationally. Play Active is part of the Australian 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.
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 teamwork skills • For Masters students: Degree in Public Health, Health Promotion, Data Science or related field • For PhD candidates: Minimum 2A Honours degree • Desirable: Statistical analysis (SAS/STATA/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	Professor Hayley Christian: Hayley.Christian@thekids.org.au

PLAYCE Cohort: Children's Physical Activity, Health and Development

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	Flexible - 2025/2026
Chief Supervisor/s	Professor Hayley Christian
Other Supervisors	
Project Outline	This research forms part of the PLAYCE program of research: Places Spaces & Environments for Children's Physical Activity, Health & Development. 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 (ECEC) 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 on weight status and socio-emotional, cognitive, and motor development across four waves (2 to 14 years). 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 (SAS/R/STATA) • Ability to work as part of a team • Good interpersonal and communication skills • For Masters students: A degree in Public Health, Epidemiology, or similar field • For PhD candidates: A 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

Tackling Childhood Disadvantage

Research Theme	Wellbeing and Mental Health
Research Program	Child Physical Activity, Health and Development
Start Date	Flexible - 2025/2026
Chief Supervisor/s	Professor Hayley Christian
Other Supervisors	
Project Outline	A PhD scholarship and top-up scholarship to investigate drivers of childhood disadvantage is available through The University of Western Australia and the Life Course Centre (LCC). The LCC is a national centre funded by the Australian Research Council Centre of Excellence Scheme. Hosted through the University of Queensland, The University of Western Australia is one of the collaborating universities that comprise the centre. The Life Course Centre 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 Life Course Centre, which qualifies them to apply for travel grants and attend professional development courses. The WA Node of the Life Course Centre is based at The Kids Research Institute Australia and is examining a range of issues relating to the development of children and adolescents facing deep disadvantage. The successful candidate will work with Professor Hayley Christian and other experienced academics to investigate childhood drivers of disadvantage and look for innovative solutions to help all Australian children grow to their full potential. Potential PhD topics include: • reducing childhood inequities in social and emotional wellbeing • how schools can deflect students from developmental trajectories of disadvantage • how the built environment impacts child health inequities • place-based interventions to assist families facing disadvantage.
Suitable For	○ Honours ○ Masters ○ MD ☑ PhD
Essential Skills & Qualifications	• A background in Public Health studies is an advantage • A minimum 2A Honours Degree • Students intending to undertake a dissertation or thesis as part of a Higher Degree by Research (HDR) course at The University of Western Australia, are required to have acquired adequate research preparation prior to being admitted into a course
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	Kate Erceg: Kate.Erceg@thekids.org.au

The Wellbeing of Siblings of Children with Developmental Disability

Research Theme	Wellbeing and Mental Health
Research Program	Child Disability
Start Date	January 2026
Chief Supervisor/s	Dr Kate Dorozenko Dr Emma Glasson
Other Supervisors	N/A
Project Outline	The Sibling Research Team has the capacity to provide supervision to students, and wishes to conduct a variety of projects starting in 2026 aimed at exploring the experiences, health, mental health / wellbeing, relationships, and needs of children and young people who have a sibling with a developmental disability. Our research team is particularly interested in using innovative and inclusive research methods to reach vulnerable sibling populations, including young children, those living in rural and remote areas, and those from culturally and linguistically diverse (CALD) backgrounds. We are dedicated to making sure that the findings of our research can create real world impact, are accessible to the sibling and disability communities, and we use creative approaches to achieve this goal. More details on the potential topics and student funding will be available later in 2025. We encourage prospective students, or those looking for part time Research Assistant opportunities, to contact us if they are interested in this field of research. Projects will involve collecting and analysing a variety of quantitative and qualitative data, interactive engagement with advisors, participants and families, and promotion of findings to different audiences across various platforms (i.e., social media, our webpage, mailing list, etc.). We welcome students from a variety of backgrounds and skills who are passionate about this research area, and who would like to make a positive difference to the experiences of siblings and the supports available to them.
Suitable For	☑ Honours ☑ Masters ☑ MD ☑ PhD
Essential Skills & Qualifications	• An interest in Disability studies and Mental Health • A background in Psychology, Public Health, Social Work, Medicine or Occupational Therapy would be helpful
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 Kate Dorozenko: Kate.Dorozenko@thekids.org.au Dr Emma Glasson: Emma.Glasson@thekids.org.au www.thekids.org.au/projects/siblings/

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
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*, and 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 verbal 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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