



Position Description

Position Title:	Research Officer
Salary Range:	MCRI Research Salaries – Research Officer – Level A - Step 1-2
Reporting Manager:	Team Leader / Principal Research Fellow
Direct Reports:	0
Home Group:	Developmental Imaging

Who are we?

The Murdoch Children's Research Institute (MCRI) is home to significant scientific discoveries. We believe there is an answer, a cure or a better treatment for every childhood condition — and we're determined to find it.

We are a diverse team of world-leading researchers, doctors, engineers, and hardworking professionals in operational and scientific services from all corners of the world with one shared goal — to transform child health worldwide.

Our strength lies in our partnership and co-location with The Royal Children's Hospital and the University of Melbourne — the Melbourne Children's Campus. This partnership model amplifies opportunities to quickly translate research into clinical care.

MCRI includes a wholly owned subsidiary, the Victorian Clinical Genetics Services (VCGS), a private not-for profit organisation. VCGS is a specialist childhood, prenatal and adult genetics service. VCGS provides an integrated genetic consultation, counselling, testing and diagnostic support service to children, adults, families and prospective parents.

Together, we share a powerful vision:

Our purpose:

We want all children to have the opportunity to live a healthy and fulfilled life.

Our 2025-2030 Strategy:

Towards Precision Child Health

We exist for a **purpose**, to give all children an opportunity to live a healthy and fulfilled life.

We **value** individuals with the determination to solve complex problems, who thrive on collaboration, and who embody honesty, respect, and accountability.

Our **goals** centre around an inclusive environment in which our people can undertake bold research that can be scaled for impact through strategic partnerships.

We **operate** in a collaborative environment, tackling problems in teams, across disciplines and across boundaries.

Our research generates evidence underpinning changes that **impact** the lives of children in our hospitals, in our communities, and across the globe.

What is it like to work for us?

We are dedicated to ensuring a positive working environment that values all backgrounds and experiences. We cultivate an inclusive culture that is underpinned by equal opportunity for all and a culture based on respect, consideration, and dignity. We invest in developing our People and fostering an environment where learning and development is central to our staff reaching their full potential.

The Institute is also committed to the safety of children and young people and takes a zero-tolerance approach to all forms of child abuse, exploitation, and harm. The Institute prioritises child safety in our decision-making at all levels of the Institute and supports our employees to understand and enact their safeguarding responsibilities.

Position Overview

We are seeking a Research Officer to join the Developmental Imaging Group at MCRI to work on brain magnetic resonance imaging (MRI) research into brain development of fetuses, babies and children at higher risk of neurodevelopmental impairments. The Research Officer will lead the image processing and analysis of large databases of clinical and research MRI scans acquired in those born preterm (from the Victorian Infant Brain Studies), or with fetal growth restriction or congenital heart disease (Royal Women's Hospital). They will also contribute to and lead defined aspects of the development of a fast, automated infant brain analysis software for clinical translation, the Neonatal Automated Neuro-Anatomist (NANA), based on our Melbourne Children's Regional Infant Brain (M-CRIB) software and atlases. Based within the Developmental Imaging Group at MCRI, the Research Officer will have access to dedicated high-end computational resources, image analysis expertise and close collaborations with a network of clinical teams and paediatric researchers across the wider Clinical Sciences Theme.

The position will suit candidates with backgrounds in medical imaging, engineering, neuroscience or computer science. Experience in neuroimaging analysis, use of programming languages including Python and practical experience with Deep Learning techniques and high-throughput image processing pipelines is desirable.

Key Accountabilities

- Quality assurance and management of large neuroimaging datasets, including handling of potentially sensitive clinical data
 - Development of analytical methods to examine brain development using paediatric MRI scans
 - Takes a leading role in dissemination of findings through publications and presentations at internal and external academic meetings
 - Supports campus efforts related to gender equity, diversity, inclusion and wellbeing through participation, active learning and/or role modelling our values
 - Works closely with local and international partners to achieve project goals
 - Conducts ethical research at the highest level of integrity and in line with the Australian Code for Responsible Conduct of Research and MCRI policies
 - Undertakes high calibre competitive research
 - Contributes to grant and ethics approval applications
 - Builds a record of high-quality publications, research impact and peer recognition
 - Competitive for external grant funding
 - Works to improve skill base in research productivity and methodology
 - Follows standard operating procedures, study protocols and study guidelines
 - Conducts continuous maintenance of neat and orderly records and data storage
 - Identifies ways to improve data collection/quality utilised by the team/group or research
 - Understands and follows Good Clinical Practice guidelines
 - Fosters relationships with key internal and external stakeholders
 - Contributes to the supervision of students and to the skill development of peers
 - Is engaged in the campus culture including professional activities, membership of campus committees and contributing to/attending internal/external campus conferences and seminars
 - Supports campus efforts related to gender equity, diversity, inclusion and wellbeing through participation, active learning and/or role modelling our values
-

Selection Criteria

- Relevant PhD/Doctoral qualification
- Essential research experience in high-throughput neuroimaging analysis
- Experience with clinical MRI data and file management;
- Experience with structural and/or diffusion MRI analysis
- Computational and programming skills (e.g.; Python and Deep Learning) and familiarity with neuroimaging analysis software and pipelines.
- Demonstrated capacity to work independently and collaboratively in a team environment
- Excellent time management, organisational and analytical problem-solving skills
- Demonstrated excellent verbal and written communication skills
- Demonstrated relevant computer skills and an understanding of a range of research methodologies and their application in empirical research
- Experience in knowledge sharing, development, mentoring and support of employees and students

Conditions of Employment

- Keeping children safe is our highest priority. We maintain rigorous safeguarding standards and employ comprehensive screening processes to ensure the safety of the children we work with. This includes mandatory screening processes for all successful candidates, including:
 - Valid Working with Children Check (or equivalent)
 - Satisfactory criminal record check
 - The right to reside and work in Australia and you meeting any applicable visa conditions
-

Health, Safety & Wellbeing

- We are committed to providing and maintaining a working environment which protects the health, safety and wellbeing of our people, partners and the community
 - Employees conducting duties on behalf of MCRI are expected to meet the environment, health and wellbeing requirements and responsibilities specifically required for the role
 - We are committed to supporting children in their right to be safe and adhere to the responsibilities we have to ensure their protection and safety as per the Child Safety Policy
 - The Institute is committed to the safety of children and young people, and takes a zero-tolerance approach to all forms of child abuse, exploitation and harm. The Institute prioritises child safety in our decision-making at all levels of the Institute and supports our employees to understand and enact their safeguarding responsibilities
 - We are committed to a diverse, inclusive workplace where all staff are supported to reach their full potential, regardless of gender, career status, age, disability, cultural background, religion or sexual orientation
 - Specified positions may be subject to medical review to ensure that the inherent requirements of the role can be undertaken safely
-

As MCRI evolves to meet its changing strategic and operational needs and objectives, so will the roles required of its employees. As such, this document is not intended to represent the position which the occupant will perform in perpetuity. This position description is intended to provide an overall view of the incumbent's role as at the date of this statement.