POSITION DESCRIPTION

Title:	RES Level A – Postdoctoral Scientist
Group & Centre:	All
Employment Agreement	Hudson Institute of Medical Research Enterprise Agreement 2024
Classification	RES Level A
Date Last Updated:	April 2025

1. About Hudson Institute

Hudson Institute is a leading Australian biomedical research institute, focussed on translating outstanding discovery science into new diagnostics, treatments and cures for human diseases.

We are home to over 440 world-class scientists, clinicians and students who work across three broad areas of unmet medical need: Inflammation, Cancer, and Women's and Newborn health.

Together with our precinct partners, Monash Health and Monash University, we deliver outstanding healthcare, education and world-class research. Working alongside clinicians, ensures our research is informed by clinical challenges and optimally positioned for implementation into healthcare.

Co-located within the Institute, and shared with our partners, are nine state-of-the-art Technology Platforms and a Clinical Trials Facility, providing the optimum environment for scientists, clinicians and our collaborators to move breakthrough discoveries to patient care.

The Institute has an active program for the patenting and commercialisation of technologies, including those developed in conjunction with academic and commercial collaborators.

We nurture and inspire the next generation of scientists and clinicians by educating and training more than 150 students each year, predominately through our academic affiliation with Monash University.

Our worldwide scientific and medical collaborations provide a foundation for transformative healthcare programs across the globe.

2. Overview of the Position

The Postdoctoral Scientist will join the Translational Antigen Discovery Laboratory at the Hudson Institute of Medical Research and contribute to projects focused on the discovery and characterisation of tumour antigens for cancer immunotherapy.
The position will focus on the integration of multi-omics datasets—including transcriptomics, ribosome profiling (Ribo-seq), and immunopeptidomics—to identify canonical and non-canonical peptide antigens presented by HLA molecules in cancer. The successful candidate will work closely with computational and experimental scientists to develop reproducible analysis pipelines, generate

sample-specific peptide databases, and support the identification of immunogenic tumour antigens with translational potential.

The role provides an opportunity to contribute to cutting-edge research at the interface of cancer biology, bioinformatics, and proteomics, and to support the development of novel precision immunotherapies.

Typical activities include:

- Contributing to the research program of the laboratory through defined computational and translational research projects
- Developing and implementing bioinformatics pipelines for RNA-seq, Ribo-seq, and immunopeptidomics data integration
- Supporting the identification and prioritisation of tumour antigens derived from canonical and non-canonical open reading frames
- Collaborating with laboratory scientists to integrate proteomics and immunopeptidomics datasets
- Contributing intellectual input to experimental design and computational strategy
- Preparing manuscripts, reports, and presentations of research findings
- Participating in national and international collaborations and conferences
- Supporting supervision and training of students and junior researchers

The role provides increasing autonomy as experience develops and offers strong opportunities to contribute to high-impact translational research programs.

3. Accountabilities, Characteristics and Responsibilities

Area	Requirement
Qualifications, Experience and Attributes:	▪ Post-doctoral qualification or other relevant research qualification in health and medical disciplines ▪ 0 to 4 years post-doctoral research experience in health and medical disciplines ▪ Experience analysing ribosome profiling sequencing data
Publications and Research Output	▪ Evidence of publications in peer-reviewed journals in the Ribo seq and immunopeptidomics ▪ Working towards establishing a publications history ▪ Will have work published in refereed journals, books, conference & seminar papers ▪ Will have evidence of other significant research outputs including conference papers, reports, professional or technical contributions which provide evidence of research ability and potential for future development
Prizes Awards and Grants	▪ Will contribute to grant writing
Leadership and Contributions to Research Training	▪ Contribute to mentoring and supervision of students in a shared supervisory capacity ▪ Support training of students and laboratory members in computational methods and data analysis

	workflows
Peer Recognition	▪ Plans, leads and facilitates internal collaborative processes ▪ Presents at national & sometimes international meetings where appropriate ▪ Involvement in appropriate professional activities
Research Translation – Commercialisation, Clinical & Public Health Activities	▪ Nil

4. Working Relationships

Internal

- Supervisor
- Laboratory Head
- Laboratory Staff
- Scientific Support staff
- Students

External

- Project Collaborators

5. About the Hudson Institute

Vision and Values:

Our Vision: We strive to enhance human health and the quality of life through ground-breaking, collaborative, medical research discoveries and innovation, and ensure its direct impact on the community.

Our Mission: To capitalise on our multidisciplinary research strengths and academic and health partnerships to provide transformative and innovative solutions to major health problems.

Our Values:

Innovation: We inspire and enable world class researchers at the frontiers of science and medicine to find new and transformative solutions to people's greatest health challenges.

Collaboration: Our multidisciplinary, integrated approach creates an enriched, energetic environment that encompasses the entire lifespan; this allows our researchers and clinicians to leverage each other's knowledge to spark creative ideas and make unexpected discoveries.

Community: We care deeply about improving the health and wellbeing of people in the community and we are committed to rewarding their investment in science.

Excellence: Integrity and passion underpin our pursuit of the highest level of knowledge achieving significant outcomes whilst nurturing and inspiring the next generation of scientists.

Other relevant information:

- The Hudson Institute is a totally smoke free workplace.
- The position is subject to terms set out in the Hudson Institute Enterprise Agreement (2024), Policies and Procedures and any subsequent variation to these.
- The Hudson Institute is an Equal Employment Opportunity Employer.
- The Hudson Institute has a commitment to Occupational Health and Safety. It is a condition of employment that staff comply with all health and safety related policy and procedures and take part in activities designed to improve the health and safety of the workplace.
- It is a requirement of the position to participate in the annual Performance Planning and Review process.

6. Endorsement

Name: (Supervisor)			
Signed:		**Date:**	
Name: (Employee)			
Signed:		**Date:**	
Name: (HR)			
Signed:		**Date:**	