

Position description

Research Scientist



About SVI

For more than 60 years, scientists at SVI have been inspired by discovery and driven by purpose.

Our team of 250 staff and students work collaboratively to tackle some of the most critical health challenges facing society today, including cancer, diabetes, osteoporosis, cardiovascular disease, infectious disease and dementia.

We celebrate fundamental biological discovery and practical application alike because both are required to improve the treatment, diagnosis and prevention of disease. There are no breakthroughs, no new wonder drugs, no big leaps forward, without new understanding.

SVI is located on the campus of St Vincent's Hospital Melbourne, is affiliated with The University of Melbourne, and operates proudly in one of the world's most dynamic biomedical hubs.

Mission & vision

Research at SVI is inspired by discovery and driven by purpose. Our mission is to produce world-class science. Our vision is to make medical discoveries that transform lives.

Position details

Title	Research Scientist
Classification	RO1-RO3
Superannuation contribution	12%
Salary packaging	Up to \$15,900 FBT exempt
Meals & Entertainment packaging	Up to \$2,650 FBT exempt
Location	SVI Princes Street, Fitzroy/O'Brien Institute, Fitzroy St
Reports to	A/Prof Stuart Mannering
Hours	Full-time (38 hours/week)

Job purpose

The Human Immunology Laboratory at SVI focuses on dissecting the immune pathogenesis of human type 1 diabetes (T1D). Our particular interest is in the antigen specific adaptive (T and B cells) immune responses against beta cell antigens. Our work seeks to understand 'how and why' T1D develops in some individuals. The second major focus of the lab is on developing simple assays that are suitable for measuring autoantigen specific T-cell responses in the blood of people who will go on to develop T1D.

The purpose of this role is to drive the experimental research program within the Human T-cell laboratory for individual projects, particularly investigating human T and/or B cell responses to autoantigens and/or developing and improving our whole blood-based assays for measuring autoantigen specific T-cell responses

Key responsibilities

1. **Manage an independent project and conduct experiments.**

- Apply a range of techniques and technologies to experimental work
- Maintain knowledge of relevant scientific literature, techniques/technologies and issues
- Undertake research in a transparent and documented manner, in accordance with the Australian Code for Responsible Conduct in Research and StV's Research and Governance guidelines
- With a high degree of autonomy, conducts experiments, develops protocols, and optimizes methodologies.
- Troubleshoots complex technical issues and ensures quality control in experiments.

Measures of performance:

- *Experiments are designed carefully and performed competently, efficiently and accurately.*
- *Experiments are completed with the responsible management of resources and consumables.*
- *Knowledge is kept up to date through regular reading of literature to support the experimental aspects of the research and to contribute to defining new directions*

2. Laboratory Administration and Record Keeping

- Maintain detailed laboratory notebooks, digital data servers and other records.
- Prepare common laboratory reagents.
- Assist with the stocking of external laboratory supplies if needed.

Measure of Performance:

- All records in laboratory notebooks are clear, traceable, up to date and complete.
- Contribute to the efficient operation of the laboratory

3. Presentation at Laboratory Meetings and Contribute to Laboratory Publications

- Preparation of data for presentation at laboratory meetings, publications and possibly conferences appropriate to level of experience and independence.
- Participation at regular laboratory meetings, local seminars and conferences as appropriate to level of experience.
- Provide analysis of data from experiments
- Assemble data into figures for manuscripts and grant applications.
- Write manuscripts for publication in consultation with the Lab Head.

Measure of Performance:

- Active participation and professional contribution at lab meetings
- Data analyses are completed with minimal delay.
- Preparation/contribution to publications, grant applications, etc.

4. Supervision and Teamwork

- Contribute to the mentoring/supervision of undergraduate and/or graduate students.
- Provide training to laboratory assistants and students in specific techniques.
- Make a positive contribution to the effectiveness of, and positive working relationships within, the laboratory group.
- Work with external collaborators.

Performance measures

- Strong, harmonious and effective working relationships are developed and maintained with other members of the laboratory and collaborators within SVI and at other institutions.
- Knowledge and expertise are shared with team members.
- Contribution to submissions, reports, papers, publications as appropriate to level of experience.

5. Ethics

- All research is undertaken in a transparent and documented manner, in accordance with the Australian Code for Responsible Conduct in Research and SVI's Research and Governance guidelines.

Measures of Performance:

- Sound knowledge of ethical implications for research;
- Active personal practice of high ethical standards, including integrity of data and results.

6. Continuous Learning

- Maintain knowledge of relevant contemporary research processes and issues.

Measures of Performance:

- Knowledge is kept up to date through regular reading of literature to support the experimental aspects of the research and to help define new directions.

7. Participate in activities within the institute and broader scientific community:

- Attend regular weekly institute seminars and make a contribution to the discussion
- Engage with the SVI Postdoctoral Association
- Engage with the Australasian Society for Immunology and/or Australian Society for Biochemistry and Molecular Biology
- Attend and present (when the project is at an acceptably mature stage) at the national scientific meetings of the above societies as well as other local symposia/meetings

Performance measures

- Active participation with the SVI Postdoctoral Association and relevant scientific societies
- Presentation of seminars

8. Workplace Health and Safety

- SVI has a duty of care to all employees to provide a safe work environment.
- All employees must also take responsibility for their own safety, and that of fellow workmates, and should apply a common sense approach to work methods to minimize risk to themselves and others.

Measure of Performance:

- Adherence to SVI Occupational Health & Safety guidelines, including the wearing of personal protective equipment as provided;
- Use equipment in compliance with manufacturers' or relevant guidelines.

Other duties

- Duties may vary depending on immediate operational needs, but will not vary outside reasonable expectations

Experience, knowledge and qualifications

- An AQF PhD in a relevant life science discipline, with a preference for Immunology, Biochemistry or closely related field.
- Demonstrated ability to independently design, conduct and manage experimental research.
- Demonstrated track record of producing research publications based on their own experimental work.
- Exceptional verbal and written communication skills in English.
- Strong planning and organisational skills, with the ability to manage multiple tasks and competing priorities.
- Knowledge of human immunology, particularly the analysis of T and B cell responses.
- Knowledge or experience relevant to autoimmune disease research, particularly type 1 diabetes.
- Experience in the isolation and analysis of human beta-cell antigen specific T cells.
- Experience expressing cytokine receptors and analysing their biochemical properties.
- Experience analysing single-cell gene sequencing data.