



## Dr Alisa Kane and A/Prof Elissa Deenick

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### ILP, Honours and PhD projects

- Dr Alisa Kane Clinical Immunologist, and A/Prof Elissa Deenick offer translational projects in immunology.
- These projects are suitable for students who are interested in integrated clinical and bench-based laboratory projects of the human immune system.
- Students will experience bedside patient care and data collection at St Vincent's or Liverpool hospitals and bench-side analysis of human immune cells under the guidance of senior laboratory scientists.
- Typical candidates are MBBS students wanting to experience laboratory based research or BSc students seeking clinical experience for a future postgraduate medical degree

### Projects

In health, the immune system is designed to protect the body against foreign pathogens and cancers. Patients with dysregulated immune systems have

- Infections
- Autoimmunity eg Systemic lupus erythematosus
- Cancers

The available projects are based on study of patient populations at St Vincent's and Liverpool Hospitals with:

- Rare Primary/genetic Immunodeficiency
- Autoimmune disease and secondary immunodeficiency

For those interested in laboratory medicine:  
For some projects, blood samples are further studied at the Garvan institute in collaboration with A/Prof Elissa Deenick to investigate detailed dysfunction of the immune response using numerous laboratory techniques e.g. flow cytometry, cell culture, western blotting, ELISA

### Lab culture

Garvan is supportive place to work with a vibrant student community. During COVID social activities are zoom based with Trivia as a highlight. Candidates with excellent trivia skills will be favorably considered.



### Research questions:

1. How can we reduce the risk of infections in patients who are immunosuppressed?
  - Specific projects look at clinical risk factors and highly detailed lymphocyte laboratory markers
2. Do these new genetic defects explain why my patient has an immunodeficiency?
  - Rare primary immunodeficiency disorders are rapidly being identified through the use of new genetic technologies. When patients are identified to have a previously undescribed mutation, laboratory validation is imperative to confirm the pathogenicity of the genetic variant