

MICR464: MEDICAL MICROBIOLOGY AND IMMUNOLOGY (SEMESTER I)

Convenor: A/Prof Matloob Husain

Overview: The immune response is important in protecting the host from infection and cancer. This paper will analyse the interaction between the host immune system, microorganisms, and neoplasia. In particular, it will examine the challenge faced by the host, the host's response to infection and cancer, and how we can harness the power of the immune response for treatment and prevention of infectious diseases and cancer.

Structure: This is a tutorial-based course with focus on self-directed learning and will have 4 x 3-week modules. As per the timetable below, each module will cover a critical and relevant topic in the field and will have an internal assessment worth 25% of the total grade.

Tutorials are held on Wednesdays at 9-11 AM and start on 2nd March 2022.

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| Module I, Prof Bruce Russell (b.russell@otago.ac.nz) | Topic: The role of immunology in severe malaria pathogenesis |
| March 2 March 9 March 16 | Tutorial 1 Tutorial 2 Assessment |
| Module II, A/Prof Matloob Husain (matloob.husain@otago.ac.nz) | Topic: Antiviral host factors and research tools to identify them |
| March 23 March 30 April 6 | Tutorial 1 Tutorial 2 Assessment |
| Module III, A/Prof Jo Kirman (jo.kirman@otago.ac.nz) | Topic: Innate immunological memory |
| April 13 April 27 May 4 | Tutorial 1 Tutorial 2 Assessment |
| Module IV, Prof Alex McLellan (alex.mclellan@otago.ac.nz) | Topic: SARS-CoV-2 mRNA vaccines: mode of action and efficacy |
| May 11 May 18 May 25 | Tutorial 1 Tutorial 2 Assessment |

Assessments: Each module will use either oral or written assessments, e.g., individual interviews, experimental design, grant proposals, press releases. Each instructor will provide clear instructions and expectations during the tutorials. The objectives of these assessments are to help you critically evaluate a topic, formulate your own ideas, acquire grant writing and experimental design abilities, strengthen communication skills, and manage workloads to meet deadlines. Many of these attributes are needed to successfully carry out your current research project and future workplace tasks.