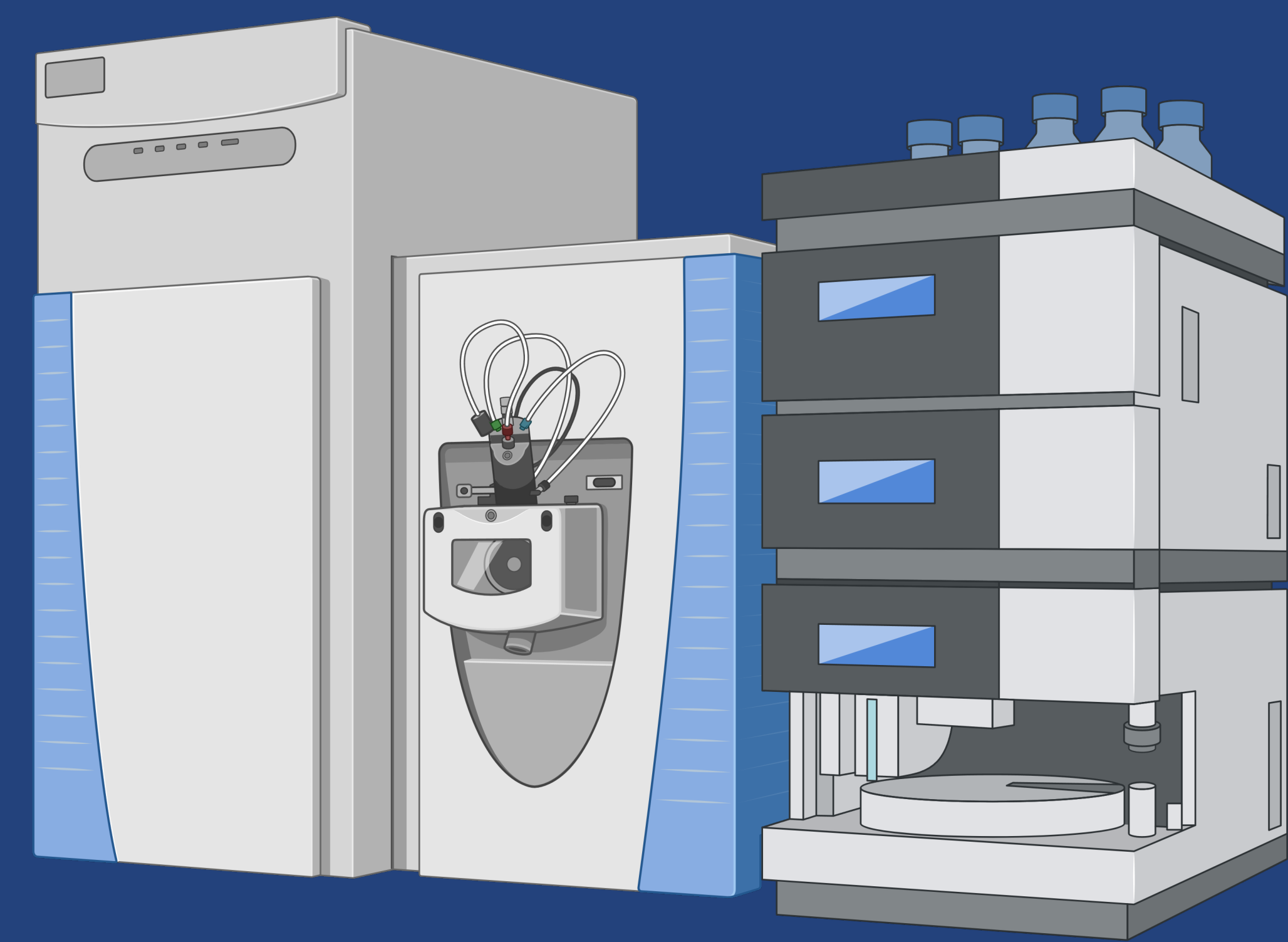


IDM Masterclass

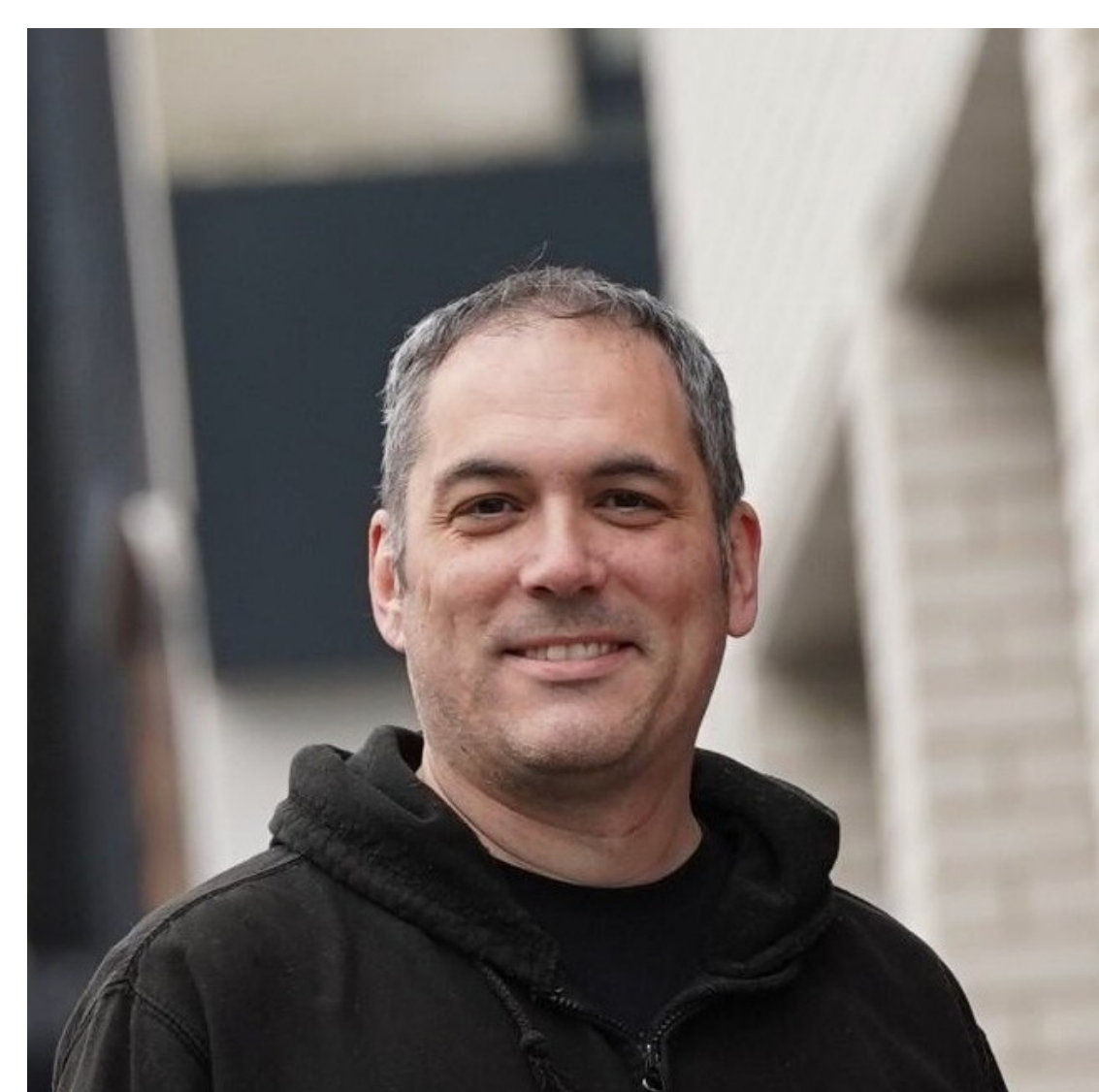
Integrating Metabolomics in Infectious Disease

7 & 8 October 2024,
Faculty of Health Sciences, UCT

With Dr Karl Burgess & Dr Tessa Mosses



Metabolomics provides a detailed view of the metabolic processes in cells, helping us understand the biochemical changes associated with health and disease. By analyzing metabolites, researchers can discover biomarkers for early diagnosis, monitor disease progression, and develop targeted therapies. In infectious disease research, metabolomics is key to understanding pathogen-host interactions and identifying new treatment strategies. Ultimately, it enhances our ability to unravel complex biological systems and improve health outcomes.



Dr. Karl Burgess is a Senior Lecturer in Biological Mass Spectrometry at the University of Edinburgh and the Scientific Director of the Edinomics Mass Spectrometry Core Facility. With a background in Pathobiology, Molecular Modelling, and Bioinformatics, Dr. Burgess is a leading expert in metabolomics. His research focuses on developing high-throughput methods for analyzing microbiological phenotypes and translating complex data into meaningful results. He has significantly contributed to industrial biotechnology and infectious disease research.

Dr. Tessa Moses is the Manager of the Edinomics Metabolomics Core Facility at the University of Edinburgh. She specializes in the application of mass spectrometry to metabolomics, with a focus on advancing analytical techniques and supporting a wide range of research projects. Dr. Moses plays a critical role in training researchers and facilitating the integration of metabolomics into diverse areas of scientific inquiry, particularly in the study of infectious diseases and other complex biological systems.

Participants in the Metabolomics Masterclass will gain a solid foundation in mass spectrometry-based metabolomics, with a particular focus on its application in infectious disease and microbial research. They will receive hands-on training in advanced mass spectrometry techniques, including data acquisition, and analysis, enabling them to process and interpret complex metabolomic data effectively. The masterclass will also teach participants how to integrate small molecule and metabolomic research into their own research projects, enhancing their study of diseases like cancer, HIV/AIDS, tuberculosis, and COVID-19 and microbial research. Additionally, the program will provide valuable opportunities for networking and collaboration, equipping attendees with the tools and connections to drive innovative research in health and disease.

The Metabolomics Masterclass is ideal for researchers, scientists, and students in molecular biology, biochemistry, microbiology and infectious diseases who want to integrate metabolomics into their work. It's also suited for those in mass spectrometry or bioinformatics looking to expand their expertise in metabolomic analysis.



Applications close on 30 September 2024. Limited space available.

<https://forms.office.com/r/9RqANw3Q7U>

There is no cost to attend, but full attendance is required on both days.
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