



# International Centre for Genetic Engineering and Biotechnology

## Course “Proteomics: from theory to practice”

**8 May – 11 May 2023, University of Venda, Thohoyandou, South Africa**

Monday 8 May 2023

08:30 – 09:15 Arrival and Registration

09:15 – 09:30 Welcome to the University of Venda

*Nosizi Feza* (DVC, Research & PG studies, University of Venda, South Africa)

09:30 – 09:45 The ICGEB proteomics training workshop as part of the University of Venda’s international engagement program

*Jude Odhiambo* (Acting Executive Dean, Faculty of Science, Engineering & Agriculture, University of Venda, South Africa)

09:45 – 10:15 Application of proteomics in biomedical and biotechnological research

*Previn Naicker* (CSIR, South Africa)

10:15 – 10:30 Coffee break

10:30 – 13:00 Basic theory of proteomics

*Previn Naicker* (CSIR, South Africa)

13:00 – 14:00 Lunch break

14:00 – 16:00 Application of proteomics in establishing protein networks

*Michael P. Myers* (ICGEB, Trieste, Italy), *Addmore Shonhai* (University of Venda, South Africa)

16:00 – 16:30 Discussion for the day: Questions and Feedback session

*Ntakadzeni Edwin Madala* (University of Venda, South Africa)

Tuesday 9 May 2023

08:45 – 10:45 Sample preparation for mass spectrometry

*Michael P. Myers* (ICGEB, Trieste, Italy)

10:45 – 11:00 Coffee break

11:00 – 13:00 Application of LC-MS in proteomics

*Previn Naicker* (CSIR, South Africa)

13:00 – 14:00 Lunch break

14:00 – 16:00 LC-MS practical demonstration

*Bridget Calde* (Anatech, South Africa)

16:00 – 16:30 Discussion for the day: Questions and Feedback session

*Pascal Bessong* (University of Venda, South Africa)

Wednesday 10 May 2023

08:45 – 10:45 Optimisation and instrument settings

*Bridget Calde* (Anatech, South Africa)

10:45 – 11:00 Coffee break

11:00 – 13:00 Proteomics data analysis

*Michael P. Myers* (ICGEB, Trieste, Italy)

13:00 – 14:00 Lunch break

14:00 – 16:00 Chromatographic separation and enrichment techniques

*Michael P. Myers* (ICGEB, Trieste, Italy); *Ntakadzeni Edwin Madala* (University of Venda, South Africa)

16:00 – 16:30 16:00 – 16:30 Discussion for the day: Questions and Feedback session

*Addmore Shonhai* (University of Venda, South Africa)

Thursday 11 May 2023

08:45 – 10:45 Application of proteo-genomics in understanding drug resistance

*Pascal Bessong* (University of Venda, South Africa)

10:45 – 11:00 Coffee break

11:00 – 11:30 Application of proteomics in infectious disease research: case studies

*Takafira Mduluzi* (University of Zimbabwe, Zimbabwe)

11:30 – 13:00 Bioinformatics analysis

*Stefano Cacciatore* (ICGEB, Capetown, South Africa)

13:00 – 14:00 Lunch break

14:30 – 16:00 Database searches

*Michael P. Myers* (ICGEB, Trieste, Italy)

16:00 – 16:30 16:00 – 16:30 Feedback from participants and closing remarks

*Addmore Shonhai* (University of Venda, South Africa)