

## Postdoctoral fellowship in Mucosal Metaproteomics

### Division of Medical Virology

### University of Cape Town



Suitably qualified Doctoral graduates are invited to apply for a full-time, postdoctoral research fellowship in Dr Lindi Masson's Laboratory in the Division of Medical Virology, based within the Faculty of Health Sciences, University of Cape Town.

The Masson Lab focuses on understanding risk factors of HIV acquisition in women, developing strategies to identify high risk women and tools to reduce their risk of HIV infection. The Lab is multidisciplinary, bringing together immunological, microbiological, metaproteomic and translational research approaches, to address this public health priority.

#### Ongoing studies:

- Characterization of the vaginal metaproteome towards a better understanding of the causes and consequences of inflammation in the female genital tract that puts young women at high risk of HIV infection.
- Development of a biomarkers point-of-care test to identify women with asymptomatic vaginal dysbiosis and sexually transmitted infections who are at high risk of HIV acquisition.
- Characterization of the HIV and pathogenic bacterial inhibitory activity of lactobacilli isolates from young South African women.
- Investigation of the relationship between age, sexual trauma and vaginal product use and inflammation in the female genital tract.

#### Requirements:

PhD degree in a bioinformatics/computer science/proteomics discipline.

The successful applicant is expected to apply relevant bioinformatics, statistics and systems biology tools to perform analysis of vaginal metaproteomics data, integrating this with immunological, microbiological, demographic and behavioral data. The position will require the development of analysis solutions using established data-processing pipelines, refining the pipeline, novel coding (e.g. Matlab, Python) and statistical analysis (e.g. using 'R'). The successful applicant will be willing to work closely with other researchers to refine the data analysis approaches and also provide supervision and training.

The Postdoctoral Fellowship has a value of R280,000 per annum, is tax-free and is tenable for 1 year and can be held together with other postdoctoral funding.

#### Application procedure:

Apply by email to [L.Masson@uct.ac.za](mailto:L.Masson@uct.ac.za), providing the following documentation:

- Brief motivational letter with synopses of previous research projects;
- Curriculum Vitae (CV) including all publications;
- Certified copies of degree certificates;
- Names and emails of two contactable academic referees.

**Closing date: 15<sup>th</sup> February 2019**