



BIOINFORMATICS POSTDOCTORAL RESEARCH FELLOWSHIP

TO JOIN A CLINICAL STUDY OF CANCER GENE EXPRESSION BIOMARKERS

The Scientific Computing Research Unit (SCRU) invites highly motivated individuals to apply for a Postdoctoral Research Fellowship in its **Breast Cancer Gene Expression Biomarker Discovery Project**. The Bioinformatics and Machine Learning research in SCRU's Informatics and Visualization Analytics (I&V) laboratory is central to this position. The successful candidate will form part of an interdisciplinary team lead by Prof. Kevin Naidoo that includes clinicians who are developing a non-invasive early detection diagnostic for breast cancer.

Scope of research:

- Processing of NGS sequencing experimental data, specifically raw FASTQ files
- Differential gene expression analytics
- Developing gene expression workflows for large clinical data sets
- Development of classification methods from biological samples from NGS experiments
- Collaboration with machine learning code developers
- Offer guidance to students wishing to gain experience in the bioinformatics of gene expression
- Unix based scripting R, Python and MATLAB
- Familiarity with the Galaxy Platform

Academic Conditions:

Applicants must have:

- A PhD degree in an area of genomics/bioinformatics/machine learning//biostatistics
- Graduated with the above PhD in a period after June 2018

The following would be advantageous:

- Significant undergraduate training in an area of statistical science will be an advantage
- Publications in an area related to genomics
- A working knowledge of/training in data analytics

General Conditions:

- Applicants may not have held any prior professional or academic posts; Successful applicants will be required to comply with the university's policies and practices for the postdoctoral sector;
- The University of Cape Town reserves the right to:
 - disqualify ineligible, incomplete and/or inappropriate applications;
 - change the conditions of award or to make no awards at all;
- The fellowship does not include any benefits or allowances, and
- The successful candidate will be required to register as a Postdoctoral Research Fellow at UCT by July 2021 or sooner.

Value and tenure:

This is a one year fellowship valued at R250 000 per annum.

Applications:

Must be made online at: <http://www.scientificcomputing.uct.ac.za/scru/degrees-programmes/post-doc-form/>

The following documents are required:

- a letter of application in which the candidate's research interests are outlined;
- a Curriculum Vitae, including a list of publications;
- certified copies of all academic transcripts (no certificates); and
- the names and contact details of two academic referees who have taught/supervised the applicant.

Closing date for applications is 20 July 2021 Enquiries:

Please contact Lydia Dreyer at the Scientific Computing Research Unit for further information.

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