



SEFAKO MAKGATHO HEALTH SCIENCES UNIVERSITY

ELECTRON MICROSCOPE UNIT

Sefako Makgatho Health Sciences University (SMU) is on a renewal path with exciting and unique opportunities to shape the training of medical and other health professionals, and scientists in general. We are on a vigorous campaign to attract top talent to join our exciting journey, as reflected in the opportunities below.

Senior Medical Natural Scientist (1 Post)

Ref:103/2025/ISM/P7

The successful applicant will have practical, hands-on expertise in electron microscopy combined with a good knowledge of sample preparation, electron microscopy methods and procedures. The incumbent will be responsible for the operation of electron microscopes and ancillary preparation equipment, practical instruction and training for long-term users, and conducting research in line with the University's teaching and research strategy. He/She will report to the Director, and must meet the requirements for the following key performance areas:

REQUIREMENTS

- Possession of a PhD degree in Biological or Medical Sciences
- At least five (5) years' working experience in a multi-user electron microscopy laboratory
- Demonstrated practical experience in the application and use of electron microscopy and other imaging and analysis techniques such as SEM, TEM, STEM, EDS, HRTEM, Cryo-SEM, Cryo-TEM and tomography
- Proficiency in preparation of biological samples for electron microscopy, including ultramicrotomy/ cryo-ultramicrotomy
- Substantial hands-on experience of cryo-EM techniques and methods will be a distinct advantage
- Evidence of collaborative research and publication output
- Proven ability to navigate online platforms such as Blackboard Collaborate, Zoom and Microsoft Teams with requisite proficiency
- Computer literacy, with a sound knowledge of MS Word, MS Excel, Internet and competency of ITS

COMPETENCIES

- Technical/professional knowledge and skill
- Ability to maintain strict confidentiality
- Client service orientation
- Meticulous attention to detail
- Ability to work under pressure
- Proven ability to work with minimum supervision both independently and as part of a team
- Knowledge in the use of specialised instrumentation and laboratory methods
- Accurate interpretation of results and demonstrable ability in solving research problems
- Keeping abreast of developments within the microscopy field
- Good writing, communication and presentation skills
- Good interpersonal skills and self-motivation
- Ability to identify problems and troubleshooting

KEY PERFORMANCE AREAS

- Liaise with researchers and postgraduate students to assess their microscopy needs, and advise on the application of and use of advanced electron microscopy and other imaging and analysis techniques
- Maintain the optimal operation of electron microscopes and ancillary equipment
- Theoretical instruction and practical training in the use of light- and electron microscopes (including cryo-techniques) to long-term users
- Hands-on training in the operation of preparation equipment available in the Unit
- Supervision and mentorship of students in research and presentation
- Assist users with interpretation and analysis of results
- Image analysis and data processing as needed
- Conduct research independently and through collaboration with colleagues within the University, as well as national and international collaborators aligned with the University's strategic objectives
- Writing of publications for peer-reviewed journals
- Produce scientific progress reports for funders, as well as reports for internal and external stakeholders
- Facilitate and present at training workshops for microscopy- and preparation techniques
- Promote the available microscopy services in the interests of the users of the facility
- Contribute to the overall strategy of the University.
- Any other duties as assigned by the Director

Closing date: 21 November 2025

Applications through Employment Agencies will not be considered.

Typed applications (quoting the reference number) which should contain a comprehensive curriculum vitae, certified copies of all qualifications and contact details of three referees,

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should be forwarded, for the attention of Mr SJ Mahlaola by e-mail applications to hr.recruitment3@smu.ac.za.

It is the applicant's responsibility to have foreign qualifications evaluated by the South African Qualification Authority (SAQA). Failure to submit the requested documents/information will result in your application not being considered.

Telephonic enquiries regarding conditions of service: (012) 521-3906.

The Sefako Makgatho Health Sciences University is an Equal Opportunity and Affirmative Action Employer.

Correspondence will be limited to short-listed candidates only. Applicants who have not been contacted within 30 days of the closing date must consider their applications as unsuccessful.

The university reserves the right to make or not to make an appointment.