



Histology Specialist (PC 9, T1 contract, 12 months)

Department of Pathology &
Institute of Infectious Disease and Molecular Medicine

Position overview

AMI invites applications from self-motivated, suitably qualified candidates for the role of **Histology Specialist**. This **12-month, fixed-term contract** position will support research within the Africa Microscopy Initiative Imaging Centre.

The Africa Microscopy Initiative (AMI) is an open science initiative which aims to support microscopy-based research in Africa through various programs to facilitate access to biological imaging equipment, including the operation of the purpose-built, open access AMI Imaging Centre. The AMI team works with researchers from across the continent in facilitating and carrying out biological research using advanced fluorescence microscopy applications. Moving forward, the AMI Imaging Centre will work collaboratively with researchers to pursue research topics of priority that include tuberculosis infection, drug discovery against infectious disease, and other areas of global importance.

The main purpose of the Histology Specialist position is to assist and support the function of the AMI Imaging Centre by predominantly facilitating activities related to tissue-based microscopy research and formalin-fixed paraffin-embedded (FFPE) tissue preparation workflows. These include working collaboratively with local and foreign researchers in designing, planning, and undertaking tissue-based fluorescence microscopy research, with particular expertise in histological sample preparation, processing, and immunolabelling. As part of working on specific research projects, the role will be required to interact with researchers, histology technicians, clinicians, microscopists, and pathologists to co-develop and implement tissue preparation strategies, and work on all project-related sample processing, staining protocols, and quality control procedures. When directly working with collaborators, the role is expected to provide technical expertise in tissue processing and hands-on laboratory support to best ensure the success of tissue-based microscopy research projects. Overall, the position entails working closely with collaborative researchers from a large diversity of research backgrounds and developing specialized tissue preparation workflows to pursue outstanding biomedical research objectives. While the position will drive the tissue processing pipeline within AMI, the Histology Specialist will work closely with collaborators and other team members in microscopy and image analysis. The supportive mechanisms and processes that engender the research pipeline include maintaining the tissue processing equipment, reagents, chemicals, consumables, and laboratory space, planning the logistical components of research projects, organising and planning the tissue processing schedule in the laboratory, and teaching collaborators about tissue preparation techniques and their applications. This position will support AMI in its key aims to develop microscopy as a key and accessible research technology in Africa and will include being part of organising teams for initiatives such as the Imaging Africa workshop.

The successful appointee will be based at the Institute of Infectious Disease & Molecular Medicine (IDM) in the University of Cape Town's Faculty of Health Sciences. The position encourages independence in building and adapting processes to work with research collaborators, develop various aspects of the project, and conduct impactful research. This position may require intermittent travel within Africa and potentially globally.

Requirements for the job:

- A Master's-level degree in pathology, histology, cell biology, or related biomedical field with demonstrated expertise in tissue processing and histological techniques; **OR**
- Master's-level degree in biomedical sciences, medical sciences, or related field with demonstrated experience in FFPE tissue preparation and fluorescence microscopy
- South African citizenship or current South African work visa.

The following will be advantageous:

- Experience with FFPE tissue processing and histological techniques.
- Practical experience with tissue sample preparation protocols, including immunofluorescence (IF), immunohistochemistry (IHC), and multiplex staining, with a focus on protocol development and optimisation.
- Familiarity with fluorescence microscopy principles and tissue imaging applications.
- Knowledge of histological processing equipment (tissue processors, embedding stations, microtomes, staining systems, etc.).
- Advanced molecular biology laboratory skills.
- Interest in non-traditional academic career paths that diverge from standard PI trajectories.
- Experience with teaching and/or hosting training workshops.
- Experience in working in a core facility, including user training and support.

Responsibilities:



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- Working with researchers from across Africa to ensure the success of tissue-based microscopy experiments.
- Direct management of FFPE tissue preparation including fixation protocols, embedding procedures, sectioning, and slide preparation for fluorescence microscopy applications.
- Development and implementation of specialised histological staining protocols for fluorescence microscopy applications (most notably, immunofluorescence applications).
- Optimisation of immunofluorescence staining procedures for FFPE tissues, including antibody validation, quenching, blocking protocols, and signal enhancement techniques.
- Working with external partners and laboratories in performing sample preparation steps (embedding, sectioning, etc.).
- Providing support for general laboratory functions, including maintenance of general laboratory inventory and assistance with university- and lab-related administration (such as purchasing, deliveries).
- Providing expert review of AMI project proposals with particular focus on tissue-based projects and sample preparation requirements.
- Working with prospective collaborators in preparing all necessary components of incoming research projects (including compliance and biosafety requirements, logistics, sample handling pipeline, equipment requirements).
- Working in person with researchers to drive forward research discovery and where possible teach fundamental tissue preparation concepts.
- Training collaborators on tissue processing techniques and protocols.
- Identifying and developing general methodologies as well as SOPs for tissue processing equipment maintenance, sample preparation, histological applications, etc.
- Meticulously and accurately documenting experimental procedures.
- Troubleshooting sample preparation approaches and staining and imaging artifacts.
- Involvement in microscopy workshops (through participation in the organising committee and/or teaching faculty).
- Keeping up to date on relevant literature related to applications of histological techniques, tissue processing methods, and fluorescence applications relevant to tissue-based microscopy research.
- Participation in team meetings including presentation at journal clubs.
- Identifying opportunities for training and career development.

The gross monthly income (before tax and UIF deductions) ranges between R42,778.75 and R50,327.75—dependent on prior experience. Please note: 12-month contracts are not eligible to receive employment benefits.

To apply, please e-mail the below documents in a **single pdf file** to Michael Reiche at mike.reiche@uct.ac.za:

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>),
- Position-specific cover letter, and
- Full Curriculum Vitae (CV).

Please ensure the position title (Histology Specialist) and reference number (AMIHS001) are indicated in the subject line along with your first and last name.

An application which does not comply with the above requirements will be regarded as incomplete and will not be reviewed.

Suitably qualified candidates will be contacted for an informal, remote/online interview. Information will be communicated in advance.

Website: <https://idm.uct.ac.za/> and <https://microscopy.africa/>

Reference number: AMIHS001

Closing date: 14 August 2025

Expected starting date: 1 September 2025 (negotiable)

UCT is a designated employer and is committed to the pursuit of excellence, diversity, and redress in achieving its equity targets in accordance with the Employment Equity Plan of the University and its Employment Equity goals and targets. Preference will be given to candidates from the under-represented designated groups including candidates with disabilities. Our Employment Equity Policy is available at www.hr.uct.ac.za/hr/policies/employ_equity

UCT reserves the right not to appoint.