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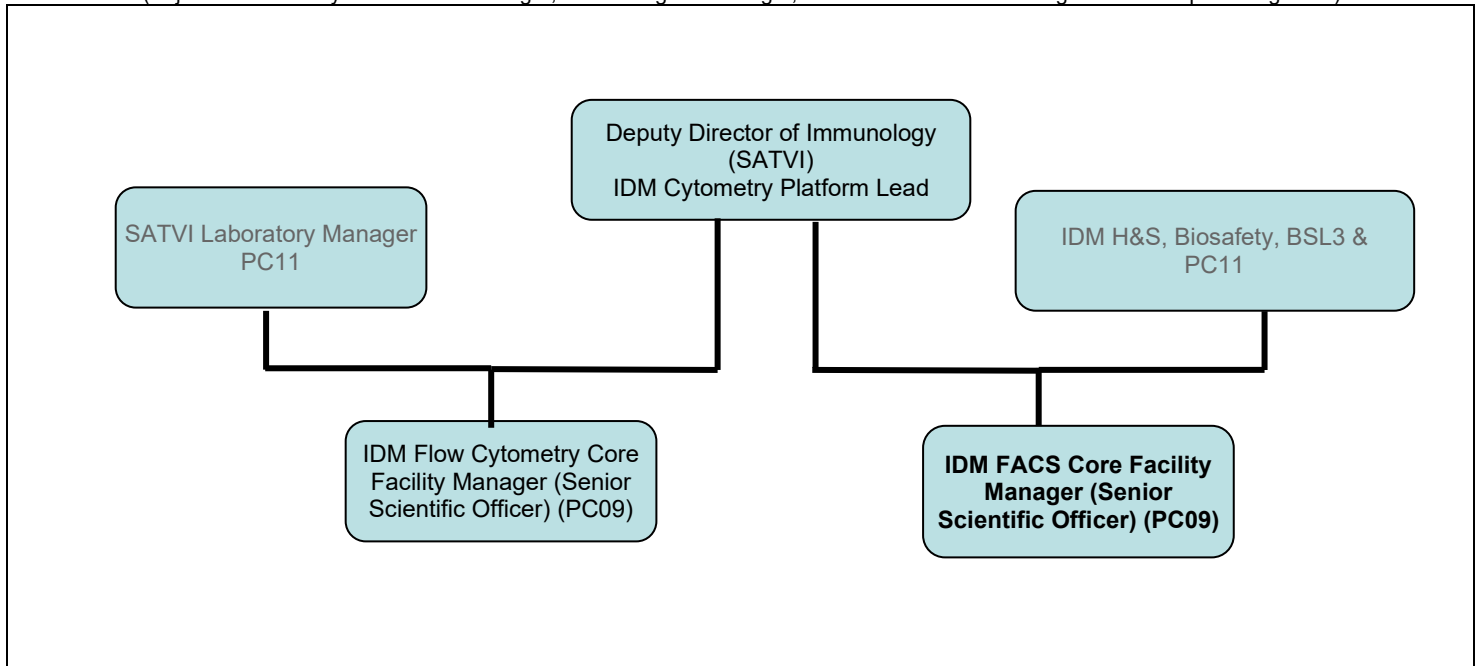
- Forms must be downloaded from the UCT website: <http://forms.uct.ac.za/forms.htm>
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

POSITION DETAILS

Position title	Senior Scientific Officer (IDM FACS Core Facility Manager)		
Job title (HR Business Partner to provide)			
Position grade (if known)	PC 09	Date last graded (if known)	
Academic faculty / PASS department	Faculty of Health Sciences		
Academic department / PASS unit	IDM		
Division / section	IDM		
Date of compilation	06 Nov 2024		

ORGANOGRAM

(Adjust as necessary. Include line manager, line manager's manager, all subordinates and colleagues. Include position grades)



PURPOSE

Senior Scientific Officer: The main purpose of this position is to perform specialized laboratory procedures in support of the scientific research goals under the oversight of the Deputy Director of Immunology (SATVI) and the Flow Cytometry Core Facility Manager, thereby providing a specialist service to the Institute. Knowledge transfer of scientific expertise by means of teaching and training of students and other personnel is also required. As a Sorting Specialist, the main responsibilities include the management and maintenance of the cell sorter cytometer instruments and training of users (students and staff) in this technology, in addition to running sorting experiments where required. This also falls under the oversight of the Deputy Director of Immunology (SATVI) and a Senior Scientist (skilled in flow cytometry techniques and assays), to provide a specialist service to the Institute. The sorting specialist also has scope to provide support to other IDM core facilities including but not limited to microscopy and mass cytometry (housed in the mass spectrometry core facility).

CONTENT

Key performance areas		% of time spent	Inputs (Responsibilities / activities / processes/ methods used)	Outputs (Expected results)
1	Laboratory Procedures and Analysis	30%	<p>Perform highly specialized laboratory techniques, including but not limited to, single cell sorting in support of research projects. Other techniques may include flow cytometry, mass cytometry (CyTOF), microscopy etc.</p> <p>Prepare and process samples according to Standard Operating Procedures (SOPs), in such a manner to ensure high quality results.</p> <p>Perform flow cytometry data analysis related to research projects.</p> <p>Assist in the optimization of laboratory techniques for use in research e.g. flow cytometry antibody panels.</p> <p>Optimise work through the use of technology.</p> <p>Assist in preparation of research project specific, and generic operating procedures related to cell sorting, flow cytometry and related techniques/assays.</p> <p>Seek opportunities and projects that challenge current paradigms and skills.</p> <p>Conduct fault finding and troubleshooting within the research facility and/or with equipment.</p> <p>Ensure appropriate storage and stock keeping of flow reagents (antibodies etc.)</p>	<p>Research specific protocols are adhered to.</p> <p>Highly specialized scientific services are provided according to defined procedures/requirements.</p> <p>Service downtime is minimized due to effective troubleshooting and effective stock management.</p> <p>Project and/or protocol deadlines are met.</p> <p>Research projects receive appropriate specialised guidance and support.</p> <p>Research experiments/procedures are appropriately conducted.</p> <p>Scientific services and expertise are advanced through provision/communication of current and future technologies and skills.</p>

2	Effective Laboratory and Facility Co-ordination and Management	40%	<p>Management of the IDM Flow Cytometry Sorting Facility, including maintenance and QC procedures of the cytometers (including sorting, flow, mass cytometers, as required).</p> <p>Analyse cytometer QC data.</p> <p>Improve and optimize the FACS Facility Quality Management System.</p> <p>Ensure accurate and timeous reporting and record keeping (in consultation with Finance Dept.).</p> <p>Effective financial management of funding related to the facility (i.e. costing, budgeting, ordering, invoicing, expenditure, payment reconciliation etc.).</p> <p>Record keeping for cytometer problems, QC metrics, maintenance, training, financial management.</p> <p>Maintain communication of information, including that of problems, to all cytometer users (emails, policies, training, invoicing, expenditure etc.).</p> <p>Maintain an efficient document management and filing system.</p> <p>Ensure appropriate resourcing for cytometer calibration and optimization materials and reagents, and assist in budgeting and expenditure control.</p> <p>Annual report writing and developing educational and training materials for students and cytometer users.</p> <p>Assist in the management, coordination and use of facilities.</p> <p>Schedule regular feedback opportunities.</p> <p>Jointly with staff and students, set standards, demand high performance, quality or resources in a clear manner.</p>	<p>Service downtime is minimized due to timely maintenance and QC procedures. Service schedules are communicated effectively to users.</p> <p>Troubleshooting and interaction/communication is facilitated with service engineers</p> <p>Platform management receives regular information/feedback regarding the facility and services.</p> <p>Users/supervisors and line management receive feedback for discussion as required.</p> <p>Users are updated on the latest information.</p> <p>Correct use of the facility.</p> <p>All actions are traceable due to relevant documents being completed, signed and filed in a relevant and effective filing system.</p> <p>Stock is controlled and service is not interrupted.</p> <p>Record keeping is accurate and up to date (including service, maintenance, training etc.).</p> <p>Facility and service operations adhere to Research Management Systems/requirements.</p>
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3	Data Management	5%	<p>Recording of study data and experiments according to study and research requirements.</p> <p>Cytometer data analysis and QC.</p> <p>Preparation of formal and appropriately technical reports, and data presentation utilising information technology.</p> <p>Provision of data on request or as per agreed research requirements.</p> <p>Ensure all data is backed up and securely stored on the relevant server.</p> <p>Ensure correct procedures followed for all data related procedures by all users.</p> <p>Meet the requirements of Research Data Management procedures, requirements and relevant regulations, including ethical and legal requirements.</p>	<p>Results and procedures are recorded, processed and recorded as required. Worksheets are completed, signed and filed in relevant files timeously.</p> <p>Data is analysed and QC performed appropriately and timeously.</p> <p>Data and results are shared in a manner/medium appropriate to the intended recipient.</p> <p>Data is traceable, retrievable and safe-guarded at all times.</p> <p>The quality of data is assured.</p> <p>Compliance with all relevant data regulations is assured.</p>
4	Training and development	20%	<p>Train new users and students on the basics of cell sorting and other specialised procedures/technologies as required.</p> <p>Train new users and students on the use and operation of specialised equipment, maintenance thereof, relevant quality control (QC) and facility procedures as required.</p> <p>Organize additional training/development opportunities at user group level – sorting/cytometry specific and related techniques/technologies. This may include externally held/hosted workshops.</p> <p>Assist in new and refresher training of lab personnel (staff and students) in applicable lab techniques, use of equipment and specialized activities.</p> <p>Personal self-development by building expertise in cell sorting and related techniques.</p> <p>Contribute to the development of the Flow Facility.</p>	<p>Preparative training is done and recorded timeously.</p> <p>Ongoing training opportunities are provided.</p> <p>Specialist knowledge is transferred to students/users/colleagues regarding principles, skills, technology etc.</p> <p>Expertise/knowledge related to relevant/new technologies is maintained and advanced.</p> <p>Specialist scientific services are enhanced.</p>

5	Contribution to Laboratory Operations	5%	<p>Communicate directly with relevant users/supervisors/management about service/facility related matters.</p> <p>Attend and actively participate in appropriate laboratory meetings.</p> <p>Provide and present updated relevant information at meetings, to ensure group/s have all the necessary information.</p> <p>Contribute to development of laboratory environment/s (e.g. laboratory safety as well as new technologies).</p> <p>Seek feedback from others on improvement opportunities.</p> <p>Determine resources required per project and identify/advise on suppliers who are able to supply reagents/equipment at best value (both financial and service related) to support research needs.</p> <p>Maintain and amend stock lists as required, also managing appropriate usage of study specific reagents – mostly relating to specialized resources e.g. flow cytometry staining reagents and antibodies.</p> <p>Ensure appropriate resourcing for research projects and assist in budgeting and expenditure control – project specific.</p> <p>Conduct routine preventative maintenance on equipment as required and facilitate fault diagnostics.</p> <p>Record and file equipment maintenance records daily/weekly/monthly or as required.</p> <p>Contribute to the continuous improvement of research management system/s.</p> <p>Contribute to and participate in routine/emergency on-call procedures/rosters as required.</p> <p>Provide cross-support to other IDM Core facilities/services as required.</p>	<p>Appropriate participation in laboratory meetings.</p> <p>Relevant information is reported to relevant personnel timeously.</p> <p>Progress is reported.</p> <p>Records are available for communications, operations, stock, finance, maintenance, meetings, continuous laboratory improvements, training, project/study planning.</p> <p>Records are filed timeously in appropriate files.</p> <p>All IDM services are covered during periods of various leaves of absences.</p> <p>Emergency situations are managed appropriately.</p>
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MINIMUM REQUIREMENTS

Minimum qualifications	NQF 8 (Bachelor's degree or advanced diploma in a relevant field. i.e. cell biology, microbiology, or related field of study). Masters (NQF9) in relevant field highly advantageous.			
Minimum experience (type and years)	At least 4 years' relevant experience in sorting and/or flow cytometry. 6 years' relevant experience in sorting and/or flow cytometry highly advantageous.			
Skills	Cell sorting and/or Flow cytometry. Fluent in English with excellent verbal and written communication skills. Intermediate to advanced knowledge of FACSDiva and FlowJo (v10) software. Ability to work in a BSL2 and BSL3 laboratory under sterile conditions at the general workbench, biosafety cabinet and incubators. Microscopy and micro-pipetting. Excellent interpersonal skills including the ability to engage well in multinational and multicultural groups and with individuals. Good problem-solving skills. Good organization and time-management skills. Computer literacy - Highly competent with Microsoft Office programs or similar, and good general computer and data handling skills.			
Knowledge	Human cell biology/immunology, related to cell sorting and flow cytometry. Laboratory healthy and safety, particularly standard precaution, chemical hygiene and waste management. BSL2 and BSL3 Biosafety principles. Institutional knowledge of university administration and systems would be advantageous.			
Professional registration or license requirements	None			
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Honesty to handle cash or finances'.)	Organized, professional, and respects confidentiality. Ability to rapidly gain competence and adapt workflows with productivity, project management, and team-solution applications. Sense of responsibility and accountability and a positive mindset. Positive, helpful, and collegial attitude. Self-driven, with the ability to work both independently and in a team. Honesty to handle cash or finances. Ability to take initiative, make decisions and solve problems. Flexibility in terms of working hours to meet processing timelines.			
Competencies (Refer to UCT Competency Framework)	Competence	Level	Competence	Level
	Initiating Action/Initiative	2	Professional knowledge and skill	3
	Planning and organizing /work management	2	Analytical Thinking/problem solving	2
	Research support skills	2	Adaptability/flexibility	1
	Continuous learning	2	Teamwork/collaboration	2
	Communication	2	Stress tolerance	2
	Results focused	2	Quality commitment/work standard	2

SCOPE OF RESPONSIBILITY

Functions responsible for	Optimal operation, management and service delivery of the IDM FACS core facility, with particular focus on laboratory activities and other IDM core facility support needs; specialised lab procedures; data management and provision of training.
Amount and kind of supervision received	Initial training and on-boarding will be provided at the start of this position. Subsequent periodic updates, including skills workshops, meetings to discuss progress, activities, events, and other relevant matters.
Amount and kind of supervision exercised	Provides direct supervision over third-party visitors, where appropriate. Assignment of tasks to delegated personnel.
Decisions which can be made	Routine practical and planning decisions for laboratory functions and activities at a project level including stock purchases within existing procedures.
Decisions which must be referred	Any purchasing decisions, large planning, or strategic decisions at a facility level and actions outside of routine practices. Any facility decisions which may impact users.

CONTACTS AND RELATIONSHIPS

Internal to UCT	IDM operations, facility and management personnel, Cytometry Platform Lead, IDM Director, Facility users, UCT personnel (Finance related, HR related etc.)
External to UCT	Periodic interactions with BD Biosciences, and other suppliers of laboratory consumables and materials; collaborators, other facility managers.