

**NOTES**

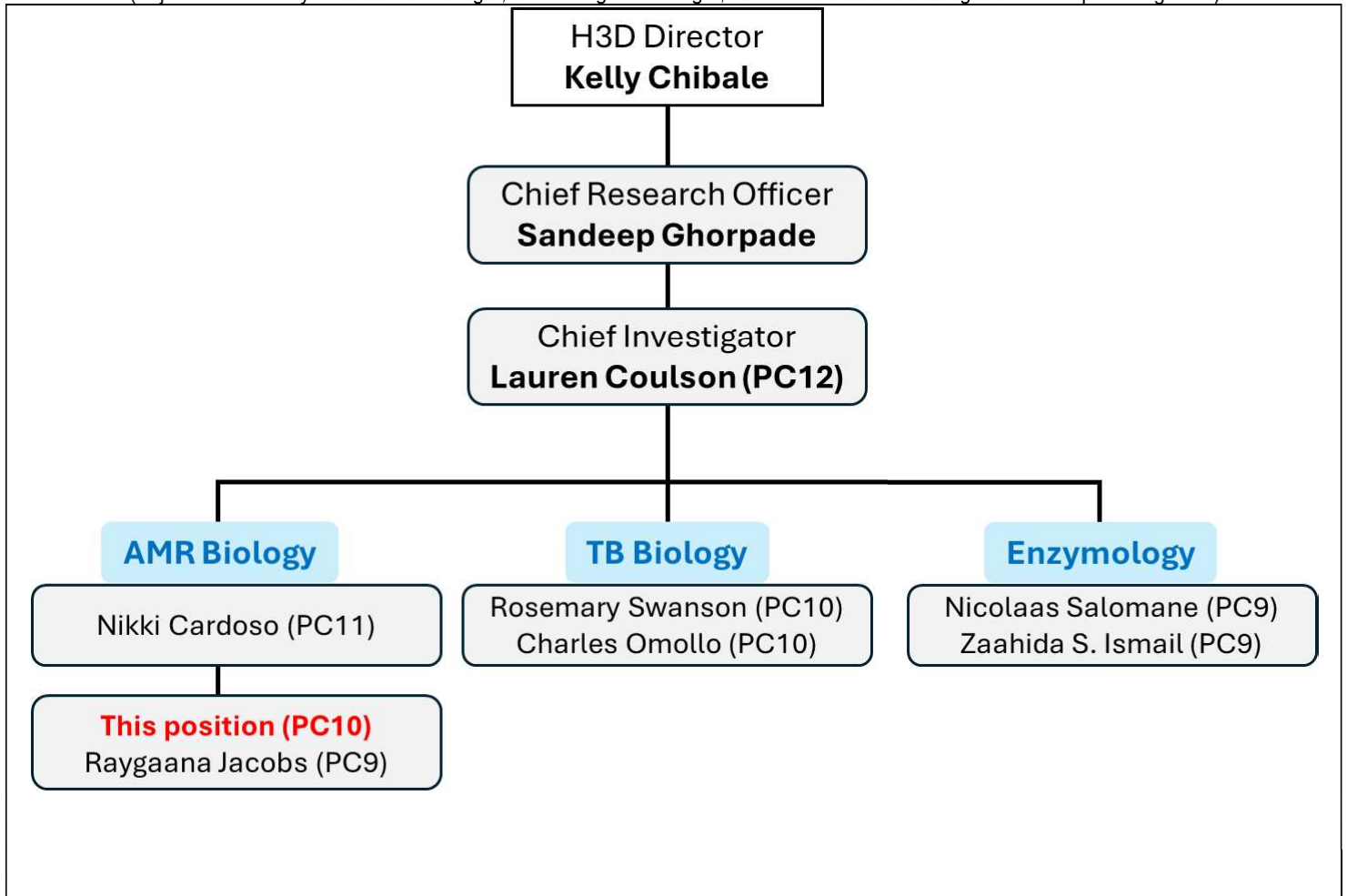
- Forms must be downloaded from the UCT website: <https://forms.uct.ac.za/forms.htm>
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

**POSITION DETAILS**

Position title	Investigator (AMR Biology)		
Job title (HR Business Partner to provide)			
Position grade (if known)	PC10	Date last graded (if known)	2018
Academic faculty / PASS department	Science/DDD		
Academic department / PASS unit	H3D		
Division / section	AMR Biology		
Date of compilation	04 December 2024		

**ORGANOGRAM**

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



## PURPOSE

The main purpose of this position is to be part of an interdisciplinary translational research team discovering and developing innovative, lifesaving medicines in the antimicrobial resistance (AMR) field.

Accountabilities and responsibilities of the Investigator include:

### Scientific & Research Impact

- Design and perform experimental work independently and engage in complex research requiring highly specific scientific knowledge related to Gram +/- bacteria involving ESKAPE pathogens (*Enterobacter cloacae*, *Staphylococcus aureus*, *Klebsiella pneumoniae*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa*, *Escherichia coli*) and other locally relevant bacterial pathogens
- Consistently analyze, evaluate and interpret complex data and results from various phenotypic or target-based screens
- Identify key scientific questions and develop/propose innovative solutions (experiments) to advance drug discovery research in accordance with overall program goals and priorities and in collaboration with academic groups at UCT, where appropriate
- Understand how specific discovery programs fit into overall scientific goals and priorities at H3D
- Help train junior members of the team (new postdoctoral researchers and technician-level members) in data interpretation and experimental design and actively coach/mentor them
- Provide input into scientific presentations for H3D decision boards and external funders/collaborators and present results internally and to various UCT groups as needed
- Contribute towards final reports and internal/external publications.

### Scientific/Technical & Operational Know-how

- Understand principles underlying relevant technologies and protocols related to the Microbiology and Molecular Biology of ESKAPE pathogens and demonstrate expertise in Microbiology and proficiency with full range of techniques
- Coordinate use of equipment such as ViaFlo or Hamilton Robotics
- Develop a thorough knowledge of drug discovery in the field of ESKAPE biology including the scientific background and literature
- Understand how own objectives/scientific experiments fit into overall, long-term program goals
- Propose ideas for H3D-wide technology or research operations projects and help with and/or lead their implementation
- Have a working knowledge of all relevant research policies and procedures, including safety, regulatory and other research guidelines; complete all required compliance trainings
- Identify and report unsafe equipment, conditions and practices so that they may be corrected prior to an incident
- Actively participate in laboratory upkeep and health and safety practices

### Decision Making

- Independently conceive, execute and interpret a complete range of experiments to advance discovery research in line with program timelines and goals
- Provide input into go/no-go decisions or alternative approaches for discovery or technology programs
- Execute day-to-day work in line with team and H3D's overall mission, priorities and decisions, with input from supervisor/scientific mentor, as needed

### Desired Behaviours

Apply H3D Values & Behaviours with a specific focus on:

- Contribute own ideas and explain perspective of AMR research to the team to enhance team's understanding of drug discovery and advance drug discovery efforts; apply non-traditional ideas to problem-solving as needed; help create room for everybody on the team to do the same
- Interact with others in a positive/collaborative manner and challenge other's ideas and help resolve conflicts in a constructive manner
- Fully align behind H3D's mission and leadership decisions and contribute to/understand overall program goals to prioritize own scientific work towards accomplishing these goals
- Strive towards working in a team-based, matrix organization in which all research activities are targeted towards overall H3D portfolio goals

**CONTENT**

<b>Key performance areas</b>		<b>% of time spent</b>	<b>Inputs</b> (Responsibilities / activities / processes/ methods used)	<b>Outputs</b> (Expected results)
E.g.	General and office administration	25%	Takes, types up and distributes minutes and agendas for monthly departmental meeting.  Greets visitors, enquires as to the nature of their visit and directs them to the appropriate staff member.	All staff members receive an electronic copy of accurate minutes and agendas, in the departmental template/format, a week before the meeting.  Visitors are directed to appropriate staff member in a professional and efficient manner.
1	Research	75%	Conceptualise, lead and execute research projects related to AMR (protocol development, data collection and analysis, publication of results, translation of findings).  Maximise use of AMR facility by implementing new technologies; and by designing, optimising and applying laboratory techniques and protocols that serve the needs of H3D	To increase the capacity of H3D, design and work on potential Drug Discovery projects: Assay development for drug discovery, Identification of hits that can be progressed to leads, and determine mechanisms of action.
2	Training and professional development	10%	Train staff members/postdocs/students/interns in the utilization of relevant techniques/protocols  Mentoring, being mentored Attending seminars, workshops, training courses etc.	To promote understanding and a desire to learn more about infectious disease among the Staff members  To train the next generation of scientists  Training/workshops/course/seminars attended
3	Leadership, management and administration	10%	Co-ordinate project activities with a multi-disciplinary team of microbiologists, molecular biologists, biochemists, medicinal chemists and pharmacologists  Perform administrative functions related to research projects, as needed	To share responsibility and contribute to the smooth functioning of the H3D AMR biology platform
4	Presentation and publication of Research in Scientific & Social forums	5%	Prepare clear presentations, reports and publications for internal and external peer-review from data.  Write effectively for scientific publications	Consistent and frequent publication output  To expand the scope and depth of scientific research investigation  To translate research findings into improvement of health and to promote awareness and understanding of achievements in AMR treatment and prevention

### MINIMUM REQUIREMENTS

Minimum qualifications	PhD degree in Life Sciences/Microbiology/Biochemistry/Biotechnology/Cell Biology or related field involving ESKAPE pathogens. Strong publication record			
Minimum experience (type and years)	2 or more years post-PhD industrial or academic experience in a drug discovery or related research laboratory Up-to-date on laboratory technologies and strong bench experience Comfortable working in a matrix-based organizational structure			
Skills	Established skills in microbiology, molecular biology and/or bacterial genetics Up-to-date on laboratory technologies and strong bench experience Excellent oral and written communication skills Effective team building and teamwork skills; Detail-oriented with the ability to identify and implement creative solutions			
Knowledge	Good understanding of bacterial biology			
Professional registration or license requirements	NA			
Other requirements (If the position requires the handling of cash or finances, other requirements must include 'Ability to handle cash or finances'.)	NA			
Competencies (Refer to <a href="#">UCT Competency Framework</a> )	Competence	Level	Competence	Level
	Excellent written and oral communication skills	2	Teamwork/collaboration	2
	Extensive literature research skills	2	Astute scientific inquiry related to drug discovery and thorough knowledge of scientific literature in ESKAPE pathogen biology	2
	Good interpersonal skills	2	Good laboratory safety awareness and practice	2
	Working knowledge in experimental design and data interpretation	2		


### SCOPE OF RESPONSIBILITY



Functions responsible for	Design and troubleshooting of existing and novel experiments
Amount and kind of supervision received	Regular supervision by Senior Investigator/Chief Investigator
Amount and kind of supervision exercised	May be required to supervise more junior staff
Decisions which can be made	Laboratory safety, SOPs and suggesting alternative methods
Decisions which must be referred	Financial decisions, purchasing decisions, organizational decisions, HR decisions etc.

### CONTACTS AND RELATIONSHIPS

Internal to UCT	Financial decisions, purchasing decisions, organizational decisions, HR decisions etc.
External to UCT	Sales reps, academic customers and collaborators

### AGREED BY

	PRINT NAME	SIGNATURE	CONTACT NO.	DATE
Position Holder				
Direct Line Manager/Supervisor	Dr Nicole Cardoso		0766774189	04 December 2024

Area Line Manager	Ayesha Banderker		x1438	04.12.2024
HOD	Kelly Chibale		x5495	04.12.2024
Dean / ED				
HR Business Partner				