

**NOTES**

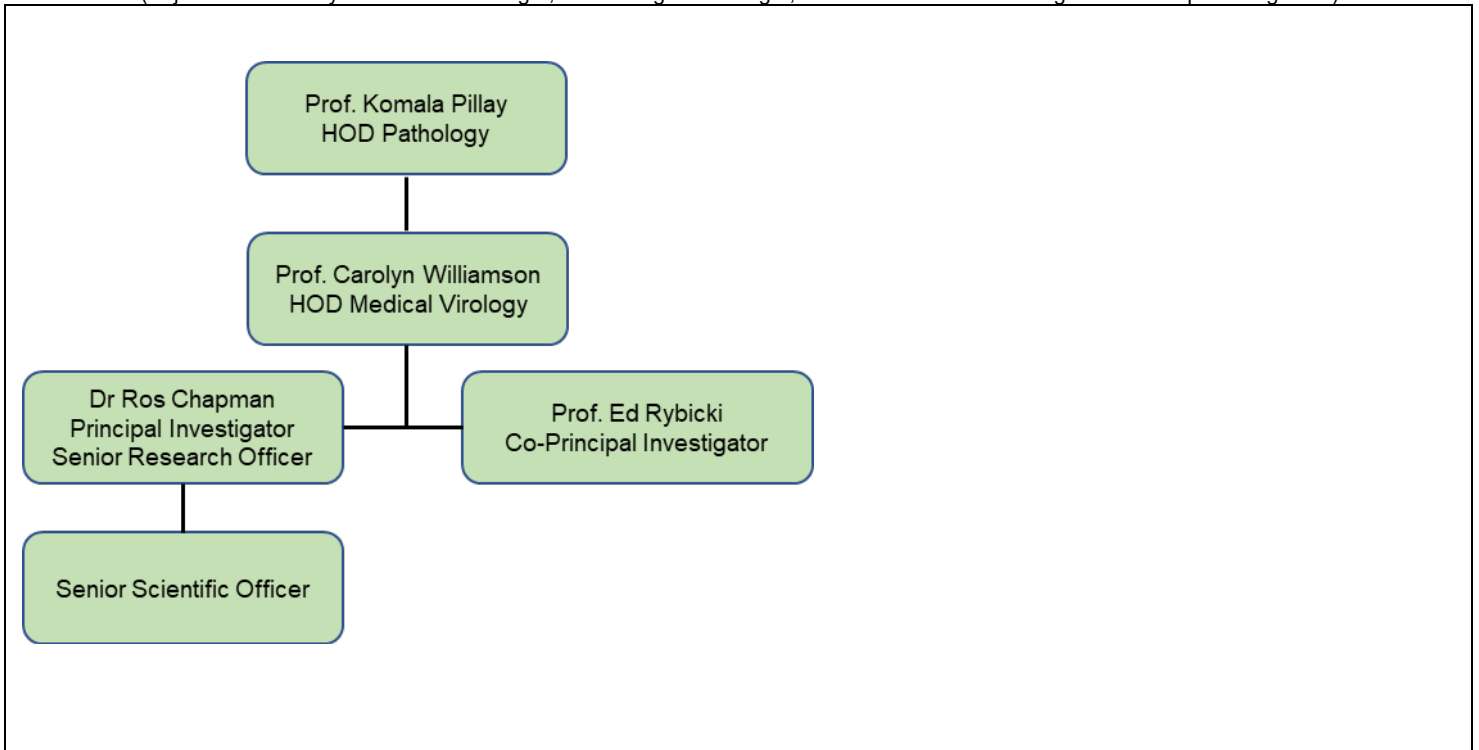
- Forms must be downloaded from the UCT website: <http://forms.uct.ac.za/forms.htm>
- This form serves as a template for the writing of position descriptions.
- A copy of this form is kept by the line manager and the position holder.

**POSITION DETAILS**

Position title	Senior Scientific Officer		
Job title (HR Business Partner to provide)			
Position grade (if known)	Payclass 9	Date last graded (if known)	
Academic faculty / PASS department	Health Sciences		
Academic department / PASS unit	Pathology		
Division / section	Medical Virology		
Date of compilation	12 August 2024		

**ORGANOGRAM**

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



**PURPOSE**

This position will form part of the Vaccine Development Group, which has a research focus on HIV vaccine development. The main purpose of this position is to explore the development of novel self-amplifying RNAs (from different plant & insect viruses) and to investigate the encapsulation of saRNA and mRNA in order to make highly stable virus-derived nanoparticles (VNPs).

In addition to specialized laboratory work, good record keeping will be required. The candidate must be able to work independently but will be supervised by the principal and co-principal investigators. S/he will design experiments, conduct research and assist with experimental trouble shooting when required. S/he will report findings at scientific meetings and other venues and assist with manuscript and report writing. S/he will also be responsible for management of the project which include submission of quarterly financial and technical reports and any other reporting requirements.

This project is funded by the South African Medical Research Council (SAMRC) as a member of a consortium with the overall objective of developing and evaluating HIV vaccine candidates emanating from the African continent. The incumbent would be expected to contribute to research goals of this consortium.

The incumbent is expected to be an active member of the team, to interact with others in a positive/collaborative manner, and to actively strive for an environment that is based on inclusivity and diversity.

**CONTENT**

<b>Key performance areas</b>		<b>% of time spent</b>	<b>Inputs</b> (Responsibilities / activities / processes/ methods used)	<b>Outputs</b> (Expected results)
1	Project management.	20	Preparation of annual work plans & budgets. Preparation & submission of quarterly budgets to the SAMRC in advance for funding. Keeping time sheets for all project personnel. Ensuring that both technical and financial reporting schedules are met.	Timeous submission of documentation required by the SAMRC and USAID as a sub-contractor of the BRILLIANT Consortium.
2	Planning, implementation, and quality control of project to ensure delivery of objectives.	15	Keep laboratory well stocked - order equipment & reagents. Keep records of all reagents and experimental procedures. Attend meetings.	Timeous completion of project objectives. Drafting and reviewing SOPs. Tracking of outputs. Accurate data.
3	Contribution to the research agenda of the Vaccine Development Group & BRILLIANT consortium.	5	Attendance of group meetings. Keeping up to date with current research/methodologies by attending seminars, reading journal articles, books etc.	Presentation of relevant research articles. Contribution to discussion on other presentations.
4	Conducting laboratory research/work.	50	Planning and executing experiments. Performing laboratory assays and experiments. Trouble-shooting technical problems. Keep records of plasmids constructed and maintain stocks. Optimisation and development of research tools.	Timeous completion of project objectives. Production of quality data. Ensure results are accurately captured in reports. Updated laboratory workbook. Work efficiently & safely. Have a good relationship with other team members.
5	Capacity building	5	Training of new staff & students where necessary. Mentoring of students.	Orientation & training of staff and students to enable them to fulfill their duties.
6	Communicating research outcomes	5	Writing reports & manuscripts. Prepare clear & meaningful presentation of laboratory data. Presentation at group research and divisional meetings as required. Presentation at conferences.	Reports submitted timeously. Presentations & manuscripts prepared. Keep the group up to date on research.

### MINIMUM REQUIREMENTS

Minimum qualifications	PhD in molecular biology, virology, microbiology, biochemistry or related discipline.			
Minimum experience (type and years)	Experience in mammalian cell culture. Experience in expression of proteins in plants. Computer literacy. Experience in standard molecular biology techniques – PCR, cloning. Experience in protein characterization by immunoassays. Minimum experience of 5 years in molecular biology and mammalian cell culture. At least 2 years' experience in project management including preparation of budgets			
Skills	Experience in molecular biology techniques, specifically PCR and cloning, cell culture and protein characterization by immunoassays & flow cytometry. Proficiency in using Excel. Computer literacy including basic sequence analysis (use of bioinformatics program such as CLC). Ability to perform literature reviews. Ability to keep good records. Ability to meet deadlines. Ability to work efficiently & independently. Ability to set up assays & trouble shoot. Good organizational skills.			
Knowledge	Experience in cell culture. Experience in molecular biology work. Computer literacy (Word, Excel, Power Point, Sequence Analysis Software). Experience in HIV field of research. Knowledge of eukaryotic transcription & viral replication.			
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'.)				
Competencies (Refer to <a href="#">UCT Competency Framework</a> )	Competence	Level	Competence	Level
	Adaptability/flexibility	1	Professional knowledge & skills	1
	Analytical thinking/problem solving	2	Quality commitment/ work standards	1
	Continuous learning	1	Research support skills	2
	Planning & organizing/work management	2	Written communication	1

### SCOPE OF RESPONSIBILITY

Functions responsible for	Management of the project, construction of saRNA vaccines, encapsulation of the RNA, PCR, sequencing, assays confirming & characterizing recombinant antigen expression, ELISAs, assistance with laboratory operations, reporting results.
Amount and kind of supervision received	Weekly meetings with PI, Co-PI and other members of the Vaccine Development Group to discuss ongoing work.
Amount and kind of supervision exercised	Occasionally may assist in supervising student or other staff laboratory work
Decisions which can be made	Daily trouble shooting of experiments. Procurement <R10 000. Laboratory & resource management.
Decisions which must be referred	Significant deviations from SOP. Decisions that have budgetary implications. Communication with outside funders.

### CONTACTS AND RELATIONSHIPS

Internal to UCT	Dr Ros Chapman (line manager) Prof. Ed Rybicki (co-PI) Finance Department and Procurement Office Sue Lanfear (PA to Prof. A-L. Williamson)
External to UCT	Suppliers  Funders

