



**Australian
National
University**

Position Description

College/Division:	ANU College of Health and Medicine
Faculty/School/Centre:	John Curtin School of Medical Research
Department/Unit:	Genome Sciences
Position Title:	Technical Officer Programmer
Classification:	ANU Officer Grade 4/5
Position No:	TBA
Responsible to:	Prof. Eduardo Eyras
Number of positions that report to this role:	-
Delegation(s) Assigned:	-

PURPOSE STATEMENT:

ANU has an international reputation for research and education relevant to the health and well-being of the population of Australia, as well as that of the developing world. This is achieved through discovery research, applied research in health service settings, research-led teaching in health and medical sciences, and the translation of research findings into practice and policy. The ANU College of Health and Medicine comprises the Research School of Psychology, the ANU Medical School, the John Curtin School of Medical Research and the Research School of Population Health. These schools work together to deliver world-class research and education across the spectrum of medicine and health-related fields, working in partnership with the health sector at local, national and international levels.

The John Curtin School of Medical Research is a leading centre of RNA Biology Research in Australia. Researchers have a tradition of excellence in addressing the world's most pressing issues in RNA biology, including the characterisation of mRNA splicing isoforms, their biochemical modifications, and how they are translated into proteins, as well as in developing new experimental and computational technologies to study these questions.

The Eyras' research group develops innovative computational methods for the analysis and interpretation of Nanopore sequencing data to investigate multiple aspects of RNA biology in health and disease. The Technical Officer Programmer will work on the improvements and extensions of scientific software tools in Eyras' lab, and in particular, of RATTLE (<https://github.com/comprna/RATTLE>), the first tool for the reference-free reconstruction of transcriptomes from Nanopore reads only. The Technical Officer Programmer will also learn about the applications of RATTLE to study transcriptomes in the context of the projects being carried out in the lab. Further responsibilities involve helping in the compilation and running of the code in the National Computational Infrastructure (NCI), developing unit tests and tests with simple datasets, regular reporting of the technical issues and progress back to the supervisor.

Position Dimension & Relationships:

The Technical Officer Programmer will work as part of the Eyras' team, will work together with other members to ensure that the software can be used in research projects. The Technical Officer will also participate in discussions with members of the scientific community in the college and ANU campus about potential uses and adaptation of the software, will respond to the queries by external users about the installation and use of the software tools, and will engage together with Prof. Eyras in conversations with stakeholders to adapt software to external computational platforms like Galaxy and BioCommons. The Technical Officer Programmer will report directly to Prof. E. Eyras.

Role Statement:

Under general direction the Technical Officer Programmer will:

1. Perform general maintenance of scientific software from Eyras' lab available in the lab's GitHub page <https://github.com/comprna/>, including but not limited to the development and maintenance of RATTLE. (<https://github.com/comprna/RATTLE>).
2. Conduct general maintenance of computer equipment to ensure that the software tools can be run in them.

3. Perform general administration duties associated with software in Eyras' lab, including the preparation of code manuals and tutorials, ensuring efficient and reproducible working practices and ensuring that compliance of software licenses and regulatory requirements are met.
4. Assist in the development and maintenance of software from Eyras' lab, including assisting in the preparation of computer supplies, helping to provide estimates on the appropriate computer equipment to run the software.
5. Support computational design and implementation, undertake risk assessments, routine operations and procedures.
6. Assist in the monitoring and maintenance of data systems, and facilitate the analysis of experimental results and the preparation of data sets for research publication.
7. Provide support, teaching and training to students, visitors, external collaborators, professional, and academic staff in using scientific software and the preparation of training materials for its use.
8. Maintain networks amongst other School and College Technical staff on Computational Biology capabilities or facilities and/or with Computational Biology managers and the building maintenance staff on software issues.
9. Other duties as required, consistent with the classification of this position.
10. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity

SELECTION CRITERIA:

1. Completion of Trade Certificate II or III, with relevant work experience, or an equivalent combination of relevant experience and/or education/training.
2. Demonstrated ability to operate and perform general development and maintenance of software tools written in C++ and Python, with a demonstrated ability to assist in the diagnosis and debugging of software following established procedures.
3. A proven ability to provide technical support to laboratory users on the use of software in different laboratory computers and in high-performance computers, and a strong understanding of computational and regulatory requirements.
4. A demonstrated ability to communicate effectively and concisely, both orally and in writing, and to work both independently with limited supervision and harmoniously in a team environment with a diverse range of people.
5. Proven information technology and organisational skills with a demonstrated ability to keep accurate records and prioritise tasks, exercising sound judgement to meet tight timelines.
6. A demonstrated general knowledge and understanding of equal opportunity principles as they relate to employment.

ANU Officer Levels 4 and 5 are broadbanded in this stream. It is expected that at the higher levels within the ANU Officer 4/5 broadband occupants will have a deeper understanding, and a more independent application, of the technical methods and procedures used, and a consequent increase in the complexity of the functions performed.

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the Background Checking Procedure which sets out the types of checks required by each type of position.

Supervisor/Delegate Signature:		Date:	26/05/2021
Printed Name:	Prof Eduardo Eyras	Uni ID:	U1070307

References:

[General Staff Classification Descriptors](#)



Pre-Employment Work Environment Report

Position Details

College/Div/Centre	College of Health and Medicine	Dept/School/Section	John Curtin School of Medical Research
Position Title	Technical Officer Programmer	Classification	ANU Officer Grade 4/5
Position No.		Reference No.	

In accordance with the Work Health and Safety Act 2011 (Cth) the University has a primary duty of care, so far as reasonably practicable, to ensure the health and safety of all staff while they are at work in the University.

- This form must be completed by the supervisor of the advertised position and appended to the back of the Position Description.
- This form is used to advise potential applicants of work environment and health and safety hazards prior to application.
- Once an applicant has been selected for the position they must familiarise themselves with the University WHS Management System via Handbook guidance <https://services.anu.edu.au/human-resources/health-safety/whs-management-system-handbook>
- The hazards identified below are of generic nature in relation to the position. It is not correlated directly to training required for the specific staff to be engaged. Identification of individual WHS training needs must be in accordance with WHS Local Training Plan and through the WHS induction programs and Performance Development Review Process.
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp

Potential Hazards

Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a regular or occasional part of the duties.					
TASK	regular	occasional	TASK	regular	occasional
key boarding	☒	☐	laboratory work	☐	☐
lifting, manual handling	☐	☐	work at heights	☐	☐
repetitive manual tasks	☐	☐	work in confined spaces	☐	☐
catering / food preparation	☐	☐	noise / vibration	☐	☐
fieldwork & travel	☐	☐	electricity	☐	☐
driving a vehicle	☐	☐			
NON-IONIZING RADIATION			IONIZING RADIATION		
solar	☐	☐	gamma, x-rays	☐	☐
ultraviolet	☐	☐	beta particles	☐	☐
infra red	☐	☐	nuclear particles	☐	☐
laser	☐	☐			
radio frequency	☐	☐			
CHEMICALS			BIOLOGICAL MATERIALS		
hazardous substances	☐	☐	microbiological materials	☐	☐
allergens	☐	☐	potential biological allergens	☐	☐
cytotoxics	☐	☐	laboratory animals or insects	☐	☐
mutagens/teratogens/ carcinogens	☐	☐	clinical specimens, including blood	☐	☐
pesticides / herbicides	☐	☐	genetically-manipulated specimens	☐	☐
			immunisations	☐	☐
OTHER POTENTIAL HAZARDS (please specify):					

Supervisor's Signature:		Print Name:	Eduardo Eyras	Date:	26/05/2021
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