



Pacific  
Community  
Communauté  
du Pacifique

## JOB DESCRIPTION

**Job Title:** Laboratory Technician - Germplasm Health

**Division/Programme and Section/Project (if any):** LRD/Genetic Resources/CePaCT

**Location:** SPC Narere Campus

**Reporting to:** Associate Scientist – Germplasm Health

**Number of Direct Reports:** None

**Purpose of Role:** To assist the Associate scientist – Germplasm Health with the functions of CePaCT's Molecular Lab and Germplasm Health Unit (GHU) in order to meet a number of key outputs as per recommendations of the Crop Trust Review team which the new CePaCT Business Plan also supports. The position will directly assist the SPC Associate Scientist – Germplasm Health with activities related to germplasm health unit and the molecular facilities to ensure that international standards are maintained.

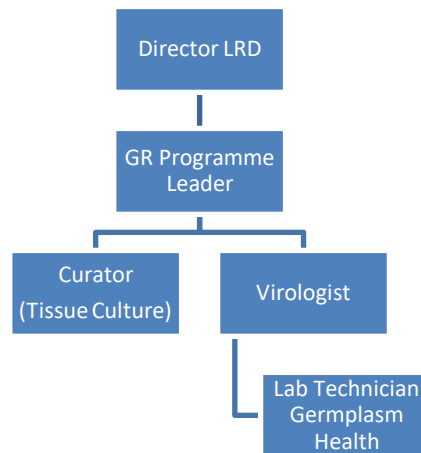
**Date:** January, 2021

### Organizational Context and Organization Chart

The CePaCT Laboratory includes both Plant Tissue Culture and the Germplasm Health Unit (GHU) – both complementing each other in meeting the Centre's mission for the effective and efficient conservation and utilization of plant genetic resources to support food and nutritional security in the Pacific.

In a recent review commissioned by the Global Crop Diversity Trust in August 2017, CePaCT's GHU work of virus indexing was identified as the key area of the Centre's operations. The review team also identified a huge backlog of activities contributing to poor ranking in accordance with standard indicators set by the Crop Trust to assess Genebank standards. Thus, a key recommendation from the Crop Trust review report was to recruit well-trained personnel as well as supporting staff to help the Centre improve in this area. This recommendation is also strongly supported by the new CePaCT Business Plan developed under a DFAT grant aimed at supporting SPC's efforts in upgrading CePaCT to a Centre of Excellence.

The virus Indexing work of CePaCT is the key determining factor for the availability of the Centre's crops and varieties as well as complying with international Sanitary and Phytosanitary (SPS) standards for the exchange of plant materials on all levels – international, regional and national.



### Key Result Areas (KRAs):

*The performance requirements of the Key Result Areas are broadly described below*

Jobholder is accountable for	Jobholder is successful when
<b>KRA#1</b> <b>Virus Indexing</b> <ul style="list-style-type: none"> <li>Virus indexing of CePaCT crop accessions as allocated by the Associate Scientist – Germplasm Health</li> <li>Multiplication of clean virus tested crop accessions</li> <li>Labelling of CePaCT accessions with the correct health status</li> <li>Maintain and update health testing record book and online databases as required by the Associate Scientist – Germplasm Health.</li> <li>Maintain the hygiene of GHU.</li> <li>Assist the SPC Associate Scientist – Germplasm Health with other activities related to germplasm health unit to ensure that international standards are maintained.</li> </ul>	<ul style="list-style-type: none"> <li>At least 100 accessions of the CePaCT collection virus tested as directed by the Associate Scientist – Germplasm Health</li> <li>At least 8 plantlets per accession produced for both conservation and distribution</li> <li>All crop accessions are labelled with correct health status</li> <li>Health testing records are up to date and signed off by the Associate Scientist – Germplasm Health</li> <li>CePaCT-GHU is neat and clean.</li> <li>CePaCT-GHU meets FAO Quality management standard (QMS).</li> </ul>
<b>KRA#2</b> <b>Virus Sanitation</b> <ul style="list-style-type: none"> <li>Carry out virus sanitation research as directed by the Associate Scientist – Germplasm Health</li> <li>Virus clean infected material</li> </ul>	<ul style="list-style-type: none"> <li>At least one protocol defined and used for sanitation.</li> <li>At least 5 accessions virus cleaned.</li> </ul>
<b>KRA#3</b> <b>DNA fingerprinting</b>	<ul style="list-style-type: none"> <li>At least 500 accessions big enough to permit DNA extraction</li> </ul>

<ul style="list-style-type: none"> <li>• Build numbers for the aroid accessions for DNA fingerprinting.</li> <li>• Extract DNA from the allocated accessions for DNA fingerprinting.</li> </ul>	<ul style="list-style-type: none"> <li>• DNA of at least 500 accessions extracted and sent for DNA fingerprinting.</li> </ul>
<b>KRA#4</b> <b>Support the efficient and effective functions of CePaCT</b> <ul style="list-style-type: none"> <li>• Assist with the conservation and distribution of CePaCT crops upon request.</li> <li>• Monitor virus indexing crops in the PEQ.</li> <li>• Assist in the sourcing of equipment's and consumables.</li> <li>• Assist in the up keep of overall CePaCT lab hygiene.</li> <li>• Any other duties assigned by line manager.</li> </ul>	<ul style="list-style-type: none"> <li>• Requests from management and countries met. Crops are effectively conserved, and distributions met.</li> <li>• Virus indexing crops are growing well in PEQ.</li> <li>• Equipment and consumables are available in timely manner. No delays to CePaCT work unavailability of equipment and consumables.</li> <li>• Low contamination of cultures.</li> <li>• Allocated duties performed to the line manager's satisfaction.</li> </ul>

The above performance requirements are provided as a guide only. The precise performance measures for this job will need further discussion between the jobholder and supervisor as part of the performance development process.

#### Most Challenging Duties Typically Undertaken (Complexity):

This position will have continuous supervision by the SPC Associate Scientist – Germplasm Health. The staffs will follow routine procedures and protocols that have been optimised by the Associate Scientist – Germplasm Health. However, the incumbent needs to be aware of the basic methodologies involved in virus indexing, such as serological and molecular diagnostic. They will also need to have the diligence to learn and have the capacity to troubleshoot when methodologies fail to produce desired results. One other desirable attribute of the incumbent is the ability to keep clear and concise records of their activities, especially for virus indexing.

The Germplasm Health Unit has the task of ensuring that all germplasm leaving CePaCT is free of pest and diseases. If the GHU fails to deliver on its duties, then CePaCT is likely to lose credibility in its services which may lead to halting of distributions for all germplasm of the affected crop(s).

#### Functional Relationships & Relationship Skills:

Key internal and/or external contacts	Nature of the contact most typical
<b>External</b> <ul style="list-style-type: none"> <li>• Member countries</li> </ul>	<ul style="list-style-type: none"> <li>• Virus diagnostic training as requested by Associate Scientist – Germplasm Health.</li> </ul>
<b>Internal</b> <ul style="list-style-type: none"> <li>• Library</li> <li>• LRD Colleagues</li> <li>• CePaCT Curator and CePaCT Team</li> </ul>	<ul style="list-style-type: none"> <li>• To obtain research material</li> <li>• For meetings and workshops</li> <li>• Planning and coordination of work</li> </ul>

**Level of Delegation:**

The position holder is not expected to have delegation responsibilities under this contract.

**Personal Specification:****Qualifications**

<b>Essential:</b>	<b>Desirable:</b>
<ul style="list-style-type: none"> <li>A diploma in science</li> </ul>	<ul style="list-style-type: none"> <li>Emphasis on Molecular and/or Micro Biology specialties.</li> </ul>

**Knowledge/Experience**

<b>Essential:</b>	<b>Desirable:</b>
<ul style="list-style-type: none"> <li>At least 3 years of work experience in similar setting</li> <li>A working knowledge of viruses infecting tropical crops and diagnostic</li> <li>Good working knowledge of biotechnology lab and equipment.</li> <li>Excellent writing and communication skills.</li> <li>Ability to design and implement experiments.</li> </ul>	<ul style="list-style-type: none"> <li>Plant tissue culture experience</li> <li>Experience with the latest technologies in virus indexing such as PCR, RT-PCR, ELISA and IC-PCR.</li> <li>Experience in virus elimination methodologies</li> <li>Thorough understanding of the role of CePaCT and the Division's efforts for the Centre.</li> </ul>

**Key Skills/Attributes/Job Specific Competencies**

The following levels would typically be expected for the 100% fully effective level:

<b>Expert level</b>	
<b>Advanced level</b>	<ul style="list-style-type: none"> <li>PCR, RT-PCR, ELISA, IC-PCR, RCA, Symptomatology, Grafting,</li> <li>Virus elimination methods – meristem culture, chemotherapy, thermotherapy Calibration</li> <li>Proper operation of GHU lab equipment.</li> <li>Plant Tissue culture techniques – initiation, sub culturing, maintenance and acclimatization</li> </ul>
<b>Working knowledge</b>	<ul style="list-style-type: none"> <li>Report writing</li> <li>Data analysis</li> <li>Computer literacy</li> </ul>
<b>Awareness</b>	<ul style="list-style-type: none"> <li>Agricultural trends in the Pacific Region</li> <li>Thorough understanding of regional issues relevant to work activities</li> <li>SPC staff rules/regulations etc...</li> </ul>

**Key Behaviours**

*All employees are measured against the following **Key Behaviours** as part of Performance Development:*

- Change and Innovation
- Interpersonal Skills
- Teamwork

- Promotion of Equity and Equality
- Judgement
- Building Individual Capacity

#### **Personal Attributes**

- High level of professional integrity and ethics
- Friendly demeanor
- Demonstrated high level commitment to customer service

#### **Change to Job Description:**

From time to time it may be necessary to consider changes in the job description in response to the changing nature of the work environment – including technological requirements or statutory changes. Such change may be initiated as necessary by SPC. This Job Description may also be reviewed as part of the preparation for performance planning for the annual performance cycle.