POSITION DESCRIPTION

Position: Postdoctoral Fellow in Genomics
Term: Fixed term (3 years)
Status: Full time
Location: Auckland
Directly Reporting to: Thomas Buckley (Capability Leader)

Purpose

New Zealand faces considerable challenges in conservation and primary production that can be improved by the use of genomics technologies. Your research will focus initially on developing tools and technologies to produce the high-quality genomes required to achieve outcomes for species of scientific, primary production, pest and conservation importance. In later years, generation and understanding of genome data from large numbers of individuals from key species will be generated and studied.

Primary Objectives

- Analyse genomics data with an emphasis on the assembly and analysis of whole genomes, comparative genomics and resequencing data
- Contribute to the successful completion of the research project as contracted with Genomics Aotearoa
- Work closely with the nationally distributed Genomics Aotearoa network and with staff utilising genomics data within MWLR
- Engage in international upskilling in genomics and bioinformatics technologies
- Provide training in bioinformatics as required
- Manuscript production

Key Accountabilities

- Manage the analysis of genomics data
- Evaluate and deploy appropriate bioinformatics tools
- Effectively publish and disseminate results
- Assist in the training of bioinformatics and genomics skills to other scientists and students
- Work across organisations in the Genomics Aotearoa platform
- Manage high throughout DNA data sets
Health, Safety and Environment Objectives:

Applicable to all staff

- Take reasonable care to ensure your own health and safety in the workplace, and that no action or inaction on your own part harms others. Also ensure own activities comply with all relevant statutory and other Health, Safety and Environmental (HSE) requirements and apply appropriate CoPs, SOPs and other procedures
- Set an example of accountability and continual improvement in HSE practices
- All invited non-employees (visitors, volunteers, students, interns etc.) are hosted responsibly

Please note: use this HSE Performance Objectives link to identify additional objectives applicable to the specific position; these will also be measured in the HSE section of the Performance Appraisal and Development process.
Person Specification

Essential

1. Education/Qualifications and Learning
   • PhD in genomics or bioinformatics

2. Knowledge, Skills and Experience
   • Experience in genome assembly and annotation
   • Knowledge of the analysis of large-scale genomic data sets
   • Experience with comparative genomics and/or population genomics analysis
   • A proven ability and track record in publication and conference presentations

3. Personal Attributes
   • Ability to relate to people in all circumstances and to work well in a team
   • Versatile, demonstrates initiative in solving problems
   • Works well under pressure, self-motivated
   • Well-organised, capable of independently and effectively planning time and resources
   • Ability to mentor students
   • A willingness to engage with Māori communities

Desirable

• Experience in the training and mentoring of students and other scientists
• An interest in science communication

Interactions/Regular Contacts

Direct reports: None

Internal: Research scientists and technicians at Manaaki Whenua - Landcare Research

External: Scientists, students and postdocs from other other Genomics Aotearoa partners, in particular Plant and Food Research, University of Otago, University of Auckland, Canterbury University, Massey University, Victoria University, and AgResearch. Māori communities and stakeholders of genomics research.

Delegations

Financial Delegations: Nil

Human Resources Delegations:
Performance Criteria

Landcare Research has a Performance Appraisal & Development process which provides an opportunity for the employee and their manager to discuss and agree what contribution the individual employee is expected to make during a regular review period towards achieving the strategic goals and objectives of the Company.

Goals and objectives will be agreed annually. These will be consistent with the Key Accountabilities and Personal Attributes contained within this Position Description, and will include performance measures (statements of achievement), together with any support and professional development required by the employee to achieve those objectives.
### Working Environment & Physical Demands

Landcare Research undertakes to ensure its workplaces are safe and that no person is harmed as result of our work activities. The list below is provided to give an indication of the type of environment and potential hazards which may be encountered in this role.

*(tick appropriate boxes)*

<table>
<thead>
<tr>
<th>Physical</th>
<th>Biological/Chemical</th>
<th>Environmental</th>
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</thead>
<tbody>
<tr>
<td>✔ Office/computing</td>
<td>☐ Soils, potting mixes, composts</td>
<td>☐ Adverse weather/heat/sun</td>
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<tr>
<td>☐ Standing for long periods</td>
<td>☐ Sewage and wastewaters</td>
<td>☐ Alpine conditions</td>
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<tr>
<td>☐ Manual handling/lifting</td>
<td>☐ Bio solids</td>
<td>☐ Off-shore islands</td>
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<tr>
<td>☐ Hiking/tramping - easy</td>
<td>☐ Insects</td>
<td>☑ International travel</td>
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<tr>
<td>☐ Hiking/tramping - hard</td>
<td>☐ Microorganisms</td>
<td>☐ Polar environments</td>
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<tr>
<td>☐ Camping out – “roughing it”</td>
<td>☐ Pathogens</td>
<td>☐ Isolated environments</td>
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<tr>
<td>☐ River-crossings</td>
<td>☐ Animals – contact/handling</td>
<td>☐ Geothermal areas</td>
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<tr>
<td>☐ On-road driving</td>
<td>☐ Plants and fungi</td>
<td>☐ Urban environments</td>
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<tr>
<td>☐ Off-road 4WD/ATV driving</td>
<td>☐ Chemicals/toxins</td>
<td>☐ Rural/farm environments</td>
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<td>☐ Charter flying/Helicopters</td>
<td>☐ Flammable liquids/gases</td>
<td>☐ Production forestry blocks</td>
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<td>☐ Travel in Boats/Ships</td>
<td>☐ Dusts/fumes/vapours</td>
<td>☐ Mines/earthworks/excavations</td>
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<tr>
<td>☐ Construction work</td>
<td>☐ Compressed gases</td>
<td>☐ Old mine shafts/pits</td>
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<tr>
<td>☐ Operating tools &amp; equipment</td>
<td>☐ Cryogenic substances</td>
<td>☐ Roadside work</td>
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<tr>
<td>☐ Deft/fine manual tasks</td>
<td>☐ Other</td>
<td>☐ Working at heights</td>
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<tr>
<td>☐ Microscopy</td>
<td>☐ Radioactive substances &amp; equipment</td>
<td>☐ Noise (in environment or from equipment)</td>
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<td>☐ Swimming/Snorkelling/Diving</td>
<td>☐ Electricity</td>
<td>☐ Confined space work</td>
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<td>☐ Night time/shift work</td>
<td>☐ Lasers</td>
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<td>☐ Firearms/hunters</td>
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