# Position Description

## CSIRO Early Research Career (CERC) Postdoctoral Fellowship– CSOF4

The following information is for applicants

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| Advertised job title**:** | CSIRO Postdoctoral Fellowship in Plant Pathology in Weed Biological Control |
| Job reference: | 61915 |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | * Australian/New Zealand Citizens and Australian Permanent Residents Only
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| Percentage of client focus - internal: | 40% |
| Percentage of client focus - external: | 60% |
| Reports to the: | Team Leader (Tropical Invasive Plants) |
| Number of direct reports: | 0 |
| How to apply: | Please apply online at [jobs.csiro.au](https://jobs.csiro.au/) and enter the requisition number**.** Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon Please do not email your application directly to Raghu Sathyamurthy. Applications received via this method will not be considered by the selection panel. |
| Contact details to discuss this position: | Raghu Sathyamurthy via email Raghu.Sathyamurthy@csiro.au  |
| If you have difficulty applying please contact: | Call 1300 984 220 or email csiro.online@csiro.au between 8.30 am and 5 pm Australian east coast time. |

## Role Overview:

**CSIRO Early Research Career (CERC) Postdoctoral Fellowships** provide opportunities to scientists and engineers who have completed their doctorate and have less than three years relevant postdoctoral work experience. These fellowships aim to develop the next generation of future leaders of the innovation system through:

* A differentiated career development program to deliver capability excellence and breadth across all facets of the national innovation system.
* Research training via strategic research and development projects with a clear focus that will deliver real impact through science and engineering excellence;
* An innovative culture supporting the development and demonstration of original thinking and expertise leading to peer-recognition; and
* Opportunities to develop skills and experience in collaborative research teams to effectively work within national and global multi/transdisciplinary and multi-stakeholder environments.

CERC Postdoctoral Fellows **are appointed for three years or part time equivalent.**

**CSIRO Health & Biosecurity** is offering an exciting opportunity for a Postdoctoral Fellow with skills in plant pathology, particularly focusing on fungal pathogens, to join its Weed Biological Control Team.

The successful candidate will conduct innovative research using the latest advances in plant pathology to contribute to a large project to develop science-based biological control solutions for a range of weed targets. The research will involve:

1. prioritisation of isolates of foliar pathogens associated with weedy *Sporobolus* spp. in the field
2. screening of isolates against weedy *Sporobolus* spp. through virulence assays,
3. specificity tests and, potentially
4. mycoherbicide development

The successful applicant will lead components of existing projects, have the opportunity to learn developing new projects and to write competitive grant proposals while also collaborating with scientists within Australia and across the world.

The role may involve extended periods of travel for fieldwork within Australia.

## Duties and Key Result Areas:

* Under the direction of Research Scientists, carry out research in laboratory, controlled environment conditions and field.
* Identify and select promising biological control agents for specific target weeds (i.e. Sporobolus spp.) and demonstrate their safety (host-specificity) and efficacy as novel management tools.
* Contribute to fieldwork across a range of ecosystems, including in remote locations in Australia.
* Collect and manage data, and undertake appropriate statistical analyses to synthesize results.
* Undertake regular reviews of relevant literature.
* Produce high quality scientific papers suitable for publication in international peer-reviewed journals and contribute to reports.
* Prepare appropriate conference papers and present those at conferences as agreed with your supervisor.
* Take responsibility for specific tasks to deliver on project-related outputs.
* Contribute to the development of innovative concepts and ideas for further research.
* Work collaboratively with colleagues within the business unit and across CSIRO, with key collaborators in Biosecurity Queensland.
* Communicate professionally, effectively and respectfully in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment

 plans and policies, Diversity initiatives and Zero Harm goals

* Other duties as directed.

**The CERC Postdoctoral Fellow learning and development program**is developed between the CERC Postdoctoral Fellow and their CSIRO supervisor. The program will focus on enhancing the Fellows’ capabilities to the level expected of an independent researcher and will include on-the-job and course-based development encompassing:

* Discipline-specific techniques and protocols
* Professional growth
* Project management
* Communication and influencing skills
* Working and collaborating with others

<http://www.csiro.au/en/Careers/Student-and-graduate-programs/Postdoctoral-fellowships>

## CSIRO Competencies:

1. **Teamwork and Collaboration: Cooperates with others to achieve organisational objectives and may share team resources in order to do this. Collaborates with other teams as well as industry colleagues.**
2. **Influence and Communication: Uses knowledge of other party's priorities and adapts presentations or discussions to appeal to the interests and level of the audience. Anticipates and prepares for others reactions.**
3. **Resource Management/Leadership: Allocates activities, directs tasks and manages resources to meet objectives. Provides coaching and on the job training, recognises and supports staff achievements and fosters open communication in the team.**
4. **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
5. **Independence: Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).**
6. **Adaptability:** Copes with ambiguity or situations that lack clarity. Adapts readily to changing circumstances and new responsibilities (which may include activities outside own preferences) in the interests of achieving team objectives. Recognises the need for and undertakes personal development as a result of changes.

## Essential Criteria:

*Under CSIRO policy only those who meet all essential criteria can be appointed.*

1. A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as plant pathology, preferably with a focus on fungal pathogens in the context of weed biological control. ***Please note:*** *To be eligible for this role you must have* ***no more than 3 years (or part time equivalent)*** *of postdoctoral research experience.*
2. **High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including the presentation of research outcomes at national and international conferences.**
3. **A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.**
4. Demonstrated laboratory and field-based research experience in plant pathology, with a focus on fungal pathogens and preferably relevant to weed biological control.
5. Ability to independently undertake rigorous investigations in plant pathology (including Koch’s postulates, pathogenicity evaluation).
6. Demonstrated understanding of pathogen biology and life-history to enable efficient investigations.
7. Demonstrated experience in experimental design and statistical analyses.
8. Demonstrated ability and willingness to conduct fieldwork across a range of terrestrial ecosystems, including in remote locations in Australia and overseas.
9. A record of science innovation and creativity, including the ability and willingness to incorporate novel ideas and lateral thinking into scientific investigations to develop appropriate solutions to research challenges.
10. **The ability to work effectively as part of a multi-disciplinary, multi-agency research team, and the motivation and discipline to carry out autonomous research.**
11. Demonstratedability andwillingness to incorporate novel ideas and approaches into scientific investigations*.*

## Desirable Criteria:

1. Knowledge of Sporobolus taxonomy to enable efficient laboratory and field studies (including plant propagation)
2. Demonstrated research experience in molecular taxonomy, phylogeny and/or population genetics.
3. Demonstrated research experience in one or more of the following fields, especially within the context of weed biological control: invasion biology, weed science, ecosystem processes, biogeography, plant ecology and community ecology.
4. Demonstrated experience with working in BC/PC facilities and obtaining and managing permits to conduct biological research.
5. Demonstrated ability and willingness to coach and train students and technical staff.

To be appointed as a CERC Postdoctoral Fellow within CSIRO, candidates are required to have **submitted** their PhD at the time of commencement, as a minimum requirement, if PhD conferment has not been obtained. If a candidate has submitted, but their PhD has not yet been formally attained, the starting salary will be CSOF4-1(AU$83,687).Upon CSIRO receiving written confirmation that the PhD has been awarded (within a six month period from commencement date), the salary will be increased to the negotiated level and the difference will be back-paid to the Officer’s start date.

## Special Requirements:

Appointment to this role may be subject to conditions including security/national police/medical/character clearance requirements. Applicants who are not Australian Citizens or Permanent Residents may be required to undergo additional security clearances, which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- <https://ielts.com.au/>

The successful applicant must have a current Class C driver’s licence or the ability to obtain one.

**Our value proposition**

We want CERC Postdoc Fellows to join our world class science, engineering and digital teams to solve big, complex problems that make a real difference to the future of Australia and the world.

You'll get to work with some of the most talented minds in their fields, not just in Australia, but in the world. At CSIRO, we spark off each other, learn from each other, trust each other and collaborate closely to achieve more than we could individually.

CSIRO Early Research Career (CERC) Postdoctoral Fellow Experience Employee Value Proposition (EVP). Find out more! <https://www.csiro.au/en/careers/postdoctoral-fellowships>

## About CSIRO:

At CSIRO we solve the greatest challenges through innovative science and technology. See more [online](http://www.csiro.au/)!

Find out more about CSIRO [Health and Biosecurity](https://www.csiro.au/en/Research/BF)