# Position Details

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

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| The following information is for applicants | |
| Advertised Job Title | CSIRO Postdoctoral Fellowship in Nematode Systematics |
| Job Reference | 677771 |
| Tenure | Specified Term of 2 years  Full-time |
| Salary Range | AU$86,434 to AU$94,679 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location | Black Mountain Science & Innovation Park, Canberra |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | * Australian/New Zealand Citizens and Australian Permanent Residents * Australian temporary residents currently residing in Australia (visa sponsorship may be provided to eligible candidates) |
| Position reports to the | Team Leader, Insect & Nematode Biosecurity |
| Client Focus – Internal | 10% |
| Client Focus – External | 90% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Mike Hodda via email at mike.hodda@csiro.au or phone +(02) 6246 4371 |
| How to apply | Apply online at <https://jobs.csiro.au/>  Internal applicants please apply via **Jobs Central**  If you experience difficulties when applying, please email [careers.online@csiro.au](mailto:careers.online@csiro.au) or call 1300 984 220. |

### Role Overview

**CSIRO 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.

The Postdoctoral Fellow will contribute to taxonomic research on local and exotic nematodes of the genus *Heterodera* (Cyst Nematodes). This will involve all stages of the taxonomic process, including review of existing knowledge and specimens, liaison with other researchers in the field, sourcing of additional specimen material, collection of new data, taxonomic evaluation, consolidation into robust conclusions and publication. To fit the research into a wider framework of nematode systematics and biosecurity, and ensure the results of this research will be useful to Australian diagnosticians, the successful candidate must have, or be able to develop, familiarity with

* the Australian plant health diagnostic and biosecurity systems; and
* other nematodes of biosecurity concern (such as Pine Wood Nematodes of the genus *Bursaphelenchus*).

An aim of the research is to provide a sound taxonomic basis enabling other researchers to developing new and improved diagnostics.

### Duties and Key Result Areas:

* **Taxonomic research on selected nematode genera involving acquisition of specimens, compilation of data and analysis of relationships**
  + Search on-line databases and other sources to obtain a comprehensive list of taxonomic acts involving the nematode genera of interest
  + Analyse currently available information to deduce the physical material and information needed to improve systematics of the target group, including suggesting new research directions and interpretations
  + Use professional networks to locate researchers and institutions with access to specimens from which to obtain data
  + Liaise with appropriate researchers and institutions to obtain specimens
  + Collect a range of data (morphological, biological, ecological and molecular) to inform research on relationships among the taxa of interest
  + Analyse the data to clarify relationships among the taxa
* **Collate materials for scientific presentations on results of work and to inform stakeholders of the work of the team, and present where appropriate.**
* **Prepare scientific publications, draft reports to funding bodies and other stakeholders, and presentation graphics for team presentations**
  + Produce scientific publications, progress and final reports for projects, and summaries of data and main findings.
  + Proofread MSS for spelling, grammar and clarity, check & obtain citation references, produce publication-standard diagrams, check format meets journal specifications, get submission information, manage internal e-publish process.
* **Develop familiarity with the Australian and International plant health diagnostic systems, to appreciate their requirements for taxonomy and be able to incorporate the requirements into research outputs, involving:**
  + The conceptual frameworks used to understand these systems;
  + The main elements and features of the systems;
  + The diagnostic resources deployed for plant health diagnostics, including
    - National Diagnostic Protocols NDPs (30), IPCC Diagnostic Protocols (30), keys and other information resources,
    - Images (PaDIL etc),
    - Human capability,
    - Physical collections,
    - Molecular tools, and the
    - Linkages between the above;
  + The main pests of national interest (NPPPs, HPPs and NAQS targets: 141, 430 & 60 taxa, respectively); and
  + The audit, diagnostic principles, and collections strategy activities recently completed by the team.
* **Assist in obtaining current data for revision and update the National Diagnostic Protocol for *Bursaphelenchus xylophilus***
* **General duties for the team**
  + Source & purchase equipment.
  + Help with general administration and running of the team when senior staff are unavailable.
* Carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
  + Recognise and exploit opportunities for innovation and the generation of new theoretical perspectives, and progress opportunities for the further development or creation of new lines of research.
  + Utilise design thinking methodology to plan and prepare research proposals, and apply non-academic impact methodology to research projects
  + Record, manage, and analyse data/information using relevant domain data science techniques.
  + Proactively undertake development to grow effective researcher capabilities to support career goals.
  + Adhere to the spirit and practice of CSIRO’s Code of Conduct, Health, Safety and Environment procedures and policy, Diversity initiatives and Making Safety Personal goals.
* Other duties as directed.

[**The CERC Postdoctoral Fellow learning and development program**](http://www.csiro.au/en/Careers/Student-and-graduate-programs/Postdoctoral-fellowships)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

## **Required Competencies:**

* **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.
* **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.
* **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.
* **Judgement and Problem Solving:** Investigates underlying issues of complex and ill-defined problems and develops appropriate response by adapting/creating and testing alternative solutions.
* **Independence:** Recognise and makes immediate changes to improve performance (faster, better, lower cost, more efficiently, better quality, improved client satisfaction).
* **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.

## **Selection Criteria**

#### Essential

*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 nematology, taxonomy, or a related field of biological study.

**Please note:** To be eligible for this role you must have at least one year of research experience but no more than 6 full-time equivalent years (or part time equivalent) of relevant experience, since confirmation of your doctorate at the end of this postdoctoral term.

1. The ability to obtain/hold and Australian Drivers Licence and willingness and ability to travel internationally and domestically.
2. Knowledge or experience in identification or taxonomy or diagnostics of nematodes, insects, other invertebrates and plant pests using different methods.
3. Experience in working collaboratively and creating professional relationships to achieve project aims.
4. The ability to schedule and complete tasks according to externally-imposed deadlines independently and ability to manage changing demands.
5. The ability to collate and summarise data, including interpretation and uncertainty, using an understanding of the project requirement.
6. 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.
7. A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.
8. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

## **Desirable:**

1. Knowledge or experience related to crop health or biosecurity.
2. The ability & willingness to contribute novel ideas and approaches in support of scientific investigations.
3. Remain productive, positive and resilient in complex, ambiguous and/or uncertain environments.
4. **The ability to work effectively as part of a multi-disciplinary, potentially regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.**

To be appointed as a CERC Postdoctoral Fellow within CSIRO, candidates will be expected to commence employment by December 2020. Candidates are also 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 + up to 15.4% superannuation). 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

* The successful candidate will be asked to obtain and provide evidence of a National Police Check or equivalent. Please note that people with criminal records are not automatically deemed ineligible. Each application will be considered on its merits.
* If the successful candidate is not an Australian Citizen or Permanent Resident, they 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 candidate will be required to obtain/hold an Australian Drivers Licence.
* The successful candidate may be required to travel internationally and domestically.

**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 [here](https://www.csiro.au/en/careers/postdoctoral-fellowships)!

## **About CSIRO:**

We solve the greatest challenges through innovative science and technology. To find out more visit us [online](http://www.csiro.au/)!

Find out more about the National Collections and Marine Infrastructure [here](https://www.csiro.au/en/Research/Collections)!