# 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 Biostatistics |
| Job reference: | 60296 |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | * All Candidates
 |
| Percentage of client focus - internal: | 50% |
| Percentage of client focus - external: | 50% |
| Reports to the: | Research Team Leader |
| Number of direct reports: | 0 |
| How to apply: | Please apply online at jobs.csiro.au and enter the requisition number. Internal applicants please apply via ‘Jobs Central’ through the ‘People Hub’ icon  |
| Contact details to discuss this position: | Sam Burnham via email: Samantha.Burnham@csiro.au *Please do not email your application to Sam Burnham. Applications received via this method will not be considered by the selection panel.* |
| If you have difficulty applying please contact: | Call 1300 984 220 or email csiro.online@csiro.au  |

## Role Overview:

**CSIRO Early Research Career (CERC) Postdoctoral Fellowships** at CSIRO 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.**

## The Postdoctoral fellow will undertake bio statistical research to elucidate knowledge from multifaceted datasets. The fellow will develop solutions for personalised diagnosis and prognosis in aging populations with tangible outcomes and impact.

## CSIRO Health and Biosecurity provides an outstanding environment with strong capability in employing disruptive technologies for health and medical solutions. The fellow will be in the enviable position of working with internationally renowned experts as part of an interdisciplinary team of academics, clinicians, scientists and students. The fellow will benefit from access to extensive resources and capability as well as a high-performance computing infrastructure (GPU clusters and high-end workstation). The project will have access to existing data from pre-eminent clinical studies from around the world including the Australian Imaging Biomarkers and Lifestyle study of ageing (more than 2000 individuals followed for over 10 years).

## Duties and Key Result Areas:

* Under the direction of senior research scientists and engineers, CERC Postdoctoral Fellows:
* 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.
* Carry out research investigations requiring originality, creativity and innovation.
* Record, manage, and analyse data/information using relevant domain data science techniques.
* Develop innovative concepts, theories, tools, and techniques related to the analysis and integration of clinical, imaging, and other medical data.
* Assist with the identification and resolution of any problems in methodology, results, etc. to ensure the highest quality of our outputs
* Undertake regular reviews of relevant literature and patents.
* Produce high quality scientific and/or clinical papers suitable for publication in quality journals, for client reports and granting of patents.
* Prepare appropriate conference papers and present those at conferences as agreed with your supervisor.
* Communicate effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Adhere to the spirit and practice of CSIRO’s Values, Health, Safety and Environment plans and policies, Diversity initiatives and Zero Harm goals.
* Undertake an appropriate training and development program developed by CSIRO.
* 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.

## Selection Criteria:

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

* A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area, such as statistics, mathematics, computer science, engineering.

**Please note:** To be eligible for this role you must have **no more than 3 years (or part time equivalent)** of relevant postdoctoral experience.

* Evidence of a strong statistical background, particularly in areas related to longitudinal data analysis
* Evidence of advanced programming skills (e.g. Python, R, Perl, Java)
* Demonstrated ability to investigate issues of complex and ill-defined problems and develop appropriate responses by adapting/creating and testing alternative solutions
* Demonstrable evidence of well-developed written and verbal communication skills, for example, publications in academic environments such as scientific journals/conference proceedings, experience presenting and demonstrating at conferences, industry exhibitions, internal training seminars
* **The ability to work effectively as part of a multi-disciplinary, regionally dispersed research team, plus the motivation and discipline to carry out autonomous research.**
* A record of science innovation and creativity, plus the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

## Desirable Criteria:

* Experience with web application development (e.g. R Shiny, Python)
* Experience with ‘Big Data’ approaches for linking and harmonising datasets
* Demonstrated knowledge and skills in mathematical optimisation
* Experience working with clinical or medical data

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 *($82,450 + 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:

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/>

**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.

**About CSIRO:**

We imagine. We collaborate. We innovate. To find out more visit us [online](http://www.csiro.au/)!

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