# 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 Nutritional Physiology |
| Job Reference | 71065 |
| Tenure | Specified Term of 3 years  Full-time or Part-time |
| Salary Range | AU$86,434 to AU$94,679 pa (pro-rata for part-time) + up to 15.4% superannuation |
| Location(s) | Adelaide, SA |
| 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/Group Leader |
| Client Focus – Internal | 80% |
| Client Focus – External | 20% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr Damien Belobrajdic via email at Damien.belobrajdic@csiro.au or phone +61 8 8303 8815 |
| 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 Early Research Career (CERC) Postdoctoral Fellowships** provide opportunities to scientists and engineers who have completed their doctorate but 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 CSIRO Nutrition and Health Program is seeking a Postdoctoral Fellow to identify novel micro- and macro-algae species that provide a well-balanced and highly digestible alternative protein source that provides additional functional food components that have metabolic and gut health benefits. The successful candidate will interact closely with world-renowned experts across four CSIRO business units (Health & Biosecurity, Agriculture & Food, Oceans & Atmosphere, National Collections and Marine Infrastructure) and the University of Technology Sydney (UTS) to build the case for the next plant-based species that will be fundamental in addressing the growing global food security challenge.

In this project the Postdoctoral Fellow will focus on the following key challenges and deliverables:

1. Develop a pipeline to select algal species for use as high-value protein sources
2. Generate a thorough understanding of the composition and functionality of algal species
3. Optimise growth conditions of target algae species

The innovative research will enable the Postdoctoral Fellow to work at the cutting-edge of analytical methodology (algal phenomics, metabolomics, proteomics) to identify key algae species from the Australian National Algae Culture Collection (ANACC) and UTS.

Project success would see the Postdoctoral Fellow identify novel algae species that are high-quality protein sources with functional gut and/or metabolic health benefits.

The position will be initially based in Adelaide, but travel to other CSIRO research sites across Australia and University of Technology Sydney will be required.

### Duties and Key Result Areas:

Under the direction of senior research scientists and engineers, the CERC Postdoctoral Fellow will:

* Drive multi-disciplinary, cross-BU collaboration supported by four top-class laboratories with vast expertise in nutrition, proteomics, bioinformatics, algal phenomics and metabolomics. This will require the candidate to effectively communicate across several disciplines each having a distinct and deeply technical vernacular.
* Utilise the novel algae species collection (ANACC, Hobart) to develop comprehensive nutrient data and evaluate functional health attributes using a broad range of in vitro and in vivo models available at Health & Biosecurity (Adelaide).
* Take intellectual ownership of the project, reporting regularly at local and remote team meetings, developing presentation skills and gaining confidence.
* Gain exposure to the scientific community through presentation at eminent scientific conferences emerging with a series of papers in high quality journals. The project lies at the intersection between phycology, nutrient metabolism and the development of new food applications that improve health.
* Participate in Intellectual Property protection within a team with extensive commercialisation experience.
* Undergo formal training in scientific writing, statistical analysis, seminar presentation and IP development. An internal mentor will monitor their development plan, provide project design/management skills and provide career development advice.
* 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.
  + 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 skills
* Communication and influencing skills
* Working and collaborating with others across divergent disciplines

## **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 nutrition physiology, biochemistry, microbiology or molecular biology.

Please note: To be eligible for this role you must **not have more than 3 years** (or part time equivalent) of postdoctoral research experience.

1. Research experience in extraction, purification and/or analysis of protein from algae and/or plant-based sources.
2. Nutrition knowledge that includes protein, amino acids, anti-nutrient factors, micronutrients, polyphenols and/or dietary fibre.
3. Demonstrated ability to develop and/or apply biochemical and molecular techniques to quantify nutrients, proteins, metabolites and/or microbial communities in biological samples.
4. High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including publication of scientific papers in peer reviewed journals and presentation of research outcomes at national and international conferences.
5. Demonstrated project management skills with the ability to effectively manage simple and complex projects to successful completion.

## **Desirable:**

1. Experience with designing and executing in vitro, animal and/or human clinical trials, including pre-processing and preparation of samples for analysis.
2. Demonstrated ability to apply statistical, modelling, visualisation and/or computational tools in relation to characterisation of complex data sets.
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.**
5. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.
6. A history of professional and respectful behaviours and attitudes in a collaborative team environment.
7. Experience in “omics” platforms and analyses (including mass spectrometry).

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 $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 provision of a national police check as well as other security/medical/character clearance 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/

**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/)!

CSIRO is a values-based organisation.  In your application and at interview you will need to demonstrate behaviours aligned to our values of:

* 1. People First
  2. Further Together
  3. Making it Real
  4. Trusted

Find out more about CSIRO [Agriculture and Food](https://www.csiro.au/en/Research/AF)

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

Find out more about CSIRO [Land and Water](https://www.csiro.au/en/Research/LWF)

Find out more about CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)