# Position Details

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

|  |  |
| --- | --- |
| The following information is for applicants | |
| Advertised Job Title | CSIRO Postdoctoral Fellowship in Ocean circulation of the Indonesian Seas |
| Job Reference | 67829 |
| 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(s) | Hobart, Tasmania |
| 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 | Research Team Leader Dr. Bernadette Sloyan |
| Client Focus – Internal | 5% |
| Client Focus – External | 95% |
| Number of Direct Reports | 0 |
| Enquire about this job | Contact Dr. Bernadette Sloyan via email at Bernadette.Sloyan@csiro.au or phone +61 3 6232 5152 |
| 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 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 two years or part time equivalent.**

This position is within the Centre for Southern Hemisphere Ocean Research (CSHOR), which is a joint initiative between the Qingdao National Laboratory for Marine Science (China), CSIRO, University of New South Wales (UNSW) and University of Tasmania (UTAS). The CSHOR objective is to increase investment in ocean-climate research in order to improve our understanding of how the southern hemisphere oceans influence global and regional climate, and how the climate influences these oceans. The position will **based in CSIRO**, and will work in the Indo-Pacific inter-basin exchange project, to study the impacts of tides on the Indonesian Throughflow circulation and property fluxes between the Pacific and Indian Oceans.

The Indo-Pacific inter-basin exchange project postdoctoral position will develop and analyse a series of regional high-resolution ocean model simulations. This includes tidal forcing to quantify the role of ocean mixing and air-sea fluxes in modifying sea surface temperature and salinity, and fluxes of properties from the Pacific to Indian oceans.

### Duties and Key Result Areas:

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

* + Use the Massachusetts Institute of Technology general circulation model to develop and run a suite of high-resolution (10, 4, 1-km) simulation.
  + Resolve complex topography of the Indonesian seas, mesoscale and submesoscale motions, and a large fraction of the internal wave-scale motions, including internal tides.
  + Increase knowledge of key process and dynamical understanding to explain the variability of the Indonesian Through Flow and connection between the Pacific and Indian Tropical oceans.
  + Carry out innovative, impactful research of strategic importance to CSHOR that will lead to novel and important scientific outcomes.
  + Carry out research investigations requiring originality, creativity and innovation
  + 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 Climate Science or Oceanography.

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

1. A strong background and substantial experience with the MITgcm including the design, running and analysis of model simulations.
2. **Sophisticated programming skills to analyse large model data sets and compare them rigorously to observations.**
3. Substantial experience with Australia’s high performance computing infrastructure.
4. 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.
5. A sound history of publication in peer reviewed journals and/or authorship of scientific papers, reports, grant applications or patents.
6. A record of science innovation and creativity, including the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

## **Desirable:**

1. Experience on an oceanographic research voyage and knowledge of oceanographic instruments.
2. Ability to work at sea
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 February 2021. 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 ($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.

**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 CSIRO [Oceans and Atmosphere](https://www.csiro.au/en/Research/OandA)