# Post-Doctoral Fellow

Role summary for potential applicants

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| Advertised Job Title**:** | FSP Postdoctoral Fellow in Synthetic Biology |
| Reference Number**:** | 37943 |
| Classification**:** | CSOF4 |
| Salary Range: | AUD$81,055 to AUD$88,787 plus up to 15.4% superannuation |
| Location**:** | Black Mountain, ACT |
| Tenure: | Specified Term until June 2019 |
| Relocation assistance**:** | Will be provided to the successful candidate if required. |
| Applications are open to: | [ ]  Australian Citizens Only[ ]  Australian Citizens and Permanent Residents Only* [x]  All Candidates
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| Functional Area**:** | Research Scientist/Engineer |
| % Client Focus - Internal: | 100 |
| % Client Focus - External: | 0 |
| Reports to the: | Project Leader (Colin Scott) |
| Number of Direct Reports: | No direct reports  |

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| **Role Overview:** |
| [Future Science Platforms](http://www.csiro.au/en/About/Future-Science-Platforms) are an investment in science that underpins innovation and that has the potential to help reinvent and create new industries for Australia. FSPs will see us grow the capability of new generation of researchers and allow Australia to attract the best students and experts to work with us on future science. They are strategic investments aimed at developing capacity in areas of identified future importance for Australia. FSPs are both impact and science focused, developing innovative scientific solutions with industry, government and university partners. They support world class, coherent and creative research teams which integrate science and delivery over the long term, looking to the future science needs of CSIRO and our partners with a 5 to 10 year vision. To position Australia to build a vibrant synthetic biology research and development community to support the bio-based industries and ecoengineering activities of tomorrow, CSIRO has established the [Synthetic Biology FSP](https://research.csiro.au/synthetic-biology-fsp/) (SynBioFSP). Synthetic Biology (SynBio) is the design and construction of biological parts, devices, and organisms (usually based on DNA-encoded componentry); and their application for useful purposes. The SynBioFSP has a mission to develop capacity in synthetic biology within CSIRO and across Australia, in a collaborative and transparent manner. Science capability will be strongly aligned with CSIRO business unit capabilities and will allow CSIRO to deliver novel future outcomes for external partners. The program has a $13 million funding envelope over the first three years. We aim to:1. Build the foundational capabilities to advance SynBio research, including significant investment in social licence to operate
2. Drive national coordination by making these foundational capabilities widely available to the broad research community, governments, and industry for the development of novel industrial products, pharma, biocontrol agents, and strategies for building ecosystem resilience to environmental change, and
3. Build strong partnerships, collaborations, and connections across the innovation sector to develop these novel products and applications responsibly.

The Synthetic Biology FSP (SynBioFSP) is developing a research portfolio which will be spread across CSIRO and a wide variety of partner organisations (universities, industry, NGOs, other research organisations, etc.), both national and international. The research portfolio is dynamic and will evolve over time on the basis of strategy and performance. Research projects will sit within one or more priority [Application Domains](https://research.csiro.au/synthetic-biology-fsp/application-domains/) (Environment & Biocontrol, Chemicals & Fibres, Organelles & Endosymbionts) and one or more [Science Domains](https://research.csiro.au/synthetic-biology-fsp/science-domains/) (Integrative Biological Modelling, Engineering Novel Biological Components, Assembling Novel Biosystems, Maximising Impact). The SynBio FSP will embed a social and behavioural science agenda to address issues around social licence to operate.**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 will help launch their careers, provide experience that will enhance their career prospects, and facilitate the recruitment and development of potential leaders for CSIRO. Postdoctoral Fellows **are appointed for up to three years** and will work closely with a leading Research Scientist or Engineer in their respective field. They carry out innovative, impactful research of strategic importance to CSIRO with the possibility of novel and important scientific outcomes. They present the findings in appropriate publications and at conferences.We seeking an accomplished early career scientist for a collaborative project in Synthetic Biology. Specifically, the project is focused on the production of an orthogonal metabolic pathway in *E. coli* that is dependent upon a non-native cofactor. The successful candidate will be responsible for the experimental design and execution; including, design of genetic componentry, genetic reprogramming/metabolic engineering of bacteria and metabolomic analysis of new strains using state-of-the art LC & GC MS. They will communicate their finding through high-end scientific publication and presentation at relevant scientific conferences. The project is based at CSIRO in Canberra, and is part of a larger collaboration between CSIRO and the Australian National University (Canberra) and Macquarie University (Sydney). The successful application will have highly developed interpersonal skills and the capacity to collaborate with colleagues of diverse scientific backgrounds.  |

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| **Duties and Key Result Areas:** |
| * Under the direction of senior research scientists, carry out innovative, impactful research of strategic importance to CSIRO that will, where possible, lead to novel and important scientific outcomes.
* Experimental design and execution, including design of genetic componentry, genetic reprogramming/metabolic engineering of bacteria and metabolomic analysis of new strains using state-of-the art LC & GC MS.
* Communication of results through the production of reports and scientific papers and contributions to appropriate scientific conferences.
* Interact productively with a diverse multidisciplinary, multi-institutional team (CSIRO, Macquarie University and the Australian National University)
* Produce high quality scientific and/or engineering papers suitable for publication in quality journals, for client reports and granting of patents.
* Contribute to the development of innovative concepts and ideas for further research.
* Make a contribution to the effective functioning of the research team and help deliver CSIRO’s organisational objectives and plans.
* Work collaboratively with colleagues within your team, the business unit and across CSIRO.
* 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.

***CSIRO’s postdoctoral training program***is developed between the Postdoctoral Fellow and a CSIRO scientist. 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>
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| **Selection Criteria:** |
| *Under CSIRO policy only those who meet all essential criteria can be appointed****Pre-Requisites:**** **Education/Qualifications:** A doctorate (or will shortly satisfy the requirements of a PhD) in a relevant discipline area such as Synthetic Biology, Metabolic Engineering or related field.

***Please note:*** *To be eligible for this role you must have* ***no more than 3 years*** *of relevant postdoctoral experience.** **Communication: High level written and oral communication skills with the ability to represent the research team effectively internally and externally, including at national and international conferences.**
* **Publications: A record of publications in quality, peer reviewed journals.**
* **Behaviours:** A history of professional and respectful behaviours and attitudes in a collaborative environment.

***Essential criteria:***1. Demonstrated experience in Synthetic Biology/Metabolic Engineering and Metabolomics (high end GC and/or LC-MS)
2. Proven proficiency in scientific communication through publication
3. Ability to foster productive and inclusive interactions with colleagues from diverse scientific backgrounds and at a variety of levels of seniority (e.g. students, group leaders, professors etc).
4. **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.**
5. A record of science innovation and creativity, plus the ability & willingness to incorporate novel ideas and approaches into scientific investigations.

***Desirable criteria***1. Experience in Metabolic Systems Modelling

***CSIRO Values:***As Australia’s Innovation Catalyst, CSIRO has strategic actions underpinned by behaviours aligned to: * Excellence in science,
* Inclusion, trust & respect,
* Health, safety & environment
* Deliver on commitments.

In your application and at interview you will need to demonstrate alignment with these behaviours.To be appointed as a 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, AUD$78,479. 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.**Other special requirements:**Appointment to this role may be subject to conditions including security/medical/character clearance requirements. Applicants who are not Australian Citizens or Permanent Residents may be required to undergo additional security clearance processes; which may include medical examinations and an international standardised test of English language proficiency (i.e. IELTS test).- [*http://www.ielts.org/default.aspx*](http://www.ielts.org/default.aspx) |

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| **Other Information:** |
| **How to Apply**Please apply for this position online at [www.csiro.au/careers](http://www.csiro.au/careers). You will need to upload your cover letter and resume/CV as ONE document, expressing your interest in the role and addressing each of the Selection Criteria. Please provide sufficient relevant information to enable the selection panel to assess your suitability against the Selection Criteria. Should your application proceeds to the next step, you may be asked to provide additional information.If you experience difficulties applying online call 1300 984 220 and someone will be able to assist you. Outside business hours please email: csiro-careers@csiro.au**Referees**: If you do not already have the names and contact details of two previous supervisors or academic/ professional referees included in your resume/CV please add these before uploading your CV.**Contact:** If after reading the selection documentation you require further information please contact Colin Scott by email at colin.scott@csiro.au or by phone at +61 6246 4090.**About CSIRO:** Australia is founding its future on science and innovation. Its national science agency, the Commonwealth Scientific and Industrial Research Organisation (CSIRO) is a powerhouse of ideas, technologies and skills for building prosperity, growth, health and sustainability. It serves governments, industries, business and communities across the nation. Find out more! [www.csiro.au](http://www.csiro.au). **About the SynBio FSP Future Science Platform**: For more information, see the [Synthetic Biology FSP](https://research.csiro.au/synthetic-biology-fsp/) website. |