# Position Details

## Research Scientist/Engineer- CSOF6 or CSOF7

|  |
| --- |
| The following information is for applicants |
| Advertised Job Title | Research Scientist – Regulated Biomanufacturing.Fermentation Lead |
| Job Reference | 94871 |
| Tenure | Indefinite / Full-time  |
| Salary Range | CSOF6: AU$ $121,455 to $ 142,321 pa (pro-rata for part-time) + up to 15.4% superannuationCSOF7: $146,207 to $161,767 pa (pro-rata for part-time) + up to 15.4% superannuation\* *Applications are invited across two capability levels and the successful candidate will be appointed at the level that is commensurate with their skills and experience.* |
| Location(s) | CSIRO Clayton, Victoria |
| Relocation Assistance | Will be provided to the successful candidate if required |
| Applications are open to | Australian/New Zealand Citizens and Australian Permanent Residents only  |
| Position reports to the | Team Leader, Upstream Operations |
| Client Focus – Internal | 20% |
| Client Focus – External | 80% |
| Number of Direct Reports | Individual contributor |
| Enquire about this job | Contact Fran Harding at fran.harding@csiro.au  |
| 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 or call 1300 984 220. |

**Acknowledgement of Country**

CSIRO acknowledges the Traditional Owners of the land, sea and waters, of the areas that we live and work on across Australia. We acknowledge their continuing connection to their culture and pay our respects to their Elders past and present. View our [vision towards reconciliation](https://www.csiro.au/en/about/Indigenous-engagement/Reconciliation-Action-Plan).

**Child Safety**

CSIRO is committed to the safety and wellbeing of all children and young people involved in our activities and programs. View our [Child Safe Policy](https://www.csiro.au/en/about/policies/child-safe-policy).

### Role Overview

The role of Research Scientist Staff in CSIRO is to conduct innovative research leading to scientific achievements that are aligned with the strategy of the organisation. You may be engaged in scientific activity ranging from fundamental research to the investigation of specific industry or community problems. You will have the opportunity to build and maintain networks, play a lead role in securing project funds, provide scientific leadership and pursue new ideas and approaches that create new concepts.

The purpose of this position is to provide hands-on technical leadership in the field of microbial fermentation and midstream processing operations for manufacture of biotherapeutic proteins and vaccines within a regulated manufacturing setting. CSIRO is embarking an exciting strategy to expand capability in manufacture of vaccines and therapeutics in prokaryotic hosts. This is an opportunity to be part of the start-up team. The position reports to the team leader for Upstream Operations, Regulated Biomanufacturing and is responsible for provision of advanced manufacturing scientific knowledge in the discipline of microbiology, fermentation, and associated bioprocessing. The role plays a key function in the securing of projects, as well as facilitating the transfer and execution of new fermentation protocols into the Regulated Biomanufacturing laboratories. The successful candidate will be a team player with highly developed written and verbal communication skills, as well as extensive client engagement experience.

### Duties and Key Result Areas:

* Provide hands-on leadership of fermentation unit operations for expression of recombinant proteins in a regulated manufacturing setting and serve as a point of accountability for transfer and implementation of fermentation-based manufacturing methods.
* Lead through expertise and influence to ensure that new manufacturing protocols are established in accord with the CSIRO Quality Management System and are completed within the agreed timeframes and budget.
* As an experienced scientific leader, lead through influence by providing direction, mentoring, and career development opportunities to more junior colleagues in agreement with the needs of the organisation and in accord with CSIRO core values.
* Generate and analyse fermentation data from both research and manufacturing studies to identify opportunities for continuous improvement in the operation of fermentation and bioprocessing systems.
* Assume ownership of fermentation equipment and maintain the same equipment in a compliant and ready state for ongoing manufacturing operations.
* Accurately write and review regulated batch manufacturing records. Communicate research results to clients and the scientific community through oral and written reports which may include the preparation of documents for patent applications.
* Engage with clients as an authority on fermentation protocols for a range of host expression systems to secure projects for execution in the microbial production laboratories.
* Act as a trusted advisor, utilising knowledge of client’s business and understanding of their underlying needs. Support the establishment of a portfolio of commercial engagements in fermentation and mRNA manufacturing.
* Participate in project scoping, planning, and budgeting activities that shape the future direction of the fermentation /mRNA manufacturing discipline.
* Communicate openly, effectively and respectfully with all staff, clients and suppliers in the interests of good business practice, collaboration and enhancement of CSIRO’s reputation.
* Work collaboratively as part of a multi-disciplinary research team to carry out tasks in support of CSIRO’s scientific objectives.
* Set project goals within the Business Unit’s research direction in the realm of Regulated Biomanufacturing of new vaccines and biotherapeutics and manage the delivery of project outcomes.
* 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.

**Additional duties for consideration of appointment at CSOF7:**

* Apply specialist expertise to solve complex problems within a discipline of advanced fermentation science for manufacture of new vaccines and biotherapeutics in microbial hosts across a diverse range of projects.
* Extend existing knowledge of experimental design and/or technology via achievements which facilitate the development of new perspectives in the field of fermentation production, protein expression, as applied to biological manufacturing systems.
* Progress complex sensitive and/or contentious matters to finality with purpose to meet or exceed customer expectations.
* Within the realm of advanced fermentation technology, anticipate, plan and implement change with the outcome to streamline analytical workflows or enhance workflow efficiency.
* Design portfolio strategy, expanding CSIRO capability in microbial fermentation and mRNA manufacturing. Anticipate industry needs and market direction through client liaison/networking and identify and adapt quickly to changes. Lead multi-disciplinary or multi-Business Unit projects.
* Play a leading role in the effective 2-way transfer of new technologies into CSIRO and outwards to meet the needs of customers.
* Be accountable for the quality of the results delivered and maintain alignment of the project activities with business and research directions.
* Play a key advisory role in decisions concerning scientific/technology direction.
* Take primary responsibility for establishing and maintaining client relationships. Develop engagement strategies for relevant industry sectors.

## **Required Competencies at CSOF6:**

* **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:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Sets up and maintains effective and efficient work teams and manages performance and resources, to achieve objectives. Chooses appropriate management strategies and communication styles to maintain high levels of motivation and productivity. Gives feedback for development purposes and provides support and direction for improvement.
* **Judgement and Problem Solving:** Anticipates and manages problems in ambiguous situations. Develops and selects an appropriate course of action and provides for contingencies. Evaluates, interprets and integrates complex bodies of information and draws logical conclusions, synthesises proposals and defends options with reasoned arguments.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Demonstrates flexibility in thinking and adapts to, and manages, the increasing rate of organisational change by adjusting strategies, goal and priorities.

## **Required Competencies at CSOF7:**

* **Teamwork and Collaboration:** Creates and fosters an environment in which there is a high level of cooperation within and between teams. Facilitates positive team relationships to build interactions across Business Units and the organisation.
* **Influence and Communication:** Identifies critical stakeholders and influences them via an influential third party, for example through an established network, to gain support for sometimes contentious proposals/ideas.
* **Resource Management/Leadership:** Provides leadership that fosters an environment that encourages new ideas and provides support for the development of emerging skills. Creates trust by displaying consistency, understanding, integrity and patience. Plans, seeks, allocates and monitors resources to achieve outcomes.
* **Judgement and Problem Solving:** Resolves major conceptual scientific, technical, commercial or management problems, which have a significant impact upon the field of research, professional function, the Business Unit or the Organisation. Situations faced have little or no precedent and require original concepts and approaches.
* **Independence:** Assesses the risk and opportunity of identified strategies, options and actions. Overcomes problems and setbacks in achieving goals. Invariably includes consideration of value-added future impact on bottom line when determining the optimal and efficient use of resources.
* **Adaptability:**Is flexible in response to external change or when faced with external constraints. Identifies and promotes the opportunities arising as a result of change.

## **Selection Criteria**

#### Essential

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

1. An advanced degree in Microbiology, Biotechnology, Biochemical Engineering or related field or equivalent experience.
2. Experience in the development and application of fermentation protocols for manufacture of biotherapeutic proteins and vaccine antigens.
3. Theoretical and practical knowledge of fermentation unit operations including process development, optimisation, transfer, and troubleshooting.
4. Experience working under the framework for Good Manufacturing Practices (GMP) gained through industrial experience.

## **Desirable:**

1. Knowledge of midstream unit operations for isolation and purification for both secreted and intracellular recombinant protein products.
2. Direct experience and working knowledge of current GMP frameworks for manufacture of human vaccines and biotherapeutics with global regulators such as the Therapeutic Goods Administration, US Food and Drug Administration, or European Medicines Authority.
3. Experience in scoping, securing and delivering fermentation projects.
4. Experience with E. Coli and Pichia fermentation and mRNA manufacturing processes highly regarded.

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.

## **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 [Manufacturing](https://www.csiro.au/en/Research/MF)