# Position Details

## Research Scientist/Engineer- CSOF7

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| The following information is for applicants |
| Advertised Job Title | Upstream Manufacturing Lead – Regulated Biomanufacturing |
| Job Reference | 97137 |
| Tenure | Indefinite, Full-time |
| Salary Range | AU$152k - AU$168k per annum (pro-rata for part-time)plus up to 15.4% superannuation |
| 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 | Group Leader, Regulated Biomanufacturing |
| Client Focus – Internal | 40% |
| Client Focus – External | 60% |
| Number of Direct Reports | 7 |
| Enquire about this job | Contact Patrick James patrick.james@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 both hands-on and strategic technical leadership in the manufacture of vaccines and recombinant proteins as synthesised in prokaryotic and eukaryotic culture systems. The position reports to the Group Leader for Regulated Biomanufacturing and is responsible for provision of advanced manufacturing scientific knowledge in the discipline of fermentation, cell culture production, and associated bioprocessing unit operations. The role plays a key function in the securing of projects as well as facilitating the transfer and execution of new fermentation and cell culture protocols into the Regulated Biomanufacturing laboratories. The successful candidate will be a team player with highly developed written and verbal communication skills.

### Duties and Key Result Areas

* Provide advanced scientific leadership in all aspects pertaining to fermentation and cell culture manufacturing operations for expression of recombinant proteins in a regulated manufacturing (GMP) setting.
* 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.
* Ensure that client needs are met and play a leading role in the effective transfer of new technology to industry. Serve as the point of accountability for customers and project teams with scope that includes process design, qualification, scale up, and execution new manufacturing protocols for vaccines and biotherapeutics using fermentation and cell culture technologies.
* Engage with clients as an expert on fermentation and cell culture manufacturing protocols, secure and deliver on large complex projects in the CSIRO National Vaccine and Therapeutics Laboratory. Act as a trusted advisor, utilising knowledge of client’s business and understanding of their underlying needs.
* Write manufacturing documentation and instructions to support the safe operation of equipment, technology technical transfer, and regulated manufacture of vaccines and biotherapeutics. Generate and analyse data from both research and manufacturing studies to identify opportunities for continuous improvement in the operation of fermentation and cell culture production systems.
* Oversee the fermentation and cell culture equipment and ensure that equipment is in a compliant and ready state for ongoing manufacturing operations.
* Communicate research results to clients and the scientific community through oral and written reports which may include the preparation of documents for patent applications.
* 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.
* Provide supervision, guidance, and support to a multidisciplinary team of scientists, engineers, and technologists working in fermentation and cell culture technologies for pilot scale manufacture of recombinant proteins.
* As an experienced scientific leader, lead through influence by providing direction, mentoring, and career development opportunities to junior colleagues in agreement with the needs of the organisation and in accord with CSIRO core values.
* 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.
* Act as a trusted advisor and demonstrate creativity to determine and anticipate client project needs at the portfolio level. Engage with clients as an expert on matters related to cell culture and fermentation manufacturing technologies in the CSIRO Regulated Biomanufacturing group.
* Demonstrate a network across the Australian medical research industry and establish a network internationally to anticipate industry needs and market direction through client liaison/networking and identify and adapt quickly to changes.
* Work in partnership with Business Development, Research and Development, and Program Leadership to identify and secure new project opportunities. Develop opportunities by scoping and authoring comprehensive multidisciplinary project proposals to meet client needs.
* Apply specialist expertise to solve complex problems within a discipline of advanced fermentation and/or cell culture science for manufacture of new vaccines and biotherapeutics in a diverse range of expression hosts.
* Extend existing knowledge of experimental design and/or technology via achievements which facilitate the development of new perspectives in the field of recombinant protein expression, as applied to biological manufacturing systems.
* Lead and/or participate in numerous projects simultaneously - including multi-disciplinary or multi-Research 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.
* Maintain a sound understanding of the client’s business, negotiate work requirements with clients or project teams and ensure that client needs are met.
* Other duties as directed.

## **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. Comprehensive industry experience in the development and application of fermentation or cell culture protocols for manufacture of biotherapeutic proteins and vaccine antigens.
3. Expert knowledge in the theoretical and practical knowledge of cell culture or fermentation unit operations including process development, optimisation, transfer, and troubleshooting.
4. Experience in leading staff on large projects, including setting up effective and efficient teams.
5. Experience working under the framework for Good Manufacturing Practices (GMP) gained through industrial experience.
6. Experience in scoping, securing and delivering large, complex cell culture projects.
7. Extensive experience influencing third parties through communication to gain support for proposals.

## **Desirable**

1. Knowledge of midstream unit operations for isolation and purification for both secreted and intracellular recombinant protein products.
2. Experience scoping, securing and delivering fermentation projects.
3. 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.
4. Demonstrated ability to represent the organisation in external scientific or technological forums and examples of establishing and leading such forums or panel discussions.

## **Required Competencies**

* **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.

Special Requirements

Appointment to this role is subject to provision of a pre-employment background check and may be subject to other security/medical/character clearance requirements.

* The successful candidate will undertake a pre-employment background check. Please note that individuals 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. Visit [CSIRO Online](http://www.csiro.au/) and CSIRO [Manufacturing](https://www.csiro.au/en/Research/MF) for more information.

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

* People First
* Further Together
* Making it Real
* Trusted