

Scientist 2 – Microbial Fermentation – Job Description

Role Purpose:

To contribute to the delivery and realisation of project work through preparation, development, research, design, testing, and analysis work in line with team and business unit requirements. The Scientist 2 will work using their own initiative and with some technical supervision from their manager and senior colleagues, assisting with development and improvement activities.

Key Responsibilities:

- To maintain consistent and documented compliance with all relevant Safety, Health and Environmental (SHE), quality and best practice requirements.
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- To build and maintain a network of relevant internal stakeholders, to represent self and the wider team as a credible professional in networks and groups.
- To keep self up to date with developments in areas relevant to role, and/or legislative and SHE related changes, ensuring understanding of these and any associated new best practice, methods, or techniques.
- To support in Business Development and Bid Proposal activities, to contribute to proposal/project development and direct customer engagement.
- To present and formally report experimental conclusions and supporting data for internal peer review and submission to clients, to agreed timescales and standards.
- To actively engage in hazard studies / SRA studies and discussions, as appropriate to role level.
- To set up, plan and execute experimental / pilot scale runs and analyse, interpret, and report the results of these within agreed timescales and standards and in accordance with project requirements.
- To be responsible for providing clearly documented records of technical data, decisions, methodologies, calculations, and software use in an agreed format.
- To take ownership in agreeing weekly workplans with line manager, project manager(s) and other relevant stakeholders, and delivering plan to agreed schedule.
- To be responsible for the maintenance and calibration of equipment to ensure it operates in a safe and efficient manner and is available to meet customer needs.

Role specific responsibilities:

To have and continuously develop a good knowledge/expertise relevant to upstream processing of biopharmaceuticals such as proteins, viral vectors, and nucleic-acid based products expressed in bacterial, yeast cells and/or cell-free systems. Your knowledge/expertise should be both practical and theoretical in areas such as:

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- Theoretical and practical knowledge in Molecular Biology, Biologics expression, Bioreactor scale up, high-throughput screening and associated analytical techniques
- Lead and deliver experimentation around the production of therapeutic biologics focussed on the design, development and scale-down/scale-up of microbial upstream processes
- Expertise and practical understanding of microbial strain construction, selection, and characterisation
- Knowledge and use of reusable or single use bioreactor systems such as Sartorius's Biostat range or similar
- Application of techniques for the analysis of proteins and other biologics
- Application of experimental design and statistical concepts to experimental planning
- Use and application of computer systems and software for data acquisition and analysis
- Document writing, data interpretation, presentation, and statistical analysis
- Knowledge of bioprocessing industry and cGMP concepts
- Application of your broad scientific knowledge to projects and client programs
- Providing training, mentoring and supervision to other members of the team
- To assist the scale up of microbial upstream processes (up to pilot scale) to provide proof of successful process development/optimisation.
- Maintain knowledge of new practices and procedures from relevant literature and other sources.

Direct reports: No direct reports

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Person specification

Education / Qualifications:

Essential:	Desirable:
<p>Educated to HNC or Foundation Degree level (or equivalent) in a Scientific/Engineering discipline plus relevant industrial experience at a senior level.</p> <p>Or</p> <p>Educated to Degree level (or equivalent) in a Scientific/Engineering discipline plus significant industrial experience.</p> <p>Or</p> <p>Educated to Master Degree level (or equivalent) in a Scientific/Engineering discipline plus significant relevant industrial experience.</p> <p>Or</p> <p>Educated to PhD level (or equivalent) in a Scientific/Engineering discipline.</p>	

Competencies and behaviours	
Leadership (Core)	Decision Making (Enabling)
<ul style="list-style-type: none"> Respects and values the diversity of talents, skills, and backgrounds that others bring to joint projects / work. Has a positive influence on those in contact with. Gains the respect and confidence of colleagues and supports them in achieving their goals and targets. Aligns own behaviours and actions to CPI's values, vision, and goals. 	<ul style="list-style-type: none"> Pro-actively identifies and prioritises the key issues involved to facilitate the decision-making process. Seeks input from the relevant stakeholders when appropriate, considers risks, and takes accountability for the impact a decision may have on others. Makes decisions in a timely manner. Identifies the key factors in a complex problem.
Communication (Enabling)	Developing self and others (Enabling)
<ul style="list-style-type: none"> Presents complex issues/data with a high level of clarity and impact, using the appropriate format and driving action. 	<ul style="list-style-type: none"> Supports others in their development. Is personally committed to, and actively seeks, opportunities to improve continuously. Provides honest helpful feedback to others on their performance.

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<ul style="list-style-type: none"> • Is able to write clearly and succinctly recommendations and messages that have the desired effect. • Is aware of the impact of their communications and pro-actively seeks feedback for improvement. • Is able to influence others by preparing a reasoned argument to adopt a specific tactics or plan, in line with strategy, and persuade other of the merit. 	<ul style="list-style-type: none"> • Insightful about self, strengths, and limitations, and how to maximise contribution.
Collaboration (Enabling)	Delivery (Enabling)
<ul style="list-style-type: none"> • Understands the value of establishing effective and supportive relationships, and collaborative working. • Actively listens, questions, and observes body language so as to understand communication from others. • Cultivates and maintains partnerships across departments to deliver value for the business 	<ul style="list-style-type: none"> • Prioritises activities based on their impact and strategic importance. • Takes responsibility and monitors own performance. • Can articulate how their work feeds into projects. • Creates and exploits useful metrics. • Displays commitment and engagement to own work. Pursues everything with energy, drive, and a need to finish, even when faced with setbacks or resistance.

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Knowledge and Experience:

Essential:	Desirable:
<p>Will exhibit professional mastery of principles and practices of upstream microbial processing, gained in academic or industrial environments.</p> <p>Has practical microbial culture experience.</p> <p>Practical cloning experience from strain construction, selection, and characterisation.</p> <p>Experience with relevant analytical techniques including SDS-PAGE, Western blots, and high-throughput techniques.</p> <p>Familiar with use of support equipment such as autoclaves, incubators, centrifuges, bioanalysers, cell counters and other analytical equipment.</p> <p>Can demonstrate evidence of knowledge sharing and network building practice across teams or groups.</p> <p>Has ability to apply theoretical and practical scientific/engineering methods to contribute to business activities.</p> <p>Can provide examples of actively utilising cross-team collaboration to achieve desired results.</p> <p>Has confidence to use own judgement and initiative within standard engineering / scientific practices, as well as an understanding of when to seek advice from colleagues.</p>	<p>Understanding of GMP & the requirements for the production of biopharmaceuticals.</p> <p>Experience of upstream process optimisation from bench to pilot scale.</p> <p>Familiarity with the use of design of experiment methodologies to inform experimental design.</p> <p>Use of high throughput bioreactor platforms.</p> <p>Experience with synthetic cell-free expression of biologics.</p> <p>Experience of leading technical development projects including supervision/management of other team members.</p> <p>Has experience setting up and running bioreactors.</p>