

Fermentation Scientist – Job Description

Role Purpose:

- To provide specialist fermentation development knowledge and capability.
- To undertake and produce reports on microbiology experiments and analytical testing, interpreting data, presenting conclusions, and discussing and supporting data for internal peer review.
- To undertake laboratory-based tasks, keeping lab books, recording data, following, and supporting the development of, operating procedures and instructions

Key Responsibilities:

- To maintain consistent and documented compliance with all relevant Safety, Health and Environmental (SHE), quality and best practice requirements.
- To set-up, operate and monitor microbial fermentation processes under batch, fed-batch and continuous conditions following predefined protocols
- To work in partnership with colleagues to modify or reconfigure bioreactor vessels and associated equipment to define the process parameters necessary to achieve optimal production conditions
- To support the routine maintenance of fermenters, identifying and escalating issues which may impact their performance and availability
- To support the design of experiment (DOE) to study the effect of multiple variables on fermentation performance and the effects of interactions between variables
- To integrate validated scale down models for fermentation at lab scale.
- To undertake product harvesting and primary cell recovery by centrifugation and tangential flow filtration
- To be responsible for providing clearly documented records of technical data, decisions, methodologies, calculations and software use in an agreed format.
- To maintain current up to date knowledge of developments within the area of expertise and make recommendations to expand and improve CPI internal technical capability
- To work closely with the TT team to ensure a seamless tech transfer and scale up of the laboratory process to pilot and demonstration plants at CPI.
- To work with internal and external customers as required identifying and understanding their needs and contributing to the design and delivery of agreed outcomes within agreed timescales.
- To work closely with business development and project delivery teams in order to understand, interpret and communicate customer needs to plant operations teams.
- To share professional knowledge with colleagues and be responsible for own continuous professional development.
- To provide technical expertise to project scoping and feasibility studies in pursuit of business generation.
- Contribute to a culture of continuous capability development within teams in alignment with company strategy and project deliverables.
- To ensure compliance with agreed SHE and quality standards.
- To identify and implement improvement to SHE and quality standards.

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Direct reports: No direct reports

Person specification

Education / Qualifications:

Essential:	Desirable:
Educated to Degree level (or equivalent) in a sciences/science/biochemical engineering subject or related discipline with subsequent relevant industrial experience	Educated to Masters Degree level (or equivalent) in a sciences/science/biochemical engineering or related discipline

Competencies and behaviours	
<p>Leadership (Core)</p> <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. 	<p>Decision Making (Enabling)</p> <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.
<p>Communication (Core)</p> <ul style="list-style-type: none"> Communicates in a clear and concise manner, covering all relevant points in a timely manner. Uses the appropriate route and format to communicate. Confirms understanding of others communication. Asks questions to understand other people's viewpoints 	<p>Developing self and others (Enabling)</p> <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. Insightful about self, strengths and limitations, and how to maximise contribution.
<p>Collaboration (Enabling)</p> <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 	<p>Delivery (Enabling)</p> <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:
<ul style="list-style-type: none"> • Experience of upstream process development and bioreactor operation, media development and preparation and primary cell recovery techniques in an industrial environment • Demonstrates experience of working with microbiological cultures and the use of aseptic techniques • Provides evidence of successful upstream cell culture process development and an understanding of process optimisation for product yield and impurity profile improvement. • Experience of delivering technical aspects of process development projects and processes to tight deadlines • Demonstrates evidence based process development and design experience delivering high quality outcomes • Demonstrates knowledge of industrial bio-processing including an understanding of fermentation feedstocks, products and types of fermentation processes. • Demonstrates ability to interpret discuss and present data and conclusions • Demonstrates experience of proactive decision making and problem solving within industrial bioprocessing environments • Demonstrates a dynamic, can-do attitude coupled with an aspiration to work within a fast paced multi-disciplinary environment. • Demonstrates examples of collaborative working within and between multi-disciplinary teams. 	<ul style="list-style-type: none"> • Direct experience of industrial biochemical engineering in an applied research environment • Direct experience and/or practical knowledge in quality assurance systems eg. ISO9000, FSSC22000 etc. • Direct experience in regulated environment eg in food, feed, pharma sectors etc.