



Company: Kula Bio

Location: Natick, MA

Position title: Fermentation Process Engineer

Schedule: Full Time

Employee status: Regular

Organization:

Kula Bio is a leader in sustainable nitrogen solutions, helping farmers improve crop yield and reduce environmental impact. We make a cost-competitive biofertilizer that boosts a naturally occurring process to deposit meaningful amounts of nitrogen in the soil.

We are looking for a passionate, highly motivated, and experienced professional to join our Operations group at Kula Bio. The candidate will work in a dynamic and diverse team environment to support fermentation technology transfer and manufacturing of plant/soil beneficial microbial products. We seek a highly motivated Fermentation Process Engineer to deploy a novel scalable fermentation-based production process. The individual will be responsible for operating all manufacturing fermentation vessels. This person will support all day-to-day fermentation work including CIP, SIP, media prep, and reactor prep. Additionally, this person will also be responsible for ongoing education, support, and training of other team members in the day-to-day tasks and certifications required. We are looking for an individual with a pioneering attitude that is capable of wearing multiple hats to get the job done.

Duties:

- Perform fermentation campaigns to produce Kula Bio products which includes:
 - Fermentation medium preparation and fermenter inoculation as well as taking samples for QA/QC analysis.
 - Monitor, record, and report fermentation progress using key fermentation performance indicators.
 - Correctly, accurately, and safely handle and measure chemicals and cleaning aids for CIP/SIPs.
 - Clean and maintain fermentation and media vessels according to standard operating procedure (SOP)
 - Maintain a clean, orderly, and hygienic workspace with Good Manufacturing Practices.
 - Assist with product packaging and shipping.
 - Complete general cleaning tasks (sweeping, scrubbing, organizing, etc.)

- Provide technical leadership (product and process expertise) for fermentation manufacturing operations. This includes a range of activities, from day-to-day manufacturing problem solving, assisting productivity target management, and maintaining quality/regulatory compliance.
- Responsibilities also include the scale-up of new fermentation processes through timely interactions with the MSAT Team for fermentation technology transfer activities.
- Work closely with Quality Team for timely processing of samples and taking follow-up actions based on sample analysis.
- Author or participate in risk assessments and process validation.
- Provide technical expertise to support regulatory submissions.

Required skills

- Demonstrated experience in fundamental fermentation concepts and principals including mass balance, K_{La} , and thermodynamics as well as industrial fermentation processes.
- A good understanding of microbiology and biochemical principles, fermentation process scale-up and statistical methods is essential.
- Demonstrated experience cultivating plant/soil beneficial microbes.
- Deep familiarity with aerobic, microaerophilic, and anaerobic bacteria fermentation process and principals.
- Hands-on experience operating fermenter ranging from scales 10L- 10,000L.
- Expert knowledge in fermentation process modes.
- Experienced with cultivation of plant/soil beneficial microbes
- Hands-on knowledge of production equipment, such as fermentation vessels and CIP Sanitize and Steam Sanitation (SIP) equipment.
- Working knowledge of processing equipment, including pneumatic valves, pumps and clarifiers/separators and working knowledge of manufacturing plant instrumental devices.
- Must have the ability to work in teams, communicate technical concepts clearly and be independently motivated. Additionally, the ability to interpret key fermentation process indicators is critical.

General criteria

- This job description reflects management's assignment of essential functions; other tasks may be assigned.
- While performing the duties of this job, the employee is: frequently required to sit, talk, and hear; occasionally required to walk and stand; regularly uses hands and fingers to feel, handle, or operate objects, tools, or controls; constantly reaches with hands and arms; occasionally lifts and/or moves up to 50 pounds; regularly uses close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.
- Work in the manufacturing plant may require hearing protection.
- Working in the manufacturing plant will require the use of PPE

Education & Experience:

- BA/BS in chemical engineering, biological / biomedical engineering, microbiology, or other related fields.
- Minimum of 5 years (Bachelor's) or 3 years (Master) of experience in fermentation operations/manufacturing, fermentation process design/troubleshooting/improvement.

Kula Bio has implemented a mandatory COVID-19 vaccination requirement for all employees. This will be a condition of employment.

At Kula Bio, we work and live by our shared values of Innovation, Intellectual Honesty, Balance and Integrity. Our values are guiding principles to developing best in class biological products and enable farmers a cost-effective technology. For more details, please visit our company site www.kulabio.com.

If you are interested in this job, please email your resume and cover letter to admin@kulabio.com.