



Our Business is Biorationals

At Valent BioSciences, our focus is on building the strongest portfolio of biorational solutions to improve agricultural productivity, protect public health, and keep our forests beautiful. It's all part of our commitment to creating value for our customers around the world — and doing so in a sustainable way. We invite you to explore this position for a Fermentation Scientist at the Biorational Research Center in Libertyville, IL, and learn how Valent BioSciences can help you make a positive difference in your world.

Description of Job: Design and execute a wide range of microbial fermentation research and optimization experiments to develop scalable and cost-effective seed and fermentation media, seed train, fermentation conditions and downstream processing processes to support development of new sustainable, environmentally compatible microbial and metabolite-based bio-pesticides, plant growth regulators and other natural products. This individual will also be responsible for experimental data analysis and interpretation as well as preparation and presentation of reports and recommendations.

Principal Responsibilities:

- Work closely with Manager and team members to design and execute experimental programs.
- Conduct all work in strict compliance with all applicable safety requirements, containment requirements, standard operating practices, and/or guidelines.
- Prepare and maintain master and working stocks of microbial strains following written procedures, and revise or develop preparation protocols as needed.
- Develop seed preparation, inoculation, seed train and fermentation protocols.
- Identify key factors affecting fermentation including media compositions, inoculum preparation, inoculation rate, and fermentation control parameters.
- Design fermentation optimization experiments based on literature, knowledge and experience.
- Conduct fermentation experiments at various levels from bench top (250 mL and 7.5 L) to pilot scale (40 L and 125 L) to improve yield of biomass or desirable metabolites and minimize undesirable metabolites.
- Scale up/down fermentation processes.
- Provide detailed tech transfer documents for scale up at production facility's pilot and production scales.
- Prepare and support tech transfer documents and activities in support of 3rd party collaborations.
- Assist in downstream processing development, as needed.
- Handle and work with a variety of microorganisms including bacteria and fungi.
- Perform microbiological, physical, microscopic, biochemical and bioassay experiments as required.
- Maintain laboratory equipment and instruments and comply with GLP requirements as needed.
- Trouble-shoot contamination issues in both pilot plant and in production plants as needed.
- Provide fermentation support to manufacturing operations as needed.
- Keep detailed records of experiments and documentation in Electronic Lab Notebook and other systems.



- Write research reports, prepare and deliver technical presentations.

Experience:

- Theoretical understanding and practical hands-on experience with industrial fermentation of bacteria, actinomycetes and fungi including yeast and mold.
- Working familiarity with various fermentors from mini scale (250 mL) to production scale (100,000 L).
- Working knowledge or experiences in scaling-up/down fermentations from laboratory to pilot plant and to manufacturing.
- Experienced in experimental design and data analysis using statistical tools.
- Hands-on experience in Gram staining and microscopic observations of cells and spores.
- Downstream processing knowledge or experiences in separation, concentration and purification is a plus.
- Strong aseptic laboratory and operational skills and basic microbiology lab techniques.
- Ability to work independently and in team environment.
- Self-motivated, detail-oriented.

Education: Ph.D. or M.S. degree in fermentation, biochemical engineering, microbiology, biotechnology or related field with a minimum of 3 years (Ph.D.) or 5 years (M.S.) of industrial fermentation experience.

Travel: 5-10% domestic

www.valentbiosciences.com

Apply for Fermentation Scientist - Valent BioSciences, LLC using the link below:

https://workforcenow.adp.com/mascsr/default/mdf/recruitment/recruitment.html?cid=0034dd07-9445-4bb3-9576-cebf8f4dbfe6&cclid=19000101_000001&jobId=411367&lang=en_US&source=CC4