

R&D Lead - Fermentation

Location: Buffalo, NY

Employment type: Full-time employment, available to hire immediately.

Experience: MS/PhD graduate in biological, chemical, environmental engineering, microbiology.

Capro-X background

Capro-X is a sustainable biorefining startup using natural biotechnology to upcycle food and agricultural waste into clean water and carbon-negative replacements for unsustainable chemicals sourced from palm and petroleum. Today, Capro-X is focused on upcycling dairy byproducts into building blocks for beauty, biofuels, and bioplastics. Capro-X recently received investment from SOSV through the IndieBioNYC Program; has been awarded multiple Phase 1 and 2 Small Business Innovation Research awards (NSF, EPA, DOE); selected to impactful accelerators (Carbon to Value Initiative, Heritage Group Accelerator, Swissnex); and won key pitch competition prizes (Rabobank FoodBytes! and Grow-NY).

Job description & requirements

Capro-X is searching for a key hire to drive our R&D efforts in Upstate NY - the **Research and Development (R&D) Lead - Fermentation**. The R&D Lead will be joining at an exciting time for the company, as we execute on activities at the bench-scale and optimize performance on a production pilot. Critically, this hire should be driven by our goals of improving sustainability in the food and ag space.

The R&D Lead will be focused on driving novel research efforts at the bench, with additional opportunities to gain experience operating a local pilot system. A strong candidate should be comfortable performing: bench-scale bioreactor setup, sampling, and maintenance operations; wastewater-type water quality tests; bioreactor mass and mole flow analysis; construction of custom bioreactors, hydraulics, and controls; operating and maintaining analytical equipment like GCs and HPLCs; and managing a growing research lab and team. Our ideal candidate will have hands-on construction and operation of scale-up fermentation equipment for extended periods of time; research experience through the entire operations and analysis scope of fermentation studies; clear and effective communication skills; and an ability to multitask across varying and dynamic project demands.

In this fast-growing startup, the R&D Lead will be given significant responsibility playing a key role in a small interdisciplinary research team and gain first-hand experience driving research on a novel technology in a challenging and dynamic environment that is actively being implemented at the large-scale – we are quickly growing our team and seek new members with a “get it done” attitude, and share our ambition to bring greater sustainability to the world.

Responsibilities

- Focused on fermentation R&D; work within an interdisciplinary R&D team, operating and analyzing performance of bench-scale bioreactor systems.
- Perform reactor samples analysis (wet lab, enzymatic, GC, HPLC, OD, pH, COD, BOD, VSS).
- Evaluate reactor performance (conversion efficiency, mass balance, optimization).
- Assist with grant, project, and patent submissions.
- Propose and review R&D plans with leadership, outline equipment/space/staff needs.
- Improve lab organization and processes (organization, data analysis, SOPs).
- Perform maintenance on analytical and bioreactor equipment.
- Construct fermentation components at the bench and pilot-scale (bioreactors, pumps, piping, control and power systems).
- Manage a growing team of engineers and scientists.

Qualifications

- Hands-on experience in wet-lab environment, in particular with a fermentation, microbiology, and wastewater treatment background.
- Strong understanding of biological growth systems and practices.
- Direct research experience developing fermentation or wastewater treatment technology, from daily operations to project-wide data analysis; particular value in experience with arrested anaerobic digestion (AAD), fatty acid chain elongation, and chemical extraction.
- Construction and maintenance experience with hydraulics and electricals (pumps, liquid flow, PID controls, DC/AC wiring, power and hand tools).
- “Anything is possible” approach to work - able to learn on your own, seek out knowledge.
- Strong writing and presenting skills to communicate with team.
- Excitement to join a fast-growing startup.

Education and experience level

- PhD graduate with experience in a relevant engineering or science field (for example: biological, chemical, civil, environmental, and mechanical engineering; food science, microbiology, and biology). Open to highly experienced candidates with MS.
- Work and/or academic research experience are required (thesis-level research, internship).

Equal employment opportunity statement

Capro-X, Inc. is an Equal Employment Opportunity (EEO) employer and welcomes all qualified applicants. Applicants will receive fair and impartial consideration without regard to race, sex, color, national origin, age, disability, veteran status, genetic data, gender identity, sexual orientation, religion, or other legally protected status, or any other classification protected by federal, state, or local law.

Applicants must be eligible to work in the US without restrictions for any employer at any time. As a condition of employment, all selected candidates will undergo Capro-X's standard pre-employment checks, which include but are not limited to a background check regarding criminal history, driver's license, education, and employment.

Capro-X will not accept unsolicited candidate referrals or resumes / CVs from third-party vendors, including recruitment agencies; we will not be responsible or liable for any fees or costs associated with such unsolicited submissions.

Next steps

Interested candidates should submit application materials to guzman.juan@capro-x.com with the following tag in the subject line: **[CPRX RD Lead Ferm 2026]**. Improperly addressed applications may be lost in automated filters.