



Startup: Opera Bioscience

Startup Website: <https://www.operabioscience.com>

Startup Description:

At Opera Bioscience, we are on a mission to revolutionize protein manufacturing and provide low-cost, high-purity proteins for our customers who are building the next generation of biology-driven innovations, from life-saving therapeutics to consumer products.

Project Title:

Recombinant Protein Development Internship

Project Description:

We're seeking a highly motivated intern to join our team and assist with optimizing bacterial fermentation conditions for high-purity protein production.

The intern will be responsible for conducting experiments to optimize various fermentation parameters including but not limited to vessel size, temperature, pH, or nutrient concentration. They will also monitor and analyze fermentation progress to assess the impact of these parameters on protein yield and purity. The intern will work closely with our Chief Scientific Officer and other team members to design and implement the experiments.

Internship projects have varied greatly in the past from performing evaluations on recombinant protein secretion to developing bioactivity ELISA assays that Opera still uses for standard protein function testing.

Principal Responsibilities

- Conducting experiments to optimize fermentation conditions
- Monitoring and analyzing fermentation progress
- Keeping detailed records of protocols, experiments, results, and analysis
- Collaborating with other team members to design and implement experiments
- Presenting results and providing recommendations for future experiments

Project Expectations:

This project will provide the intern with valuable hands-on experience in fermentation technology and protein production, as well as the opportunity to work with a team of experienced scientists and contribute to the growth of a startup company. If you are a highly motivated and ambitious student looking for a challenging and rewarding internship, we encourage you to apply.



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Desired Candidate Experience:

- Currently enrolled in an undergraduate or graduate program microbiology, biochemistry, biotechnology, bioengineering, chemical engineering, or related field
- Strong laboratory skills and experience with fermentation technology
- Strong analytical and problem-solving skills
- Strong written and verbal communications skills
- Familiarity in data analysis and processing (processing and visualizing data with Python, R, and statistical methods) a plus

Training & Mentoring Opportunities:

Initial Meeting:

- The intern will meet with the project supervisor to discuss the project goals and objectives, as well as the expectations for the internship.
- The intern will be provided with a project overview, including relevant background information, literature review, and experimental protocols.
- The intern will be given a tour of the lab facilities and introduced to the lab equipment and procedures.

Weekly Progress Meetings:

- The intern will meet with the project supervisor on a weekly basis to discuss progress, any challenges encountered, and next steps.
- The supervisor will provide guidance and feedback on the experimental design and data analysis.
- The intern will also have the opportunity to ask questions and receive feedback on any challenges they may be facing.

Data Analysis and Interpretation:

- The intern will be trained on data analysis and statistical methods and will receive guidance on the interpretation of results.
- The supervisor will provide feedback on data analysis and interpretation and will help the intern to identify any trends or patterns in the data.

Research Presentations:

- The intern will be required to give presentations on their research progress and findings to the lab group and other relevant stakeholders.
- The supervisor will provide feedback on the intern's presentation skills and will help the intern to improve their communication and presentation skills.