

## **Research Scientist - Marine Microbial Biotechnology**

### **Gloucester Marine Genomics Institute, Gloucester, MA**

Gloucester Marine Genomics Institute (GMGI) is an exciting new independent marine biotechnology research institute that is applying innovative genomic technologies to marine science for discoveries that impact fisheries and human health. GMGI is exploring the incredible genetic diversity of marine microorganisms for new applications in biotechnology and medicine including development of probiotics for aquaculture. GMGI is looking for a Scientist with a background in marine microbiology and microbial engineering, and experience studying and modulating host-microbe interactions to lead this program.

The ideal candidate will have strong leadership skills, excellent communication skills and the ability to work with a multi-disciplinary team of collaborators from academia and the biotech industry. This position is an extraordinary opportunity for an innovative and entrepreneurial scientist who is excited to be part of the team building a world-class research institute.

#### **Responsibilities:**

- Oversee the collection of samples from the marine environment and preparation of samples for DNA sequencing and culturing
- Bioinformatic analysis of genomic and metagenomic data for species identification and discovery of genes and/or biosynthetic gene clusters encoding biological or chemical entities of commercial interest
- Develop and optimize cultivation conditions for bacteria and fungi from a variety of marine sources and oversee the expansion of a repository of novel bacteria and fungi
- Develop assays for screening for selected target activities or products
- Molecular cloning for heterologous expression of specific proteins or products
- Microbial engineering for improved production of novel chemical and biological entities
- Method development for identification of probiotic cultures for dietary supplementation in aquaculture
- Establish collaborations with academic and biotech industry partners for projects of mutual interest
- Establish new research projects consistent with GMGI's mission
- Assist in grant writing and fund-raising efforts for the institution
- Lead publication of results in scientific journals and reports
- Give presentations to stakeholders, general public and scientific audiences
- Contribute to GMGI's commitment to create a scientific community on Cape Ann
- Supervise technical staff and interns

#### **Qualifications:**

- PhD, or equivalent post-graduate experience in microbiology, microbial engineering, marine natural products, or related field

- Experience generating and analyzing next generation sequencing data for genomic, metagenomic, transcriptomic analysis
- Strong mathematical and computational skills and experience with standard bioinformatic and statistic software packages
- Knowledge of commonly used languages for biological data analysis (e.g. Python, R)
- Familiarity with the Linux environment and basic knowledge in command line software and shell scripting
- Experience cloning into heterologous expression systems
- Experience in engineering secondary metabolism or natural products biosynthesis
- Experience with benchtop fermentation reactors and small-scale purification technologies
- Understanding of probiotic mode-of action and strain safety
- History of success as a driving force in research projects with a track record of successfully awarded grants
- Strong publication record and a capacity to conduct innovative, high-quality research
- Excellent communication and teamwork skills
- Demonstrated record of leadership, integrity and flexibility
- Enthusiasm and commitment to GMGI's mission for science and education

This position requires the desire, persistence and ability to work in a start-up environment and to help build a transformative research institute.

This position will report to the Science Director

Job Type: full-time

Salary: commensurate with experience

Benefits: yes

Posting Expires: When position is filled

How to Apply: Please send a cover letter and curriculum vitae to Andrea Bodnar, [andrea.bodnar@gmgi.org](mailto:andrea.bodnar@gmgi.org)

### **About GMGI**

Gloucester Marine Genomics Institute (GMGI) is an independent marine biotechnology research institute. Founded in 2013 by three prominent scientist entrepreneurs, with legendary experience in the biotechnology field, GMGI is positioned to influence a new era of discovery and innovation in marine science.

It is envisioned that GMGI will evolve into an eminent research institute focused on using the power of genomics and other “omics” technologies to promote sustainable fisheries and uncover new discoveries in biomedicine and biotechnology. These new opportunities will enable formation of startup companies, leveraging any resulting intellectual property and innovations, and produce a powerful economic driver that will sustain the future Cape Ann economy and offer the region's citizens exciting new career paths. In addition, GMGI has launched a biotechnology training academy and is committed to establishing beautiful Cape Ann as a world-class science hub.