

MASSACHUSETTS GENERAL HOSPITAL

GENERAL SUMMARY/ OVERVIEW STATEMENT

The Division of Infectious Diseases at MGH is seeking a Postdoctoral Fellow to work with a dynamic, results-oriented, and diverse group of researchers from Massachusetts General Hospital and the Massachusetts Institute of Technology (MIT). We are committed to fostering, cultivating, and preserving a culture of diversity, equity, and inclusion. This commitment applies to staff members at all levels as well as the patient populations we care for. The ID Division is looking to hire a Postdoctoral Fellow who demonstrates these same values to join our team.

The Postdoctoral Fellow's role will be to work with the Principal Investigator and project staff to develop antimicrobial therapies combining antimicrobial peptide derivatives and partner antibiotics, which may be delivered separately or as conjugates. The main project includes the following general areas.

- Synthesis of derivative antimicrobial peptides, partner antibiotics, and conjugates thereof
- Library selections for optimal combinatorial therapies based on an affinity selection-mass spectrometry workflow
- Antimicrobial susceptibility testing and characterization of resistant BL2 bacteria
- Interfacing with collaborators to complete animal research with lead compounds / combinations

The role of the Postdoctoral Fellow will focus on the chemistry-oriented parts, but may extend into biology depending on experience and interest:

The position offers a stimulating, collaborative, and multidisciplinary environment and the opportunity to contribute to NIH-funded research. The primary responsibilities of this individual will be assisting in experimental design and implementation, data analysis, and manuscript preparation. Of note, the performance site for this position is not at MGH, but rather at MIT. The individual will work under the supervision of John Albin, MD, PhD from the MGH Division of Infectious Diseases within the lab of Professor Bradley L. Pentelute in the MIT Department of Chemistry. This is a vibrant, diverse and highly interdisciplinary lab environment comprised of chemical biologists, organic chemists, biochemists, data scientists, and engineers. The position offers the opportunity for professional development in the heart of Kendall Square, a global leading place for innovation in biotherapeutics, by interfacing with collaborators at MIT and MGH.

APPLICATION PROCESS

Interested candidates should apply via www.massgeneral.org/careers.

****When applying, please upload a cover letter, resume, and transcript (unofficial transcript is OK). Applications that do not include **all three components** will **NOT** be considered.****

The start date for this position will be as soon as possible and may run as long as 6/30/2024, though exact dates on either side are negotiable.

PRINCIPAL DUTIES AND RESPONSIBILITIES

The Postdoctoral Fellow may participate in all phases of research and responsibilities may include, but are not limited to, the following:

- Oversee day-to-day study experimental design and implementation
- Assist in abstract, poster, seminar, and manuscript preparation
- Help prepare grant progress reports, applications, and related documents

QUALIFICATIONS

Required:

PhD in Organic Chemistry, Chemical Biology, or related field. We are seeking an innovative and broadly trained individual with experience in organic synthesis, peptide synthesis, and associated analytical techniques. Ideally will be familiar with high resolution mass spectrometry and proteomics. Excellent communication skills and willingness to mentor and train other lab members are required.

Preferred qualifications:

- Experience in organic synthesis and/or peptide synthesis
- Experience with high resolution mass spectrometry and proteomics
- Facility with bioinformatics
- BL2 bacterial culture
- Mouse experiments

Additional qualifications:

- Demonstrated expertise in research and project management
- Strong academic performance
- Attention to detail with strong organizational and time management skills
- Capacity to manipulate, organize, and analyze large amounts of data
- Proficiency with standard Microsoft Office software (particularly Excel) as well as the ability to learn new software applications
- Ability to work both independently and as part of a team, and to collaborate with team members
- Intellectual independence, initiative, and problem-solving capabilities
- Strong oral and written communication skills with the ability to interact professionally at all levels

SKILLS/ ABILITIES/ COMPETENCIES REQUIRED

Quantitative, analytical, computer and English language (spoken and written) skills are required.

WORKING CONDITIONS

Duties will be carried out primarily in a typical hybrid office environment.

EQUAL OPPORTUNITY EMPLOYER

Massachusetts General Hospital is an Equal Opportunity Employer actively committed to increasing the diversity of our faculty and staff. Women and members of underrepresented minority groups are therefore strongly encouraged to apply.

The above is intended to describe the general contents and requirements of work being performed by people assigned to this classification. It is not intended to be construed as an exhaustive statement of all duties, responsibilities or skills of personnel so classified.