Research Scientist Position Available in Microbial Pathogenesis

Center for Microbial Pathogenesis (CMP):
Bakaletz Laboratory

Abigail Wexner Research Institute
Nationwide Children’s Hospital
The Ohio State University,
Columbus, OH, United States

Bakaletz Lab Research Interests: Microbial Pathogenesis; Biofilm Biology; Polymicrobial Diseases; Assessment & Characterization of the Immune Response to Disease and to Immunization; Pre-clinical Evaluation of Novel Therapeutics and Preventative Vaccine Candidates; Epitope Mapping; Development & Use of Humanized Monoclonal Antibodies; Biofilm Disruption & Dispersal; Evaluation of the Newly Released Bacterial Phenotype; Light, Confocal & Electron Microscopy; Proteomics and Transcriptomics; Molecular Mechanisms of the Pathogenesis of Diverse Infectious Diseases.

The Bakaletz Lab is accepting applications for a Research Scientist (Ph.D. in Microbiology, Immunology or Molecular Biology).

Our team is part of the Center for Microbial Pathogenesis (CMP) at the Abigail Wexner Research Institute at Nationwide Children’s Hospital, which exists to answer questions that will improve the early diagnosis, treatment, and outcomes of society’s most important pediatric diseases by combining high-quality, fact-based lab discoveries and innovative patient-based research. The Abigail Wexner Research Institute is organized into 13 multidisciplinary Centers of Emphasis, with over 180 Principal Investigators and more than 500,000 square feet of dedicated research space. The Research Institute is also ranked among the top 10 for NIH funding among free-standing children’s hospitals.

Our passion and vision are to rapidly translate research discoveries into effective treatments and prevention strategies for pediatric and adult patients afflicted with chronic and recurrent infectious disease.

The Bakaletz Lab utilizes multidisciplinary and innovative approaches to advance our understanding as to how bacterial biofilms contribute to pathogenesis, chronicity and recurrence of disease. To date, our focus has primarily been on polymicrobial diseases of the human respiratory tract, however we are rapidly expanding our areas of interest to diseases problematic at other anatomical sites via collaboration with multiple colleagues. Dr. Bakaletz’ team’s focus is on using acquired advanced understanding to design and test novel therapeutic approaches as well as prevention strategies in vitro, the ultimately in vivo via use of several well-established models of human disease. Specifically, the Bakaletz laboratory is interested in the interface between the bacterial biofilm and the host’s innate immune system to better empower the host to be able to eradicate biofilms or, ideally, prevent them from forming. Advances in the laboratory are rapidly translated via interaction with pharmaceutical companies and/or via recently founded start-up companies.

The long-term goal of our research program is to gain an increased understanding of the role of recalcitrant bacterial biofilms in the pathogenesis of chronic and recurrent diseases the use this understanding to design and test novel therapeutic approaches and vaccine development.

Ultimately, the passion and vision of the Bakaletz laboratory is to rapidly translate research discoveries into lasting treatment options for pediatric and adult patients afflicted with bacterial diseases wherein biofilms present significant challenges to treatment or resolution. To achieve these goals, we actively engage in translating our findings from the bench to the clinic whenever possible. If you share this passion and vision, please send your CV, a cover letter, names of 3 references with contact information, and a one-page statement of your research interests to Lauren.Bakaletz@nationwidechildrens.org

Please include “Microbial Pathogenesis & Role of Biofilms in Disease Chronicity/Recurrence Research Scientist Position” in the subject line. Competitive applications will be evaluated when they are received, and the position will remain open until the position is filled.
**Essential Responsibilities**

- Independently develops and implements research projects under the mentorship of the PI and in accordance with laboratory’s priorities and grant specific aims.
- Independently identifies methodological problems in research protocols and develops solutions to those problems.
- With minimal guidance, performs both pre-clinical and laboratory bench-based assessments of immune responses to immunization and/or viral/bacterial infection; assays specificity and avidity of monoclonal and humanized antibodies for targeted & related antigens and conducts other studies needed for entry into clinical studies.
- Implements appropriate methods in molecular biology, microbiology, immunology, and biochemistry to generate and analyze data in accordance with appropriate statistical procedures and prepare reports, inclusive of graphs, tables, and captured images of the results of studies.
- Prepares manuscripts and presentations for scientific meetings; presents work at national and international research venues.
- Communicates regularly with PI and lab teammates to discuss results, progress, and coordinate efforts.

**To be successful in this position, the ideal candidate will:**

- Assure compliance with research protocols and safety requirements.
- Oversee and direct undergraduate students, research interns and other trainees in the timely completion of experiments, proper conduct of research and accurate record keeping.
- Support a collaborative research environment and provide guidance and training to others on technical and operational aspects of research within their areas of expertise.
- Coordinate research efforts with those of other projects being conducted by the team.
- Maintain current understanding of the scientific literature.

**Qualifications**

**Who Are We Looking For?**

- Ph.D. in Microbiology, Immunology or Molecular Biology with minimum three years of post-doctoral experience.
- Expertise in laboratory techniques required for microbiological and immunological assessments, molecular methodologies, protein purification, cell culture and pre-clinical modeling.
- Expertise in advanced imaging methods and image analysis
- Must have strong attention to detail and high degree of accuracy in work.
- Must have excellent verbal and written communication and organizational skills.
- Willing and eager to learn and/or develop novel and evolving technologies.
- Excellent math skills required.
- Utilizes software applications to assemble, format and perform appropriate statistical analyses of data.

**Why Nationwide Children’s Hospital?**

The moment you walk through our doors, you can feel it. When you meet one of our patient families, you believe it. And when you talk with anyone who works here, you want to be part of it, too. Welcome to Nationwide Children’s Hospital, where *Passion Meets Purpose*.

Here, *Everyone Matters*. We’re 13,000 strong. And it takes every single one of us to improve the lives of the kids we care for, and the kids from around the world we’ll never even meet. Kids who are living healthier, fuller lives because of the knowledge we share. We know it takes *a Collaborative Culture* to deliver on our promise to provide the very best, innovative care and to Foster new discoveries, made possible by the most groundbreaking research. Anywhere.

Ask anyone with a Nationwide Children’s badge what they do for a living. They’ll tell you it’s *More Than a Job*. It’s a calling. It’s a chance to use and grow your talent to make an impact that truly matters. Because here, we exist simply to help children everywhere.

Nationwide Children’s Hospital. *A Place to Be Proud*. 