Research Associate 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; Human-derived Biospecimens; 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 Associate (applicants with a BS or MS from backgrounds in Microbiology or Immunology, relevant bench experience and pre-clinical modeling is a plus).

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 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 5 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 Associate 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

• Develops and implements research projects in conjunction with PI; identifies methodological problems in research protocols and develops solutions to those problems.
• Independently performs assessments of immune responses to immunization and/or viral/bacterial infection; assays specificity and avidity of monoclonal and humanized antibodies for targeted & related antigens; assists with and/or independently conduct pre-clinical studies in preparation for entry into clinical studies.
• Collects and analyzes data in accordance with appropriate statistical procedures and prepare reports, inclusive of graphs, tables, and captured images of the results of studies.
• Maintains detailed laboratory notebooks and electronic records.
• Monitors use of reagents and supplies to assure budgetary constraints are followed.
• Maintains a clean working area and adheres to proper safety techniques and procedures.
• Communicates daily with PI and lab teammates to discuss results, progress, and coordinate efforts.

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

• Independently execute research studies according to grant and research proposals within stated deadlines.
• Analyze data and prepare results of experimental findings for presentation to colleagues, at professional conferences and for publication in scientific journals.
• 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 provides guidance on technical and operational aspects of research.
• Actively participate in collaborative lab meetings to present data.
• Read and review scientific literature.
• Manage laboratory needs (e.g. ordering, organizing, training and compliance).

Qualifications

Who Are We Looking For?

• MS in Biomedical Sciences with two years of laboratory research experience or a BS with 5 years of laboratory research experience.
• Skilled in laboratory techniques required for microbiological and immunological assessments (e.g. sterile technique, ELISA, Western blotting, FACS, immunofluorescent microscopy, SPR), protein purification, cell culture (including hybridoma culture and antibody purification).
• Experience with animal models is required.
• Must have strong attention to detail and high degree of accuracy in work.
• Must have excellent verbal and written communication and organizational skills.
• Must be able to work independently and as part of a collaborative team.
• Willing and eager to learn novel and evolving technologies.
• Excellent math skills are required.
• Utilizes software applications to assemble, format and perform statistical analyses of data.
• Experience with scanning confocal laser microscopy is preferred, but not required.

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 12,000 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.