

## ADVANCING MODERN HEALTHCARE

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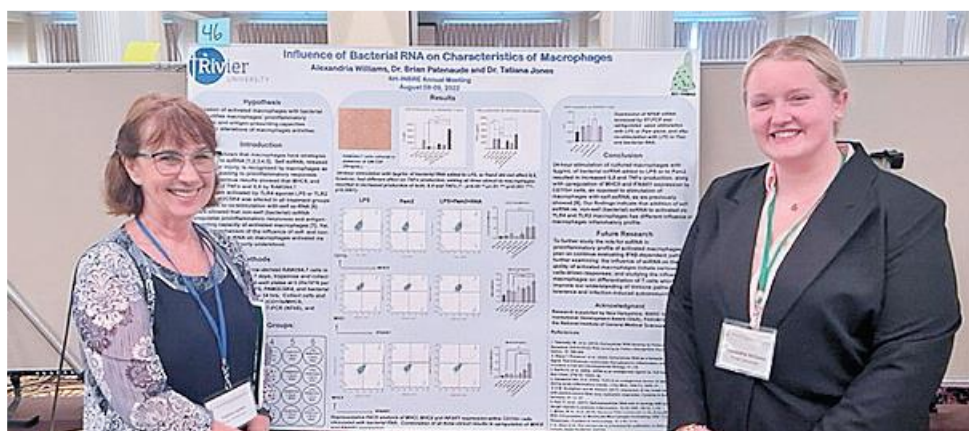
Faculty-student biomedical research builds confidence and foundational skills necessary to advance healthcare.

Rivier professors **Dr. Tatiana Jones** and **Dr. Hye Young Shin** received 2022 New Hampshire INBRE (IDeA Network of Biomedical Research Excellence) grants to conduct biomedical research with their students. The NH-INBRE program expands and enhances biomedical research within the state; it provides opportunities for promising undergraduate students to experience top-level training while working alongside research faculty.

Students **Alexandria Williams '24** and **Nicole Lezon '22** received paid summer internships through the grant and worked as full-time researchers. Both students presented their research at NH-INBRE's annual meeting, a statewide gathering for researchers to present their projects and findings.

Research will continue on these projects, supporting Rivier's commitment to providing hands-on, experiential learning and workforce-ready education. "Our association with NH-INBRE, dedicated faculty, and state-of-the-art Science and Innovation Center elevate the University's focus on biomedical research," says **Dr. Brian Ernsting**, Vice President for Academic Affairs. "Rivier's academic programs, resources, and research prepare students for the abundant and high-paying jobs in the biomedical and biotechnology sectors and contribute to the advancement of modern healthcare."

**Project Title:** Extracellular RNA upregulates proinflammatory profile of macrophages stimulated with TLR2 and TLR4 agonists.



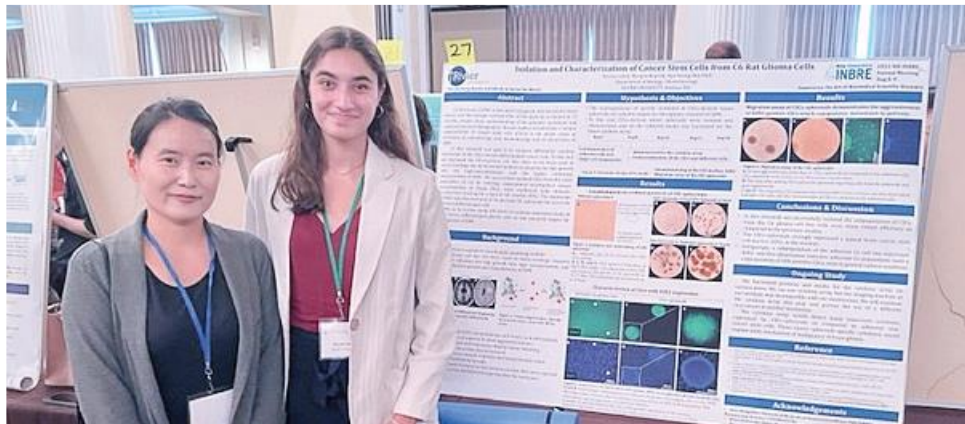
**Researchers:** Dr. Tatiana Jones, Assistant Professor of Biology, and Alexandria Williams '24

**Alexandria Williams '24** - *I was fortunate to work alongside Dr. Jones, researching the influence of bacterial extracellular ribonucleic acid on the inflammatory profile of macrophages as part of the NH-INBRE grant. I was given not only the chance for direct research laboratory experience, but also an immeasurable amount of knowledge in the field of immunology. After this summer research experience*

and working with Dr. Jones, I have decided to apply to medical school and pursue my dream career in pediatric oncology.

**Dr. Tatiana Jones** - *The most exciting aspect of this work is to observe how involvement in research work positively influences our undergraduate students' intellectual and professional development, makes them more scientifically advanced and mature, enhances their academic progress, and changes their graduate goals to higher standards. Alexandria continues working on this research project through an Immunology course. Next year it will become the focus of her Senior Research Project.*

**Project Title:** Detection of Differential Cytokine Expressions in Cancer Stem Cells of Rat glioma and Human glioma cell lines, and its application in finding therapeutics.



**Researchers:** Dr. Hye Young Shin, Assistant Professor of Biotechnology, and Nicole Lezon '22

**Nicole Lezon '22** - *I was selected to work alongside Dr. Shin, researching glioma stem cells as a part of the NH-INBRE grant. This research experience gave me direct exposure to biomedical research. I learned so much, especially about the procedures of cell culturing which are skills I will use throughout the rest of my schooling and when I enter the workforce and biotechnology industry. At the end of the summer, I applied to graduate schools and was accepted to my top choice, Northeastern University, to pursue a Master of Science in Biotechnology degree. I will start my classes at Northeastern in January.*

**Dr. Hye Young Shin** - *INBRE grants provide great opportunities for Rivier students to delve into biomedical research with critical thinking and to obtain essential lab skills so that they can pursue further study in graduate school or a wide range of careers in biomedical research. ■*

► **For greater insight into these investigations and outcomes, visit [rivier.edu/nh-inbre](http://rivier.edu/nh-inbre).**