

Tanvi Banota

tanzerina.com | banota.tanvi@gmail.com

EDUCATION

Rutgers University– New Brunswick; Honors College Sep 2018 – May 2022
BA in Cell Biology and Neuroscience; Minor in Linguistics GPA: 4.0

Middlesex County Academy for Allied Health and Biomedical Sciences Sep 2014 – June 2018
High School Diploma Valedictorian

RESEARCH EXPERIENCE

Debra Laskin Laboratory, Department of Pharmacology and Toxicology, Ernest Mario School of Pharmacy

Undergraduate Research Assistant June 2018 – Present

40hrs/wk summer, 20-25hrs/week during academic year

- Study the role of FXR in the inflammatory response following nitrogen mustard-induced lung injury in mice
- Investigate the mechanisms of lung-liver crosstalk in a model of non-alcoholic steatohepatitis (NASH) in mice, placing emphasis on the role of FXR and macrophages in the development of lung injury and fibrosis following NASH
- Use techniques including immunohistochemistry, flow cytometry, protein and cholesterol quantification, mRNA isolation and RT-qPCR, histopathological analysis, and animal handling
- Receive 3 credits per semester for part-time research, each semester culminating in a 15-page progress report

Aresty Summer Science Program Scholar June 2019 – Aug 2019

- Conducted research on the role of FXR in the inflammatory response following nitrogen mustard-induced lung injury in mice, especially the impact of FXR on macrophage activation and the development of foam cells
- Worked full-time (40hrs/wk) in the lab and participated in weekly peer group meetings with focus on reading and analyzing scientific papers, presenting scientific research to a variety of audiences, and exploring future science careers, culminating in a poster presentation at the end of the 10-week program

Liberty Science Center Partners in Science Scholar June 2017 – Aug 2017

- Conducted research on the pulmonary inflammatory mechanisms behind nitrogen mustard-induced lung injury in rats, placing emphasis on timeline of macrophage activation following exposure and the investigation of gadolinium chloride as a possible treatment against the toxicant
- Worked full-time (40hrs/wk) in the lab and participated in monthly Liberty Science Center workshops on communicating science, scientific writing, and analyzing scientific papers, culminating in a poster and oral presentation at the end of the 8-week program

PUBLICATIONS

Alessandro Venosa, L Cody Smith, Alexa Murray, **Tanvi Banota**, Andrew J Gow, Jeffrey D Laskin, Debra L Laskin. Regulation of Macrophage Foam Cell Formation during Nitrogen Mustard (NM)-Induced Pulmonary Fibrosis by Lung Lipids, *Toxicological Sciences*, <https://doi.org/10.1093/toxsci/kfz187>

POSTER PRESENTATIONS

Society of Toxicology Annual Meeting March 2020

The Development of Pulmonary Inflammation and Injury in a Mouse Model of Non-Alcoholic Steatohepatitis (cancelled due to COVID-19)

Annual Biomedical Research Conference for Minority Students <i>Farnesoid X Receptor Regulates Macrophage Phenotype During Mustard Gas-induced Lung Injury</i>	Nov 2019
Mid-Atlantic Society of Toxicology Annual Meeting <i>The Development of Pulmonary Inflammation and Injury in a Mouse Model of Non-Alcoholic Steatohepatitis</i>	Oct 2019
Aresty Summer Science Symposium <i>Regulation of Macrophage Phenotype by Farnesoid X Receptor during Nitrogen Mustard-induced Lung Injury</i>	Aug 2019
STEM Community Outreach Symposium at Rutgers <i>Regulation of Macrophage Phenotype by Farnesoid X Receptor during Nitrogen Mustard-induced Lung Injury</i>	Nov 2018
Liberty Science Center Partners in Science Symposium <i>Acute vs. Chronic Inflammation Following Pulmonary Injury; co-first author</i>	Aug 2017

ORAL PRESENTATIONS

Liberty Science Center Partners in Science Symposium <i>Acute vs. Chronic Inflammation Following Pulmonary Injury</i>	Aug 2017
---	----------

HONORS and AWARDS

2020 Barry Goldwater Scholar	March 2020
Women on the Rise Honors College/Douglass College Panelist	March 2020
2020 All-Academic Team – National Intercollegiate Women’s Fencing Assoc.	Feb 2020
ABRCMS Presentation Award in Pharmacology and Physiology Category	Nov 2019
Aresty Research Center Conference Travel Award	Oct 2019
Aresty Summer Science Symposium 1 st Place Poster	Aug 2019
Rutgers Honors College Presidential Scholarship	2018-2022
Rutgers University Dean’s List	3/3 Semesters

EXTRACURRICULAR ACTIVITIES

Rutgers Undergraduate Research Journal Junior Founder and Peer Reviewer <i>Aresty Research Center, Rutgers University, New Brunswick, NJ 08901</i>	Sept 2019 – Present
Rutgers Club Fencing Team Captain and Treasurer <i>Rutgers University, New Brunswick, NJ 08901</i>	Sept 2018 – Present
English for Beginners Program Learning Facilitator <i>58 Livingston Ave, New Brunswick, NJ 08901</i>	April 2019 – Present
Journal of Emerging Investigators Social Media/Twitter Manager <i>260 Longwood Ave, Boston, MA 02115</i>	April 2019 – Present
School of Arts and Sciences Honors Program Tutor and Tutor Coordinator <i>35 College Ave, New Brunswick, NJ 08901</i>	Jan 2019 – Present
Honors College First-Year Professional Development Mentor <i>5 Seminary Place, New Brunswick, NJ 08901</i>	Sept 2019 – Dec 2019