

Nyssa N. Tucker

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EDUCATION

University of North Carolina, Chapel Hill, NC Ph.D. Curriculum of Toxicology and Environmental Medicine <i>Certificate Seeking – Bioinformatics & Computational Biology</i> <i>Laboratory for Molecular Modeling – https://molecularmodelinglab.github.io/members/nyssa_tucker.html</i>	July 2021 - present <i>Advisor: Dr. Alex Tropsha</i>
Meredith College, Raleigh, NC Major: B.S. Biology, B.A. Chemistry Minor: Ethics; partial coursework at DIS, Copenhagen, Denmark Jan-May 2014	May 2016 <i>cum laude (3.57/4 GPA)</i> Honors Scholar

WORK EXPERIENCE

Graduate Research Assistant. University of North Carolina, Molecular Modeling Lab, Chapel Hill, NC. <i>Establish framework identifying key factors of toxicity culminating in hepatic steatosis, and Accumulate in-silico evidence for the prediction of hepatic steatosis using R, python, and KNIME, and Verify in-vitro predicted causative compounds assessed using measures of hepatotoxicity and lipid accumulation.</i>	2021 - present
ORISE Research Participant. United States Environmental Protection Agency, B. Chorley Lab, Durham, NC. <i>Establish high-content fluorescent profiles for toxicity responses due to shifted baseline metabolic state, Characterize phenotype outcomes in response to known key molecular events with high-throughput data, and Analyze high-content output by incorporating both existing packages and novel R programming.</i>	2018 - 2021
Toxicology Lab Technician. S & G Labs, S.B. Kosem Lab, Kailua-Kona, HI. <i>Maintain a complex reagent inventory and sample library, and process patient sample toxicological screening.</i>	2017
Undergraduate Researcher. Meredith College, A. Ormond Lab, Chemistry Physics & Geoscience Department. <i>Define, design, and complete synthetic course with multi-step product-validations towards novel fluoroquinolone derivative.</i>	2016

PUBLICATIONS

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- N. Tucker, G. Nelson, J. Harrill, B. Chorley. (*in prep*) Establishing A Hepatic Culture Model To Assess Altered Chemical Susceptibility. *Target Journal: Toxicological Sciences*.
- N. Tucker. (2016) Finding the Feminine in Watchmen. *Honors Senior Thesis published by Meredith College*

PRESENTATIONS

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- High Content Imaging Assessment of Chemical Hepatotoxicity and Differential Impact of Pre-Existing Hepatic Steatosis – Poster 2023
Society of Toxicology (SOT), Nashville TN.
- Development of a Curated Hepatic Steatosis Database & QSAR of HS Data – Poster presentation. March 2022
Society of Toxicology (SOT), San Diego CA.
- High Throughput Assessment of Increased Chemical Toxicity due to Hepatic Steatosis – Poster presentation. Sept 2021
Environmental Mutagenesis and Genomics Society.
- Establishing A Hepatic Culture Model To Assess Altered Chemical Susceptibility [Liver Steatosis] – Poster presentation. Sept 2020
Environmental Mutagenesis and Genomics Society.
- Hepatic Steatosis Shifts Phase I Metabolism and Alters Susceptibility to Toxicants In Vitro – Oral presentation. Oct 2019
Genetics, Environment, and Mutagenesis Society (GEMS), Durham NC.
- A Human Hepatocellular Steatosis Model for In Vitro Toxicity Assessment – Poster Presentation. Jul 2019
International Union of Toxicology, Honolulu, HI.
- Fatty Liver and 1/3 rd of You! – Oral presentation. *GEMS, Durham NC.* Apr 2019

SERVICE, OUTREACH, & VOLUNTEER EXPERIENCE

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- Social Co-Chair.** Curriculum in Toxicology and Environmental Medicine, UNC CH 2023 - present
Acquire funding for and organize social events towards networking and community building in CiTEM.
- Senator.** CiTEM Graduate and Professional Student Government UNC CH. 2022 - present
Sponsor legislation to address constituent concerns and needs via senate meetings and SoGAPS auxiliary committee.
- President.** Graduate Women in Science, Raleigh Triangle Chapter 2020 - present
Coordinate fundraising, opportunities, and events to connect, promote, and inspire women in science to unite in friendship.
- Early Career Research Seminar Coordinator. Graduate Women in Science, National. 2020 - 2022
Initiate, coordinate, maintain national monthly seminars spotlighting early career research presentations.
- Vice President. Networking Leadership Trainee Organization, U.S. E.P.A. Durham, NC. 2019 - 2021
Recruit peers to share research, plan events, and support each other as scientists and professionals.
- Student Mentor. Community Engagement & STEM Education Program, U.S. E.P.A. Durham, NC. 2019 - 2021
- Membership Secretary. Graduate Women in Science, Raleigh Triangle Chapter 2018 - 2020
- Data Curator. Planned Parenthood, Raleigh, NC. 2014 - 2015