

Alexandra Nicole Hurst

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Education

University of North Carolina at Charlotte, Expected May 2022
Ph.D. candidate in Nanoscale Science

University of North Carolina at Charlotte, 2017
Master of Science, Chemistry

University of North Carolina at Charlotte, 2015
Bachelor of Arts, Chemistry
Bachelor of Science, Psychology

Teaching Experience

- Chemistry Tutor, The Tutor Series 12/2014-present
- Graduate Teaching Assistant, Organic Chemistry 08/2016-present
- Graduate Teaching Assistant, General Chemistry II 08/2015-05/2015
- Undergraduate General Chemistry I Learning Coach 01/2015-05/2015
- Undergraduate Teaching Assistant, General Chemistry II 08/2014-12/2014
- UNCC Summer Intensive Chemistry Orientation Peer Mentor Summer 2014
- Undergraduate Teaching Assistant, Psychology Senior Seminar 01/2014-12/2014

Outreach

- Pre-College Research Experience Internship mentor. Summer 2019
- STEM Pre-College outreach through Association of Chemistry Graduate Students
- Pre-College Research Experience Internship mentor. Summer 2016

Research Experience

- Graduate Researcher 09/2018-present
Professor Yuri Nesmelov, UNC Charlotte
- Graduate Researcher 08/2015-09/2018
Professor Dr. Juan Vivero-Escoto, UNC Charlotte
- Undergraduate Researcher 12/2014-08/2015
Professor Dr. Juan Vivero-Escoto, UNC Charlotte
- Undergraduate Researcher 05/2014-12/2014
Professor Dr. Marcus Jones, UNC Charlotte

Awards and Honors

- Awarded UNC Charlotte Graduate School Summer Research Fellowship, 2020
- Selected to represent UNC Charlotte Graduate School and present research to state legislators at Graduate Education Day 2016 at the N.C. General Assembly

- Received first place poster in Medical Therapies and Technologies. The Center for Biomedical Engineering and Science 8th Annual Graduate Student Poster Competition, UNCC, 04/2016.
- Awarded best poster at UNC Charlotte Graduate Research Symposium, Charlotte, NC, 04/2016.
- Received second place at UNC Charlotte Undergraduate Research Conference, Charlotte, NC, 04/2015.
- Robert Noyce Scholar, Undergraduate scholarship

Publications

- **Hurst, Alexandra N.**; Scarbrough, Beth; Saleh, Roa; Hovey, Jessica; Ari, Farideh; Goyal, Shreya; Chi, Richard J.; Troutman, Jerry M.; and Vivero-Escoto, Juan L. "Influence of Cationic meso-Substituted Porphyrins on the Antimicrobial Photodynamic Efficacy and Cell Membrane Interaction in *Escherichia coli*" *Int. J. Mol. Sci.* **2019**, 20(1), 134; Doi: 10.3390/ijms20010134

Presentations

- Alexandra N. Hurst, Shiril Bhardwaj, Akhil Gargey, Yuri Nesmelov "Time-Resolved FRET Confirms Human Cardiac Myosin Head-Tail Interaction" Biophysical Society 64th Annual Meeting, 2020 (San Diego)
- Alexandra N. Hurst, Beth Scarbrough, Juan L. Vivero-Escoto "Synthesis and Characterization of Cationic Photosensitizers for the Photodynamic Inactivation of *E. coli*" Southeastern Regional Meeting of the American Chemical Society 2016 (Columbia, SC)
- Alexandra N. Hurst, Beth Scarbrough, Juan L. Vivero-Escoto "Synthesis and Characterization of Cationic Photosensitizers for the Photodynamic Inactivation of *E. coli*" UNC Charlotte/NC State University Photochemistry Symposium, 10/2016 (NC State)
- Roa Saleh, Alexandra Hurst, Juan Vivero-Escoto "Synthesis and Characterization of Cationic Porphyrins for the Photodynamic Inactivation of *E. coli*" 2016 UNCC Undergraduate REU Symposium, 08/2016
- Alexandra N. Hurst, Juan L. Vivero-Escoto "Synthesis and Characterization of Cationic Photosensitizers for the Photodynamic Inactivation of *E. coli*" Graduate Education Day 2016 at the N.C. General Assembly, Raleigh, NC, 05/2016.
- Alexandra N. Hurst, Juan L. Vivero-Escoto "Synthesis and Characterization of Cationic Photosensitizers for the Photodynamic Inactivation of *E. coli*" The Center for Biomedical Engineering and Science 8th Annual Graduate Student Poster Competition, 04/2016 (UNCC)
- Alexandra N. Hurst, Juan L. Vivero-Escoto "Synthesis and Characterization of Cationic Photosensitizers for the Photodynamic Inactivation of *E. coli*" UNC Charlotte Graduate Research Symposium, 04/2016
- Jessica Hovey, Alexandra Hurst, Juan Vivero-Escoto "Cationic Tetraaryl Porphyrins for Use in Photodynamic Inactivation: Synthesis and Characterization" 2015 UNCC Undergraduate REU Symposium, 08/2015
- Alexandra N. Hurst, Juan L. Vivero-Escoto "Synthesis and Characterization of Meso-Substituted Porphyrins Photodynamic Therapy" UNC Charlotte Undergraduate Research Conference, Charlotte, NC, 04/2015.

Committees and Organizations

- Biophysical Society, 2020 and 2021
- Chair member of Association of Chemistry Graduate Students, 2015-2017
- American Chemical Society, 2016