

Eduardo Barbieri

ebarbie@ncsu.edu | +1 919-633-1941

Raleigh, NC 27606

<https://www.linkedin.com/in/eduardo-barbieri-806346182/>

Research Experience

The Nonwovens Institute / NC State University

Raleigh, NC

Research Assistant

Jan. 2019 – present

- Investigate integration of antimicrobial peptides with polyester nonwovens.
- Perform studies on chemical modification of PET films and nonwovens.
- Conduct antimicrobial assays to evaluate efficacy of peptides incorporated on nonwovens.

Federal University of Rio de Janeiro

Rio de Janeiro, Brazil

Research Assistant

May 2016 – Dec. 2017

- Organic synthesis of heterocycles, isatin and pyrrole.
- Characterization of organic molecules by FT-IR, NMR, GC-MS.
- Antimicrobial activity evaluation of organic molecules by disc diffusion and microwell dilution assay.

Kumar Lab, Penn State

State College, PA

Research Assistant

May 2015 – Aug. 2015

- Study of lipids and block copolymers for application in biomimetic membranes.
- Production, purification and characterization of aquaporin proteins.
- Research on incorporation of aquaporin proteins into block copolymers and lipid vesicles.

Membrane Separation Process Laboratory (PAM-COPPE)

Rio de Janeiro, Brazil

Research Assistant

Aug. 2013 – June 2014

- Led research projects at COPPE-UFRJ.
- Research on removing endotoxins from solutions by membrane adsorbed with L-histidine and new polymers to produce hemodialysis membranes.
- Manufacture and characterize flat membranes in laboratory scale.

Education

Ph.D., Chemical Engineering | North Carolina State University

expected May. 2022

B.S., Chemical Engineering | Federal University of Rio de Janeiro, Brazil

Dec. 2017

Agricultural Technician | Federal Institute of Espirito Santo, Brazil

Dec. 2010

Skills and Interests

Computer: MatLab, Microsoft Office.

Technical: ToF-SIMS, SEM, spin-coating, peptide synthesis, electrospinning, DLS, antimicrobial assays, polymer synthesis, NMR, ATR-IR, GC-MS, organic synthesis.

Languages: English (proficient), Portuguese (native).

Conference Presentations, Trainings and Additional Experiences

- RISE poster presentation, AIB meetings.
- Non-degree international student at NCSU fully funded scholarship by the Brazilian Government in 2014.
- Teaching assistant in the Department of Biomolecular and Chemical Engineering at NCSU for 2 semesters.
- Volunteered as a chemistry teacher to help high school students from low-income neighborhoods.
- Conferences: 7th International School on Production of Biologicals and Annual Chemical Engineering Colloquium.
- Safety management of Dr. Genzer's Lab at NCSU.