

Leah Baker

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University of Florida, College of Liberal Arts & Sciences

Gainesville, FL

Pursuing a Bachelor of Science in Chemistry, Emphasis on Biochemistry

Minor in Nutritional Sciences

Expected Graduation in May 2027

- **GPA: 4.0/4.0**

RESEARCH EXPERIENCE

Sumerlin Research Group - University of Florida, USA

May 2024 - Present

George C Josephine Butler Polymer Research Laboratory, Center for Macromolecular Science & Engineering

Advisor: Brent S. Sumerlin

- *Assist with pioneering research under the mentorship of a Ph.D. student, focused on:*
 - Post-polymerization modification of commercially relevant polymers to enhance the efficiency of depolymerization and recyclability.
 - Exploring the properties of phenol-yne dynamic covalent networks to improve recyclability while maintaining the integrity of material properties.
- *Become comfortable in a laboratory setting, acquiring skills to better understand scientific literature and conduct experiments, with responsibilities including:*
 - Calculating the equivalents of each reactant to use, reaction workups, product purification, data collection.
 - Reading pertinent scientific literature to better acquaint myself with contemporary works in green polymer chemistry, in order to generate new ideas and develop analysis skills.
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PRESENTATIONS

- Hughes, R. W., **Baker, L. M.**, Patel, M. S., Keown, P. M., Zastrow, I. S., Maity, T. N., Sumerlin, B. S. (2025, April 8) *Altering Material Properties Through Depolymerization* [Poster session]. University of Florida Spring Undergraduate Research Symposium, Gainesville, Florida.
- Hughes, R. W., **Baker, L. M.**, Patel, M. S., Keown, P. M., Zastrow, I. S., Maity, T. N., Sumerlin, B. S. (2025, April 4) *Tuning Material Properties Through Depolymerization* [Poster session]. Soft Matter Applied Research & Technology Symposium, Gainesville, Florida.
- **Baker, L. M.**, Folkesson, M., Weder, C. Berrocal, J. A. (2025, August 21) *Photothermal Actuation of CNC-hydrogel Composites Using Gold Nanoparticles* [Poster session]. National Center of Competence in Research Undergraduate Research Internship Presentation [Poster session]. Fribourg, Switzerland.

AWARDS

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| Florida Academic Scholars Award | June 2023 - Present |
| • Scholarship awarded to students through the Florida Bright Futures Scholarship Program that covers 100% of the University of Florida's undergraduate tuition and fees. | |
| University Scholars Program | August 2025 - April 2026 |
| • Program recipients commit 8-10 hours per week to a research project under the guidance of a faculty mentor. They must publish a paper and present their research at the next Undergraduate Research Symposium. | |
| Hobe & Gertrude Hooser Scholarship | Fall 2025 - Spring 2026 |
| • Scholarship awarded for academic excellence. | |

CERTIFICATIONS & SKILLS

- Certified to operate my lab's NMR instruments (500 MHz).
- Product purification methods: column chromatography, liquid-liquid extractions, recrystallization, precipitation, dialysis.
- Emergency Medical Responder (EMR) through the course EMS1055 at the University of Florida.

EXTRACURRICULAR ACTIVITIES

Medi-Gators

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| <i>Director of Education & Professional Development Peer Mentor</i> | August 2023 - Present |
| • Develop ideas and organize events for the Medi-Gators Leadership Team, including podcast discussions and guest speaker lectures. These events aim to foster maturity and professionalism in team members, preparing them for success in any future career. | |

• Foster trusting relationships with mentees and answer questions regarding course scheduling, career choices, extracurriculars, etc.

Lark Gainesville Apartment Complex

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| <i>Experienced Team Member</i> | January 2024- June 2024 |
| • Answered calls, assisted residents with issues (faulty key fobs, leasing questions, parking passes, etc.), took photos for Instagram, and supported management needs. | |

Phi Delta Epsilon Pre-Medical Co-Ed Fraternity

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| <i>Member</i> | January 2024- Present |
| • Participate in and help plan Chapter philanthropy events to raise funds for Children's Miracle Network such as the Phide "Phive-K," attend Chapter educational events for mental health awareness, leadership, and professionalism hosted by physicians. | |

RELEVANT COURSEWORK

- CHM2047/CHM2047L - One Semester General Chemistry with Lab
- BSC2010/BSC2010L - Integrated Principles of Biology 1 with Lab
- BSC2011/BSC2011L - Integrated Principles of Biology 2 with Lab
- MCB3020 - Basic Biology of Microorganisms
- CHM2210 - Organic Chemistry 1
- CHM2211/CHM2211L - Organic Chemistry 2 with Lab
- CHM3218 - Biochemistry for Majors
- CHM4272 - Organic Chemistry of Polymers
- STA2023 - Introduction to Statistics 1
- MAC2312 - Analytic Geometry & Calculus 2
- IDS2334 - Chemistry in the Cocina Latina
- HUN3403 - Nutrition Through the Life Cycle
- HUN4445 - Nutrition & Disease 1
- PHY2053/PHY2053L - Physics 1 with Lab
- CHM3610 - Inorganic Chemistry

LANGUAGE SKILLS

- English (first language)
- Spanish (elementary proficiency)
- Italian (elementary proficiency)