

Jon Albo

PhD Candidate in Biomedical Engineering | Innovator | Strategic Thinker | Problem Solver

954-770-3272 • jonalbo311@gmail.com • linkedin.com/in/jonalbo • jonalbo.com

Lifelong problem solver with expertise across numerous life science and engineering fields, driven by a passion for biotech innovation, improving efficiency, and fostering interdisciplinary collaboration. Scientific focus based on multidisciplinary solutions that enhance scientific rigor through transparent data generation and analysis. Skilled in translating complex research into impactful, market-ready applications across regulatory, clinical, and technical domains. Passionate about improving health outcomes through effective scientific communication, strategic decision-making, and innovative approaches that bridge multiple disciplines.

EDUCATION

Cornell University, Ithaca, NY, USA

PhD in Biomedical Engineering

Expected: May 2025

Secured five years of external funding totaling \$265,000 through competitive NIH and NSF fellowships, and recognized with 10 awards/fellowships, one patent, three publications, and six presentations

MS in Biomedical Engineering

May 2023

Florida State University, Tallahassee, FL, USA

May 2020

BS in Chemical Engineering (*Cum Laude*)

Secured four years of tuition funding totaling \$40,000 through a merit scholarship and received 15 awards, four publications, and eight presentations at national and international conferences

ENTREPRENEURIAL EXPERIENCE

Life Science Technology Innovation Fellow

Aug 2024 – Present

Cornell University; Weill Cornell Medicine; Memorial Sloan Kettering, New York, NY supported by Sanofi

Entrepreneurial fellowship to cultivate the next generation of life science startup leaders

- Established business models for patented life science innovations with cross-disciplinary teams, incorporating strategic advice from experienced entrepreneurs and investors to identify and mitigate risks
- Assessed commercial viability of new technologies by pitching innovations to customers and investor audiences, building entrepreneurial judgment in alignment with real-world market needs

Lead Course Assistant for The Business of Entrepreneurship

Aug 2024 – Present

Cornell University SC Johnson College of Business, Ithaca, NY

- Supported the strategic development of business models rooted in addressing customer needs for second-year MBAs, PhDs, and MS students, advising on customer discovery, market validation, and risk mitigation strategies to refine business viability
- Facilitated hands-on workshops and progress reviews, providing structured feedback on competitive positioning and market entry strategies while working towards creating a minimum viable product (MVP)
- Guided sessions for 67 students to improve business pitches by using evidence-based entrepreneurship principles, preparing students to pitch to investor panels and startup incubators at the end of the course

SCIENTIFIC EXPERIENCE

Biomedical Engineering Graduate Research Fellow

Aug 2020 – Present

Cornell University, Ithaca, NY supported by an NSF Graduate Research Fellowship

- Conceptualized and created an accessible high-throughput liquid handling system to streamline complex biological and chemical applications (e.g., drug screening, chemical assays, antibiotic resistance assays) which resulted in 2 papers, 1 patent, and 3 conference presentations
- Spearheaded strategic vision and authored research direction for a multimillion-dollar NIH-funded grant, establishing goals to enhance the platform's scalability and transformative impact on human health
- Mastered advanced manufacturing processes (e.g., CAD design, injection molding, CNC milling) and built partnerships with overseas manufacturers, reducing production costs from over \$50 to under \$1 per system to enable platform accessibility and scalability beyond the academic lab
- Piloted collaboration efforts for liquid handling system with 9 research labs and 1 biotech company to design novel experiments and expand platform applications, including adaptation for infectious disease screening in regulated BSL-3 facilities, securing an additional \$150,000 in grant funding
- Conducted market research and customer discovery to identify adoption potential across 30 academic institutions and biotech companies, earning a fellowship for technology commercialization

Hematology and Oncology Clinical Intern

May 2021 – Sept 2021

Weill Cornell Medicine; Memorial Sloan Kettering, New York, NY

- Advanced personalized combination treatment by creating high-throughput assays with patient-derived organoids to guide precise chemotherapy recommendations for lymphoma and leukemia
- Directed research-driven insights for personalized care planning in lymphoma and leukemia patient rounds, collaborating with leading physicians and pharmacists to optimize bedside treatment decisions
- Supported clinical trial access for curative treatments beyond insurance limitations for patients by assessing eligibility for allogeneic CAR-T cell therapy, resulting in patients saving over \$500,000

Biomedical Engineering (Stem Cells) Research Assistant

May 2019 – May 2020

Florida State University, Tallahassee, FL

- Progressed translational neuroscience research by differentiating human stem cells into brain-specific pericytes to progress *in vitro* blood-brain barrier model development and improve understanding of neurological disorders such as Alzheimer's disease resulting in a \$1,000 college-level scholarship
- Conducted comprehensive literature reviews on the engineering of pericytes for blood-brain barrier models and consolidated findings to into a review paper in a leading tissue engineering journal

Plant Pathology and Genetics Research Intern

May 2019 – Nov 2019

US Department of Agriculture (USDA) - Agricultural Research Service (ARS), Miami, FL

- Improved diagnostic accuracy for vectors of cacao diseases to support government initiatives by developing specialized DNA extraction protocols for low-quality and trace samples, resulting in one paper in an international journal and being recognized as one of the top USDA employees in the southeast
- Established data-driven insights to inform research directions for the USDA's cacao breeding program by analyzing infection patterns and susceptibility in cacao plants to strengthen agricultural resilience
- Designed protocols for large-scale molecular diagnostic monitoring and disease prevention efforts across the US, Puerto Rico, Brazil, Ecuador, and Ghana to accurately detect pathogens

Food Safety and Quality Research Assistant

Jan 2017 – May 2019

Florida State University; National High Magnetic Field Laboratory, Tallahassee, FL

- Enhanced food safety standards and analytical precision in regulatory testing by developing specialized polymer-based methods for the targeted detection and removal of contaminants resulting in one paper in a top-rated food chemistry journal, five presentations where three received awards at national and international conferences, and one grant bringing in \$1,500
- Developed cutting-edge antibody-based assays for sensitive detection of specific food contaminants, contributing critical insights to support regulatory compliance and food quality assurance resulting in one paper in a food science journal and two presentations that received awards at national and international conferences

OUTREACH EXPERIENCE

Lead Mentor for Students from Underrepresented Backgrounds

Aug 2020 – Present

Cornell University EMPower, Ithaca, NY

- Mentored 15 first-year undergraduate engineering students to support academic and personal growth, providing guidance on research involvement, internships, and career development which resulted in two awards from Cornell's College of Engineering
- Led multiple interactive life science focused workshops for over 200 high school students, introducing cutting-edge research and sparking interest in STEM careers through practical, hands-on activities

Mentor for Fellowship and Graduate Applications

Aug 2020 – Present

Multiple Universities, Remote

- Advised 12 students from 4 universities with over an 80% success rate in securing competitive graduate fellowships, including prestigious NSF and NIH awards, through targeted feedback on proposal writing, research articulation, and alignment with fellowship criteria
- Guided 8 undergraduate students through the PhD application process, leading to acceptances for 100% of students at top 10 graduate programs in biomedical engineering across the country through weekly meetings, providing tailored advice on personal statements, and identifying research fit

RELEVANT SKILLS

Strategic planning, market research, customer discovery, grant writing, regulatory compliance, interdisciplinary collaboration, project management, budget management, science communication, technical writing, molecular diagnostics, assay development, high-throughput systems, CAD design, injection molding, CNC milling, data analysis (Python, MATLAB), translational research, quality assurance, product development, biotechnology