Victoria Consalvo

Gainesville, FL 32607 ■ vickyconsalvo@gmail.com ■ 754-317-1148 ■ linkedin.com/in/victoriaconsalvo

Education

B.S. Biomedical Engineering GPA: 3.75/4.00 **May 2026**
University of Florida – Gainesville, FL
Relevant Coursework: Calculus 1-3, Physics 1-2, Biomaterials, Physiology, Cell Laboratory, Instrumentation, Transport.

Experience

Sharma Laboratory **May 2023 - Present**
Undergraduate Research Assistant Gainesville, FL

- Investigate the uptake of iron oxide nanoparticles by natural killer (NK) cells using magnetic particle imaging (MPI) to enhance cell tracking and therapeutic applications in cancer immunotherapy.
- Assist in developing 3D tumor models by making PEG-based hydrogels and practicing cell culture duties, contributing to advancing more clinically relevant research methodologies for cancer therapeutics.

Conference Poster Presentation
Biomaterials Day **March 2025**
"Optimizing Iron Oxide Nanoparticle Uptake by Natural Killer Cells" Gainesville, FL

- Determined optimal culture conditions for NK92MI cells to uptake Perimag, VivoTrax, or VivoTrax-Plus magnetic nanoparticles. Findings highlighted nanoparticle aggregation challenges with VivoTrax-Plus and the need for improved formulations for accurate quantification.

FURC – Florida Undergraduate Research Conference **February 2024**
"Quantifying Hyaluronic Acid in 3D Poly(Ethylene) Glycol-Based Hydrogels" Jacksonville, FL

- Collected, analyzed, and presented original research on finding a reliable method to quantify hyaluronic acid in 3D poly(ethylene) glycol-based hydrogels through confocal microscopy.

Projects

Clinically Inspired Engineering Design – Mobile Vacuum for Sunken Flap Syndrome **December 2024**

- Collaborated with a team of six students to design a mobile vacuum using SolidWorks, addressing functional requirements, design constraints, and stakeholder needs.
- Researched regulatory testing, economic and market analysis, and considered ethical, legal, and design implications to prepare the product for market entry.

Clinically Inspired Engineering Design – Off-loading Post-Operative Shoe **October 2024**

- Collaborated with a team of 3 students to design an off-loading post-operative shoe in SolidWorks, featuring adjustable outsole blocks for progressive weight-bearing and closed-toe protection by evaluating the potential solutions, design constraints, novel features, and limitations.

Involvement

VENSA – Venezuelan Student Association **August 2022 - Present**
Vice President Gainesville, FL

- Collaborate with a team of 100+ members to identify sponsors, donors, and volunteers, driving increased event participation and financial contributions while enhancing organizational impact.
- Led the development and execution of a mentorship program supporting over 60 members by creating weekly challenges that fostered academic, professional, and social growth among Venezuelan students.

SHPE – Society of Hispanic Professional Engineers **January 2024 - Present**
Mentor and Member Gainesville, FL

- Foster a positive, inclusive environment for high school students by providing personalized academic, professional, and personal development support, while actively engaging with the SHPE community through conferences and networking events to connect mentees with industry professionals.

BME – Biomedical Engineering Department **September 2024 - Present**
Mentor Gainesville, FL

- Advise approximately 40 BME students on academic and career-related topics through scheduled meetings and supported recruitment and retention efforts by engaging with prospective and new students via departmental tours, orientations, and mentoring sessions.

Skills and Software

Software: MATLAB, Microsoft Suite, ImageJ, Confocal Microscopy, Prism, Zen Blue, Arduino, SolidWorks, KiCad, FlowJo
Skills: Data Analysis, Sterile Technique, Imaging, Flow Cytometry, ELISA, Cell Culture, Staining, Magnetic Particle Imaging.