

Julia Lavrador

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Education

University of Florida – Gainesville, Florida

Bachelor of Science, Double Major: Chemistry and Biology

May 2025

- Graduated Cum Laude
- Relevant Coursework: Human Histology, Cellular and Systems Physiology, Advanced Biochemistry, Epigenetics and Human Disease, Physical Chemistry, Immunology

Research Experience

Stanford University – Department of Anesthesia

Clinical Research Coordinator for FEEDS Clinical Trial

October 2025 – Present

- Recruit patients, data collection using REDCap, collect follow up data to determine the effects of preoperative fasting vs. no preoperative fasting on patients with a secure airway.

Moffitt Cancer Center – BioEngineering Department

SPARK Intern

May 2024 – August 2024

Advisors: W. Gregory Sawyer, PhD

Designed project goals and protocols to visualize TIL-Tumor interactions using 3D real-time confocal microscopy in a high-fidelity 3D platform:

- Created protocols for and successfully isolated TILs (tumor-infiltrating lymphocytes) from frozen human ovarian cancer microtissue; expanded isolated TILs using aAPCs (artificial antigen-presenting cells); validated cells using flow cytometry and cell sorter; created collagen-conjugated LLS (liquid-like solid) 3D medium; revived frozen ovarian cancer microtissue using the Darcy™ perfusion platform; imaged 3D TIL-Tumor interactions over 55 hours using confocal microscopy in one of the first Darcy™ Imaging perfusion plates with collagen-conjugated LLS™ 3D medium.

University of Florida – Cancer Engineering Laboratory

Undergraduate Research Assistant

May 2022 – May 2023

- Stained and imaged cells, spheroids, and human explants using confocal microscopy for cell migration and tissue viability studies; made LLS™ (Liquid-Like Solid™) polyacrylamide microgel for migration studies (conjugated with various proteins); obtained and processed human tissues (primarily colon; colon cancer) and blood
- Managed cells through passaging, expansion, cryopreservation, & organization of cell stocks
- Organized and maintained lab inventory
- Created images for and aided in publications

Undergraduate Research Volunteer

January 2022 – May 2022

- Learned 2D & 3D cell, spheroid, and tissue culturing and confocal microscopy

Medical Experience

Social Security Clinic – Lupus Foundation of Gainesville

Medical Assistant

December 2024 – May 2025

- Took patient histories and vitals for Social Security Disability Insurance

University of Florida – Anclerio Learning Center

Standardized Patient Actor

July 2023 – May 2025

- Portrayed a variety of patients for medical student interviews and examinations
- Graded medical student performance
- Provided verbal and written feedback to medical students on their performance

Presentations and Publications

Presentations

Undergraduate Research Day, Moffitt Cancer Center, Tampa, FL, August 2024. Lavrador, Julia. “Visualizing TIL-Tumor Interactions” (presentation)

CURBS Fall Symposium, University of Florida, Gainesville, FL, October 2022. Lavrador, Julia; Golde, Griffin. “The Effects of Bioconjugation, Size, and Stiffness of Microgel Particles on Cancer Metastasis in a 3D Microenvironment” (poster)

Publications

Nguyen DT, Liu R, Ogando-Rivas E, et al. Bioconjugated liquid-like solid enhances characterization of solid tumor - chimeric antigen receptor T cell interactions. *Acta Biomater.* 2023;172:466-479. doi:10.1016/j.actbio.2023.09.042

Nguyen DT, Pedro DI, Pepe A, et al. Bioconjugation of COL1 protein on liquid-like solid surfaces to study tumor invasion dynamics. *Biointerphases.* 2023;18(2):021001. doi:10.1116/6.0002083

Leadership and Involvement

University of Florida – Gator Brazilian Jiu-Jitsu

President

May 2024 – May 2025

- Managed, coached, trained, and competed with UF’s Gator BJJ Club
- Organized paperwork, updated constitution, and wrote instructions for administrative and coaching duties for future club leader accessibility; fostered collaborative learning environment

University of Florida – Cancer Engineering Laboratory

Undergraduate Coordinator

May 2022 – May 2023

- Instructed undergraduates on cell culture, spheroid generation, and confocal microscopy
- Coordinated trainings and laboratory organization

Co-founder: Laboratory Journal Club

August 2023

- Co-founded weekly lab-wide journal club for members to present and discuss relevant papers and coordinate experiments

University of Florida – Track & Field and Cross-Country

Division I Athlete

June 2021 – January 2023

- Ran DI for the University of Florida Track & Field and Cross-Country programs

Service

Hope’s Corner – Mountain View, CA

Volunteer

September 2025 – Present

- Prepare and distribute nutritious meals for the local underserved population

Fruits for the Food Insecure – Gainesville, FL

Volunteer

July 2023 – May 2025

- Obtained and distributed healthy, portable snacks weekly for the locally underserved; interviewed houseless population to discover needs and to direct them to services
- Aided Project Downtown volunteers in meal service

Skills, Interests, & Languages

Laboratory Skills

Wet Laboratory: Proficiency in 3D microtissue culturing, confocal microscopy, tissue and cell fluorescent staining, perfusion-enabled culturing, Darcy™ platform, LLS™ platform, cell and spheroid managing and culturing, human tissue processing, TIL isolation and expansion, histology; basic proficiency in flow cytometry and cell sorting, SDS-PAGE, protein purification, genetic engineering and cloning

Other: Research methodology and design, laboratory management

Interests

Immunotherapy, 3D culturing platforms, personalized medicine, adoptive cell therapy, oncology, immunology, endocrinology, biochemistry, Brazilian Jiu-Jitsu, portraiture, figure drawing

Languages

Brazilian Portuguese – Native

English – Native

Spanish – Basic