PIOTR LAGOD

EDUCATION

AUGUST 2021 – DECEMBER 2025

DOCTOR OF PHILOSOPHY IN BIOMEDICAL SCIENCES

UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL |GPA 4.00

- Dissertation research in Dr. Saleh A. Naser's Laboratory: The Multifaceted Roles of Propionic Acid in Autism Spectrum Disorder and Crohn's Disease
- 4 first-author publications: 3 primary research articles and 1 review article
- Presentations
    - The 13th World Congress of International Society for Adaptive Medicine
    - Florida Branch of the American Society for Microbiology Annual Meeting 2023
    - UCF Student Scholar Symposium 2023, 2024, and 2025
    - Burnett School of Biomedical Sciences Fall Graduate Research Symposium 2023, 2024, and 2025
    - Annual BSBS Spring Graduate Symposium 2024
- Awards
    - Florida Branch of the American Society for Microbiology Annual Meeting 2023 – 3rd Place for Poster Presentation
    - UCF Research Week 2023 – Judges' Choice Award
    - Spring 2025 UCF Doctoral Research Support Award

AUGUST 2019 – AUGUST 2021

MASTER OF SCIENCE IN BIOTECHNOLOGY

UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL |GPA 4.00

- Thesis research in Dr. Sean D. Moore's Laboratory: Analysis of Small Molecules from Bacterial Extracts Capable of Binding to *E. coli* Ribosomes
- UCF Graduate Dean's Fellowship Award

MAY 2016 – APRIL 2019

BACHELOR OF SCIENCE IN BIOMEDICAL SCIENCES, CUM LAUDE

UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL |GPA 3.94

- President's Honor Roll Certificate: Spring 2018, Fall 2017, Fall 2016
- Dean's List: Spring 2019, Spring 2017
- Undergraduate Teaching Assistant for Immunology Laboratory

JANUARY 2014 – MAY 2016

ASSOCIATE OF ARTS IN GENERAL EDUCATION

VALENCIA COLLEGE, ORLANDO, FL |GPA 4.00

- President's Honor List: Spring 2016, Fall 2015, Spring 2015, Fall 2014, Spring 2014
- Vice President of Service in Chi Epsilon Chapter of Phi Theta Kappa International Honor Society: May 2015 – April 2016

EXPERIENCE

MARCH 2026 – PRESENT

POSTDOCTORAL SCHOLAR - STEPS PROGRAM

DR. REBECCA KOSZALISNKI, HUMAN HEALTH OUTCOMES OF EXPOSURE TO ENVIRONMENTAL TOXINS LAB (HHOT) – UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL

- Conducts research on the negative health outcomes associated with harmful algal blooms (HABs), specifically blue-green algae and red tide (*Karenia brevis*) on the Florida population.
- Analyzes the diagnostic and treatment code usage by healthcare professionals in areas impacted by HABs.

AUGUST 2021 – DECEMBER 2025

GRADUATE RESEARCH ASSISTANT

DR. SALEH A. NASER'S LABORATORY – UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL

- Conducted dissertation research: The Multifaceted Roles of Propionic Acid in Autism Spectrum Disorder and Crohn's Disease. This involved extensive work with cell cultures, bacterial cultures, mice brain and intestinal samples, various molecular biology techniques and experimental design.
- Worked independently on diverse projects with high attention to details, critical thinking and adherence to protocols and regulations which resulted in publication of several articles and conference presentations.
- Laboratory management: inventory management; quote requests; and purchasing of lab equipment, reagents, and supplies.
- Responsible for the setup, maintenance, repair and protocol preparation for experiments and laboratory instruments, and training and initial supervision to 3 PhD students and 4 Masters students.

AUGUST 2020 – AUGUST 2021

GRADUATE RESEARCH ASSISTANT

DR. SEAN D. MOORE'S LABORATORY – UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL

- Conducted thesis research: Analysis of Small Molecules from Bacterial Extracts Capable of Binding to *E. coli* Ribosomes. This involved extensive work with bacterial cultures, ribosome purification, and cell-free translation.
- Designated user for the laboratory's HPLC/Q-TOF Mass Spectrometer for the acquisition and analysis of data and instrument maintenance.

JUNE 2020 – AUGUST 2020

GRADUATE TEACHING ASSISTANT

HUMAN PHYSIOLOGY LABORATORY, ORLANDO, FL

- Graded and provided feedback for approximately 120 laboratory reports each week.
- Learned new material and completed corresponding quizzes.

AUGUST 2019 – MAY 2020

GRADUATE TEACHING ASSISTANT

IMMUNOLOGY LABORATORY – UNIVERSITY OF CENTRAL FLORIDA, ORLANDO, FL

- Presented theoretical background and protocol pertaining to the experiments.
- Created and graded laboratory quizzes.
- Co-graded student presentations.

PUBLICATIONS

- **Lagod, P. P.,** & Naser, S. A. (2023). The Role of Short-Chain Fatty Acids and Altered Microbiota Composition in Autism Spectrum Disorder: A Comprehensive Literature Review. Int J Mol Sci, 24(24). https://doi.org/10.3390/ijms242417432
- **Lagod, P. P.,** Abdelli, L. S., & Naser, S. A. (2024). An In Vivo Model of Propionic Acid-Rich Diet-Induced Gliosis and Neuro-Inflammation in Mice (FVB/N-Tg(GFAPGFP)14Mes/J): A Potential Link to Autism Spectrum Disorder. Int J Mol Sci,25(15). https://doi.org/10.3390/ijms25158093
- **Lagod, P. P.,** Abdelli, L. S., & Naser, S. A. (2025). A Maternal and Postnatal Ad Libitum Propionic Acid-Rich Diet in Mice Alters Intestinal Glia Proliferation and Inflammatory Response: Contrary to Effect in the Brain. Int J Mol Sci, 26(19), 9295. https://doi.org/10.3390/ijms26199295
- **Lagod, P. P.,** Qasem, A., & Naser, S. A. (2025). Short Chain Fatty Acids Lower Inflammation and Restore Intestinal Integrity and Function Markers in Mycobacterium paratuberculosis—Infection In Vitro Model. Nutrients, 17(23), 3663. https://doi.org/10.3390/nu17233663

SKILLS

ANALYTICAL, LABORATORY INSTRUMENTATION & SPECIALIZED RESEARCH

- **Cell Culture Models:** Extensive work with THP-1, Caco-2, HT-29, CCD18, Neural stem cell differentiation, and aseptic media preparation.
- **Imaging & Assays:** Experienced in fluorescent microscopy, Immunocytochemistry, ELISA, Western blot, and Promega Luminescent assays.
- **Protein & Molecular Research:** Skilled in ribosome purification (ultracentrifugation/hydrophobic interaction), French Press lysis, and cell-free translation systems.
- **General Molecular Biology:** Proficiency in RNA extraction, qRT-PCR, and polyacrylamide/agarose gel electrophoresis.
- **Mass Spectrometry:** Proficient in operating, maintaining, and troubleshooting Agilent 6545 Q-TOF HPLC/MS.
- **In Vivo Research:** Experienced in mice tissue processing and experimental design for neuro-inflammation and intestinal studies.
- **Bacteriology:** Expertise in various bacterial cultures, including *Mycobacterium avium subsp. Paratuberculosis*.
- **Written and Oral Communication Skills:** Conducted in-depth literature research, published primary research and comprehensive review articles, and presented findings during conferences.

LAB MANAGEMENT & SOFTWARE

- **Operations:** Responsible for instrument maintenance/repair, quote requests, inventory management, cataloguing, and EHS compliance. Familiar with the grant writing process.
- **Leadership:** Supervised and trained 7 graduate students (PhD and Masters).
- **Software:** Advanced proficiency in ImageJ, GraphPad Prism, and Microsoft Office (Excel, Word, PowerPoint).
- **Languages:** Fluent in English and Polish (speaking, reading, and writing).
- **Other:** Highly detail oriented with the ability to multitask and think critically.