Contact

www.linkedin.com/in/ourania-rania-raftopoulou-76434014a (LinkedIn)

Top Skills

Microsoft Office
Microsoft Excel
Microsoft Word

Languages

Greek (Native or Bilingual)
English (Full Professional)
French (Professional Working)

Honors-Awards

Top Graduate Student Poster Presenter - Leo W. Parks Award

Publications

Mining microbial organisms to discover and characterize novel CRISPR-Cas systems

Growth of Listeria monocytogenes in Partially Cooked Battered Chicken Nuggets as a Function of Storage Temperature

Ourania (Rania) Raftopoulou

Research Assistant @ CRISPR Lab | PhD Candidate at North Carolina State University
Raleigh-Durham-Chapel Hill Area

Experience

North Carolina State University
4 years

Graduate Research Assistant
August 2019 - Present (4 years)
Raleigh, North Carolina

Teaching assistant in Food Microbiology
January 2020 - May 2020 (5 months)
Raleigh, North Carolina

Agricultural University of Athens
4 years 4 months

MSc Student
October 2017 - June 2019 (1 year 9 months)
Athens, Attiki, Greece

Laboratory of Food Microbiology & Biotechnology,
Agricultural University of Athens, Greece

I have started working on my thesis as a member of Dr. George- John Nychas research group under a national project entitled “A Model Smart Quality Assurance and Safety System for Fresh Poultry Products (QAPP)”. My study was divided into two experimental modules, with a common reference point the raw material of the food products examined, the chicken meat. The objective of the first experimental module was to correlate microbiological results from chicken breast fillet spoilage experiments with the data obtained from the application of multi-spectral imaging. Based on these data, machine learning models were developed to quantify the TVC (total viable counts) and pseudomonas in the chicken breast fillet. The objective of the second experimental module was to evaluate and characterize the growth behavior of the foodborne pathogen L. monocytogenes, as a function of the storage temperature in chicken nuggets.

Undergraduate Research Assistant
March 2015 - September 2017 (2 years 7 months)

Athens, Attiki, Greece

While conducting my thesis, I worked as a member of Dr. Dimitrios Tsitsigiannis research group in the field of control of aflatoxins on pistachios nuts. My work involved the identification of endemic epiphytic yeasts from pistachio nuts that could be applied as biological agents for the control of aflatoxins. Throughout my work on this project, I developed my working knowledge of isolation techniques of epiphytic yeasts from pistachio nuts, methods for detection of aflatoxins (Thin Layer Chromatography, Enzyme Linked Immunosorbent Assay- ELISA) and molecular techniques (Polymerase Chain Reaction, quantitative Polymerase Chain Reaction). Part of the results was presented at 18th Hellenic Phytopathological Conference in Crete in October 2016.

North Carolina State University

Intern

September 2018 - November 2018 (3 months)

Raleigh, North Carolina

Kathariou Lab,
Department of Food, Bioprocessing & Nutrition Sciences,
North Carolina State University, Raleigh, NC, USA

During my internship at Dr. Kathariou Laboratory, I participated in a research project about Salmonella survival in dehydrated foods and on dry abiotic surfaces. This study was conducted in order to validate the effectiveness of a nitrocellulose- based screening method to identify desiccation intolerant Salmonella mutants. Finally, part of the results was submitted for poster presentation at IAFP Annual Meeting 2019 in Kentucky in July 2019.

JOTIS SA

Intern

April 2017 - May 2017 (2 months)

Athens, Greece

My traineeship took place at the Chemistry Laboratory of "JOTIS SA", where I was acquainted with procedures for the determination of pesticide residues in foods and with procedures for examining the migration of plastic packaging materials into foods with GC/MS technique. In addition, I participated in food analyses for the determination of heavy metals and trace elements with ICP-MS method, allergens such as sulfur dioxide with specialized kits, vitamin C with specialized kits, sorbic acid with HPLC and in analyses for detection of GMOs with Real-Time PCR.

Laboratory of Plant Pathology, AUA

Intern

July 2016 - August 2016 (2 months)

Athens, Greece

I was involved in examining plant samples that arrived at the laboratory from all over Greece. I participated in the diagnosis of mycological, bacteriological and virological diseases, as well as in the indication of disease control measures. I was acquainted with the isolation and identification of pathogenic microorganisms and molecular techniques.

Education

North Carolina State University

Doctor of Philosophy - PhD, Microbiology · (2019 - 2023)

Agricultural University of Athens

Master's degree, Food Safety and Food Quality Control · (2017 - 2019)

Agricultural University of Athens

A 5-year Bachelor's degree equivalent to a Master's degree, Agronomy and Crop Science · (2012 - 2017)