

# MARIA KOSMA

Agricultural Biotechnologist



**PhD candidate in Bee Microbiology**

Cyprus University of Technology

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## 👤 Profile

Hardworking and passionate researcher with strong organizational skills eager to contribute to team and personal success. Experienced and dedicated to Microbiology and Food Science, majored in Honeybee Microbiology, bee wellness and hive products' quality. Motivated to learn, grow and excel in my field research with the willing to take on added responsibilities and new experiences/approaches.

## 📁 Employment History

### **Teaching Assistant at Cyprus University of Technology**

Limassol, Cyprus 📅 January 2020 to Present

- Courses: "Microbiology" (BSc), "Food Biotechnology" (BSc), "Food Quality & Quality Assurance" (BSc), "Specialized Microbiology" (MSc).
- Created lesson materials and interactive presentations to supplement and optimized lesson plans.
- Created Virtual Reality (VR) videos as alternative teaching methodologies.
- Assisted teachers with classroom management, instructional support for students and document coordination to maintain positive learning environment.
- Set up visual aids, equipment and classroom displays to support teacher's lesson delivery.
- Attended a 3-month Bioinformatics course in Next Generation Sequencing using the R language.

### **Research Scientist at Cyprus University of Technology**

Limassol, Cyprus 📅 July 2018 to December 2020

- Performed research into molecular, chemical, and microbiological laboratory technologies in honeybee microbes and hive products.
- Conducted PCR, Real-Time PCR, aerobic and anaerobic microbial growth, physicochemical and probiotic tests regularly.
- VR experiences about basic knowledge of apiculture and halloumi production (a traditional Cypriot cheese).
- Collaborated with other colleagues in various research groups.
- Documented, reported, and presented test results after making graphical representations.
- Training/mentoring undergraduate and master students in laboratory techniques and developing/improving skills.

### **Chemical Analyst at cp FoodLab Ltd**

Nicosia, Cyprus 📅 March 2018 to June 2018

- Performed qualitative and quantitative chemical analyses of water and waste materials.
- Operated laboratory equipment (e.g., Ion Chromatography) and prepared compounds and solutions to conduct tests in water, waste, soil, greens, olive oil and honey samples.

- Created spreadsheets and reports to accurately record and calculate analytical results.
- Efficiently organized and maintained equipment to keep laboratory productive and safe.

## Education

**PhD candidate in Agricultural Sciences, Biotechnology and Food Science**, Cyprus University of Technology, Limassol, Cyprus. Majored in Bees' Microbiology  January 2019 to Present.

**Master's in Food Quality and Chemistry of Natural Products**, Mediterranean Agronomic Institute of Chania (M.A.I.Ch.), Greece.  October 2014 to December 2017.

**BSc and MSc in Agricultural Biotechnology**, Athens, Greece.  October 2007 to April to 2013.

## Publications

- "Identification and classification of olive cultivars through morphological analysis and machine learning algorithms" (2022). Konstantinos N. Blazakis, Maria Kosma, George Kostelenos, Luciana Baldoni, Marina Bufacchi, Panagiotis Kalaitzis. Horticulture Research [under review].
- "Chemical, Antimicrobial and Chromatographic Analysis of Propolis from the Island of Cyprus" (2021). Maria Kosma, Maria Aspri, Rachele Rocchi, Paola Pittia, Dimitrios Tsaltas. Foods [under review].
- "Description of olive cultivars through morphological parameters by using advanced mathematical algorithms" (2017). Konstantinos N. Blazakis, Maria Kosma, George Kostelenos, Luciana Baldoni, Marina Bufacchi, Panagiotis Kalaitzis. Plant Methods 13:111, <https://doi.org/10.1186/s13007-017-0261-8>.

## Research Projects

BeFOre Project H2020-MSCA-RISE-2014 (02-05/2016-Perugia/Italy & 01-04/2017-Cordoba/Spain), ASKFOOD Erasmus+ Knowledge Alliance (07/2018-12/2020-Limassol/Cyprus), SUBERBO Restart 2016-2020, CONCEPT/0618/0014 (07-12/2019-Cyprus), AgROBOfood Project H2020 (04-06/2021-Cyprus) & FRIETS Project H2020-MSCA-RISE/101007783 (12/2021-today).

## Accomplishments

- Supervised one student with special needs enrolled in Microbiology class with high grades.
- Red Cross Volunteer
- Cofounder of a Berry Farm "Mountain Berries Pitsilia"
- Cofounder of an agricultural start-up company "M.N. Bioagrotiki ltd"

## Hobbies

 Apiculture,  Running,  Cycling,  Volleyball,  Swimming,  Travelling

## Languages

Greek	Native speaker
English	Excellent
Spanish	Good

## Skills

-  Organization
-  Problem Solving
-  Networking
-  Education/ Communication
-  Teamwork