
Christos Zioutis

Heraklion, Crete, Greece

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ACADEMIC EDUCATION

2015 - 2025

PhD in Biology, University of Vienna, Centre for Microbiology and Environmental Systems Science

2013 - 2015

MSc. in Molecular Biology and Biomedicine, University of Crete, Department of Biology

2009 - 2013

BSc in Biology, University of Crete, Department of Biology

RESEARCH WORK

Feb 2022 - Jul 2022

University of Crete, EL.ID.E.K.: “Modelling Glossogeny. Using biological tools in the study of genetic and areal stability of morpho-syntactic parameters.

Biological tools for the study of genetic and geographic stability of morphosyntactic parameters,

Aug 2021 - Sep 2021

ELGO-DIMITRA, “Establishment of a national research network for the value chain of grape varieties.

Genetic identification of grape varieties and isolates with NGS. Polymorphism panel construction. Comparative evaluation of SSR data with NGS.

Sep 2020 - Apr 2021

ELGO-DIMITRA, “Establishment of a national research network for the value chain of olive varieties”,

Phylogenetic analysis of olive varieties with microsatellite DNA (SSR).

2015 - 2024

University of Vienna, Centre for Microbiology and Environmental Systems Science supervised by Prof. David Berry

PhD: *Evolution in ecologically meaningful timescales - Learning from the polysaccharide degraders of the human gut microbiota.*

Research topics:

- *Characterization of the extreme preterm neonate microbiome within the first two weeks after birth.*
- *Genetic diversification in the murine gut: Using gnotobiotic mice as a model for experimental evolution*
- *Molecular evolution of susC and susCD homologs in bacteria*

2014 - 2015

University of Crete, IMBB-FORTH, supervised by Assoc. Prof. Pavlos Pavlidis

MSc: *Inferring positive selection and demography in human gut microbiome.*

<https://elocus.lib.uoc.gr>

2012 - 2013

University of Crete, Department of Biology, supervised by Prof. Kriton Kalantidis

BSc: *Expression analysis of AKIN10 and GRIK1 homologs in transgenic Nicotiana Benthamiana lines of diverse RNA-interference phenotypes.*

WORKSHOPS

EMBO practical course: “Computational molecular evolution”, 2016, Heraklion, Crete

PUBLICATIONS

Zioutis C, Seki D, Bauchinger F, Herbold C, Berger A, Wisgrill L, Berry D. Ecological Processes Shaping Microbiomes of Extremely Low Birthweight Infants. *Front Microbiol.* 2022 Feb 28;13:812136. doi:10.3389/fmicb.2022.812136. <https://doi.org/10.3389/fmicb.2022.812136>

Bombarely, A.; Doulis, A.G.; Lambrou, K.K.; Zioutis, C.; Margaritis, E.; Koubouris, G. Elucidation of the Origin of the Monumental Olive Tree of Vouves in Crete, Greece. *Plants* 2021, 10, 2374. <https://doi.org/10.3390/plants10112374>

Séneca, J., Pjevac, P., Canarini, A. et al. Composition and activity of nitrifier communities in soil are unresponsive to elevated temperature and CO₂, but strongly affected by drought. ISME J 14, 3038–3053 (2020). <https://doi.org/10.1038/s41396-020-00735-7>

Lucaciu R, Pelikan C, Gerner SM, et al. A Bioinformatics Guide to Plant Microbiome Analysis. Front Plant Sci. 2019;10:1313. Published 2019 Oct 23. doi:10.3389/fpls.2019.01313
<https://doi.org/10.3389/fpls.2019.01313>

SCHOLARSHIPS

Scholarship for the top three candidates of the graduate degree Molecular Biology and Biomedicine IMBB-FORTH, 2013-2014

SKILLS

Molecular Biology

PCR, Real-time PCR, Next Generation Sequencing (Nanopore, amplicon sequencing, shotgun sequencing) library preparation.

Bioinformatics

genomics, metagenomics, amplicon sequencing, microbiome, SNP analysis, RNA-seq, ChIP-seq, phylogenetics, big data analysis

Programming

- Experience on work with computing clusters.
- Programming Languages: Python, R

Others

Collaborative , adaptability, fast learning

Languages

Greek (native), English

INTERESTS

Violin playing, bike riding, hiking