

Curriculum Vitae – ANTHI KARNAOURI

Current position *Postdoctoral Researcher, National Technical University of Athens,*
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RESEARCH INTERESTS

- Molecular cloning, heterologous production, purification and biochemical characterization of carbohydrate-acting biocatalysts.
- Development of tailor-made enzyme mixtures targeted towards agricultural and forest residues
- Production and characterization of novel biocatalysts with oxidative activity and investigation of their applications in furan-based chemicals enzymatic synthesis and nanocellulose production from lignocellulosic biomass.
- Evaluation of enzymatic activities on biomass fractions and development of customized cocktails
- Fermentation of biomass-derived streams towards the production of omega-3 fatty acids, lactic acid and other value-added products by utilizing bacteria, microalgae and fungi.

HIGHER EDUCATION

06/2010 – 01/2015: PhD in Biotechnology, School of Chemical Engineering, National Technical University of Athens (NTUA), Greece, Advisor Prof. Paul Christakopoulos, thesis title: “*Construction of microbial platform for the production of thermophilic enzymes implicated in lignocellulose degradation*”

09/2008 – 07/2010: MSc. in Microbial Biotechnology, National Kapodistrian University of Athens (UoA), Greece

09/2002 – 04/2008: BSc. in Biology, National Kapodistrian University of Athens (UoA), Greece

RESEARCH EXPERIENCE & EXPERTISE

04/2017 – running: Postdoctoral Researcher, National Technical University of Athens (NTUA), Greece

02/2015 – 03/2017: Postdoctoral Researcher, Luleå University of Technology (LTU), Sweden

02/2016 – 05/2016: Short Term Scientific Mission (3 months, in terms of Postdoctoral Research Project), University Tor Vergata (UNITOV), Italy

02/2014 – 12/2014: Short Term Scientific Mission (10 months, in terms of Ph.D. Research Project), Luleå University of Technology (LTU), Sweden

06/2010 – 01/2015: Ph.D. Research project, National Technical University of Athens (NTUA), Greece

PARTICIPATION IN RESEARCH PROJECTS

2019- running: Researcher, Biotechnology Laboratory, School of Chemical Engineering, National Technical University of Athens (in collaboration with Laboratory of Physical Chemistry and Applied Electrochemistry) (participated in proposal design, submission and research activities): “*Electrochemical Analysis for the action of Lytic Polysaccharide Monoxygenases*”, (No. 3090), funded by Hellenic Foundation for Research & Innovation.

2018- running: Postdoctoral Research Associate, National Technical University of Athens in collaboration with CERTH, Thessaloniki, Greece: “*Novel Conversion Technologies of Waste Biomass to Food additives and Fine Chemicals*”, (No. 1085), funded by Hellenic Foundation for Research & Innovation.

2017- running: Research Associate, Luleå University of Technology: “*Food-grade prebiotic oligosaccharide production, merging marine, and forest resources for moving up the cellulose value-chain (ForceUpValue)*”, Funded by Vinnova, BioInnovation Program, Sweden

2018-2020: Postdoctoral Research Associate, National Technical University of Athens in collaboration with TU Clausthal, Germany: “*Enzymatic superficial modification of natural and synthetic polymers and their spectroscopic analysis*”, funded by German Academic Exchange Service (DAAD).

2016-2017: Postdoctoral Research Associate, Luleå University of Technology: “*Second generation biofuel production from marine filter feeders*”, funded by Swedish Energy Agency, Sweden.

2016: Postdoctoral Research Associate, Luleå University of Technology: “*Bark biorefinery through physicochemical pretreatment and fractionation for the valorization of ‘oleochemicals’ and the additional ‘active’ ingredients*” (SMK-1537), funded by Kempe Foundations, Sweden.

2015-2016: Postdoctoral Research Associate, Luleå University of Technology: “*Bioconversion of Recalcitrant Polysaccharides by Novel Oxidative Biocatalysts for the production of ethanol and other novel products*”, funded by Swedish Research Council Formas, Sweden.

2015: Postdoctoral Research Associate, Luleå University of Technology: “*Efficient bioconversion of biomass insoluble polyesters with a potential use in lignocellulosic feedstock biorefineries*” (2014-148), funded by Swedish Research Council Formas, Sweden.

2013: Research Assistant, National Technical University of Athens: “*Metagenomics of ligninolytic microorganisms – Bioconversion of plant by-products into high-added value products*”, THALIS PROJECT, funded by Hellenic Ministry of Education.

GRANTS AND AWARDS

04/2017-03/2019: Grant for 2-year postdoctoral research by the State Scholarship’s Foundation, Greece.

02/2016 - 01/2017: Grant for 1-year postdoctoral research, Kempe Foundations (SMK-1537).

02/2016 - 04/2016: Grant for a 3-month Short Term Scientific Mission in Tor Vergata University, Rome, Italy by COST Action FP1306.

02/2015 - 01/2016: Grant for 1-year postdoctoral research, Swedish Research Council Formas (2014-148).

02/2014 - 09/2014: Scholarship for a 6-month Short Term Scientific Mission to Luleå University of Technology by the State Scholarship’s Foundation, Greece.

2014: Thomaidio Award, best scientific publication of 2014, National Technical University of Athens.

2010 - 2014: Scholarship for 3.5 years postgraduate studies by the State Scholarship’s Foundation, Greece.

PUBLICATION METRICS

31 publications in peer-reviewed journals

45 presentations in national and international conferences

h-index: 13, *i10-index* 14

Citations in Scopus: 471 and Google Scholar: 599

ARTICLE REVIEWER

Article reviewer in *ACS Sustainable Chemistry & Engineering*, *Biotechnology for Biofuels*, *Food and Bioproducts Processing*, *FEMS Microbiology Letters*, *MDPI (Catalysts, Energies, Molecules, Foods)*, *Applied Energy*, *World Journal of Microbiology and Biotechnology* and *Process Biochemistry*.