

CURRICULUM VITAE
Katherine Maria Pappas
2024

Date/Place of Birth 20-07-1966, Athens, Greece
Citizenship Greek, born to a Greek and a US citizen
Family status Married, two children born in 2003 and 2004
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Biographical Outline

1984-1990 BSc Degree, Faculty of Biology, School of Sciences, National and Kapodistrian University of Athens (NKUA) (honors, 9.1/10)
1989-1990 ‘ERASMUS’ exchange student at the School of Chemical and Life Sciences, University of Greenwich, and the Department of Microbiology, Division of Life Sciences, King’s College, University of London, London, UK (9 months)
1991-1997 PhD Thesis, Department of Genetics and Biotechnology, Faculty of Biology, NKUA (honors)
1998-1999 Postdoctoral Associate, Department of Genetics and Biotechnology, Faculty of Biology, NKUA
1999-2002 Postdoctoral Associate, Department of Microbiology, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, USA
2003-2010 Lecturer, Department of Genetics and Biotechnology, Faculty of Biology, NKUA
2008- Principal Investigator at the US DOE joint Genome Institute
2010-2018 Assistant Professor, Department of Genetics and Biotechnology, Faculty of Biology, NKUA (tenured since Oct. 2014)
2019- Associate Professor, Department of Genetics and Biotechnology, Faculty of Biology, NKUA
2018-2024 American Society for Microbiology (ASM) Country Ambassador to Greece
2020- NKUA Center of Excellence in Basic Sciences Founding Member
2022-2023 Head of the Department of Genetics & Biotechnology
2023- NKUA Research Center ‘Biotechnology, Bioeconomy, Biosustainability (Bio3)’ Founding Member
2023- ASM International Future Leaders Mentorship Fellow
2023-2024 Fulbright Foundation Scholar

Awards, Scholarships & Stipends

1984 National Scholarships Foundation (IKY) award for top entry in NKUA
1989-1990 ‘ERASMUS-Free Mover’ undergraduate student scholarship to conduct research in the School of Chemical and Life Sciences, University of Greenwich (host: Prof. I. J. Bruce), and in the Department of Microbiology, Division of Life Sciences, King’s College (host: Prof. B. W. Bainbridge), London, UK (research topics: ‘Isolation and characterization of the

Burkholderia cepacia 2,4-D degrading plasmid pIJB1' and 'Mapping of the chromosomal rDNA repeat of *Aspergillus fumigatus*' respectively) (Oct. 1989 – Jun. 1990)

- 1992-1996** National Scholarships Foundation (IKY) scholarship to conduct doctoral dissertation in the field of Genetics (single national position; topic: 'Study of conjugative gene transfer in the ethanol-producing bacterium *Zymomonas mobilis*')
- 1992** EU Regional Development stipend for workshop 'Application of novel techniques in the Biochemical & Biomedical Sciences', University of Ioannina, School of Chemistry and School of Medicine, Ioannina, Greece (Nov. – Dec. 1992)
- 1999-2002** Post-doctoral research fellowship provided by the NIH grant GM42893 awarded to Prof. S. C. Winans, Dept. of Microbiology, College of Agriculture and Life Sciences, Cornell University, Ithaca NY (topic: 'Interactions between *Agrobacterium* and host plants')
- 2010** NKUA Dean's Office stipend (code 10812) to present at the 5th Annual US DOE-Joint Genome Institute User Meeting, Walnut Creek, CA, USA (see conferences)
- 2011** Greek/Latvian stipend for scientific bilateral exchange between the NKUA and the University of Latvia, Latvia (DPMA 2011/77; travel and stay in Riga Oct. 26-31, 2011)
- 2013** NKUA Dean's Office stipend (code 10812) to present at the FEMS 2013 International Conference, Leipzig, Germany (see conferences)
- 2014** As above, to present at the International Conference 'Plant Transformation Technologies (VISCEA)', Vienna, Austria (see conferences)
- 2016-2017** National Scholarships Foundation (IKY)/Siemens Award of Excellence for research proposal: 'Biotechnological and genomic study of a mutant strain of the ethanologenic bacterium *Zymomonas mobilis*, deficient for homologous recombination, aiming to optimize bioethanol production'
- 2020-** Member of the NKUA Board for Excellence in Sciences (STEM Division)
- 2023-2024** Honorary Appointed Fellow at the University of Wisconsin-Madison/Wisconsin Energy Institute (laboratories of Prof. R. Landick, Prof. T. Donohue) and Michigan State University/DOE Plant Research Laboratory (laboratory of Prof. C. Kerfeld) in terms of Fulbright Scholarship. Awarded Research Topic: 'Synthetic and Systems Biology applications for bioethanol and high added value compound production' (Dec. '23 – Apr. '24)

Principal Investigator in Research Programs

- 2004-2005** NKUA Research Committee grant 'Kapodistrias' (70/4/7809) for the topic 'Study of quorum sensing in the ethanol-producing bacterium *Zymomonas mobilis*'. Principal Investigator.
- 2006-2007** NKUA Research Committee grant 'Kapodistrias' (70/4/7809) for the topic 'Study of toxicity and other traits induced in high population densities of the ethanol-producing bacterium *Zymomonas mobilis*'. Principal Investigator.
- 2006-2008** EU/GSRT co-sponsored grant 'R&T Collaborations between Greek and non-European Institutions – Program EPAN' for Greek - US bilateral collaboration between the University of Athens and Cornell University (18-months; GSRT no. 05-NONEU-273/RC no. 9324), on the topic 'Study of cell-cell communication in the ethanol-producing bacterium *Zymomonas mobilis*'. Principal Investigator. (**proposal ranked 1st in Life Sciences**)
- 2008-2016** US Department of Energy - Joint Genome Institute and NKUA bilateral collaboration (FY2008_CSP_788284); topic: 'Sequencing of *Zymomonas mobilis* strains CP4, ATCC 10988 and ATCC 29191 (subsp. *mobilis* lectotype and phenotypic centrotypic), ATCC 29192 (subsp. *pomaceae* lectotype) and *Z. mobilis* sp. NCIB 11163. Sequencing of strain

ZM4 (ATCC 31821) plasmids.’ Principal Investigator. (**ranked among the three topmost proposals worldwide**)

<http://www.jgi.doe.gov/sequencing/cspseqplans2008.html>

<http://www.jgi.doe.gov/sequencing/why/CSP2008/zmobilis.html>

Award DOI: 10.46936/10.25585/60007490; DOI: 10.25585/1487799

Proposal supported by Prof. P.L. Rogers (University of New South Wales), Prof. H. Lawford (University of Toronto), Prof. H. Sahm (Juelich Research Centre), Prof. G. Stephanopoulos (MIT), Prof. T. Jeffries (University of Wisconsin), Prof. C. Drinas (University of Ioannina)

2008-2009 NKUA Research Committee grant ‘Kapodistrias’ (70/4/7809) awarding the topic ‘Genomic analysis in six strains of the ethanol-producing bacterium *Zymomonas mobilis*’. Principal Investigator.

2010-2018 US Department of Energy - Joint Genome Institute and NKUA bilateral collaboration (FY2010_CSP_52); topic: ‘Resequencing *Zymomonas mobilis* industrial strain ZM4. Sequencing *Zymomonas mobilis* transcriptomes’. Principal Investigator.

<http://www.jgi.doe.gov/sequencing/cspseqplans2010.html>

Award DOI: 0.46936/10.25585/60007264; DOI: 10.25585/1487662

Proposal supported by Prof U. Kalnenieks (University of Latvia), Prof D. Eveleigh (Rutgers University)

2013-2015 EU/GSRT co-sponsored Research Program ‘COOPERATION’. Academic – industrial collaboration framework between the National Technical University of Athens, the NKUA, the University of Thessaly, the Centre for Research and Technology Hellas (CERTH), AgrosBioSystems, Motor Oil Hellas, and Planning MC (network coordinator Prof. D. Kekos, NTUA); topic: ‘Sustainable Integrated Method for the Production of Lignocellulosic Ethanol - SIMPLE’. NKUA team co-Principal Investigator.

2016-2017 National Scholarships Foundation (IKY)/Siemens Award of Excellence for research proposal: ‘Biotechnological and genomic study of a mutant strain of the ethanologenic bacterium *Zymomonas mobilis*, deficient for homologous recombination, aiming to optimize bioethanol production’. Principal Investigator.

2016-2019 EU FP7 Framework, Program ERA-NET Industrial Biotechnology (ERA-IB), Proposal Era-IB-15-109/Z-FUELS. NKUA Principal Investigator, subcontracted by Perlemax Ltd Network of excellence coordinated by Perlemax Ltd (UK)/Innovate UK on the topic ‘A novel bacterial system with integrated micro-bubble distillation for the production of acetaldehyde’. Participants: Prof. W. Zimmerman, G. Hitchens (University of Sheffield/Perlemax Ltd UK), Prof. R. Poole (University of Sheffield, contractor: University of Trondheim), Prof. U. Kalnenieks (University of Latvia), Prof. O. Sawodny, J. Rex (University of Stuttgart/Institute of Systems Dynamics), Dr. K. Bettenbrock (Max Planck Institute for Dynamics of Complex Systems, Magdeburg), Ass. Prof. Per Bruheim (Norwegian University of Science and Technology – Trondheim), Ass. Prof. K. M. Pappas (University of Athens, contractor: Perlemax Ltd)

2016-2021 EU FP7 2014-2020/National Framework ‘Competitiveness, Entrepreneurship and Novelty (www.antonistiki.gr)’ co-sponsored Research Program Upgrading the national plant wealth (Plant-Up)’ ΟΠΣ (MIS) 5002803, Infrastructure Grant (purchase of Ion Torrent Sequencer, situated in the Department of Genetics & Biotechnology, Lab 5), Work-package co-Principal Investigator.

2022- NKUA/ELKE Research Grant 18479, ‘Genetic analysis of microorganisms that produce compounds of biotechnological interest or contribute to phytopathogenicity’. NKUA co-Principal Investigator.

Shortlisted in proposals that did not receive funding

- 2007** ERC-StG (Young Investigators) EU framework call, topic ‘Genome-wide studies and metabolic engineering for the bioethanol-producing bacterium *Zymomonas mobilis*-ZYMOGEN07’. Principal Investigator.
- 2009-2011** National–EU joint Research Program ‘THALIS’ (network coordinator), title ‘Comparative genomics and the study of metabolic and energetic networks in the ethanol-producing bacterium *Zymomonas mobilis*: a Systems Biology approach for the optimization of ethanol and high-added-value compound production (ZYMOSYS)’. Network of excellence between the NKUA, the University of Ioannina, the Aristotle University of Thessaloniki, the National Research Foundation, the National Technical University, the University of Latvia, and the Technical University/ EPFL-Switzerland. Proposal Coordinator/NKUA Team PI.
- 2024** Human Frontiers in Science Program (HFSP), title ‘Breaking biological barriers by creating an ultimate bioprocessing cell factory’. Network of excellence between NKUA (PI K. Pappas), Michigan State University (PI Prof. S. Ding), Ben Gurion University (PI Prof. E. Bayer), University of Hubey/Key State Laboratory (PI Prof. S. Yang). Proposal Coordinator/NKUA Team PI.

Participation in Research Programs

- 1992-1994** Greek General Secretariat for Research & Technology (GSRT) PENED Program awarded to Prof. M. A. Typas on the topic ‘Conjugative gene transfer in the ethanol-producing bacterium *Zymomonas mobilis*’
- 1995-1997** EU/GSRT/Greek Sugar Industry co-sponsored Program EPET II 323 awarded to Prof. M. A. Typas on the topic ‘Genetic enhancement of ethanol-producing organisms aiming to simultaneous ethanol and ice nucleation protein production’
- 1997-1998** EU/GSRT co-sponsored Program PABE (collaborations with Industrial Partners) awarded to Prof. M. A. Typas on the topic ‘Molecular typing of sugar-degrading bacteria and fungi isolated in sugarcane fermentations’
- 1999-2002** US NIH grant GM42893 awarded to Prof. S. C. Winans, Dept. of Microbiology, College of Agriculture and Life Sciences, Cornell University, Ithaca, NY, on the topic ‘Interactions between *Agrobacterium* and host plants’
- 2002** EU-sponsored research program ‘RAFBCA: Risk Assessment of Biological Control Agents’ awarded to Prof. M. A. Typas on the topic ‘Molecular typing of insecticide fungi – risk assessment with the application of the Ames test’ (Aug. – Oct. 2002)
- 2011-2012** NKUA Research Committee grant ‘Kapodistrias’, awarding the Department of Genetics & Biotechnology cumulative research activity on the topic ‘Structure and function of genes of biotechnological importance’.
- 2012-2015** National–EU co-funded Research Program ‘THALIS’. Network of excellence between the NKUA, the National Technical University of Athens, the Agricultural University of Athens, Harokopeion University, and Lund University, Sweden (network coordinator Prof. M. A. Typas, NKUA); topic: ‘Metagenomics of ligninolytic microorganisms – Bioconversion of plant by-products into high-added value products’
- 2012-2015** National–EU co-funded Research Program ‘THALIS’. Network of excellence between the Agricultural University of Athens, the NKUA, the Aristotle University of Thessaloniki, and the South Carolina State University, USA (network coordinator Prof. G. J. Nychas, AUA); topic: ‘Biological Investigation Of the Forces that Influence the Life of pathogens having as Mission to Survive in various Lifestyles; BIOFILMS’
- 2013-2015** EU/GSRT co-sponsored Research Program ‘COOPERATION’. Academic – industrial

collaboration framework between the National Technical University of Athens, the NKUA, the University of Thessaly, the Centre for Research and Technology Hellas (CERTH), AgrosBiosystems, Motor Oil Hellas, and Planning MC (network coordinator Prof. D. Kekos, NTUA); topic: ‘Sustainable Integrated Method for the Production of Lignocellulosic Ethanol - SIMPLE’

2014- Partnership in the BBSRC Network ‘Crossing biological membranes: Engineering the cell-environment interface to improve process efficiency (CBMNet)’, BBSRC Networks in Industrial Biotechnology and Bioenergy (UK). Coordinators: Prof. J. Green (University of Sheffield), Prof. G. Thomas (University of York)

2016-2019 EU FP7 Framework, Program ERA-NET Industrial Biotechnology (ERA-IB), Proposal Era-IB-15-109/Z-FUELS. Network of excellence coordinated by Perlemax Ltd (UK)/Innovate UK on the topic ‘A novel bacterial system with integrated micro-bubble distillation for the production of acetaldehyde’. Participants: University of Sheffield/Perlemax Ltd UK (Prof. W. Zimmerman, G. Hitchens, Prof. R. Poole – contractor: University of Trondheim), University of Latvia (Prof. U. Kalnenieks), University of Stuttgart/Institute of Systems Dynamics (Prof. O. Sawodny, J. Rex), Max Planck Institute for Dynamics of Complex Systems, Magdeburg (Dr. K. Bettenbrock), Norwegian University of Science and Technology – Trondheim (Ass. Prof. Per Bruheim), University of Athens (Ass. Prof. K. M. Pappas – contractor: Perlemax Ltd)

2023- US Department of Energy - Joint Genome Institute Community Sequencing Program (FY_2023); collaboration between Greek, UK and US academic institutions on the topic: ‘Deciphering the genetic and metabolic plasticity of endophytic entomopathogens and fungicolous fungi of the order Hypocreales’. PI: Assist. Prof. V. N. Kouvelis

Proposals submitted but not granted

2024 Horizon 2020-2027 EU Framework (HORIZON-CL5-2024-D3-01-10 and HORIZON-CL6-2024-CircBio-02-6), topic ‘Renewable energy generation through biohydrogen production (BioHyPro)’. Participants: NKUA Coordinating Institution (Profs C. Vorgias, D. Hatzinikolaou, K. Pappas, I. Zoidakis), Yerevan State University (Prof. K. Trchounian), Hamburg University of Technology (TUHH; Prof. G. Antranikian), University of Valladolid Spain (Prof. O. G. Depraect), Hellenic Biomass Association, Exelixis Research Management & Communication

Other Research and Professional Activities

I. Genomics research and NCBI GenBank submissions

1999-2004 Sequencing, primary annotation and GenBank submissions:

- *Z. mobilis* subsp. *mobilis* industrial strain CP4 plasmid pCP4.2, 32623 bp (EU709732)
- *Z. mobilis* subsp. *mobilis* industrial strain CP4 *recA* gene, 1574 bp (AY101392)
- *Z. mobilis* subsp. *mobilis* ATCC 10988 plasmid pZMO1, 1651 bp (AJ009975) (deposited by Prof. C. Drainas)
- *Z. mobilis* subsp. *mobilis* industrial strain CP4 IS element ISZm1068, 1100 bp (AF012441)

2010-2017 Joint submissions with the US DOE-Joint Genome Institute (Program CSP_788284):

- *Z. mobilis* subsp. *mobilis* industrial strain ZM4 chromosome AE008692.2, 2056363 bp (joint submission with the US DOE - Oak Ridge National Laboratory)
- *Z. mobilis* subsp. *mobilis* industrial strain ZM4 plasmids 37066 bp (CP001881.1), 33915 bp (CP001882.1), 32801 bp (CP001883.1), 32400 bp (CP001884.1), 30952 bp (CP001885.1)

- *Z. mobilis* subsp. *mobilis* NCIMB 11163 chromosome, 2124771 bp (CP001722.1)
- *Z. mobilis* subsp. *mobilis* NCIMB 11163 plasmids 53380 bp (CP001723.1), 40818 bp (CP001724.1), 4551 bp (CP001725.1)
- *Z. mobilis* subsp. *pomaceae* ATCC 29192 chromosome, 1989865 bp (CP002865.1)
- *Z. mobilis* subsp. *pomaceae* ATCC 29192 plasmids 37387 bp (CP002866.1), 34161 bp (CP002867.1)
- *Z. mobilis* subsp. *mobilis* ATCC 10988 chromosome, 2021773 bp (CP002850.1)
- *Z. mobilis* subsp. *mobilis* ATCC 10988 plasmids 32479 bp (CP002851.1), 32283 bp (CP002852.1), 1692 bp (CP002853.1), 18461 bp (CP002854.1), 4023 bp (CP002855.1), 2750 bp (CP002856.1)
- *Z. mobilis* subsp. *mobilis* ATCC 29191 chromosome, 1961306 bp (CP003704)
- *Z. mobilis* subsp. *mobilis* ATCC 29191 plasmids 18350 bp (CP003705), 14947 bp (CP003706), 13742 bp (CP003707)
- *Z. mobilis* subsp. *mobilis* CP4 chromosome, 1998637 bp (CP006818)
- *Z. mobilis* subsp. *mobilis* CP4 plasmids 36892 bp (CP006891), 33915 bp (CP006892), 32400 bp (CP006893), 30952 bp (CP006894), 30440 bp (CP006895)

2018

Joint submission with the University of Wisconsin/US DOE Great Lakes Bioenergy Research Centre/ US DOE National Renewable Energy Laboratory:

- *Z. mobilis* subsp. *mobilis* ZM4 substr. 8b chromosome, 2064754 bp (CP023682.1)
- *Z. mobilis* subsp. *mobilis* ZM4 substr. 8b plasmids 40858 bp (CP023686.1), 39266 bp (CP023685.1), 33006 bp (CP023684.1), 32791 bp (CP023683.1)
- *Z. mobilis* subsp. *mobilis* ZM4 substr. 2032 chromosome, 2072170 bp (CP023677.1)
- *Z. mobilis* subsp. *mobilis* ZM4 substr. 2032 plasmids 39266 bp (CP023681.1), 36494 bp (CP023680.1), 33006 bp (CP023679.1), 32791 bp (CP023677.1)

2016 -

- Sequencing of 70 transcriptsomes of *Z. mobilis* strains ZM4 (project ID 1020422), ZM401 (ID 1020425), CP4 (ID 1020428) and UA1 (ID 1020431) under different growth conditions, in collaboration with the US DOE JGI (Production Genome Facility – Program US DOE-JGI CSP_52) and the University of Wisconsin-Madison/US DOE – Great Lakes Bioenergy Research Centre (US DOE-GLBRC). Submitted to the platform <http://genome.jgi.doe.gov> and in part to GenBank (specific sequences pertaining to 1020422).

Under submission to GenBank are the plasmid genomic sequences obtained via plasmid-only samples sequenced in terms of Program US DOE-JGI CSP_788284

2008-

Has provided US DOE-JGI web content regarding *Z. mobilis* (<http://genome.jgi-psf.org/>)

Has provided information to the ATCC and NCIMB Type Culture Collections regarding *Z. mobilis* strain identity/taxonomy

II. Journal Reviewer/Editor

2008 -

Invited reviewer for the journals:

Archives of Microbiology (Springer), Molecular Biology Reports (Springer), BMC Genomics (BioMed Central), Nucleic Acids Research (Oxford University Press), Molecular Microbiology (Blackwell), Journal of Applied Microbiology (Wiley), Plasmid (Elsevier), The ISME Journal (Nature Publishing Group), BMC Microbiology (BioMed Central), Biotechnology for Biofuels (BioMed Central), BioMed Research International (Hindawi Publishing Corporation), Applied Microbiology and Biotechnology (Springer), Antonie van Leeuwenhoek (Springer), PLoS (Public Library of Science), Scientific Reports (Nature Publishing Group), Frontiers in Microbiology (Nature Publishing Group), Applied & Environmental Microbiology (ASM Journal), Microbiology Resource Announcements

(MRA, ASM Journal)

<https://publons.com/author/374422/katherine-m-pappas#profile>

(NKUA reviewer activity ranking #1, <https://publons.com/>)

2011-2015 **Editorial board member** in the ‘Journal of Biotechnology and Biomaterials’, OMICS Publishing Group

2013-2016 **Guest Editor** in the journal Frontiers in Microbiology (Nature Publishing Group), Research Topic, e-book and hard-copy book titled "Genetic and genome-wide insights into microbes studied for Bioenergy". Invited co-editors: Dr. Shane Yang (US DOE NREL), Prof. Nigel Minton (University of Nottingham/BSBEC), Prof. Ed Lewis (University of Leicester), Ass. Prof. Biswarup Mukhopadhyay (VirginiaTech). Authored the introductory note and provided cover figure deriving from own lab research.

http://www.frontiersin.org/microbial_physiology_and_metabolism/researchtopics/genetic_and_genome-wide_insign/1807

2018- **Editorial board member** in ‘Systems Microbiology’, Frontiers Publishing Group

2021-2023 **Guest Editor** in ‘Microorganisms’ (MDPI) in Thematic Issue hosting full papers submitted to the ‘MikroBioKosmos’ 9th International Conference

2024 **Editorial board member** in ‘Microorganisms’(MDPI), Microbial Biotechnology Section

2024 **Editorial board member** in ‘Microbiology Resource Announcements (MRA)’, ASM

III. Proposal and Institutional Reviewer & Evaluator/ Program of Studies Evaluator

2009 Invited proposal reviewer by the British Royal Society, UK (Dec. 2009)

2010 Invited proposal reviewer by the Greek General Secretariat for Research and Technology (GSRT), Ministry of Education (Framework ‘International Bilateral Proposals’, Jun. 2010)

2013 EU appointed evaluator by the Belgian Science Policy Office (BELSPO) for the University of Ghent BCCM/LMBP Plasmid and DNA Library Collection, March – April ‘13

2013-2016 Invited proposal reviewer by the Greek GSRT, Ministry of Education (Framework ‘Excellence’, Jul. 2013)

2021 EU appointed evaluator for the accreditation of the MSc Program ‘Biotechnology’ of the University of Cyprus/Cyprus Institute of Neurology & Genetics, Cyprus (Nov. 2021)

IV. Public Service Appointments – Scientific Society Appointments

2010-2013 Appointed member of the Greek Food Safety Authority (EFET), Scientific Committee (ESET), Greek Ministry of Health

2010- Appointed International Mentor by the American Society for Microbiology (Oct. 2010)

2017-2019 Elected Secretary for the Board of Directors of the Hellenic Scientific Society ‘Mikrobiokosmos’. Board member 2019-2021.

2017 Summoned expert by the Institute of Educational Policy, Greek Ministry of Education and Religious Affairs, on educational reform (Sept. – Nov. 2017)

2018-2024 Elected Country Ambassador to Greece by the American Society of Microbiology (position evaluated and renewed in 2021)

2023- Elected Future Leaders Mentorship Fellow for the American Society of Microbiology

V. Invited Speaker & Conference Committee Member and Chair

- 1999** Invited by Prof. C. M. Thomas, School of Biosciences, University of Birmingham, UK, to present on the topic 'The biology of *Zymomonas mobilis* plasmids', in terms of prospective postdoctoral appointment (April 1999)*
- 2002** Invited by the organizers of the CCCB series of ASM meetings to give a talk on the topic 'Biochemical and Structural Analysis of a TraR-Pheromone-DNA Ternary Complex' (keynote lecture), ASM Conference on Cell-Cell Communication in Bacteria, Snowbird, Utah (July 2001)*
- 2004** Invited by the organizers of the 24th Panhellenic Conference of the Hellenic Society for Biological Sciences (HSBS), to give a talk on the topic 'Chemical communication in bacteria: Structure and function of a transcription factor that responds to bacterial pheromones', Eretria, Evoia (May 2002)
- 2006** Invited by the organizers of the 26th Panhellenic Conference of the Hellenic Society for Biological Sciences (HSBS), to give a talk on the topic 'Copy number control of the oncogenic *Agrobacterium tumefaciens* Ti plasmid by inherent molecular regulators and extracellular signals', Ioannina (May 2006)
- 2007** Invited by the organizers of the 2005-2006 Seminar Series of the National Hellenic Research Foundation to give a talk on the topic 'Bacterial cross-talks' (January 2007)
- 2008** Organizing Committee member at the 1st Panhellenic Conference 'Microbiokosmos I: Our unexplored microbial treasure', December 12-14, NCSR 'Demokritos', Athens, Greece
- 2010** Invited Speaker at the US DOE Oak Ridge National Laboratory – Bioenergy Science Center, TN, USA, to present overall laboratory activities (March 24th, 2010) **
- 2010** Scientific Committee member at the 3rd Panhellenic Conference 'Microbiokosmos III: microbes in health, nutrition and the environment', December 16-18, 'Noesis' Centre, Thessalonica, Greece
- 2011** Invited by the University of Latvia to present overall research laboratory activities under the auspices of Program DPMA 2011/77 between the University of Latvia and NKUA (host: Prof. U. Kalnenieks). Gave talks on: 'Current research on *Zymomonas mobilis*: state-of-the-art' (27/10) and 'Cell-cell signaling in alpha-proteobacteria' (28/10), Riga (Oct. 2011) **
- 2011** Organizing Committee member at the 62nd Conference of the Hellenic Society for Biochemistry and Molecular Biology, December 9-11, Eugenides Foundation, Athens, Greece
- 2012** Organizing Committee member and Chair at the 3rd World Conference on Biotechnology 'Biotechnology-2012', September 13-15, Hyderabad National Convention Centre, Hyderabad, India *
- 2013** Invited Speaker, Organizing Committee member, Scientific Advisor for Track 8 'Microbial Genetics' and Chair at the 'International Conference on Genetic Engineering & Genetically Modified Organisms (Genetic Engineering-2013)', August 12-14, Raleigh, NC, USA
Invited Speaker: Prof. S. Kathariou, North Carolina State University *
- 2013** Organizing Committee Member and Chair at the 6th International Scientific Conference on Climate Change and the Environment (Promitheas), October 9-11, NKUA (Kostis Palamas Building), Athens, Greece
- 2014** Invited Speaker at the International Symposium 'Plant Transformation Technologies III (VISCEA)', to present on the topic '*Escherichia coli* can act as an *in planta* gene donor for the creation of transgenic plants', February 12-14, Vienna, Austria **
- 2014** Invited Speaker at the University of Wisconsin-Madison, Department of Bacteriology / US DOE Great Lakes Bioenergy Research Center, WI, USA (September 25th, 2014) **
- 2014** Organizing Committee Member and Chair at the 7th International Scientific Conference on

- Climate Change and the Environment (Promitheas), October 8-10, NKUA (Kostis Palamas Building), Athens, Greece
- 2014** Organizing and Scientific Committee member and Chair at the 9th Conference of the Hellenic Society for Computational Biology and Bioinformatics - HSCBB14, October 10-12, Agricultural University of Athens, Greece
- 2015** Organizing and Scientific Committee member and Chair at the 6th Panhellenic Conference 'Microbiokosmos VI', April 3-5, National Research Foundation, Athens, Greece
- Invited Speaker: Prof. Robert Landick, University of Wisconsin – Madison, Director of the US-DOE Great Lakes Bioenergy Research Centre
- 2015** Organizing Committee member and Chair at the 37th Symposium on Biotechnology for Fuels and Chemicals (37th SBFC) of the Society for Industrial Microbiology and Biotechnology (SIMB), April 27-30th, San Diego, CA, USA
- 2015** Organizing Committee Member and Chair at the 8th International Scientific Conference on Climate Change and the Environment (Promitheas), October 7-9, NKUA (Kostis Palamas Building), Athens, Greece
- 2016** As above, October 12-14
- 2017** Organizing and Scientific Committee member and Chair at the 7th Panhellenic Conference 'Microbiokosmos VII', April 7-9, National Research Foundation, Athens, Greece
- 2018** Invited Speaker at the Symposium 'Horizons in Molecular Biology 2018', Max Planck Institute for Biophysical Chemistry/Georg August Universitaet Goettingen, Goettingen, September 10-14 **
- 2018** Organizing Committee Member and Chair at the 11th International Scientific Conference on Climate Change and the Environment (Promitheas), October 11-13, NKUA (Plaka Historical Premises), Athens, Greece
- 2019** Organizing and Scientific Committee member and Chair at the 8th Panhellenic Conference 'Microbiokosmos VIII', April 19-21, ICT-FORTH Patras
- Invited Speaker: Prof. Cheryl Kerfeld, Michigan State University, US DOE- Lawrence Berkeley National Laboratory
- 2019** Invited speaker in the 3rd International Conference on Synthetic Biology, 24-29 Sept. Nanjing, China **
- 2020** Scientific Committee member and Session Organizer at the 12th International Congress on Extremophiles 'Extremophiles 2020' (postponed due to COVID pandemic)
- 2021** Organizing and Scientific Committee member and Chair at the 9th Panhellenic Conference 'Microbiokosmos IX', December 16-18, AUA Athens, Greece
- 2023** Scientific Committee member and Chair at the 10th Panhellenic Conference 'Microbiokosmos X', November 30 - December 2, Larissa, Greece
- 2024** Scientific Committee member at the 14th International Congress on Extremophiles 'Extremophiles 2024', Sept 22-26, Loutraki, Greece

*expenses covered in full ** or in part **

Has invited speakers to offer talks in the Faculty of Biology NKUA:

- 2009** Dr. Kostas Mavrommatis, US DOE Joint Genome Institute, Production Genome Facility, topic: 'Gold-mining bacterial genomes' (May 2009)
- 2015** Prof. Robert Landick (Charles Yanofsky Professor of Biochemistry and Bacteriology), University of Wisconsin-Madison, US DOE Great Lakes Bioenergy Research Centre

(Director), topic: 'Bacteria in Bioenergy, an overview of UoW-M/GLBRC activities' (May 2015)

- 2023** Prof. Joseph Nadeau, Research Director, Center for Molecular Medicine, Maine Medical Center Research Institute, topic: 'Chance, more than genes and environment, dominate the origins of phenotypic variation and disease risk'

VI. Science Communication to the Public – International contest trainer

- 2013 Presenter on 'GMOs and sociopolitical implications', invited by the editorial of the NKUA journal 'Kaleidoscope', Event Bookstore 'Agyra', 124 Solonos St., Athens, Feb. 2013
- 2013 Event coordinator and speaker on the topic 'Microbes: friends or foes', 'Bio-café' lecture series organized by the publishing company 'People & Ideas' in collaboration with the Panhellenic Association of Biologists, Free Thinking Zone, 64 Skoufa St., Athens, May 2013
- 2016 Lab research demonstrator for the topic 'Biofuels from Bacteria', Athens Science Festival, Technopolis, Athens, Apr. 2016 (week-length zone)
- 2018 Trainer for the National Team in the 2018 International Olympiad in Biology (Iran) – teaching and laboratory training on genetic engineering
- 2022 Educator on 'Mendelian Genetics', invited by the Panhellenic Association of Biologists (PEB), Dec. 2022

VII. Member of Societies and Associations

Member of the: American Society for Microbiology (ASM), American Association for the Advancement of Science (AAAS), American Chemical Society (ACS), European Science Foundation (ESF), International Society for Plasmid Biology (ISPB), Society for Industrial Microbiology and Biotechnology (SIMB), Hellenic Society for Biological Sciences (HSBS), Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Hellenic Society for Computational Biology and Bioinformatics (HSCBB), Hellenic Society for Microbiology 'Mikrobiokosmos'(MBK)

Academic Responsibilities

I. Administrative

- 2005-** Member of the Faculty of Biology NKUA Executive Body (decision & counseling body)
- 2005-2007** Examiner for graduate students enrolling in the NKUA Faculties of Biology and Pharmacy (examined subject: Biology). Substitute examiner since 2007.
- 2006-2007** Elected member of the NKUA Administrative Council (Senate)
- 2007-2009** Member of the Faculty of Biology NKUA committees for Maintenance, Research & PR activities
- 2008 -** Responsible for Radiation Safety in the Dept. of Genetics and Biotechnology, Faculty of Biology NKUA
- 2009-** Member of the Faculty of Biology NKUA committees for Faculty Curriculum, Museums and Environmental Policies
- 2008-** Primary Electoral Body Member for Faculty appointments in the following Institutions:
- Faculty of Biology, NKUA (2008, 2019, 2023 – 'Genetics & Biotechnology')

- Faculty of Agricultural Biotechnology, Agricultural University of Athens (2008, 2010 – ‘Genetics’)
 - Faculty of Biology, University of Patras (2010, 2018, 2021 – ‘Genetics’)
 - School of Sciences and Technologies, Department of Biological Applications and Technologies, University of Ioannina (2012 – ‘Genetics’)
 - Faculty of Biology, University of Athens (2020 – ‘Genetics - Molecular Genetics of Eukaryotes’)
 - Faculty of Biology, University of Crete (2020, 2023 – ‘Microbiology’, ‘Microbiology & Host-Microbe Interactions’)
 - Faculty of Biology, University of Patras (2020 – ‘Microbiology - Immunology’)
 - Faculty of Biology, University of Patras (2020 – ‘Molecular Biotechnology’)
 - Faculty of Crop Sciences, Agricultural University of Athens (2021 – ‘Microbial Fermentation - Molecular Biotechnology of Microorganisms’)
 - Faculty of Biology, University of Athens (2024 – ‘Molecular Microbiology’; **three-member evaluating committee**)
 - Faculty of Biology, University of Athens (2024 – ‘Genetics - Molecular Genetics of Eukaryotes’; **three-member evaluating committee**)
- 2012-** Provided English versions for the Faculty of Biology NKUA web pages and Diploma Supplement
- 2014-** Member of the Faculty of Biology NKUA committee for the coordination of the EU framework program ‘ERASMUS’ that administers international student exchanges
- 2018** Member of the Faculty of Biology NKUA committee for the upgrade of the Faculty IT profile in terms of the NKUA Program of Studies’ Accreditation
- 2019-** Member of the Faculty of Biology NKUA committees for Curriculum Affairs, Student Affairs, and Accreditation
- 2019-2022** Member of the NKUA Accreditation Unit (MODIP/OMEA)
- 2020-** Founding Member of the NKUA Center of Excellence in Basic Sciences
- 2022** Member of the NKUA School of Sciences Committee for Gender Equality in Sciences
- 2023** Founding Member of the NKUA Research Institute ‘Biotechnology, Bioeconomy, Biosustainability (Bio3)’
- 2024** Coordinator for NKUA – Hubei University Bilateral Agreement

II. Teaching

- 1990-1999** Post-graduate Teaching Assistant in the Faculty of Biology NKUA, in the undergraduate laboratory courses for ‘Genetics’ (2nd year; Mendelian Genetics: *Drosophila* and maize crosses - Human Genetics - Microbial Genetics - Population Genetics) and ‘Biotechnology’ (4th year; Molecular Cloning)
- 2003-** **Undergraduate Courses:**
- **Faculty of Biology NKUA**
 - ‘Genetics’ (2004-) (3rd semester), **Course Coordinator** (2020-), **Student Laboratories Coordinator** (2008-)
- Teaches: ‘DNA Recombination’, ‘DNA Mutagenesis & Repair’, ‘Gene Regulation’ (35 hrs) (taught ‘Multiple Allele Inheritance’ 2008-2010, ‘Sex Determination’ 2020-2022)
- Laboratory Courses: ‘Microbial Genetics (Mutagenesis in *Aspergillus* and *Escherichia* as models – Mutant isolation and study – DNA repair – Use of antibiotic resistance traits to establish gene horizontal or vertical transfer and gene induction’ (3-hrs per class, 4-7 classes)

per week, 4 weeks)

- **‘Biotechnology’** (2004-2019) (8th semester), **Student Laboratories Coordinator** (2003-2020)

Taught: ‘Molecular Plant Biotechnology’ (6 hrs)

Laboratory Course: ‘Molecular Cloning I-V’ (3-hrs per class, 2-3 classes per week, 4 weeks)

- **‘Advanced Genetics’** (2005-) / **‘Molecular Genetics’** (2020-) (5th/6th semester), **Course Coordinator** (2016-), **Student Laboratories Coordinator** (2020-)

Teaches: ‘Transposable Elements’, ‘Horizontal transfer and recombination’, ‘Plasmid Biology’, ‘Genetic Engineering and Genomics’ (28 hrs), student seminars coordinator (4 hrs), Laboratory Courses (initiated in 2021): ‘Molecular Cloning and Sequencing I - V’ (3-hrs per class, 2-3 classes per week, 4 weeks), ‘Regulation of gene expression in prokaryotes’ (3-hrs per class, 2-3 classes per week, 1 week)

- **‘Introduction to Biology’** (2007-2009) (1st semester course)

Taught: ‘Recombinant DNA Technology’ (6 hrs)

Laboratory course: ‘The Nature of the Gene’ (3 hrs per class, 6 classes per week)

- **Faculty of Philosophy and History of Science NKUA**

- **‘General Biology’** (2014-) (3rd semester course)

Teaches: ‘Recombinant DNA Technology’ (3 hrs), ‘The Microbial World’ (3 hrs)

Postgraduate Courses:

- **Faculty of Biology NKUA**

- MSc Program **‘Microbial Biotechnology’**, taught: ‘Bacterial Cell-Cell Signaling’ (3 hrs) (2005-2010)

- PhD Departmental teaching course, as above (2005-)

- MSc Program **‘Bioinformatics’**, taught: ‘Principles in Genomics, Transcriptomics and Proteomics’ (4 hrs) (2010-2020)

- **Department of Nutrition & Dietetics, School of Health Sciences, Harokopion University**

- MSc Program **‘Applied Nutrition and Dietetics’**, teaches: ‘Bacterial Signalling in Food Technology and Health’ (3 hrs) (2016, 2019)

- **Faculty of Biology NKUA and Faculty of Economics, University of Piraeus, Joint Postgraduate Course**

- MSc Program **‘Bioeconomics’**, taught: ‘Bacteria in Health, Food and Fuel Economy’, ‘Recombinant DNA Technology’, ‘Bacterial Platforms for Biofuels’ (9 hrs) (2017-2019)

- **Faculty of Biology NKUA and Institute of Chemical Biology NHRF Joint Postgraduate Course**

- MSc Program **‘Biotechnology’**, teaches in the course **‘Basic Biology Toolbox’**: ‘Mutagenesis & Repair’, ‘Genome Editing and Recombination’, ‘Forward & Reverse Genetics’, ‘Prokaryotic Transcriptomics’ (12 hrs) (2021-)

‘Microbial Biotechnology’ Course Coordinator (2021-), teaches: ‘Introduction: Microorganisms in Biotechnology and Bioeconomy’, ‘Microbial Platforms and Tools’, ‘Host-pathogen Interactions and Molecular Signaling’ (8 hrs) (2021-)

- **Department of Molecular Biology and Genetics, Democritus University of Thrace**

- MSc Program **‘Translational Research in Biomedicine’**, teaches: ‘Introduction to Prokaryotic Genomics’ (2023-) (3 hrs)

Has authored explicit content-rich ppt presentations for all lectures offered

Textbook chapter writing/editorial supervision

- Author of Chapter '**Molecular Plant Biotechnology**' for the 4th year course '**Biotechnology**' course hand-out (content: plant genomic analysis, plant transformation methods – direct or indirect (*A. tumefaciens*-mediated), transgenic plant technology, GMOs: products, distribution and current state-of-the-art, genetic marker containment, plastid transformation and the generation of transplastomic plants) (2004, 2017 revision) pp. 245-267
- Author of Chapter '**Antimicrobial Resistance: an integrated genetic model**' for the 2nd year course '**Genetics**', Laboratory Manual (content: brief introduction to antimicrobials, antimicrobial resistance genes and strategies, horizontal gene transfer, resistance gene induction, and guide to experimental procedures) (2018) pp. 1-9
- Author of Chapter '**Molecular Cloning**', brief introduction and protocol notes for the Laboratory Manuals of courses '**Biotechnology**' (2003-2020) and '**Molecular Genetics**' (2020-), pp.1-13
- Editorial supervision/greek translation of chapter '**Transcriptional Regulation**' for the book 'Concepts of Genetics' (11th Edition), Klug et al., (Pearson/Academic Editions)
- Editorial supervision/greek translation of chapter '**Genomes and Genomics**' for the book 'Introduction to Genetic Analysis' (11th edition), Griffiths et al., (Freeman/Broken Hill)
- Editorial supervision of chapter on '**DNA replication**' for the book '**Genetics: Analysis of Genes and Genomes**', Hartl. D. L. (Jones & Bartlett/Broken Hill Publishers)

III. Supervision of BSc Dissertations

Faculty of Biology student supervision

1. G. Villias (2004-2005) 'Replication and stability regions in plasmid pCP4.2 of the industrial *Zymomonas mobilis* strain CP4'
2. E. Stavrou (2004-2006) 'Study of quorum sensing in *Zymomonas mobilis*'
3. V. Koumpena (2006-2007) 'Transformation of *Arabidopsis thaliana* by *Agrobacterium tumefaciens* - *Escherichia coli* mixed infection' (in collaboration with Ass. Prof. K. Haralampidis, Dept. of Botany, Faculty of Biology, NKUA)
4. E. Pappa (2006-2007) 'Construction of biotechnologically important *recA* and *radA* knock-out strains for the ethanol producing bacterium *Zymomonas mobilis* CP4'
5. A. Tsoupras (2008-2009) 'Organic analysis of *Z. mobilis* supernatants – detection of signaling or toxicity-related compounds' (in collaboration with Prof. C. Demopoulos, Dept. of Biochemistry, Faculty of Chemistry, NKUA)
6. A. Damoulaki (2008-2009) 'Genetic and physiological studies of pheromone production in *Zymomonas mobilis*'
7. G. Savvakis (2008-2009) 'Study of genes involved in homologous recombination in *Zymomonas mobilis*'
8. N. Pantelaiou (2008-2010) 'Construction of species-specific vectors for *Zymomonas mobilis* that express cellulose-degrading enzymes' (in collaboration with Prof. A. Typas, Dept. of genetics & Biotechnology, Faculty of Biology, NKUA)
9. A. Andrea (2010-2011) 'Genetic and physiological study of the *Zymomonas mobilis* antagonism against other bacteria'

10. E. Davidova (2011-2013) ‘Study of transformation in an ethanologenic bacterium’
11. C. Skrekas (2012-2013) ‘Cloning and study of the LexA repressor from the ethanol-producing bacterium *Zymomonas mobilis*’
12. N. Taliouras (2012-2013) ‘Study of plasmids of different *Zymomonas mobilis* strains via bioinformatic and molecular approaches’
13. A. Zafeiri (2012-2013) ‘Genetic evolution of bacterial strains that exhibit complex phenotypes applying methods of biological chemistry’ (primary supervisor Dr G. Skrettas, National Hellenic Research Foundation, Athens)
14. E. Derveni (2013-2014) ‘Cell-cell signaling dependent gene induction in proteobacteria’
15. M. Papaggeli (2013-2014) ‘Development of mutagenesis tools in the ethanol-producing *Zymomonas mobilis*’
16. P. Poulis (2014-2015) ‘Transcriptional regulation of SOS genes in *Z. mobilis*’
17. K. Siaka (2014-2015) ‘Study of the antagonism of *Z. mobilis* against α - and γ -proteobacteria’
18. M. Roussou (2015-2016) ‘Metabolic enhancement in the ethanol-producing *Zymomonas mobilis*’ (in collaboration with Prof. M. A. Typas)
19. J. Charamis (2015-2017) ‘Study of cloning and expression vectors suitable for α -proteobacteria’
20. C. Karydi (2016-2017) ‘Study of conjugative properties in *Zymomonas mobilis* NCIMB 11163’
21. G. Niotis (2016-2017) ‘Study of replication inhibitors in *Flaviviridae* viruses and characterization of their activity via mutant isolation’ (primary supervisor Dr N. Vasilaki, Laboratory of Molecular Virology, Pasteur Institute Athens)
22. M. Bousali (2016-2018) ‘Genetic modification of *Pleurotus ostreatus* with peroxidase genes aiming to increased ligninocellulolytic activity’ (in collaboration with Prof. M. A. Typas)
23. D. Panagiotopoulou (2017-2018) ‘Quorum-sensing dependent circuits for gene expression’
24. C. Caracostas (2017-2019) ‘Study of plant- or fungal-originating replication inhibitors in viruses of the *Flaviviridae* and characterization of their genetic basis in both the viral and host cell system’ (primary supervisor Dr N. Vasilaki, Laboratory of Molecular Virology, Pasteur Institute Athens)
25. A. Bandounas (2017-2019) ‘Construction of overexpressing vectors for *Zymomonas mobilis*’
26. K. Papaioanou (2018-2019) ‘Genomic engineering strategies for *Zymomonas mobilis* Z6’
27. A. Litos (2019-2020) ‘Study of toxin-antitoxin genes in an ethanol-producing bacterium’
28. D. Moschopoulou (2020-2021) ‘Study of the powerful *Ppdc* promoter in *Zymomonas mobilis*’
29. M. Vlachonicolou (2020-2021) ‘Engineering C5 source assimilation in an ethanol producer’
30. S. Menelaou (2020-2021) ‘Characterization of conjugation and mobilization genes in *Zymomonas mobilis*’
31. P. Gerantonis (2020-2022) ‘Curation of annotated genes for *Zymomonas mobilis* plasmids’
32. F. Kefalas (2021-2022) ‘Mutagenesis and the isolation of ethanol overproducers in *Zymomonas mobilis*’
33. D. Kalyvas (2022-2023) ‘Metabolic engineering in central pathways of *Zymomonas mobilis*’
34. E. Apostolou (2022-2023) ‘Site specific recombination and genomic recombineering’
35. P. Ktenas (2022-2023) ‘Genomic tagging by homologous recombination’

Non-Erasmus EU BSc Thesis supervision, Blended Degree NKUA – University of Maastricht

36. J. Bruck (2024) ‘Creating optimal C5/C6 assimilating *Zymomonas mobilis* strains’ (Maastricht University, Netherlands)

EU Erasmus+ Placement student supervision

1. M. Vryonidou (2014-2015) ‘Transcriptional profiling in biofilms of common food pathogens’ (University of Surrey, UK)
 2. V. Pes (2017) ‘Metabolic broadening of a bioethanol producing organism’ (University of Sassari, Italy)
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3. C. Laforge (2020) 'Isolation of ethanol overproducers via high-throughput analyses' (University of Angeres, France)

Coordination of undergraduate student placements in external institutions

1. V. Diakogiannaki (2012) 'Study of esterase enzyme reactions in the alga *Nannochloropsis*' School of Chemical Engineering, Department of Synthesis and Development of Industrial Processes, NTUA (primary supervisor, Prof. F. Kolisis)
2. E. Bouris (2016) 'Study of genes decomposing L-(-) azetidine-2-carboxylic acid in the fungus *Aspergillus nidulans*' NCSR 'Democritos' (primary supervisor, Dr. V. Sophianopoulou)
3. D. Panagiotopoulou (2016) 'Interactions between lactobacilli and intestinal epithelial cells', Department of Nutrition and Dietetics, Harokopion University of Athens (primary supervisor, Prof. A. Kyriakou)

IV. Supervision of MSc Theses - Primary supervisor

1. M. Peternelji (2008-2009; recipient of the Greek Ministry of Education scholarship to conduct research in Greece), MSc Thesis in 'Biotechnology', University of Ljubljana, Slovenia, topic 'Methods for *Arabidopsis thaliana* transformation using *Escherichia coli* as transgene donor' (examined at the Biotechnological Faculty, University of Ljubljana, Ljubljana)
2. A. Damoulaki (2010-2011), MSc Thesis in terms of the MSc course 'Applications of Biology in the Biomedical Sciences', co-administered by the Faculties of Biology and Medicine, NKUA, topic 'Study of biofilm formation in a fermenting bacterium'
3. G. Savvakis (2010-2011), MSc Thesis in terms of the MSc course 'Bioinformatics', Faculty of Biology, NKUA, topic 'Study of DNA repair in the ethanol producing *Zymomonas mobilis*'
4. A. Desiniotis (2012-2013), MSc Thesis in terms of the MSc course 'Bioinformatics', Faculty of Biology, NKUA, topic 'Bioinformatic study of the genome sequence of the ethanol-producing bacterial strain *Zymomonas mobilis* ATCC 29191'
5. V. Tampakopoulou (2013-2015), MSc Thesis in terms of the MSc course 'Bioinformatics', Faculty of Biology, NKUA, topic 'Bioinformatic search for genes implicated in cell-cell signaling networks in genome sequences of the biotechnological bacterium *Zymomonas mobilis*'
6. P. Savranakis (2022-2023) MSc Thesis in terms of the MSc course 'Biotechnology', Faculty of Biology NKUA – Institute of Chemical Biology NHRF, topic 'Metabolic broadening of a platform organism for lignocellulosic decomposition'
7. G. Zochios (2023-) (MSc as above), topic: 'Physiological and molecular studies of cellulose synthesizing bacteria'
8. P. Gerantonis (2023-) (MSc as above), topic: 'Molecular tools for gene overexpression in an ethanologenic organism'
9. M. Papameletiou (2023-) (MSc as above), topic: 'Plasmid curing via gene disruption or incompatibility'
10. V. Kourkouva (2023-) (MSc as above), topic: 'Microbiome analysis and the recognition of probiotic strains of interest' (in collaboration with Prof. A. Kyriakou, Harokopion University)

V. External examiner in MSc Theses

1. D. Kapasa (2009), MSc Thesis in terms of the MSc course 'Microbial Biotechnology', Faculty of Biology, NKUA, topic 'Study of protein interaction networks instigated by gene-fusions in selected microorganisms' (primary supervisor Dr. S. Kossida, BRFAA, Athens)
2. M. Dertilis (2016), MSc Thesis in terms of the MSc course 'Bioinformatics', Faculty of Biology, NKUA, topic 'Bioinformatic analysis of mitochondrial genomes with special emphasis on the genetic elements that mediate in organization and transcription of the mtDNA of Pezizomycotina' (primary supervisor Assist. Prof. V. Kouvelis, Faculty of Biology NKUA)
3. E. Pavlou (2023) MSc Thesis in terms of the MSc course 'Biotechnology', Faculty of Biology, NKUA/Institute of Chemical Biology NHRF, topic 'Study of genetic polymorphism and development of

diagnostic techniques for biotechnologically important fungi' (primary supervisor Assist. Prof. V. Kouvelis, Faculty of Biology NKUA)

VI. Supervision of PhD Theses – Primary supervisor

1. G. Savvakis (2012-2018) 'Study of the SOS response in the ethanologenic bacterium *Zymomonas mobilis*', Faculty of Biology, NKUA
2. S. Fragolaki (2014-2019) 'Evaluation of novel inhibitors of the hepatitis C virus as therapeutic biomarkers' (principal investigator Dr. N. Vasilaki, Hellenic Pasteur Institute, Athens)
3. E. Herrera (2023-) 'Study of cell density dependent cell-cell communication in the bioethanol producing *Zymomonas mobilis*', Faculty of Biology, NKUA

VII. Supervision of PhD Theses – Counseling Committee & Examiner

1. I. Papaioannou (2009-2014) 'Study of heterokaryosis in the plant-pathogen *Verticillium dahliae*', Faculty of Biology, NKUA (primary supervisor Prof. M. A. Typas)
2. I. Loizou-Kotta (2009-2013) 'Molecular mechanisms controlling expression and function of the Hepatitis C virus polyprotein aminoterminal domain', Pasteur Institute, Athens (primary supervisor Dr. P. Mavromara)
3. A. Athanasopoulos (2010-2015) 'Study of the genetic and biological role of isosomal proteins in the fungus *A. nidulans*', NCSR 'Democritos' (primary supervisor Dr. V. Sophianopoulou)
4. M. Kalntremtziou (2016-2022) 'Metagenomic analysis of ligninocellulolytic organisms from selected soil samples: recognition and use of enzymes and bioactive molecules of importance', Faculty of Biology, NKUA (primary supervisor Prof. M. A. Typas)
5. S. Varassas (2017-2023) 'Study of replication and recombination genes in mitochondria of *Metarhizium anisopliae* and *Beauveria bassiana*' (primary supervisor Assist. Prof. V. N. Kouvelis)

VIII. External Examiner in PhD Theses

1. M. Kalamvoki (2005) 'Study of the biological function of non-structural protein NS5A of the Hepatitis C virus', Pasteur Institute, Athens (primary supervisor: Dr. P. Mavromara)
2. D. Ghikas (2007) 'Study of mitochondrial genomes of entomopathogenic fungi', Faculty of Biology, NKUA (primary supervisor Prof. M. A. Typas)
3. M. Billini (2008) 'Study of Na⁺/H⁺ antiporters in the cyanobacterium *Synechococcus* sp. 7942', NCSR 'Demokritos', Athens (primary supervisor Dr. V. Sophianopoulou)
4. A. Roumelioti (2009) 'Genes coding for intracellular traffic and membrane localization of cationic amino acid transporters', NCSR 'Demokritos', Athens (primary supervisor Dr. V. Sophianopoulou, NCSR 'Democritos')
5. V. Kosti (2013) 'Genetic, molecular, biochemical and biophysical studies of structure-function relations of transmembrane purine transporters', Faculty of Biology, NKUA (primary supervisor Assoc. Prof. G. Diallinas)
6. N. Arvanitis (2013) 'Study of native plasmids of the ethanol-producing bacterium *Zymomonas mobilis*', Faculty of Chemistry, University of Ioannina, Ioannina (primary supervisor: Prof. C. Drainas)
7. A. Kirtzalidou (2014) 'Study of probiotic properties of the human enteric microflora', Harokopeion University, Athens (primary supervisor Assist. Prof. A. Kyriakou)
8. M. F. Adegboye (2015) 'Phylogenetic Screening for Possible Novel Antibiotic Producing Actinomycetes from Ngaka Modiri Molema District in North West Province', Faculty of Agriculture, Science and Technology, North-West University, South Africa (primary supervisor Prof. B. B. Olubukola)
9. A. Galanopoulou (2018) 'Bacterial hydroalses of thermophilic origin and their application in plant biomass valorization' (primary supervisor Assoc. Prof. D. Hatzinikolaou)
10. V. Vaggalis (2022) 'Heterokaryosis in *Verticillium* as a genetic and cytological model' (primary

supervisor Prof. M. A. Typas)

11. V. Frysouli (2024) ‘Biodiversity of saproxylic fungi in natural and artificial habitats: Taxonomic and phylogenetic analysis’ (primary supervisor Prof. G. Zervakis)

IX. Research Program Employee Supervisor

1. E. Stavrou (EU/GSRT Greece-USA Bilateral Program 05-NONEU-273, 2007), topic: ‘Study of AHL-dependent cell-cell communication in the ethanologenic bacterium *Zymomonas mobilis*’, post-graduate collaborator (3-month stipend, 1-month stay in the US)

2. Dr. A. Desioniotis (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2014), topic: ‘Bioinformatic study of wild-type and mutant *Z. mobilis* strains for optimized fermentation capabilities’, post-doctoral researcher (7 months)

3. Dr. N. Arvanitis (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2015), topic: ‘Study of gene transfer vehicles with the ability of autonomous expression or integration to the chromosome for *Z. mobilis*’ post-doctoral researcher (7 months)

4. E. Emmanouilidou (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2014-2015), topic: ‘Genomic analysis in *Z. mobilis* towards metabolic broadening’, post-graduate collaborator (12 months)

5. V. Tampakopoulou (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2014-2015), topic: ‘Study of mutagenesis and adaptive evolution in *Zymomonas mobilis* for strain optimization in lignocellulosic hydrolysates’, MSc collaborator (12 months)

6. G. Savvakis (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2015), topic: ‘Sequencing *Z. mobilis* strains and study of stress’, MSc collaborator (7 months)

7. I. Zinonos (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2015), topic: ‘Isolation and cloning of fungal cellulase and ligninase genes and heterologous expression in bacteria’, MSc collaborator (7 months)

8. E. Pappa (EU/GSRT Program ‘Cooperation’ SIMPLE/11SYN-7-1579, 2015), topic: ‘Cloning of lignocellulosic genes in *Zymomonas mobilis*’, technician and post-graduate researcher (12 months)

9. Dr. G. Efthimiou (EU/GSRT Program THALIS ‘Biofilms’, 2013-2015), topic: ‘Transcriptomic analysis of biofilm formation genes in food pathogens’, post-doctoral researcher (24 months)

10. Dr. A. Athanasiou (EU/FP7 Program ERANET-IB ‘Z-Fuels’/ERA-IB-15-109, 2016-2017), topic: ‘Genetic improvement of *Z. mobilis* strains for the production of acetaldehyde’, post-doctoral researcher (12 months)

11. D. Athanasiou (Collaboration with the Hellenic Cement Industry ‘TITAN’, 2016-2017), topic: ‘Study of bacilli sporulation for the purposes of cement healing’, MSc collaborator (6 months)

12. G. Savvakis (Program of Excellence ‘IKY/Siemens’, 2016-2017), topic: ‘Biotechnological and genomic study of a homologous recombination deficient mutant strain of the ethanologenic bacterium *Zymomonas mobilis*, aiming to optimize bioethanol production’, MSc collaborator (24 months)

13. D. Panagiotopoulou (EU/FP7 Program ERANET-IB ‘Z-Fuels’/ERA-IB-15-109, 2018-2019), topic: ‘Construction of high-expressing foreign gene vectors for *Z. mobilis*’ (3 months)

14. A. Bantounas, as above

15. M. Kalntremtziou (EU/FP7 & EPAnEK Program ‘Plant-UP’ (MIS) 5002803, 2020), topic: ‘Reliable diagnostic methods for the distinction of phytopathogenic microorganisms via NGS sequencing’ (12 months)

16. M. Kalntremtziou (NKUA/ELKE Program 18479, 2022), topic: ‘Genetic analysis of microorganisms of biotechnological interest’ (6 months)

Publications

I. Dissertations

Pappas K. M. (1990) 'Genetic and microscopic study of exopolysaccharide secretion for the obligate methylotrophic bacterium *Methylobacterium methylovora*', BSc Dissertation, Department of Genetics and Biotechnology and Department of Botany, Faculty of Biology, NKUA

Pappas K. M. (1997) 'Study of conjugative gene transfer in the ethanol-producing bacterium *Zymomonas mobilis*', PhD Thesis, Department of Genetics and Biotechnology, Faculty of Biology, NKUA

II. Book Chapter Author

1. **Pappas K. M.** and Cevallos, M. A. (2011) 'Plasmids of the *Rhizobiaceae* and their role in interbacterial and transkingdom interactions'. In 'Biocommunication in Soil Microorganisms' (ed. Günther Witzany), series 'Soil Biology' (vol. 23; Series ed. A. Varma), Springer, pp 295-338, doi: 10.1007/978-3-642-14512-4_12

2. **Pappas K. M.** (2011) 'Mini-Mu transposon mutagenesis of ethanologenic *Zymomonas mobilis*'. In 'Strain Engineering: Methods and Protocols' (ed. J. Williams), series 'Methods in Molecular Biology' (vol. 765; series ed. J. Walker), Humana Press, pp. 415-434, doi: 10.1007/978-1-61779-197-0_25

3. Kalnenieks, U., **Pappas, K. M.**, and Bettenbrock, K. (2020) '*Zymomonas mobilis* metabolism: novel tools and targets for its rational engineering' In 'Advances in Microbial Physiology' (ed. Robert Poole), vol. 77, Academic Press/Elsevier pp 37-88, doi: 10.3389/fmicb.2019.02533

III. Book Editor

Pappas K. M. (Editor-in-Chief), Yang, S., Minton, N., Lewis, E., and Mukhopadhyay, B. (invited co-editors) (2017) 'Genetic and genome-wide insights into microbes studied for Bioenergy'. Frontiers Publishing Group, Frontiers Media SA ([provided book cover image](#)), doi: 10.3389/978-2-88945-085-5

IV. Peer-Reviewed Publications – Original Research Articles, Reviews & Indexed Commentaries

<https://orcid.org/0000-0001-5471-3661>

Citations: 1745 (523); h-index: 18 (12); i10-index: 22 (since 2019)

1. **Pappas, K. M.**, Galani, I., and Typas, M. A. (1997) Transposon mutagenesis and strain construction in *Zymomonas mobilis*. *Journal of Applied Microbiology* **82**: 379-388
<https://doi.org/10.1046/j.1365-2672.1997.00376.x>
2. Arvanitis, N., **Pappas, K. M.**, Kolios, G., Afendra, A., Typas, M. A., and Drainas, C. (2000) Characterization and replication properties of the *Zymomonas mobilis* ATCC10988 plasmids pZMO1 and pZMO2. *Plasmid* **44**: 127-137
10.1006/plas.2000.1480
3. Galeros, M.*, **Pappas, K. M.***, Beletsiotis, V., and Typas, M. A. (2001) IS1068, an IS5-like insertion element from *Zymomonas mobilis*. *Archives of Microbiology* **175**: 323-333 *: co-contributors
10.1007/s002030100268
4. Zhang, R.-g., **Pappas, T.**, Brace, J. L., Miller, P. C., Oulmassov, T., Molyneaux, J. M., Anderson, J. C., Bashkin, J. K., Winans, S. C., and Joachimiak, A. (2002) Structure of a bacterial quorum-sensing transcription factor complexed with pheromone and DNA. *Nature* **417**: 971-974
10.1038/nature00833
5. **Pappas, K. M.**, and Winans, S. C. (2003) A LuxR-type regulator from *Agrobacterium tumefaciens* elevates Ti plasmid copy number by activating transcription of plasmid replication genes. *Molecular Microbiology* **48**: 1059-1073

10.1046/j.1365-2958.2003.03560.x

6. **Pappas, K. M.**, and Winans, S. C. (2003) The RepA, RepB autorepressors and TraR play opposing roles in the regulation of a Ti plasmid *repABC* operon. ***Molecular Microbiology* 49**: 441-455
10.1046/j.1365-2958.2003.03488.x
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35. Herrera, E., and **Pappas, K M.** (2024) Quorum sensing in industrial bacteria. *Microorganisms, in submission* (review) **corresponding**
36. Gerantonis, P., Panagiotopoulou, D., Charamis, J., Bantounas A., Vlachonicolou, M. and **Pappas, K. M.** (2024) Construction of shuttle vectors utilizing an endogenous *Zymomonas mobilis* cryptic plasmid. *Microorganisms, in submission* **corresponding**
37. Savvakis, G., Poulis, P., Beletsiotis, E., and **Pappas, K. M.** (2024) Construction and characterization of a *recA*⁻ strain and preliminary evidence for the SOS response in *Zymomonas mobilis*. *Biotechnology for Biofuels, in submission* **corresponding**
38. Savvakis, G., Poulis, P., Moskwini, O., Zhang, Y., and **Pappas, K. M.** (2024) Transcriptomic analysis of *Zymomonas mobilis* under SOS induction. *Journal of Bacteriology in submission* **corresponding**

In preparation:

39. Peternelji, M., Koumpena, V., Haralampidis, K. and **Pappas, K. M.** (2024) *Arabidopsis thaliana* transformation with the use of *E. coli* as transgene donor. *BMC Biotechnology* **corresponding**
40. Moysi, K., Savvakis, G., Roussou, M., Zhang, M., Typas, M. A., Hatzinikolaou, D. G., and **Pappas, K. M.** (2024) Performance of *Zymomonas mobilis* C5/C6-sugar assimilating strains in ethanol production from Greek lignocellulosic biomass. *Biomass & Bioenergy* **corresponding**

V. Peer-Reviewed Conference Presentations and Abstracts

Abstracts no. 25, 26, 34, 43, 45, 46, 53, 54, 56, 57, 63, 67, 73 are published in Indexed Conference Abstract Journals (marked grey)

HSCBB abstracts 34, 43, 46, 56, 57 are multi-page submissions

1. **Pappas, K. M.** and Typas, M. A. (1992) 'A comparative study of exopolysaccharide secretion between wild-type and mutants of the obligate methylotroph *Methylomonas methylovora*', National Conference of the Hellenic Society for Biological Sciences and the Biological Sciences Foundation of Cyprus, Nicosia, Cyprus (April 28- May 3), pp. 113
2. **Pappas, K. M.** and Typas M. A. (1995) 'Detection of the conjugal transfer properties of a 32 Kb *Zymomonas mobilis* plasmid', European Science Foundation (ESF) Network Workshop on Molecular Biology and Ecology of Plasmid - Mediated Gene Transfer, Birmingham, UK (May 12-15), attached abstract
3. **Pappas, K. M.**, Galani, I. and Typas, M. A. (1996) 'Transposon mutagenesis in *Zymomonas mobilis*', 5th International Symposium on Bacterial Genetics and Ecology (BAGECO 5), Nauplion, Greece (May 25-29), pp.186
4. Galeros, M., **Pappas, K. M.** and Typas, M. A. (1996) 'The detection of mobile elements on the 32.0-Kb conjugative plasmid of *Zymomonas mobilis*', 5th International Symposium on Bacterial Genetics and Ecology (BAGECO 5), Nauplion, Greece (May 25-29), pp. 32 – **oral presentation awarded**
5. **Pappas, K. M.** and Typas, M. A. (1996) 'Restriction and functional analysis of pZMO6, *Zymomonas mobilis* 32 Kb plasmid species', 'Plasmid Biology 1996' - International Symposium on Plasmid Molecular Biology, Graz, Austria (September 1-5), pp. 109-110
6. **Pappas, K. M.**, and Typas, M. A. (1999) 'The 32-Kb plasmid system of *Zymomonas mobilis*', First Symposium of the EU-concerted action 'Mobile elements' contribution to bacterial adaptability (MECBAD)', Strasbourg, France (April 23-27), pp. 119-120
7. Arvanitis, N., **Pappas, K. M.**, Kolios, G., Afendra, A., Typas, M. A. and Drainas, C. (1999) 'Nucleotide sequence analysis the *Zymomonas mobilis* ATCC 10988 plasmids pZMO1 and pZMO2', 48th Annual Conference of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Athens, Greece (January 15-17), pp. 64-65
8. as in (7), 6th International Symposium on 'Bacterial Genetics and Ecology' (BAGECO 6), Florence, Italy (June 20-24), pp. 130
9. **Pappas, K. M.**, and Typas, M. A. (1999) 'The 32-kb plasmid family of *Zymomonas mobilis* strain CP4: study of plasmid pZMO6 as a representative', 6th International Symposium on Bacterial Genetics and Ecology (BAGECO 6), Florence, Italy (June 20-24), pp. 22-23
10. Beletsots, E. A., **Pappas, K. M.**, and Typas, M. A. (2000) 'Isolation and characterization of the *recA* gene of the ethanol producing bacterium *Zymomonas mobilis*', 22nd Annual Meeting of the Hellenic Society for Biological Sciences (EEBE), Skiathos, Greece, pp. 170
11. Zhu, J., **Pappas, T.**, Chai, Y and Winans, S. C. (1999) 'The *A. tumefaciens* TraR regulator requires its autoinducing ligand for protein folding, protease resistance and dimerization', Gordon Research Conferences (Transcription Factors), Salve Regina University, Newport RI (July 14-19) (e-abstract)
12. **Pappas, T.**, and Winans, S. C. (2001) 'Structure and functions of TraR, the *Agrobacterium tumefaciens* quorum-sensing dependent transcriptional regulator', Infection and Pathobiology Forum (Cornell University), Auburn NY (April 23-27) (e-abstract)
13. **Pappas, T.***, and Winans, S. C. (2001) 'Biochemical and Structural Analysis of a TraR-Pheromone-DNA Ternary Complex', ASM Conference on Cell-Cell Communication in Bacteria, Snowbird, Utah (July 6-9), pp. 15
14. **Pappas, T.**, and Winans, S. C. (2001) 'Quorum-Dependent Transcriptional Regulator TraR Structure and Role in the Octopine-Type Ti Plasmid Replication', 22nd Crown Gall Conference, Atlanta, GA (November 16-18), pp. 9

15. **Pappas, K. M.***, and Winans, S. C. (2002) 'Cell-cell communication in bacteria: Structure and function of a quorum sensing-dependent transcriptional regulator', 24th Symposium of the Hellenic Society for Biological Sciences (EEBE), Eretria, Euvoia (May 23-26), pp. 226
16. Cho, H., **Pappas K. M.**, and Winans S. C. (2004) 'Copy number control of Ti plasmid by intercellular signalling', ASM Conference on Cell-Cell Communication in Bacteria, Banff, Alberta, Canada (July 23-27), pp. 74
17. **Pappas T.**, and Winans S. C. (2004) 'Plant transformation by *Escherichia coli* – *Agrobacterium tumefaciens* co-infection', *Plasmid Biology 2004*, International Symposium on Plasmid Molecular Biology, Corfu, Greece (September 15-21), pp. 34 – **poster awarded**
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19. **Villias G.**, and **Pappas K. M.** (2006) 'Identification of replication and partitioning regions on the 32-kb plasmid pCP42 of the industrial ethanol producer *Zymomonas mobilis* strain CP4', 28th Symposium of the Hellenic Society for Biological Sciences (EEBE), Ioannina, Greece (May 18-20), pp. 33-34
20. **Stavrou, E. E.**, and **Pappas K. M.** (2006) 'Study of quorum sensing properties of the ethanol producing bacterium *Zymomonas mobilis*', 28th Symposium of the Hellenic Society for Biological Sciences (EEBE), Ioannina, Greece (May 18-20), pp. 385-386
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22. same as above, (2007) 9th International Symposium on Bacterial Genetics and Ecology (*BAGECO 9*), Microbial Community Networks, Wernigerode, Germany (June 23-27), pp. 84
23. Stavrou E.E., and **Pappas K. M.** (2007) 'Investigating quorum sensing in the ethanol producing bacterium *Zymomonas mobilis*' ASM Conference on Cell-cell Communication in Bacteria, Austin TX (October 7-10), pp. 72
24. **Pappas K. M.** (2008) '*Zymomonas mobilis* – a model organism for bioethanol production', JGI-DOE Microbial Genomics and Metagenomics Workshop, Walnut Creek, CA (January 7-11)
25. Koumpena, V., Haralampidis, K., and **Pappas, K. M.** (2008) '*Arabidopsis thaliana* transformation using *Escherichia coli* transgene donors and *Agrobacterium tumefaciens* intermediates', 33^d International FEBS Congress (11th IUBMB), Athens, Greece (June 28-July 3), pp. 364
26. Stavrou, E.E., and **Pappas, K. M.** (2008) 'Quorum sensing in *Zymomonas mobilis*', 33^d International FEBS Congress (11th IUBMB), Athens, Greece (June 28-July 3), pp. 261
27. **Pappas, K. M.*** (2008) 'Genomic analysis for the ethanol producer *Zymomonas mobilis*', 1st National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos': 'Our unexplored microbial environment', Nuclear Research Centre 'Demokritos', Athens (December 12-14), pp. 28-29
28. Tsoupras, A., Damoulaki, A., Stavrou, E., and **Pappas, K. M.** (2008) 'Cell-cell signaling in *Zymomonas mobilis*', 1st National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos: Our unexplored national microbial environment', Nuclear Research Centre 'Demokritos', Athens (December 12-14), pp.45-26
29. Tsoupras, A., Demopoulos C. and **Pappas, K. M.** (2009) 'Detection of PAF and PAF-basic metabolic enzymes in the bacterium *Zymomonas mobilis*', 60th Conference of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Zappeio Megaron, Athens (November 20-22), pp. 268
30. Savvakis, G., Beletsiotis, E., Typas, M. A., and **Pappas, K. M.** (2009) 'Construction of a *recA*⁻ knock-out strain for the ethanol producer *Zymomonas mobilis* CP4', 2nd National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK2), Caravel, Athens (December 4-6), pp. 112-113
31. **Pappas, K. M.** (2010) 'Genomics of the ethanol-producing *Zymomonas mobilis*', 5th Annual Joint Genome Institute User Meeting, Walnut Creek, CA (March 24-26), pp. 47

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 33. Pappa, E., and **Pappas, K. M.** (2010) 'Isolation and characterization of the DNA-repair gene *radA* from the ethanol-producing bacterium *Zymomonas mobilis*', 32nd Conference of the Hellenic Society for Biological Sciences (EEBE), Karpenisi, Greece (May 20-22), pp. 306-307
 34. Kouvelis, V. N., Typas, M. A., **Pappas, K. M.** *et al.* (2010) 'The complete genomes of three ethanol-producing *Zymomonas mobilis* strains: Insights in comparative genomics'. 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB10), Alexandroupolis, Greece (October 17-19), pp 41 – **F1000 Poster Award:** <http://posters.f1000.com/P687>
 35. (as before) 3^d National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK3), Thessaloniki, Greece (December 16-18), pp. 58-59
 36. **Pappas, K. M.*** (2010) 'Interbacterial or transkingdom signaling and plasmid copy number in the *Rhizobiaceae*'. 3^d National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK3), Thessaloniki, Greece (December 16-18), pp. 110-111
 37. Tsoupras, A. B., Kouvelis, V. N., Demopoulos, C. A., **Pappas, K. M.**, and Typas, M. A. (2010) 'In vitro anti-inflammatory activities of *Beauveria bassiana* lipid molecules towards platelet activating factor (PAF)'. 3^d National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK3), Thessaloniki, Greece (December 16-18), pp. 138-139
 38. Damoulaki, A., Tsoupras, A., and **Pappas, K. M.** (2011) 'Quorum sensing in ethanol-producing *Zymomonas mobilis* strains'. 33rd Conference of the Hellenic Society for Biological Sciences (EEBE), Edessa, Greece (May 19-21), pp. 70-71
 39. Andrea, A., and **Pappas, K. M.** (2011) 'The antagonistic behavior of *Zymomonas mobilis* against other microorganisms'. 33rd Conference of the Hellenic Society for Biological Sciences (EEBE), Edessa, Greece (May 19-21), pp. 18-19
 40. As in 33. 11th International Conference on Bacterial Genetics and Ecology (BAGECO 11), Biotechnology of an Evolving Global Economy, Corfu, Greece (May 29- June 2), pp. 54
 41. Savvakis, G., and **Pappas K. M.** (2011) 'Study of DNA repair in the bioethanol-producer *Zymomonas mobilis*'. 11th International Conference on Bacterial Genetics and Ecology (BAGECO 11), Biotechnology of an Evolving Global Economy, Corfu, Greece (May 29- June 2), pp. 61
 42. **Pappas, K. M.** (2011) 'Genomics of a bioethanol-producing bacterium'. 5th European Conference on Prokaryotic and Fungal Genomics (ProkaGENOMICS 2011), Göttingen, Germany (September 18-21), pp. 45
 43. Savvakis, G., and **Pappas K. M.** (2011) 'Study of SOS regulation in the ethanologenic *Zymomonas mobilis*'. 6th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB10), Patras, Greece (October 14-16), pp. 29 – **oral/poster presentation awarded**
 44. (as above; oral presentation). 4th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK4), Ioannina, Greece (October 21-23), pp. 28-29 – **oral presentation awarded**
 45. **Pappas, K. M.*** (2012) 'Comparative genomics of a bioethanol producer'. 3rd World Congress in Biotechnology (Biotechnology-2012), Hyderabad National Convention Centre, Hyderabad, India (September 13-15), pp. 115.
 46. Desiniotis, A., Kouvelis, V. N., Davenport, K., Bruce, D., Detter, C., Tapia, R., Han, C., Goodwin, L. A., Woyke, T., Kyrpides, N. C., Typas, M. A., and **Pappas, K. M.** (2012) 'Analysis of the genome sequence of the ethanol-producing *Zymomonas mobilis* subsp. *mobilis* centrotpe ATCC 29191'. 7th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB11), Herakleion, Crete (October 14-16), pp. 29 (oral presentation)
 47. Tampakopoulou, V., Damoulaki, A., and **Pappas, K. M.** (2012) 'Study of biofilm formation in wild type strains and mutant derivatives of the ethanologenic bacterium *Zymomonas mobilis*'. 5th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK5), Agricultural University of Athens, Athens, pp. 54-55 (oral presentation)
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48. Desiniotis, A., and **Pappas, K. M.** (2012) 'Genomic analysis of *Zymomonas mobilis* subsp. *mobilis* ATCC 29191: comparative, structural and functional insights', 5th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK5), Agricultural University of Athens, pp. 228-229
49. (as above; 2013) 8th Annual Joint Genome Institute User Meeting, Walnut Creek, CA (March 26-28), pp. 19-20
50. Davydova, E., and **Pappas, K. M.** (2013) 'Study of transformation in different strains of the ethanol-producing bacterium *Zymomonas mobilis*' 35th Conference of the Hellenic Society for Biological Sciences (EEBE), Nauplion, Greece (May 23-25), pp. 250-251
51. Savvakis, G., and **Pappas, K. M.** (2013) 'Characteristics of a *recA* mutant and *in silico* analysis of SOS regulation in the ethanol-producing *Zymomonas mobilis*' FEMS-2013 International Congress, Leipzig, Germany, July 21-25
52. (as above) (2013) 64th Conference of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Eugenides Foundation, Athens (December 5-8) Young Scientists Forum (oral presentation)
53. **Pappas, K. M.*** (2013) '*Escherichia coli* as gene donor in transgenic plant technology', International Congress on Genetic Engineering & Genetically Modified Organisms, Raleigh-Brownstone University, Raleigh, North Carolina (August 12-14), pp. 113
54. **Pappas, K. M.*** (2014) '*Escherichia coli* can act as an *in planta* gene donor for the creation of transgenic plants', Plant Transformation Technologies III (VISCEA), Vienna, Austria (February 12-14), pp. 13
55. Emmanouilidou, E., Taliouras, N., Tampakopoulou, V., Davenport, K., Bruce, D., Detter, C., Tapia, R., Han, C., Land, M. L., Hauser, L., Chang, Y.-J., Pan, C., Kouvelis, V. N., Goodwin, L. A., Woyke, T., Kyrpides, N. C., Typas, M. A., and **Pappas, K. M.** (2014) 'Insights into the *Zymomonas mobilis* plasmidome', Cold Spring Harbor Laboratory Meeting on 'Plasmids: History and Biology', Cold Spring Harbor, NY, September 21-23 (abstract distributed)
56. Emmanouilidou, E., Taliouras, N., Tampakopoulou, V., and **Pappas, K. M.** (2014), as above, 9th Conference of the Hellenic Society for Computational Biology and Bioinformatics - HSCBB14, Agricultural University of Athens, Greece (October 10-12), pp. 91-92
57. Efthimiou, G., **Pappas, K. M.**, and Typas, M. A. (2014) 'A bioinformatic and literature-based analysis of the molecular mechanisms involved in biofilm formation by *Salmonella enterica* subsp. *enterica* serovar Typhimurium and *Staphylococcus aureus* COL (MRSA)', 9th Conference of the Hellenic Society for Computational Biology and Bioinformatics - HSCBB14, Agricultural University of Athens, Greece (October 10-12), pp. 75-76
58. Efthimiou, G., Vryonidou, M. L., Typas, M. A., and **Pappas, K. M.** (2015) 'Study of biofilm formation by the food-borne pathogen *Salmonella enterica* subsp. *enterica* serovar Typhimurium ST4/74', 6th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK6), National Hellenic Research Foundation, Athens, Greece (April 3-5), pp. 70-71
59. Emmanouilidou, E., Taliouras, N., Tampakopoulou, V. O., and **Pappas, K. M.** (2015) 'Comparative genomic analysis of the *Zymomonas mobilis* plasmidome', 6th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK6), National Hellenic Research Foundation, Athens, Greece (April 3-5), pp. 72-73
60. Efthimiou, G., **Pappas, K. M.**, and Typas, M. A. (2015) 'Study of biofilm formation by the hospital-acquired and recently considered as food-borne pathogen *Staphylococcus aureus* subsp. *aureus* COL (MRSA)', 6th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK6), National Hellenic Research Foundation, Athens, Greece (April 3-5), pp. 100-101
61. Logotheti, M., Savvakis, G., Tampakopoulou, V. O., Pilalis, E., Typas, M. A., **Pappas, K. M.**, and Kolisis, F. (2015) '*In silico* aided metabolic engineering of *Zymomonas mobilis* for improved ethanol production', 6th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK6), National Hellenic Research Foundation, Athens, Greece (April 3-5), pp. 195-196
62. Tampakopoulou, V. O., Papaggeli, M., Davidova, E., and **Pappas, K. M.** (2015) 'Study of transformation in the ethanologenic bacterium *Zymomonas mobilis*', 6th National Conference of the

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63. Desiniotis, A., Kouvelis, V. N., Typas, M. A., and **Pappas, K. M.** (2015) 'Comparative genomic analysis based on *Zymomonas mobilis* subsp. *mobilis* ATCC 29191 leads to insights regarding *Zymomonas*', 37th Symposium on Biotechnology for Fuels and Chemicals (Society for Industrial Microbiology), San Diego, CA (April 27-30), pp. 27
64. Siaka, K., and **Pappas, K. M.** (2015) 'Genetic study of *Zymomonas mobilis* antagonism against α - and γ -proteobacteria', 66th Congress of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Eugenides Foundation, Athens, Greece (December 11-13), pp. 129
65. Derveni, E., Tampakopoulou, V. O., and **Pappas, K. M.** (2015) 'Study of AHL production in *Zymomonas mobilis* and the construction of a species-specific AHL-dependent gene expression switch', 66th Congress of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Eugenides Foundation, Athens, Greece (December 11-13), pp. 222
66. Poulis, P., Savvakis, G., and **Pappas, K. M.** (2015) 'Preliminary study of *recA* and *lexA* regulation in *Zymomonas mobilis* using *in vivo* transcription assays', 66th Congress of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Eugenides Foundation, Athens, Greece (December 11-13), pp. 250
67. Savvakis, G., and **Pappas, K. M.** (2016) 'Transcriptomic analysis of *Zymomonas mobilis* under SOS-induction', 5th International Conference on Microbial Physiology and Genomics, London, U.K. (September 29-30), pp. 43
68. as in (69), 67th Panhellenic Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB), 'Karolos Papoulias' Conference Center, University of Ioannina, Ioannina, Greece (November 25-27), pp. 23, (**oral presentation**) and 4th Young Scientist Forum (YSF) (November 24), pp. 108
69. Moysi, K., Savvakis, G., Roussou, M., Zhang, M., Typas, M. A., Hatzinikolaou, D. G., and **Pappas, K. M.** (2017) 'Performance of *Zymomonas mobilis* C5/C6-sugar assimilating strains in ethanol production from Greek lignocellulosic biomass', 7th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK7), National Hellenic Research Foundation, Athens, Greece (April 7-9) (e-abstract)
70. Poulis, P., Savvakis, G., Skrekas, C., and **Pappas, K. M.** (2017) 'Evidence for LexA-dependent regulation of the *Zymomonas mobilis* *recA* and *lexA* genes', 7th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK7), National Hellenic Research Foundation, Athens, Greece (April 7-9) (e-abstract)
71. Athanasiou, D. K., Katsiotis, M. S., Koutsodontis, K., Giannakopoulos, I., Papageorgiou, D., and **Pappas, K. M.** (2017) Growth and sporulation of *Bacillus sphaericus* for cement bio-healing applications, 7th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK7), National Hellenic Research Foundation, Athens, Greece (April 7-9) (e-abstract)
72. Kalntremtziou, M., Papaioannou, I. A., Vangalis, V., **Pappas K. M.**, Zervakis G. I., and Typas M. A. (2017) Metagenomic analysis of microorganisms and molecular characterization of ligninocellulose-degrading genes from Mediterranean soil habitats, 7th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK7), National Hellenic Research Foundation, Athens, Greece (April 7-9) (e-abstract)
73. As above, EMBO Workshop, Dresden July 25-28, pp. 42.
74. Savvakis, G., Moysi, K., Roussou, M., Zhang, M., Typas, M., Hatzinikolaou, D., and **Pappas, K. M.** (2017) 'Performance of *Zymomonas mobilis* C5/C6-sugar assimilating strains in ethanol production from Greek lignocellulosic biomass', 39th Symposium on Biotechnology for Fuels and Chemicals (SBFC), San Francisco Marriott Marquis, San Francisco, CA, U.S.A. (May 1-4) (e-abstract)
75. Charamis, J., Panagiotopoulou, D., Bantounas, A., Arvanitis, N., and **Pappas, K. M.** (2018) 'Construction and study of a new shuttle vector for the bioethanol producing *Zymomonas mobilis*', 15th Symposium 'Horizons in Molecular Biology', Max Planck Institute for Biophysical Chemistry, Goettingen, Germany (September 10-13) (e-abstract)

76. **Pappas, K. M.*** (2018) 'From tequila shots to chassis genomics: works and days of an ethanol producer' 15th Symposium 'Horizons in Molecular Biology', Max Planck Institute for Biophysical Chemistry, Goettingen, Germany (September 10-13) (e-abstract)
77. Panagiotopoulou, D., Bantounas, A., Charamis, J., and **Pappas, K. M.** (2019) 'Construction of a highly stable species-specific vector for the bioethanol producing *Zymomonas mobilis*' 8th National Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK8), ICT-FORTH, Patras, Greece (April 6-8) (e-abstract)
78. **Pappas, K. M.*** (2019) 'The SOS stimulon and regulon in *Zymomonas mobilis*', 3rd International Conference on Synthetic Biology, Nanjing, China (September 24-29), pp. 59
79. Gerantonis, P., Taliouras, N., Wu, Y., Geng, B., Yang, S. and **Pappas, K. M.** (2021) 'Genetic and functional analysis of the *Zymomonas mobilis* strain CP4 plasmids', 9th International Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK9), Agricultural University of Athens (December 16-19) (e-abstract)
80. Herrera, E. and **Pappas, K. M.** (2021) Quorum sensing in non-pathogenic bacteria, 9th International Conference of the Hellenic Society for Microbiology 'Mikrobiokosmos' (MBK9), Agricultural University of Athens (December 16-19) (e-abstract)
81. **Pappas, K.M.***, Gerantonis, P., Panagiotopoulou, D., and Poulis, P. (2022) 'Holistic Genetic Study of a Microorganism Implicated in Bioethanol Production', 1st Conference on Climate Crisis, Energy & the Environment', NKUA Athens (June 15-17), pp. 71
82. Gerantonis, P., Ktenas, P., Apostolou, E., Papaioannou, K., and **Pappas, K.M.** (2023) 'Less is more': study of genomic reduction in *Zymomonas mobilis*', 42nd Conference of the Hellenic Society for Biological Sciences (EEBE), Thessaloniki (May 18-20), e-abstract
83. as above, MikroBiokosmos 10th Conference (MBK10), Divani Palace, Larissa (Nov 30 - Dec2)
84. Doron, L., **Pappas, K.M.***, and Kerfeld, C. (2024) 'Bacterial microcompartments as natural or artificial nanobioreactors', 10th International Conference on Materials Science and Smart Materials (MSSM2024), NKUA Propylaia, Athens (May 15-17)
85. Zochios G., and **Pappas, K.M.*** (2024) 'Production of eco-friendly microbial biopaper', 10th International Conference on Materials Science and Smart Materials (MSSM2024), NKUA Propylaia, Athens (May 15-17)
86. Kalyvas, D., Bruheim, P., **Pappas, K. M.** (2024) 'Construction and preliminary metabolomic study of a TCA-cycle proficient *Zymomonas mobilis* strain', 74th Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB), Thessaloniki Concert Hall, Thessaloniki (December 13-15)

- *Underlined are Oral Presentations (33)*
- *Denoted with asterisk are Invited (13)*
- *Highlighted are Awarded Presentations (5)*

Languages: English (Cambridge Proficiency in English – Honours' Degree), German (Mittelstufe)