CURRICULUM VITAE

MARIA I. KLAPA

(updated February 2022)

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Birth Date and Place: March 31, 1973, Athens GREECE

Education & Post-doctoral Training

Postdoctoral Fellow J. Craig Venter Institute, JCVI, USA (then The Institute for Genomic Research, TIGR)	08/2002	Eukaryotic Genomics Microarray Transcriptomics Omic Analysis Software Development
Postdoctoral Research Associate Massachusetts Institute of Technology, MIT, USA	12/2001	Metabolic Engineering Fluxomics, Industrial Biotechnology
Ph.D. Massachusetts Institute of Technology, MIT, USA	09/2001	Chemical Engineering focusing on Metabolic Engineering *minor* in Optimization Methods for the Analysis of Biological Systems
Diploma (5 years) National Technical University (NTU) of Athens GREECE	07/1995	Chemical Engineering

Research & Professional Experience

04/2010 -	FORTH/ICE-HT, Patras, GREECE Principal Researcher (Rank B) Head, Metabolic Engineering & Systems Biology Laboratory (MESBL)
07/2005 – 06/2019	University of Maryland - College Park, USA Chemical & Biomolecular Engineering and Bioengineering Departments Adjunct Professor
01/2004 - 04/2010	FORTH/ICE-HT, Patras, GREECE Associate Researcher (Rank C) Head, Metabolic Engineering & Systems Biology Laboratory (MESBL)
01/2004 - 06/2005	University of Maryland - College Park, USA Bioengineering Graduate Program Assistant Professor
08/2002 - 06/2005	University of Maryland - College Park, USA Chemical & Biomolecular Engineering Department Assistant Professor
01/2002 - 08/2002	University of Maryland - College Park, USA Chemical & Nuclear Engineering Department Adjunct Professor

	J. Craig Venter Institute, JCVI, Rockville, MD, USA (then known as TIGR)
01/2002 - 08/2002	Eukaryotic Genomics Group (Head: J. Quackenbush) Postdoctoral Fellow
10/2001 - 12/2001	Massachusetts Institute of Technology (MIT), Cambridge, MA USA Metabolic Engineering & Bioinformatics Group (Head: Greg Stephanopoulos) Postdoctoral Research Associate
09/1995 - 09/2001	Massachusetts Institute of Technology (MIT), Cambridge, MA USA Department of Chemical Engineering Graduate & Training Research Assistant (with fellowship) PhD Thesis in Metabolic Engineering (Advisor: Greg Stephanopoulos)
09/1990 - 07/1995	National Technical University (NTU) of Athens, GREECE Department of Chemical Engineering Undergraduate Student; highest GPA in class : 9.07 out of 10 (Excellent)
09/1994 - 07/1995	Diploma Thesis in Numerical Analysis in Transport Phenomena (Advisor: Andreas G. Boudouvis)
07/1994 - 09/1994	von Karman Institute for Fluid Dynamics, Rhode-St-Genèse, BELGIUM Summer Trainee (IAESTE fellow)
07/1993 - 09/1993	Hellenic Cement Research Center, AGET Herakles, Athens, GREECE Summer Intern

Research Interests and Activities

My group's research focuses on: (a) metabolic network activity analysis through the development and application of methodologies for metabolomics and fluxomics, (b) quantitative systems biology and integrated multi-omic studies, and (c) mathematical modelling of metabolic and protein interaction networks. MESBL has significant contribution to the standardization of experimental and computational protocols for untargeted Gas Chromatography-Mass Spectrometry (GC-MS) metabolomics in various biological contexts. I am Technical Coordinator and lead the metabolomics & protein interactomics pilot-study in the National Bioinformatics Infrastructure ELIXIR-GR and coordinate the participation of Greece in the ELIXIR-EU Metabolomics & Systems Biology Communities, having also led the fluxomics workflow standardization implementation study. MESBL participates in the Expert Center for Metabolomics (EXCEMET, since 2015), a consortium of European metabolomics expert laboratories (mainly in biomedical applications) and the European Metabolomics Institute (EMI) Foundation as a founding member since 2018; it is member of the National Infrastructures of Structural Biology (INSPIRED) & Translational Medicine (EATRIS-GR).

Distinctions & Awards

2021 MESBL collaboration with Prof. S. Yang's lab, School of Life Sciences, Hubei University, China selected as representative of Greece-China Research Collaboration Initiatives and was presented by M. Klapa at the 7th (virtual) meeting of China-CEEC Higher Education Institutions Consortium (December 2, 2021)

2021 Invited to become Editorial Board Member, Current Opinion in Biotechnology Journal, Impact factor: 9.740, 4th out of 77 in Biochemical Research Methods (April 2021)

2020 Elected Technical Coordinator of ELIXIR-Greece Node by the Board, effective Sep 1 2020 (June 2020)

2020 Invited to be Co-chair & IPC Chair, Foundations of Systems Biology in Engineering Conference (FOSBE) 2022, Boston, USA

2019 2 Best Poster Presentation Awards to PhD candidates of my lab, 14th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB19)

2019 2019 Travel Grant Award from Early-career Members Network of the Metabolomics Society (EMN) 2019 (1 out of 2) to my PhD Student M.-K. Ioannidi for collaborative study of my lab, 15th Int. Conf. of the Metabolomics Society, Netherlands (June 2019)

2019 Best Poster Presentation Award to PhD candidate of my lab, 8th Conference of the Hellenic Scientific Society of MIKROBIOKOSMOS

2018 Best Oral Presentation Award to PhD candidate of my lab, 3rd Conference of the Association of Greek Medical Geneticists (ΣΙΓΕ)

2018 Feature article "The clinical relevance of metabolomics", European Society for Pediatric Endocrinology (ESPE) Newsletter, Autumn 2018

2018 Invited to be Guest Editor of 2019 Special Issue "Systems Biology" in Current Opinion in Biotechnology Journal (published in August 2019)

2017 Best Oral Presentation Award to post-doctoral research assistant for collaborative study of my lab, 7th Conference of the Hellenic Society of Medical Mycology

2016 Best Poster Presentation Award to PhD candidate of my lab, Joint International Conference of the Hellenic Crystallographic Association and the Hellenic Society for Computational Biology and Bioinformatics (HeCrA - HSCBB16)

2016 2 Best Oral Presentation and 1 Best Poster Presentation Award to PhD candidates and post-doctoral fellow of my lab, 2nd workshop of Graduate Students and Postdocs in Chemical Engineering Sciences, Patras

2016 Best e-Poster Presentation Award in Basic Research to 2 undergraduate students of my laboratory, 22nd Scientific Conference of Greek Medical School Students, accompanied by a 10-page essay/paper (first time in the history of the Conference that the award was granted to undergraduate biology (and not medicine) students)

2015 Best Oral Presentation to PhD candidate of my lab, 10th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCBB15)

2015 Best Oral Presentation to PhD candidate of my lab, 1st FORTH/ICE-HT workshop of Graduate Students and Postdocs

2015 Distinction of Basic Research for the study "Tsare E.-P., Gioutlakis A., Klapa MI & Moschonas NK. The architecture of diseases in the context of the human protein-protein interaction network (interactome)", 41st Annual Panhellenic Medical Conference

2015 MESBL becomes member of the European Consortium Expert Center for Metabolomics - EXCEMET *(www.excemet.org)*, June 2015

2015 Hellenic Society of Endocrinology "G. Tollis Award" as co-author of the best basic research in Endocrinology publication in international peer-reviewed journal during 2014 by members of the Society, 42nd Panhellenic Congress of Endocrinology and Metabolism

2014 Best Oral and Best Poster Presentation Award to PhD students of my lab, Metabolomics Series –GR Workshop III, Patras

2013 Keynote Lecture, Computer Applications in Biotechnology (CAB 2013) Conference, Mumbai, India, December 16-18, 2013

2013 Best Poster Award to PhD student of my lab, Genomic Medicine in the Mediterranean (GM2) Conference

2013 Publication characterized as "Highly Accessed" in BMC Systems Biology; Klapa et al. BMC Systems Biology 7:96

2013 MESBL collaborative study was singled out for special media attention in the Annual Research Summaries Book (RSB) of ENDO 2013 Conference, SF, USA, June 15-18 2013

2013 Selected in the group of 8 young PIs whose research in Greece was highlighted as cutting-edge in the first TEDMED Live in Athens event, April 21 2013

2012 Best Oral Presentation Award to Master's Student of my lab; 8th Annual Meeting of the Panhellenic Association of Bioscientists (ΠΕΒ), Patras

2012 Best Poster Presentation Award to PhD Candidate of my lab; 7th East Mediterranean Chemical Engineering Conference (EMCC7), Corfu Island, Greece

2011 Best Poster Presentation Award to PhD Candidate for collaborative study of my lab; 6th Conference of the Hellenic Society for Computational Biology and Bioinformatics

(HSCCB11)

2011 Invited by the Greek Steering Committee to chair the organizing committee of the 7th East Mediterranean Chemical Engineering Conference (EMCC7), Corfu Island, Greece, on behalf of the Greek Chemical Engineering Community

2010 Best Oral Presentation Award to Master's student of my lab; 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics (HSCCB10)

2009 Invited as representative of systems biology research community (1 out of 2) to the 5th Meeting of Spanish Network of Systems Biology: Fostering Systems and Synthetic Biology in Southern Europe, Madrid, Spain, December 13-15 2009

2009 Selected in the 16 European Researchers' team (out of 140 applications) to participate to the EU-India Cooperation Days workshop, New Delhi, India, November 4-6 2009

2006 Best Poster Presentation Award to PhD student of my lab; AIChE Annual Meeting

2006 Best Poster Presentation Award to PhD student of my lab; ResearchFest of the Chemical and Biomolecular Engineering Department, University of Maryland

2006 2005 Outstanding Invention of the Year Award in Information Sciences (with my (then) Ph.D. student HH Kanani) from Office of Technology Commercialization, U. of Maryland – College Park, USA for the invention "Data Normalization Strategy for Metabolomic Profiling Analysis" (#3 in Patents), April 10, 2006

2006 Second Prize, 2006 U. of Maryland Business Plan Competition (out of 58 participating teams and 16 semifinalists) in Graduate Student-Faculty Category for business plan of startup company "Metatropi" (based on previously mentioned invention stated in #3 in Patents), April 7, 2006

2005 Invitation to join US Department of Energy (DOE) Advisory Board on Basic Biological Research for 2 years, November 2005; had to decline due to my move to Greece

2004 Best Poster Presentation Award to PhD student for collaborative research of my lab; 19th Panhellenic Neuroscience Conference, Larissa

2004 Inaugural Lectureship, Seminar Series by Canadian Chair for the Development of Metabolic Engineering Tools, Chem. Engineering Dept, Ecole Polytechnique de Montreal, Canada; Seminar series invites junior faculty, heading a laboratory for < 5 years and having made important contributions to Metabolic Engineering, April 5, 2004

2003 Best Poster Presentation Award to PhD student of my lab; University of Maryland Bioscience Day

2000 Graduate Student Travel Grant (1 of 3), Topical Conference in Bioinformatics and Genomics, Annual AIChE Meeting, Los Angeles, CA, USA, Nov 12-17, 2000

1997 NTU of Athens Prize (Silver Medal) for the highest GPA in the 1990-1995 Chemical Engineering class, April 1997

1997 Associate Member of Sigma Xi Research Society, after nomination, September 1997

1997 Empeirikion Foundation Fellowship, Greece for PhD studies in the US, January 1997

1996 Technical Chamber of Greece Prize for outstanding academic performance, January 1996

1995 Graduate Research Assistant Fellowship from MIT Department of Chemical Engineering, Sep 1995-Aug 2001

1994-1991 Greek State Fellowship Foundation (IKY) Awards for outstanding academic performance, annually, 1991-1994

1991 NTU of Athens Prize for the 10th best entry grade to Chemical Engineering Dept. in 1990 Panhellenic Baccalaureat Exam

Invited Presentations - Lectures

2021 7th meeting of China-CEEC Higher Education Institutions Consortium (virtual)

2021 Clinical Metabolomics Conference 2021 (CMC2021), Copenhagen, Denmark

2021 Workshop "Women in Biosciences", Dept of Molecular Biology & Genetics, Dimokritio University of Thrace

2021 Seminar Series, Institute of Electronic Structure and Laser (IESL), FORTH

2019 1st Symposium "Mathematics in the Era of the 4th Industrial Revolution", NHRF Athens Greece, organized by Interdepartmental Graduate Program "Mathematical Modeling in New Technologies & Finance", School of Applied Mathematics & Physical Sciences, NTUA
2018 2nd International Symposium on *Zymomonas mobilis* (Metabolic Engineering and Synthetic Biology), Wuhan, Hubei, China
2018 7th European Society of Pediatric Endocrinology (ESPE) Meeting, Athens, Greece
2018 Seminar Series, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematics and Physical Sciences, NTU Athens, Greece
2017 Seminar Series, 1st and 2nd Pediatric Department, Agia Sophia Hospital, Medical School, Kapodistrian University of Athens
2017 The 8th Eastern Mediterranean Chemical Engineering Conference (EMCC8), Haifa, Israel
2016 International Conference on Metabolic Science: Driving Bioindustry and Beyond, Shanghai, China
2016 Seminar Series, Institute of Molecular Biology & Biotechnology (IMBB), FORTH
2016 4th International Metabolomics Workshop, Thessaloniki, Greece
2016 11th Graduate Students' Workshop, Department of Biology, University of Patras
2015 NEURINOX - Omics School, BRFAA (organizers: D. Sanoudou/A. Vlahou)
2015 8th Swedish-Hellenic Conference, NHRF, Athens, Greece
2015 1st International Conference on Research in Health Care, Agia Sophia Hospital, Athens, Greece
2015 9th Panhellenic Interdisciplinary Conference on Alzheimer's Disease and Related Disorders, Thessaloniki, Greece
2014 Workshop "Systems Biology Approached of Cellular Aging Mechanisms", Patras, Greece (organizer: A. Bezerianos)
2013 Seminar Series, Institute of Biology, Medicinal Chemistry and Biotechnology, NHRF
2013 Invited Seminar, Cell Culture Development, Bayer HealthCare LLC, Berkeley, CA, USA
2013 MULTIMOD Training Network (Marie Curie Actions), 3rd Workshop & Retreat Meeting "Biochemical Engineering: Fundamentals and Innovations", Chalkidiki, Greece
2012 Workshop on holistic analytical technologies for biomedical, food and plant sciences, Pasteur Institute, Athens, Greece
2012 6th International Summer School on Emerging Technologies in Biomedicine "Bioinformatics and Systems Biology Approaches for the Analysis of Complex Biological Networks", Patras, Greece (organizer: A. Bezerianos)
2012 Synthetic and Systems Biology Session, 7th East Mediterranean Conference in Chemical Engineering (EMCC7), Corfu Island, Greece
2009 5th Meeting of the Spanish Network of Systems Biology: Fostering Systems and Synthetic Biology in Southern Europe, Madrid Spain
2009 8th Hellenic Conference of Clinical Chemistry, Patras Greece
2008 Invited Seminar, Medical School, University of Athens, Athens Greece
2008 Invited Seminar, Medical School, University of Patras, Patras, Greece
2008 International Workshop on Holistic Analytical Technologies for Systems Biology Studies, Thessaloniki Greece
2008 Metabolic Engineering Conference VII: Health and Sustainability, Puerto Vallarta Mexico
2008 Invited Seminar, Codexis Bioindustrials, Redwood City, CA, USA
2008 Cell Culture Engineering XI, Sunshine Coast, Australia
2007 Select Biosciences: Advances in Metabolic Profiling Conference, Boston USA
2007 Nano2Life Summer School "Methods in Nano-Micro-Technology and NanoBiotechnology", National Center for Scientific Research, Demokritos, Athens (organizer: I. Mavridou)
2006 Invited Seminar, Cell Culture Development, Bayer HealthCare LLC, Berkeley, CA, USA
2006 Invited Seminar, Department of Chemical Engineering, New York Polytechnic, USA
2006 IEEE Information Technology Applications in Biomedicine (ITAB) 06 Preconference Workshop, Ioannina Greece

2006 Nano2Life Summer School "Methods in Nano-Micro-Technology and NanoBiotechnology", National Center for Scientific Research, Demokritos, Athens (organizer: I. Mavridou)
2006 3rd Summer School "Emerging Technologies in Biomedicine", Patras, Greece (organizer: A. Bezerianos)
2006 Workshop on Top-down Approaches in Systems Biology, Jena Germany
2005 Seminar Series, Institute of Physical Chemistry, National Center for Scientific Research, Demokritos
2005 Seminar Series, Fall Semester, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematics & Physical Sciences, NTUA
2005 Summer School, Interdepartmental Graduate program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematics and Physical Sciences, NTUA
2005 Seminar Series, Spring Semester, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematics & Physical Sciences, NTUA
2005 Seminar Series, Department of Chemical Engineering, Texas Tech University, USA
2004 Invited Seminar, Biomarin Pharmaceuticals Inc., Novato, CA, USA
2004 Plenary speaker, Session "New Technologies and Techniques", 3rd International Congress on Plant Metabolomics, Iowa State University, USA
2004 EUNITE workshop "Intelligent Technologies for Gene-Expression-Based Individualized Medicine", Jena, Germany
2004 Inaugural Lecture, Seminar Series, Canadian Chair for the Development of Metabolic Engineering Tools, Dept of Chem. Engineering, Ecole Polytechnique de Montreal, Canada
2003 Invited Panelist, Round-table "Conventional or Systems Biology?", Annual Meeting Hellenic Society for Biochemistry and Molecular Biology (HSBMB), BRFAA, Athens, Greece
2003 Seminar Series, U. of Maryland Biotechnology Institute (UMBI), College Park, MD USA
2003 Interdisciplinary Symposium: 'Mathematical Modeling in New Technologies and Finance', NTU Athens, Greece (initiating the relevant Interdepartmental Graduate Program)
2003 4th Arabidopsis Annual MiniSymposium, University of Maryland, College Park, MD, USA
2003 Invited Seminar, Department of Chemical Engineering, NTU Athens, Greece

Editorial Boards – Scientific Reviewing

- Current Opinion in Biotechnology, 2021-
- Frontiers in Microbiology focus Systems Microbiology, Associate Editor, 2019-
- Microbial Cell Factories (BMC), 2005-
- AIMS Bioengineering, 2015-
- Current Opinion in Biotechnology, 2019 Special Issue in Systems Biology, Guest co-Editor
- Frontiers in Systems Biology focus Data and Model Integration, Research Topic "Emerging Talents in Systems Biology: Data and Model Integration 2022", Guest co-Editor
- Frontiers in Genetics focus Human and Medical Genomics, Research Topic "Exploring GWAS data by biomolecular network analysis in revealing genetic disease mechanisms", Guest co-Editor, 2021-2022
- Frontiers in Systems Biology focus Data and Model Integration, Review Editor, 2021-
- Frontiers in Molecular Biosciences, focus Metabolomics, Review Editor, 2016-
- Frontiers in Neuroenergetics, Nutrition and Brain Health (Neurosciences), Review Editor, 2017-

- Reviewer for Major Scientific Journals in Biochemical Engineering, Biotechnology, Metabolic Engineering, Computational Biology, Bioinformatics, Metabolomics, Biochemistry, Systems Biology, since 2001

Conference / Workshop Organization

CHAIRMANSHIPS

2022 8th IFAC Foundations of Systems Biology in Engineering (FOSBE) Conference, Co-Chair – IPC Chair
2019 14th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB19), Local Organizing Committee Chair
2019 12th FORTH Scientific Retreat, Organizing Committee Chair
2019 8th Conference, Hellenic Scientific Society Mikrobiokosmos, Organizing Committee Chair
2018 17th European Conference in Computational Biology (ECCB18), Systems Biology Thematic Area Co-Chair
2016 6th IFAC Foundations of Systems Biology in Engineering (FOSBE) Conference, IPC Area Co-Chair in Modeling
2016 IFAC DYCOPS (Dynamics & Control of Process Systems) – CAB (Computer Applications in Biotechnology) 2016 Conference, IPC Area Co-Chair in Metabolic Engineering and Systems Biology
2014 International Metabolomics Series MET–GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology, Chair
2013 12th IFAC Computer Applications in Biotechnology (CAB2013) Conference, IPC Area Co-Chair in Metabolic Engineering
2012 7th East-Mediterranean Chemical Engineering Conference, Chair
2011 6th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB11), Local Organizing Committee Co-Chair
2010 11th IFAC Computer Applications in Biotechnology (CAB2010) Conference, IPC Area Co-Chair in Metabolic Engineering
2003 Bioinformatics Topical Conference within the AIChE Annual Meeting, Co-Chair
2002 Bioinformatics Topical Conference within the AIChE Annual Meeting, Co-Chair
2001 Bioinformatics Topical Conference within the AIChE Annual Meeting, Co-Chair

ORGANIZING – PROGRAM COMMITTEE MEMBERSHIP

2022 13th IFAC DYCOPS (Dynamics & Control of Process Systems, including Biosystems), International Program Committee (IPC) Member
2021 3rd International Symposium on Mathematical and Computational Oncology, PC Member
2020 2nd International Symposium on Mathematical and Computational Oncology, PC Member
2019 12th Panhellenic Conference of Chemical Engineers, Organizing Committee Member
2019 12th IFAC DYCOPS (Dynamics & Control of Process Systems, including Biosystems), International Program Committee (IPC) Member
2018 13th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB18), Scientific Committee Member
2018 9th International Conference, Hellenic Crystallographic Association, Organizing Committee Member
2017 12th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB17), Scientific Committee Member
2017 8th East-Mediterranean Chemical Engineering Conference, Organizing - Steering Committee Member
2017 11th Panhellenic Conference of Chemical Engineers, Scientific Committee Member
2016 11th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB16), Scientific Committee Member
2015 10th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB15), Scientific Committee Member
2015 10th Panhellenic Conference of Chemical Engineers, Scientific Committee Member
2014 9th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics

(HSCBB14), Scientific Committee Member

2013 8th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB13), Scientific Committee Member

2012 7th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB12), Scientific Committee Member

2010 3rd International Conference on Bioinformatics & Systems Biology (BSB10), International Scientific Committee Member

2009 2nd International Conference on Bioinformatics & Systems Biology (BSB09), International Scientific Committee Member

2008 International Conference on Bioinformatics, Systems Biology and Artificial Life (BSBAL08), International Scientific Committee Member

2007 10th IFAC Computer Applications in Biotechnology (CAB2007) Conference, IPC Member

2005 7th World Congress of Chemical Engineering, Division "Engineering for Life", International Scientific Committee Member

Academic & Science Management Activities

NATIONAL & EUROPEAN INFRASTRUCTURES

- Technical Coordinator, ELIXIR-GR Node (Greek Node of European Infrastructure for Data Management & Analysis in Biosciences), elected by the Partner Board, since 10/2020; serving also as Community Officer
- FORTH/ICE-HT Representative, Partner Board, National Infrastructures ELIXIR-GR, INSPIRED (The National Research Infrastructures on Integrated Structural Biology, Drug Screening Efforts & Drug target functional characterization) and EATRIS-GR (Infrastructure for preclinical and early-phase clinical development of drugs, therapeutics and biomedical devices), first structural funding period (2017-2022)
- Leading the ELIXIR-GR representation in the ELIXIR Metabolomics & Systems Biology Communities; co-leading the ELIXIR-GR representation in the ELIXIR Microbial Biotechnology Community (2018 -)
- Coordinator of the ELIXIR Metabolomics Community-led Implementation Study "Standardizing the fluxomics workflows" (2019-2022); organizer of the 1st ELIXIR Fluxomics Training School (2021)
- FORTH Representative, Partner Board, European Metabolomics Institute (EMI) Foundation (2019 - ; founding member)
- FORTH Representative, Expert Center for Metabolomics (2015 - ; upon invitation of MESBL)
- Representative (out of 2) of Greece in the Management Committee of the COST-Action European Venom Network (EUVEN, CA 19144) (2020 -)

INNOVATION & COLLABORATIVE ACTION INITIATIVES

- Founding Member, MIT Enterprise Forum (MITEF) Greece; Biotechnology Division Application Judge, MITEF Startup Competition (since 2013); Semi-finalist company Mentor, MITEF Startup Competition (2021)
- Chair, Greek Steering Committee for the organization of East Mediterranean Chemical Engineering Conferences (since 2012)

Committee Service

U. OF MARYLAND – COLLEGE PARK // CHEMICAL ENGINEERING DEPARTMENT

- Graduate Studies Committee (2002-2004)
- Evaluation Committee of Applications to the NSF-funded REU (Research Experience for Undergraduates) Program of the Chemical Engineering Department (2003)

FORTH/ICE-HT

- Organizing Committee, Science Fair for High-School students (2004-2006); Chair (2005, 2006)
- Seminar Series Working Group (2007 -); Chair (2014-2017)
- Working Group of Large Equipment Facility Services (2007 -)
- Working Group for High-School Student visits, Chair (2011-2015)
- Advisor of Grads'/Postdocs' Organizing Committee, Annual Workshop of Graduates and Post-docs in Chemical Engineering Sciences in Patras (2015-2017)
- Research Promotion/Dissemination Working Group, Chair (2018 -)

FORTH

- Board of Directors as Elected Representative of FORTH Researchers (11/2021-)
- Gender Equality Committee, Chair (04/2021 -)
- Bioethics and Research Ethics Committee (2016 -); Vice-Chair (11/2019-10/2021)
- FORTH Scientific Retreat Organizing Committee (2007; 2009; 2019); Chair (2019)

REVIEWING SERVICES FOR FUNDING AGENCIES

- US Department of Energy (DOE) Review Panel, Genome to Life Program (2003)
- NIH Review Panel, National Centers of Systems Biology (2004)
- NSF Review Panel, Quantitative Systems Biology Program (2004); IGERT funding for Graduate Programs in Nanobiotechnology / Pre-proposals (2004); Multiscale Systems Modeling (2005); unsolicited proposals in Biotechnology (2007)
- EC FP7 and Horizon 2020 KBBE, HEALTH and ICT Area Review Panels: FP7-KBBE-2 Phase I (2007); FP7-KBBE-2007-3 (2009); FP7-HEALTH-2009-3 (2010); FP7-HEALTH-2010-4 (2011); FP7-HEALTH Systems Biology (2011); Metabolomics e-Infrastructure 1st Periodic Review (2013); H2020-BIOTEC 2014 "Key Enabling Technologies" (2015)
- EC Horizon 2020 Future and Emerging Technologies (FET) Remote Evaluator (2017; 2019)
- HFRI (Hellenic Foundation for Research & Innovation), Life Sciences Division Review Panel, Graduate Students' Grants (2017); Post-doctoral Researchers' Grants (2021)
- *Ad-hoc* Reviewer, NSF CAREER Awards, NSF and USDA Calls in Bioengineering, Molecular Biology, Plant Genetics/Genomics (2003-2010)
- *Ad-hoc* Reviewer, NSERC Canadian Chairs in Biological Engineering Program and Calls in Bioengineering and Molecular Biology (2003-2011)
- *Ad-hoc* Reviewer, NCBR, Poland in "Prevention practices and treatment of civilization diseases - STRATEGMED" Strategic Program (2013)

Professional Affiliations

American Institute of Chemical Engineering (AIChE), 1997-Present
Sigma Xi Research Society, 1997-Present
International Society of Computational Biology, 2020-Present
Technical Chamber of Greece, 1995-Present
Panhellenic Association of Chemical Engineers, 1995-Present
Hellenic Society of Biochemistry & Molecular Biology 2005-Present
Hellenic Society for Computational Biology and Bioinformatics, 2003-Present
Hellenic Society of Biological Sciences, 2007-Present

Teaching

UNDERGRADUATE LEVEL

- **Metabolic Engineering** (CHE 468H)
  Chemical Engineering Dept., University of Maryland-College Park

senior year elective, 3h/week
(Spring 2003)

- **Introduction to Engineering Design** (ENES100)
  School of Engineering, U. Maryland - College Park
  freshman core course, 1 of 13 groups, 5h/week with project
  (Winter 2003)
- **Bioinformatics**
  Dept. of Biology, University of Patras
  elective, 8th semester, 3h/week
  (Spring 2004-2019; in 2004 jointly with Prof. I. Iliopoulos)
  - 2004 was the year of course inclusion to the curriculum of the Department; I coordinated its design & development

GRADUATE LEVEL

A. developed and/or (co-)coordinated courses

- **Advances in Biochemical Engineering** (CHE 762)
  Chemical Engineering Dept., University of Maryland-College Park
  elective, 3h/week - developed
  (Spring 2003)
- **Bioinformatics and Systems Biology**
  Bioengineering–Environment Direction, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematical and Physical Sciences, NTU Athens
  elective, 3h/week - developed
  (Spring 2004-2011)
- **Introduction to Bioinformatics & Systems Biology**
  Horticultural Genetics Graduate Program, Mediterranean Agronomic Inst. of Chania (MAICh)
  1-week intensive course - developed
  (2009 -)
- **Metabolomics**
  Graduate Program in "Biological Technology", Dept. of Biology, U. of Patras
  elective, 3h/week - developed
  (Spring 2012-2017)
- **Systems Biology**
  Graduate Program in "Biological Technology", Dept. of Biology, U. of Patras
  elective, 3h/week - developed
  (Spring 2018 -)
- **Systems & Network Biology**
  Mathematics of Data Science Direction, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematical and Physical Sciences, NTU Athens
  elective, 3h/week - developed
  (Spring 2018 -)
- **Bioinformatics II**
  (teaching Part 2: "Experimental and Computational Methodologies for Omic Analyses")
  Bioinformatics Direction, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, U. of Patras
  3rd semester, 3h/week – co-Coordinator; taught jointly with Prof. S. Mavroudi
  (Winter 2020 -)

B. invited lectures or sections in courses

- **Experimental and Computational Methodologies for Omic Analyses**
  A set of six 3h lectures in the course "Bioinformatics II", 3rd semester
  Coordinator: Prof. Z. Lygerou
  Bioinformatics Direction, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, U. of Patras
  (Winter 2005 - 2019)
- **Introduction to Systems Biology**
  2h lecture in "Genes and Genomes", 2nd semester elective
  Coordinator: Prof. N. Moschonas (2012-2019); Prof. Z. Lygerou (2020 -)
  Bioinformatics Direction, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, U. of Patras ; (Spring 2012 -)
- **Metabolomics in Systems Biology**
  2h lecture in "Proteomics" Section
  Coordinator: Prof. A. Katsani
  Graduate Program in "Translational Medicine", Democritus U. of Thrace
  (2014 -)
- **Metabolomics**
  2h lecture in "Technical courses II: Molecular Biology-Omics"
  Coordinator: Prof. S. Efthymiopoulos
  Athens International Master's Programme in Neurosciences, U. of Athens
  (2018)
- **Analysis of Metabolic and Protein Networks**
  3h lecture in "Biomolecular Structure and Function" Course
  Coordinator: Prof. V. Economidou
  Graduate Program "Bioinformatics–Computational Biology", Biology Dept., U. of Athens
  (2019 -)
- **Metabolomics**
  3h lecture in "The biotechnology toolbox" Course
  Coordinator: Prof. P. Kollia
  Graduate Program "Biotechnology", Biology Dept., U. of Athens
  (2021 -)
- **Cellular Industries – Metabolic Engineering**
  3h lecture in "Microbial Biotechnology" Course
  Coordinators: Profs. A. Pappas & D. Chatzinikolaou
  Graduate Program "Biotechnology", Biology Dept., U. of Athens
  (2021 -)

C. Training Schools - Workshops

- **"Advanced Bioinformatics Tools and Applications"**
  2-day Pre-conference Training Workshop, October 5-6 2011
  6th Annual Meeting, Hellenic Society of Computational Biology and Bioinformatics (HSCBB11), Patras
  Organizing Committee Co-Chair (with Profs. N. Moschonas & A. Tsakalidis) & Trainer of Metabolic Network Analysis class

- **1st ELIXIR Fluxomics Training School**
  5-day introductory school to fluxomics, developed and organized in the context of the ELIXIR Metabolomics Community Implementation Study "Standardizing the fluxomics workflows", October 4-8, 2021
  Coordinated its development and organization; trainer with 2 members of the lab of the linear/nonlinear programming and observability classes

Supervision of Research

Ph.D. THESES

A. Supervised (15)

(current position in parenthesis)

Dimitrios Ritis
Ph.D., 2022, Dept. of Molecular Biology & Genetics, Democritus U. of Thrace
- Member of the 3-member thesis advisory committee; Advisor: Prof. G. Boulougouris -

"Computational modelling of biochemical networks"

(Post-doctoral Researcher, Dept. of Molecular Biology & Genetics, Democritus U. of Thrace)

Aris Gioutlakis
Ph.D., 2021, Department of General Biology, School of Medicine, U. of Patras
- Joint supervision with Prof. N. Moschonas -

"Development of a functional model for the description of protein interaction networks"

(PELAGOS, Cetacian Research Institute)

Ilona Binenbaum
Ph.D., 2020, Department of Biology, U. of Patras
- member of the 3-member thesis advisory committee; Advisors: Prof. A. Chatziioannou / P. Katsoris -

"Development and implementation of methodologies for the analysis and visualisation of omic data of cellular senescence and metabolic syndrome"

(Bioinformatician, Pediatric Oncology and Hematology Unit, Aghia Sophia Children's Hospital, GR)

Eleni Galliopoulou
Ph.D., 2018, Department of Biochemistry and Biotechnology, U. of Thessaly
- co-supervised the protein interactome and omic data analysis; Advisors: Prof. T. Sarafidou / N. Moschonas -

"Functional analysis of *FRA10AC1* human gene in the context of the protein-protein interaction network of spliceosome"

(Postdoctoral Researcher, University of Thessaly, GR)

Christoniki Magga-Nteve
Ph.D., 2017, School of Medicine, U. of Patras
- carried out at FORTH/ICE-HT under my supervision; Academic advisor: Prof. N. Moschonas

"Development and application of computational tools for the integrated analysis of metabolomic profiles"

(Postdoctoral Research Fellow, Information Technologies Institute (ITI), Thessaloniki; formerly at EMBL)

Catherine Vasilopoulou
Ph.D., 2016, Department of Biology, U. of Patras
- joint supervision with Prof. M. Margarity -

"Comparative analysis of brain region's metabolic profile of adult mice using systems biology

methods"

(Postdoctoral Research Fellow, Department of Proteomics & Signal Transduction, Max Planck Institute of Biochemistry, GERMANY)

Alexandra Gkourogianni

Ph.D., 2014, First Department of Pediatrics, Medical School, University of Athens

- carried out the metabolomic analysis of the girl cohort blood plasma samples at FORTH/ICE-HT under my supervision; Advisors: Prof. G. Chrousos & Ch. Kanaka – Gantenbein; I was member of the 7-member thesis evaluation committee -

"Study of the incidence of metabolic syndrome and other endocrine disorders in children born after intracytoplasmic spern injection (ICSI)"

(Postdoctoral Fellow in Pediatric Endocrinology, Karolinska Institutet, Sweden)

Spyridon Vernardis

Ph.D., 2013, Interdepartmental Graduate Program "Informatics in Life Sciences", School of Medicine, U. of Patras (first PhD of the program)

- carried out at FORTH/ICE-HT under my supervision; Academic advisor: Prof. Z. Lygerou

"Metabolomics as a high-throughput biomolecular analysis in cell culture engineering"

(Postdoctoral Project Research Scientist, The Francis Crick Institute, UK)

Georgia Tooulakou

Ph.D., 2013, Department of Agricultural Biotechnology, Agricultural U. of Athens

- carried out the metabolomic analysis part at FORTH/ICE-HT under my supervision; PhD Thesis Advisor: Prof. G. Karabourniotis; I was member of the thesis advisory committee -

"The effect of carbon starvation on calcium oxalate crystals and metabolic profile of *Amaranthus Sp. (Amaranth)*: Metabolic study"

(Postdoctoral Research Fellow, FORTH/ICE-HT)

Konstantina Spagou

Ph.D., 2013, Medical School, Aristotelio University of Thessaloniki

- carried out GC-MS metabolomic data acquisition and analysis of mouse blood samples at FORTH/ICE-HT under my supervision; Thesis Advisors: Profs. H. Gkika and G. Theodoridis -

"Metabolic profiling of biological fluids and tissues in pre-clinical toxicological studies"

(Postdoctoral Research Fellow, Division of Computational and Systems Medicine, Department of Surgery and Cancer, Imperial College London, UK)

Kliment Zanov

Ph.D., 2012, Department of Biotechnology, UCTM, Bulgaria

- carried out the LC-MS metabolomic data acquisition and analysis of brain and liver samples in a hypothyroid mouse model; Thesis co-advisor: Prof. L. Yotova -

"Bioanalytics for Diseases of the Central Nervous System"

(currently working as Technologist in PBG, Bulgaria)

Konstantinos Gkrintzalis

Ph.D., 2012, Department of Biology, University of Patras

- developed protocol for and carried out LC-MS based quantification of aflatoxin in *Aspergillus flavus* cultures at FORTH/ICE-HT under my supervision ; Thesis Advisor: Prof. Ch. Georgiou; I was member of his 7-member thesis evaluation committee -

"The role of oxidative stress in sclerotial defferentiation of aspergillus fungi"

(Assistant Professor, School of Biotechnology, Dublin City University, Ireland)

Athanasios Spathis

Ph.D., 2008, Department of Biology, U. of Patras

- carried out the analysis of the transcriptomic data at FORTH/ICE-HT under my supervision; Thesis Advisors: Profs. N. Matsokis & M. Margarity -

"Identification of genes involved in neurodegenerative mechanisms in the weaver mouse model

and in lymphocytes from patients with Parkinson's disease"
(CEO of SyNoesis Therapeutics)

Harin Kanani
Ph.D., 2007, Dept. of Chemical Engineering, University of Maryland – College Park
"High-Throughput Time Series Metabolomic Analysis of a Systematically Perturbed Plant System"
(Jt. Managing Director, Neogen Chemicals Limited, India)

Bhaskar Dutta
Ph.D., 2007, Dept. of Chemical Engineering, University of Maryland – College Park
"Time-series transcriptomics analysis of a systematically perturbed *Arabidopsis thaliana* liquid culture system: a systems biology perspective"
(Senior Director, Head of Safety Analytics @ AstraZeneca)

B. Member of Ph.D. Thesis Evaluation Committee

- **Valmas Alexandros**, 2020, "Combinational use of X-ray techniques for structural characterization of biological macromolecules of pharmaceutical interest", Dept. of Biology, University of Patras (PhD Thesis Advisor: Prof. Irene Margiolaki).
- **Diokmetzidou Antigoni**, 2016, "Study of the cardioprotective mechanisms in the desmin deficient myocardium", Dept. of Biology, University of Patras (PhD Thesis Advisor: Prof. Yassemi Kapetanaki).
- **Baira Irene**, 2016, "Development of state-of-the-art mass spectrometry-based analytical methodologies for the study of bioactive natural products fate after dietary administration: bioavailability, metabolism/metabolomics studies", Dept. of Pharmaceutical Chemistry, School of Pharmacy, University of Athens (PhD Thesis Advisor: Prof. Evangelos Gkikas).

C. Ph.D. Theses in Progress

- **Maria – Konstantina Ioannidi**, Department of Biology, University of Patras (academic advisor: Prof. M. Margarity) – thesis writing
- **Marilena Pantziri**, Department of Chemical Engineering, University of Patras
- **Matthaios – Emmanouil Papadimitropoulos**, Department of Biology, University of Patras (academic advisor: Prof. P. Katsoris) – thesis writing
- **Spyros Paparrodopoulos**, Department of Chemical Engineering, NTU Athens (working at Qatar Biobank and Genome Programme) – academic advisor: Prof. A. Boudouvis
- **Vassiliki Savvopoulou**, Dept of Chemistry, U. of Patras (co-Advisor: Prof. A. Vlamis).
- **Evridiki Tsare**, General Biology Laboratory, School of Medicine, University of Patras (co-Advisor: Prof. N. Moschonas) - thesis writing

M.S. THESES

A. Supervised (31)
(current position in parenthesis)

Alexios Panagiotopoulos
M.S., 2021, Graduate Program, Department of Biology, U. of Patras
- co-advised by Prof. G. Mitsainas-
" Venom Metabolomic Analysis of Greek Fauna Snake Species"
(Research Assistant, Biology Dept, University of Patras)

Argyrios Tomaras

M.S., 2020, Graduate Program "Biological Technology", Biology Department, U. of Patras

- thesis carried out at FORTH/ICE-HT under my supervision; Academic Adv.: Prof. P. Katsoris-

" Studying the Non-Photosynthetic CO2 assimilation from extremophilic bacteria by Network Biology Methods"

(Greek Military Service)

Ouliana Ivantsik

M.S., 2020, Graduate Program "Basic Medical Sciences", Medical School, U. of Patras

- co-advised by Prof. N. Moschonas -

" Development, characterization and molecular phenotyping of overexpression cell clones of the FRA10AC1 spliceosomal protein"

(PhD Candidate, Department of Pharmacy, U. of Patras)

Vassiliki Savvopoulou

M.S., 2019, Interdepartmental Graduate Program "Chemical Biology", Chemistry Dept., U. of Patras

- co-advised by Prof. A. Vlamis -

" *In silico* reconstruction of the protein-protein interaction network of *M. thermoacetica*, used for the non-photosynthetic CO2 bioconversion into useful chemocals"

(PhD Candidate in the same department under my supervision)

Charikleia (Hara) Kaltsi

M.S., 2017, Interdepartmental Graduate Program "Medical Chemistry", Chemistry Dept., U. of Patras

- thesis carried out at FORTH/ICE-HT under my supervision; Academic Adv.: Prof. Th Tselios -

" Utilization of MS/MS operation in metabolomics analysis with liquid chromatographic - mass spectrometry"

(Quality Management Documentation Officer at Pharmathen)

Apostolos Zournas

M.S., 2016, Graduate Program "Horticultural Genetics", Mediterranean Inst of Chania (MAICh)

- thesis carried out at FORTH/ICE-HT under my supervision; Academic Adv.: Prof. P. Kalaitzis -

" Modeling of Tomato Plant Metabolic Network using FBA and metabolomics"

(PhD Candidate, Dept. of Chemical Engineering, Rutgers U., USA)

Orestis Nousias

M.S., 2015, Graduate Program "Biological Technology", Biology Department, U. of Patras

- co-advised by Prof. P. Katsoris -

" Study of the effect growth factor HARP exerts on the metabolic profile of prostate cancer cells DU145"

(Research Assistant at FORTH/IMBB)

Evridiki-Pandora Tsare

M.S., 2015, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

- co-advised by Prof. N. Moschonas -

" The molecular basis and architecture of diseases in the context of an integrated protein interactome in human"

(PhD Candidate, in the same Department under Prof. N. Moschonas and my co-supervision)

Maria-Konstantina Ioannidi

M.S., 2015, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

- thesis carried out at FORTH/ICE-HT under my supervision, in a collaborative project with

Prof. Y. Capetanaki BRFAA; Academic Advisor: Prof. C. Flytzanis -
" Metabolomic analysis of dilated cardiomyopathy in a mouse model"
(PhD Candidate, Biology Department, University of Patras – under my co-supervision)

Ilona Binenbaum
M.S., 2015, Graduate Program "Biological Technology", Biology Department, U. of Patras
- co-advised by Prof. N. Katsoris -
" Study of the effect of HARP on the metabolic activity of PC3 cells using metabolic and network analysis"
(obtained her PhD from U. of Patras; currently Bioinformatician, Pediatric Oncology and Hematology Unit, Aghia Sophia Children's Hospital, GR)

Eleni Kafkia
M.S., 2013, Graduate Program "Basic Medical Sciences", Medical School, U. of Patras
- co-advised by Prof. N. Moschonas -
" Metabolomic analysis of *HeLa* cells after overexpression of DGCR14 protein, which has been related to the spliceosome"
(obtained her PhD from EMBL; currently post-doctoral fellow @ Cambridge U., UK)

Peristera Patiou
M.S., 2013, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras
- member of MS thesis committee; Advisor: Prof. I. Zarkadis -
"Protein region FIMAC: Structure, Function, Evolution"
(Department of Internal Medicine, Hematology Division, Medical School, University of Patras)

Aristeidis Telonis
M.S., 2013, Graduate Program "Biological Technology", Department of Biology, University of Patras
- thesis carried out at FORTH/ICE-HT under my supervision in a collaborative project with Prof. G Chrousos, Medical School, U. of Athens; Academic Adv.: Prof. M. Margarity -
"Metabolomics as a clinical prognosis tool : Comparative analysis of blood plasma metabolic profile between boys and girls conceived by ART investigating any predisposition to metabolic disorders"
(obtained his PhD from Thomas Jefferson U. Medical School; currently Postdoctoral Associate, Miller School of Medicine, University of Miami)

Antonia Tsiomou
M.S., 2013, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras
- co-advised by Prof. N. Moschonas -
"Effect of the anticoagulant used for blood collection on the metabolomic analysis of blood samples"

Aris Gioutlakis
M.S., 2012, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras
- co-advised by Prof. N. Moschonas -
"Design and development of a meta-database for the protein interaction network in human"
(carried out his PhD under Prof. N. Moschonas and my supervision)

Elli Katsamora
M.S., 2011, Department of Biochemistry and Biotechnology, U. of Thessaly, Larissa
- metabolomic experiments of *HeLa* cells carried out @ FORTH/ICE-HT under my supervision; I was member of the thesis advisory committee; Advisor: Profs. Z. Mamouris / T. Sarafidou -
"Modification of the *FRA10AC1* gene activity"

Christoniki Magga-Nteve

M.S., 2011, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

"Comparative metabolomic analysis of cerebellum physiology between the two sexes in a mouse model of prolonged adult-onset-hypothyroidism"

(obtained her PhD under my supervision; post-doctoral fellow at EMBL and now at ITI, Greece)

Dionysia Symeonidi

M.S., 2011, Department of Biology, U. of Patras

- co-advised with Profs. C. Flytzanis and G. Koumoundouros; I supervised the multivariate statistical analysis of zebrafish transcriptomic data -

"Bioinformatic analysis and characterization of genes involved in the phenotypic plasticity of zebrafish (*Danio rerio*, Hamilton 1822)"

(biologist at Evangelismos Hospital in Athens)

Panagiota Chadla

M.S., 2010, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

- I was member of her thesis committee; supervised the multivariate statistical analysis of the measurement set; Advisor: Prof. M. Karakantza -

"Studying the evolution of normal hematopoietic lines in acute leukemia patients and correlating them with cellular characteristics of neoplastic cells"

Paraschos Skarlatos

M.S., 2010, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

- I was member of his thesis committee; advised on statistical analysis; Advisor: Prof. M. Karakantza -

" Studying the apoptosis and oxidative stress in medullary cells with perturbed phenotype from patients with myelodysplastic syndrome"

Kalliopi Tsafou

M.S., 2010, Department of Biology, U. of Patras

- co-advised by Prof. N. Moschonas -

"Towards the development of a database for the human protein - protein interaction network (interactome)"

(obtained her PhD from Novo Nordisk Foundation Center for Protein Research, University of Copenhagen; currently Senior Data Scientist @ Astrazeneca)

Maria Kostourou

M.S., 2010, Department of Biology, U. of Patras

- co-advised by Prof. C. Flytzanis -

"Temperature regulated metabolic plasticity of *Danio rerio* (Hamilton, 1822)"

(high-school professor)

Spyridon Vernardis

M.S., 2008, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

- I was member of his thesis committee; advised on the standardization of the DNA microarray experiments; Advisor: Prof. Z. Lygerou -

"Using DNA microarrays for transcriptional profiling of genetically modified mouse embryo fibroblasts"

(obtained his PhD under my supervision; now post-doctoral fellow @ The Francis Crick Institute)

Christos Syriopoulos

M.S., 2007, Department of Chemical Engineering, U. of Patras

- carried out fully at FORTH/ICE-HT under my supervision; Academic Advisor: Prof. S. Pavlou

"High-throughput analysis of the *in vivo* physiology of *Saccharomyces cerevisiae*, under systematic perturbations in galactose assimilation function, using DNA microarrays and gas chromatography-mass spectrometry"

(moved into the retail sector)

Bozhana Pesheva

M.S., 2007, Department of Biotechnology, UCTM, Bulgaria

- The thesis was carried out fully at FORTH/ICE-HT under my supervision through Erasmus student exchange program; Academic Advisor: Prof. L. Yotova -

"Analysis of Growth of yeast mutant strains in batch bioreactor to extract information about the regulation of galactose assimilation pathway"

(pursued second degree in Management from the same University)

Kliment Zanov

M.S., 2007, Department of Biotechnology, UCTM, Bulgaria

- The thesis was carried out fully at FORTH/ICE-HT under my supervision through Erasmus student exchange program; Academic Advisor: Prof. L. Yotova -

"Use of Liquid Chromatography-Mass Spectrometry for High-throughput Metabolite Characterization and Analysis"

(Kliment obtained a PhD from UCTM carried out partly at FORTH/ICE-HT; currently working as Technologist in PBG, Bulgaria)

Zacharoula Linardaki

M.S., 2007, Department of Biology, University of Patras

- carried out the GC-MS metabolic profile acquisition of mouse brain regions at FORTH/ICE-HT under my supervision; Advisor: Prof. M. Margarity -

"Studying biochemical parameters of mouse brain regions after drinking the water extract of *Sideritis clandestina* subs. cyllenea"

(obtained her PhD from the Biology Dept., U. of Patras; currently Senior Pharmacovigilance Officer, Elpen Pharmaceutical Co. Inc.)

Aliki Panayotarou

M.S., 2006, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematics and Physical Sciences, NTU Athens

"High-throughput Transcriptional Profiling Analysis of the Galactose Assimilation Network in *Saccharomyces cerivisiae* using DNA microarrays"

(obtained PhD in Education Management, U. of Patras; currently Research Fellow, Department of Management Science and Technology, U. of Patras)

Sevasti – Ivi Tsantili

M.S., 2006, Interdepartmental Graduate Program "Mathematical Modeling in New Technologies and Finance", School of Applied Mathematics and Physical Sciences, NTU Athens

"Studying the metabolic capabilities of *Zymomonas mobilis* for ethanol production from plant biomass using linear programming"

(carried out her PhD thesis at NTU Athens in the Naval Engineering Dept; currently post-doctoral fellow, FORTH/IACM)

Harin Kanani

M.S., 2004, Dept. of Chemical Engineering, University of Maryland – College Park

"Time-series metabolic profiling analysis of the short-term *Arabidopsis thaliana* response to elevated CO_2 using gas chromatography-mass spectrometry"

(carried out his PhD thesis under my supervision; currently Jt. Managing Director, Neogen Chemicals Limited, India)

Bhaskar Dutta
M.S., 2004, Dept. of Chemical Engineering, University of Maryland – College Park
"Time-series transcriptional profiling analysis of the *Arabidopsis thaliana* using full genome DNA microarray and metabolic information"
(carried out his PhD thesis under my supervision; currently, Senior Director, Head of Safety Analytics @ AstraZeneca)

B. M.S. Theses in Progress

- **Michail Rozakis**, Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras

B.S. THESES – ADVANCED UNDERGRADUATE PROJECTS

A. Supervised (17)
(current position in parenthesis)

Nick Raptis
Diploma Thesis, 2021, Department of Electrical & Computer Engineering, U. of Peloponnese
-the work was carried out fully at FORTH/ICE-HT; Academic Advisor: Prof. Sotiris Christodoulou -
" Development of database for storage and analysis of biochemical analysis data, used for biochemical network modeling"
(Citrix Greece MEPE, Patras)

Michalis Rozakis
B.S Thesis, 2021, Department of Biology, U. of Patras
- in a collaborative project with Prof. A. Lazou, AUTh; Academic Advisor: Prof. P. Katsoris -
" Mathematical Modeling of the Metabolic Network of Mammalian Cell Cultures"
(continued his graduate studies in Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras ; to carry out Master's thesis under my supervision)

Olga Toki
B.S Thesis, 2020, Department of Biology, U. of Patras
- co-Advisor: Prof. P. Katsoris -
"Metabolomic analysis in prostate cancer cell cultures under the effect of the active substance bortezomib"
(continued her graduate studies in the Bioinformatics Graduate Program, Biology Department, University of Athens)

Marilena Pantziri
Diploma Thesis, 2018, Department of Chemical Engineering, U. of Patras (Academic Advisor: Prof. P. Koutsoukos)
"Mathematical Modeling of the Metabolic Network of Mammalian Cell Cultures"
(PhD candidate in the same Dept, under my supervision)

Maria-Sotiria Marra
B.S. Thesis, 2017, Biology Department, U. of Patras (co-advised by Prof. M. Margarity)
" Metabolomic Analysis of heart tissue in a mouse model of prolonged adult onset hypothyroidism"
(continued her graduate studies in Interdepartmental Graduate Program "Informatics in Life Sciences", Medical School, University of Patras)

Christina Vasilopoulou

B.S. Thesis, 2016, Biology Department, U. of Patras (Academic Advisor: P. Katsoris; co-Advisor: Prof. N. Moschonas)

" Study of *FRA10AC1* gene in genetically modified *HeLa* cells using metabolomic analysis in systems biology"

(continued her graduate studies in Graduate Program in Bioinformatics, Biology Dept., University of Athens)

Vassiliki Savvopoulou

Diploma Thesis, 2016, Department of Chemical Engineering, U. of Patras (Academic Advisor: Prof. P. Koutsoukos)

" Study for the Metabolic Network Reconstruction of *Streptomyces lividans* TK24"

(continued her graduate studies in Graduate Program "Chemical Biology", Chemistry Dept., University of Patras; currently PhD Candidate in Chemistry Dept, under my supervision)

Niki Loverdou

Diploma Thesis, 2014, Department of Chemical Engineering, U. of Patras (Academic Advisor: Prof. P. Koutsoukos)

"Heart Tissue Metabolomic Analysis in a mouse model of prolonged adult-onset hypothyroidism"

(PhD candidate in KU Leuven BELGIUM)

Dionysia Karydi

B.S. Thesis, 2012, Biology Department, U. of Patras

"Comparative metabolomic analysis of yeast strains with modified Leloir pathway grown in various concentrations of glucose-defined media"

(biology teacher)

Konstantinos Polychroniou

B.S. Thesis, 2012, Biology Department, U. of Patras

"Comparative metabolomic analysis of unripe and ripe olive pastes"

(biology teacher)

Clio Katsikani

B.S. Thesis, 2012, Biology Department, U. of Patras

"Comparative metabolomic analysis of yeast strains with modified Leloir pathway between growth in glucose and galactose-defined media"

(moved on to graduate studies in Medical Chemistry, University of Patras)

Peristera Patiou

B.S. Thesis, 2009, Biology Department, U. of Patras

"High-throughput analysis of the small molecule concentration profile in the culture media of Saccharomyces cerevisiae strains grown on glucose, investigating the effect of genetic disruptions of the galactose assimilation pathway on the physiology of this model organism"

(moved on to obtain her Master's from Interdepartmental Graduate Program "Informatics in Life Sciences", U. of Patras; currently working at the University Hospital of Rio in Patras)

Anna Myxaki

B.S. Thesis, 2008, Biology Department, U. of Patras

"High-throughput analysis of growth medium and genetic modifications on the physiology of *Saccharomyces cerevisiae* at the transcriptional level using DNA microarrays"

(obtained her Master's from Interdepartmental Graduate Programs "Informatics in Life Sciences" and "Medical Chemistry", U. of Patras)

Panagiotis Chrysanthopoulos

B.S. Thesis, 2007, Biology Department, U. of Patras (Academic Advisor: Prof. M. Margarity)

"GC-MS metabolomic analysis of adult hypothyroid mouse brain"

(moved on to PhD studies in University of Queensland, Australia)

Maria – Anna Kostourou
B.S. Thesis, 2006, Biology Department, U. of Patras (co-advised by Profs. C. Flytzanis/G. Koumoundouros)
"Metabolomic Analysis of Male and Female Zebrafish"
(carried out her Master's Thesis in the same project and Department)

Robert Snyder
Undergraduate Research Assistant, 2005-2006, Department of Chemical and Biomolecular Engineering, University of Maryland, College Park
He worked under the direct supervision of my (then) PhD student, Bhaskar Dutta, to develop the software for significance analysis of time-series "omic" data
(obtained his PhD from Biomedical Engineering Department, North Carolina State University; currently Associate Director, Genomics at Precision for Medicine)

Jonathan Sindler
Undergraduate Research Assistant, 2003-2004, Department of Chemical and Biomolecular Engineering, University of Maryland, College Park
He worked under the direct supervision of my (then) PhD student, Harin Kanani, measuring the metabolomic profile of *A. thaliana* samples and composing the GC-MS peak library of standards for the lab.
(obtained M.S in Environmental Engineering, UC Berkeley; now Senior Product Development Engineer, Neptune Medical)

B. B.S. Theses in Progress

- **George Souras**, Biology Department, University of Patras

C. Undergraduate Student Internships

MESBL has hosted 20 undergraduate students from Biology, Chemistry, Informatics & Computer Engineering, Chemical Engineering Departments of University of Patras, Biotechnology Dept., UCTM, Bulgaria, CNRS France & Chemical Engineering, University of Maryland-College Park, for short-term internships through Erasmus or University Internship (REU in US) Programs, since 2003.

POST-DOCTORAL RESEARCH ASSISTANTS

A. Current

- **Christos Chasapis,** Chemist (joint appointment with NMR facility, School of Natural Sciences, U. of Patras)
- **Effrosyini Karakitsou,** Engineer of Applied Mathematics and Physical Sciences
- **Alexandra Paxinou,** Materials Scientist (co-supervised with Prof. I. Papantoniou)
- **Georgia Tooulakou,** Agricultural Biotechnologist
- **Paraskevi Zagana,** Pharmaceutical Chemist

B. Past *(current position in parenthesis)*

- **George Dimitrakopoulos** (Adjunct Assistant Professor, U. of Peloponnese); co-advised with Prof. N. Moschonas
- **Christina Malavaki** (Greek State Chemistry Laboratory)
- **Konstantinos Gkrintzalis** Ass. Professor, School of Biotechnology, Dublin City U, Ireland)

- **Caterina Constantinou** (Group Leader, Laboratory of Pharmacology, University of Patras Medical School)

SABBATICAL STAYS

- **Antonios Armaou** (2009-2010, then Prof. UPenn, currently @ UPatras)

Research Grants *(in chronological order)*

SUMMARY

PI, co-PI or member of the research team in 29 projects from the following funding sources (full list follows):

- **US NSF Quantitative Systems Biology (QSB) Program** (1 @ UMCP, USA; 2003-2007);
- **EC FP6 Program** (3 in total; 1 in NMP – Networks of Excellence completed by 2008 + 1 mobility program grant from this network for organizing a workshop and 1 in IST-Large Scale Project completed by 2010);
- **Erasmus Biotechnology Network Lifelong Learning Program** (1 completed by 2012; as international collaborator in the UCTM, Bulgaria research team)
- **EC FP7 Program** (2 in total; 1 in HEALTH-Large Scale Program completed by 2013 and 1 in KBBE – Large scale Program completed by 2018);
- **EC H2020 Program** (8 (2 completed) in total; 5 (2 completed) ELIXIR European Infrastructure Commissioned Services Short-Term Grants; 3 Large-Scale Projects);
- **National grants** (11 (6 completed) in total; NSRF 2007-2013 (5): 2 NSRF(ESPA)-Collaboration Large-Scale Projects; 1 Institutional KRIPIS Project; 2@U. of Patras (ARISTEIA II; Innovation Clusters); NSRF 2014-2020 (6; 1 completed): 1 Institutional (KRIPIS II) Project; 3 Natural Infrastructure projects; 2 Research-Create-Innovate (I and II) projects)
- **Research service contracts with companies or academic labs** (3 in total; 1 with BAYER HealthCare LLC, USA, completed in 2017 and 2 with biobank/academic lab in U. Uppsala, Sweden)

EUROPEAN-INTERNATIONAL

Integrated Genomic and Metabolic Analyses of *Arabidopsis thaliana* physiology

Award Number: 0331312
Funding Agency: US National Science Foundation
Funding Scheme: Quantitative Systems Biology (QSB) Program
Grant Duration: 1/10/2003 – 30/09/2007
M. I. Klapa role: PI

European Network of Excellence in NanoBiotechnology (Nano2Life)

Grant agreement ID: 500057
Funding Agency: European Commission – FP6 Framework Program
Funding Program: FP6-NMP
Grant Duration: 1/2/2004-30/09/2008
M.I. Klapa role: FORTH/ICE-HT co-PI

Workshop on Nanobiotechnology and Neurodegenerative Diseases

(21 participants from 6 European Countries)
Funding Source: Nano2Life European Network of Excellence project (500057)
Funding Program: Mobility Program
Workshop organized: December 2006

M.I. Klapa role: Workshop organizer and chair

Advancing Clinico-Genomic Clinical Trials on Cancer (ACGT): Open Grid Services for Improving Medical Knowledge Discovery

Grant agreement ID: 026996
Funding Agency: European Commission – FP6 Framework Program
Funding Program: FP6-IST
Grant Duration: 1/2/2006-31/07/2010
M.I. Klapa role: FORTH/ICE-HT PI

EUROBIOTECH (European Biotechnology) Project

Grant Agreement ID:2007-2566 / 001 – 001 project 134310-LLP-1-207-1-IT-ERASMUS-ENW
Funding Source: Erasmus Biotechnology Network
Funding Program: Lifelong Learning Program
Grant Duration: 1/1/2008-31/12/2012
M.I. Klapa role: Member of WP4 Research Team (Biosensor applications in medicine , foods and environment) as international collaborator of WP4 PI: Prof. L. Yotova, UCTM Bulgaria

Genotype to Phenotype Databases: A Holistic Solution (GEN2PHEN)

Grant Agreement ID:200754
Funding Source: European Commission – FP7 Program
Funding Program: FP7-HEALTH
Grant Duration: 1/1/2008-30/06/2013
M.I. Klapa role: FORTH/ICE-HT PI

Rewiring the Streptomyces cell factory for cost-effective production of biomolecules (STREPSYNTH)

Grant Agreement ID:613877
Funding Source: European Commission – FP7 Program
Funding Program: FP7-KBBE
Grant Duration: 1/12/2013-30/11/2018
M.I. Klapa role: FORTH/ICE-HT PI

ELIXIR Metabolomics Community Implementation Study I: Metabolite Identification

Funding Source: ELIXIR: European Infrastructure for Data Management & Analysis in Biosciences
Funding Program: Commissioned Services
Grant Duration: 1/06/2018-30/11/2020
M.I. Klapa role: ELIXIR-GR Research Team PI

ELIXIR Metabolomics Community-led Implementation Study II: Standardizing the fluxomics workflows

Funding Source: ELIXIR: European Infrastructure for Data Management & Analysis in Biosciences
Funding Program: Commissioned Services
Grant Duration: 1/06/2019-30/11/2021
M.I. Klapa role: Coordinator of the IS

ELIXIR Compute Platform Implementation Study: Deploying Reproducible Containers and Workflows Across Cloud Environments

Funding Source: ELIXIR: European Infrastructure for Data Management & Analysis in Biosciences
Funding Program: Commissioned Services
Grant Duration: 1/06/2019-31/03/2022
M.I. Klapa role: ELIXIR-GR Research Team Member

Precision Manufacturing of Microengineered Complex Joint Implants (JointPromise)

Grant Agreement ID:874837

Funding Source: European Commission – H2020 Program
Funding Program: H2020-EU.3.1.3
Grant Duration: 1/1/2020-31/12/2024
M.I. Klapa role: FORTH/ICE-HT PI

ELIXIR Microbial Biotechnology Community-led Implementation Study I

Funding Source: ELIXIR: European Infrastructure for Data Management & Analysis in Biosciences
Funding Program: Commissioned Services
Grant Duration: 1/06/2020-31/05/2022
M.I. Klapa role: ELIXIR-GR Research Team PI

Artificial Intelligence-driven, Decentralized Production for Advanced Therapies in the Hospital (AIDPATH)

Grant Agreement ID: 101016909
Funding Source: European Commission – H2020 Program
Funding Program: H2020-EU.2.1.1
Grant Duration: 1/1/2021-31/12/2024
M.I. Klapa role: FORTH/ICE-HT co-PI

Development and scaled Implementation of sAfe by design tools and Guidelines for multicOmponent aNd hArn nanomateriaLs (DIAGONAL)

Grant Agreement ID: 953152
Funding Source: European Commission – H2020 Program
Funding Program: H2020-EU.2.1.3; H2020-EU.2.1.2
Grant Duration: 1/5/2021-31/10/2024
M.I. Klapa role: Member of FORTH/ICE-HT Research Team – Metabolomic Analysis

ELIXIR Compute Platform Implementation Study on Containers II : Making container services integratable, sustainable and widely used

Funding Source: ELIXIR: European Infrastructure for Data Management & Analysis in Biosciences
Funding Program: Commissioned Services
Grant Duration: 1/06/2021-31/05/2023
M.I. Klapa role: ELIXIR-GR Research Team Member

NATIONAL

Optimization of environment control in protected crops for salinity management using –omics technologies - PHYTOALATOTITA

Grant ID: NSRF-Cooperation 22-797
Funding Source: GSRT through NSRF 2007-2013 Program
Funding Scheme: ESPA-Cooperation I
Grant Duration: 1/6/2011-31/05/2015
M.I. Klapa role: FORTH/ICE-HT PI

Development of Novel Diagnostics and Treatment for Cardiomyopathy and Heart Failure – TREAT-HEART

Grant ID: NSRF-Cooperation 22-965
Funding Source: GSRT through NSRF 2007-2013 Program
Funding Scheme: ESPA-Cooperation I
Grant Duration: 1/1/2012-31/05/2016
M.I. Klapa role: FORTH/ICE-HT PI

Institutional Project KRIPIS: Interdisciplinary Research in Systems Biology (BIOSYS)

Grant ID: KRHPIS-BIOSYS (ΚΡΗΠΙΣ-ΒΙΟΣΥΣ)
Funding Source: GSRT through NSRF 2007-2013 Program
Funding Scheme: KRIPIS Institutional Projects
Grant Duration: 1/1/2013-31/05/2016
M.I. Klapa role: FORTH/ICE-HT PI (FORTH Coordinator: Dr. D. Kafetzopoulos)

Integrated functional analysis of *FRA10AC1*, the chromosomal fragile site causative gene (FRASYS)

Grant ID: 4072 @ U. Patras
Funding Source: GSRT through NSRF 2007-2013 Program
Funding Scheme: Excellence (ARISTEIA) II
Grant Duration: 1/1/2013-31/12/2015
M.I. Klapa role: FORTH/ICE-HT PI – Scientific Committee Member (Coordinator: Prof. N. Moschonas, U. of Patras)

BIONIAN Biotechnology Cluster

Grant ID: Subcontract of U. Patras with Velti SA
Funding Source: GSRT through NSRF 2007-2013 Program
Funding Scheme: Innovation Clusters
Grant Duration: 1/1/2014-31/12/2015
M.I. Klapa role: FORTH/ICE-HT PI – Scientific co-PI (Coordinator: Prof. N. Moschonas @ U. of Patras)

Institutional Project: Advanced Research Activities in Biomedical and Agro alimentary Technologies – BITAD (Sub-project 2: FORTH/ICE-HT)

Grant ID: MIS 5002469
Funding Source: GSRT through NSRF 2014-2020 Program
Funding Scheme: Action for the Strategic Development on the Research and Technological Sector, Operational Programme Competitiveness, Entrepreneurship and Innovation
FORTH/ICE-HT budget: 220,000 Euros
Grant Duration: 08/09/2017-30/09/2021
M.I. Klapa role: FORTH/ICE-HT PI

ELIXIR-GR: The Greek Research Infrastructure for Data Management and Analysis in Biosciences (Sub-project 12: FORTH/ICE-HT)

Grant ID: MIS 5002780
Funding Source: GSRT (EPANEK) through NSRF 2014-2020 Program
Funding Scheme: Action Reinforcement of the Research and Innovation Infrastructure, Operational Programme Competitiveness, Entrepreneurship and Innovation
Grant Duration: 01/12/2017-30/06/2022
M.I. Klapa role: FORTH/ICE-HT PI

INSPIRED: The National Research Infrastructures on Integrated Structural Biology, Drug Screening Efforts & Drug target functional characterization (Sub-project 4: FORTH/ICE-HT)

Grant ID: MIS 5002550
Funding Source: GSRT (EPANEK) through NSRF 2014-2020 Program
Funding Scheme: Action Reinforcement of the Research and Innovation Infrastructure, Operational Programme Competitiveness, Entrepreneurship and Innovation
Grant Duration: 01/01/2018-31/12/2022
M.I. Klapa role: FORTH/ICE-HT PI

EATRIS-GR: Infrastructure for preclinical and early-phase clinical development of

drugs, therapeutics and biomedical devices (Sub-project 5: FORTH/ICE-HT)

Grant ID: MIS 5028091
Funding Source: GSRT (EPANEK) through NSRF 2014-2020 Program
Funding Scheme: Action Reinforcement of the Research and Innovation Infrastructure, Operational Programme Competitiveness, Entrepreneurship and Innovation
Grant Duration: 01/01/2019-30/09/2022
M.I. Klapa role: FORTH/ICE-HT PI

Bioconversion of lignite power plant emissions to fuels and fine chemicals (BIOMEK)

Grant ID: MIS T1EΔK- 00279
Funding Source: GSRT (EYDE-ETAK) through NSRF 2014-2020 Program
Funding Scheme: Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE - INNOVATE
Grant Duration: 04/06/2019 - 03/06/2022
M.I. Klapa role: FORTH/ICE-HT PI & Scientific Manager (Dr. N. Burganos: Coordinator)

Development of New Tomato Cultivars by using Omics Technologies (NTOMATOMICS)

Grant ID: T2EΔK - 01332
Funding Source: GSRT (EYDE-ETAK) through NSRF 2014-2020 Program
Funding Scheme: Operational Program Competitiveness, Entrepreneurship and Innovation, under the call RESEARCH – CREATE - INNOVATE II
Grant Duration: 01/12/2020 - 31/05/2023
M.I. Klapa role: FORTH/ICE-HT PI

RESEARCH CONTRACTS WITH INDUSTRY OR ACADEMIC LABORATORIES

Application of Metabolomics in Industrial-Scale Cell Culture Engineering

Contract with: Bayer HealthCare LLC, Cell Culture Development Dept., CA, USA
Contract Duration: 22/11/2006 – 21/11/2017
M. I. Klapa role: PI

Application of Blood Plasma Metabolomics to Profile Antenatal Depression

Contract with: Prof. Alkistis Skalkidou's Lab, Women's and Children's Health Department, Uppsala U. , Sweden
Contract Duration: 2015-2016
M. I. Klapa role: PI

Application of Blood Plasma Metabolomics to Profile Post-Partum Depression

Contract with: Prof. Alkistis Skalkidou's Lab, Women's and Children's Health Department, Uppsala U. , Sweden
Contract Duration: 2017-2018
M. I. Klapa role: PI

Publication Summary

- 3 patents
- 6 book chapters (invited contributions) ; 1 monograph ; 4 as independent PI (corresponding author) ; 2 during my PhD studies (first author)
- 46 papers in refereed international journals ; 34, 8, 3, 1 in Q1, Q2, Q3, Q4 journals
- 8 papers in refereed international conference proceedings
- 10 papers in refereed national (Greek) conference proceedings

- 17 conference abstracts in refereed international journals or indexed proceedings collections
- 122 studies presented at international conferences / symposia after review
- 102 studies presented at national conferences / institutional symposia after review

Citation Score

(based on Google Scholar 11/2/2022)

- 7062 citations ; ~ 6960 without self-citations
- 27 h-index ; 34 i-10 index

Patents

1. Goudar C. & Klapa MI. "Method for Monitoring Cell Cultures". International Patent WO2010104963_A1, Published Sep 16 2010; connected to Application US-2012-0088679-A1 & US Provisional Patent 61/158,954, 2009 [BAYER, USA-FORTH/ICE-HT, GR (50:50)].
2. Klapa MI & Dutta B. "Method and System for Analysis of Time-Series Molecular Quantities". International Patent WO2007061770_A2, Published Apr 14 2011; connected to Application US-2011-0087436-A1 & US Provisional Patent 60/737,585, 2005) [UMCP, USA].
   - cited 9 times based on Google Scholar (Jan 28 2022)
3. Klapa MI & Kanani HH. 2006. "Data Correction, Normalization and Validation for Quantitative High-Throughput Metabolomic Profiling". International Patent WO2007008307_A2, Published Jan 18 2007, connected to Application US-2006-0200316-A1 & US Provisional Patents 60/698,051, 60/657,605, 2005) [U. of Maryland College Park, USA]
   - granted the 2005 Best Invention of the Year Award in Information Sciences from Office of Technology Commercialization, University of Maryland, College Park
   - cited 34 times based on Google Scholar (Jan 28 2022)

Publications

BOOK CHAPTERS

1. Papadimitropoulos M-E., Vasilopoulou C., Maga-Nteve Ch. & **Klapa MI***. 2018. Untargeted GC-MS metabolomics. *Methods Mol Biol.* 1738:133-147 (in *Metabolic Profiling*, Theodoridis et al. (Eds), SpringerNature).
2. Papadimitropoulos M-E. and **Klapa MI***. 2015. Investigating the Effect of Elevated CO_2 in the Growth Environment of Salt-Stressed Plants Using Integrated Omic Analyses (Chapter 3), in Combined Stresses in Plants, Mahalingam Ramamurthy (Ed.), Springer (invited contribution).
3. **Klapa MI***. 2009. Metabolic Flux Analysis. in *Metabolic Pathway Engineering Handbook Volume 1*, Christina Smolke (ed.), CRC Press.
4. Kanani H, Dutta B., Quackenbush J. and **Klapa MI***. 2007. Time-series integrated high-throughput transcriptomic and metabolomic profiling analyses; Short-term effect of elevated CO2 levels on *Arabidopsis thaliana* primary metabolism: A case-study (Chapter 7), in *Concepts in Plant Metabolomics*, Nikolau B. and Wurtele E. (eds), Springer-Verlag.
   - based on my plenary lecture, 3rd International Congress on Plant Metabolomics, June 2004
5. **Klapa MI** and Stephanopoulos G*. 2000. Metabolic Engineering: A Framework for the Integration of Genomic and Physiological Data, pp. 453-477, in *NMR in Microbiology: Theory and Applications*, Barbotin/Portais (eds), Horizon Scientific Press, UK.
6. **Klapa MI** and Stephanopoulos G*. 2000. Metabolic Flux Analysis, in *Bioreaction Engineering: Modeling and Control*, Schugerl/Bellgardt (eds), Springer, Berlin Heidelberg New York.

PAPERS IN PEER-REVIEWED INTERNATIONAL JOURNALS

1. Lionaki E, Gkikas I, Daskalaki I, Ioannidi M-K, **Klapa MI**, Tavernarakis N. 2022. Mitochondrial protein import determines lifespan through metabolic reprogramming and *de novo* serine biosynthesis. *Nat Commun* 13:651 (Q1)
2. Dimitrakopoulos GN, **Klapa MI**, Moschonas NK*. 2022. How Far Are We from the Completion of the Human Protein Interactome Reconstruction? *Biomolecules* 12:140 (Q2)
3. Nicolaides NC, Ioannidi MK, Koniari E, Papageorgiou I, Bartzeliotou A, Sertedaki A, **Klapa MI***, Charmandari E*. 2021. Untargeted Plasma Metabolomics Unravels a Metabolic Signature for Tissue Sensitivity to Glucocorticoids in Healthy Subjects: Its Implications in Dietary Planning for a Healthy Lifestyle. *Nutrients* 13:2120 (Q1)
4. Bränn E, Malavaki C, Fransson E, Ioannidi MK, Henriksson HE, Papadopoulos FC, Chrousos GP, **Klapa MI***, Skalkidou A*. Metabolic Profiling Indicates Diversity in the Metabolic Physiologies Associated With Maternal Postpartum Depressive Symptoms 2021. *Front Psychiatry* 12:685656 (Q1)
5. Dimitrakopoulos GN, **Klapa MI**, Moschonas NK*. 2021. PICKLE 3.0: Enriching the human meta-database with the mouse protein interactome extended via mouse-human orthology. *Bioinformatics*, 37: 145–146 (e-pub: Dec 2020) (Q1)
6. Manolaki P*, Tooulakou G, Byberg CU, Eller F, Sorrell BK, **Klapa MI***, Riis T. 2020. Probing the response of the amphibious plant *Butomus umbellatus* to nutrient enrichment and shading by integrating eco-physiological with metabolomic analyses. *Frontiers in Plant Science* 581787 (Q1)
7. Kaltsi C, Papadimitropoulos M-E, Tselios T, **Klapa MI***. 2020. Using tandem mass spectrometry for metabolite identification in untargeted liquid chromatography-mass spectrometry metabolomics. *Review of Clinical Pharmacology and Pharmacokinetics (International Edition)* 34: 68-69 (Q3)
8. Tsare E-P, Gioutlakis A, **Klapa** MI, Moschonas NK. 2020. Investigating the genetic architecture of hypertension through integrated analysis of GWAS and the human protein interaction network. *Review of Clinical Pharmacology and Pharmacokinetics (International Edition)* 34:75-76 (Q3)
9. Tuccinardi D, Farr OM, Upadhyay J, Oussaada SM, **Klapa MI**, Candela M, Rampelli S, Lehoux S, Lázaro I, Sala-Vila A, Brigidi P, Cummings RD, Mantzoros CS. 2019. Mechanisms Underlying the Cardiometabolic Protective Effect of Walnut Consumption in Obese Subjects: A Cross-Over, Randomized, Double-Blinded, Controlled Inpatient Physiology Study. *Diabetes, Obesity and Metabolism* 21:2086-2095 (Q1)
10. Henriksson HE, Malavaki C, Bränn E, Drainas V, Lager S, Iliadis SI, Papadopoulos FC, Sundström Poromaa I, Chrousos GP, **Klapa MI***, Skalkidou A*. 2019. Blood plasma metabolic profiling of pregnant women with antenatal depressive symptoms. *Transl Psychiatry* 9:204 (Q1)
11. **Klapa MI***, Androulakis IP*. 2019. Editorial overview: Systems biology approaches in biomedicine and human therapy*. Curr. Opin. Biotechnol*. 58: iii-iv (Q1)
12. Loos M, Ramakrishnan R, Vranken W, Tsirigotaki A, Tsare E-P, Zorzini V, De Geyter J, Yuan B, Tsamardinos I, **Klapa MI**, Schymkowitz J, Rousseau F, Karamanou S, Economou T. 2019. Structural basis of the sub-cellular topology landscape of *Escherichia coli*. *Frontiers in Microbiology* 10: 1670 (Q1)
13. Tooulakou G, Nikolopoulos D, Dotsika E, Orkoula MG, Kontoyannis CG, Fasseas C, Liakopoulos G, **Klapa MI**, Karabourniotis G. 2018. Changes in size and composition of pigweed (*Amaranthus hybridus L.*) calcium oxalate crystals under CO_2 starvation conditions. *Physiologia plantarum* 166: 862-872 (Q1)
14. Tsolis KC, Tsare EP, Orfanoudaki G, Busche T, Kanaki K, Ramakrishnan R, Rousseau F, Schymkowitz J, Rückert C, Kalinowski J, Anné J, Karamanou S, **Klapa MI**, Economou A. 2018.

Comprehensive subcellular topologies of polypeptides in Streptomyces. *Microb Cell Fact*. 17:43 (Q1)

15. Gioutlakis A, **Klapa MI**, Moschonas NK. 2017. PICKLE 2.0: A human protein-protein interaction meta-database employing data integration via genetic information ontology. *PLoS ONE* 12: e0186039 (Q1)
16. Maga-Nteve C, Vasilopoulou CG, Constantinou C, Margarity M, **Klapa MI**. 2017. Sex-comparative study of mouse cerebellum physiology under adult-onset hypothyroidism: The significance of GC–MS metabolomic data normalization in meta-analysis. *J Chromatography B* 1041:158-166 (Q2)
17. van Rijswijk M, Beirnaert C, Caron C, Cascante M, Dominguez V, Dunn WB, Ebbels TMD, Giacomoni F, Gonzalez-Beltran A, Hankemeier T, Haug K, Izquierdo-Garcia JL, Jimenez RC, Jourdan F, Kale N, **Klapa MI**, Kohlbacher O, Koort K, Kultima K, Le Corguillé G, Moreno P, Moschonas NK, Neumann S, O'Donovan C, Reczko M, Rocca-Serra P, Rosato A, Salek RM, Sansone S, Satagopam V, Schober D, Shimmo R, Spicer RA, Spjuth O, Thévenot EA, Viant MR, Weber RJM, Willighagen EL, Zanetti G, Steinbeck C. 2017. The future of metabolomics in ELIXIR [version 2; referees: 3 approved]. *F1000Research 6(ELIXIR)*:1649 (Q1)
18. Aggelopoulos CA, Gkelios A, **Klapa MI**, Kaltsonoudis C, Svarnas P, Tsakiroglou CD. 2016. Parametric analysis of the operation of a non-thermal plasma reactor for the remediation of NAPL-polluted soils. *Chem Eng J* 301:353-361 (Q1)
19. Tooulakou G, Giannopoulos A, Nikolopoulos D, Bresta P, Dotsika E, Orkoula MG, Kontoyannis CG, Fasseas C, Liakopoulos G, **Klapa MI**, Karabourniotis G. 2016. Reevaluation of the plant "gemstones": Calcium oxalate crystals sustain photosynthesis under drought conditions. *Plant Signal Behav.* 11:e1215793 (Q2)
20. Tooulakou G, Giannopoulos A, Nikolopoulos D, Bresta P, Dotsika E, Orkoula MG, Kontoyannis CG, Fasseas C, Liakopoulos G, **Klapa MI**, Karabourniotis G. 2016. Alarm Photosynthesis: Calcium Oxalate Crystals as an Internal CO2 Source in Plants. *Plant Physiol.* 171: 2577-85 (Q1)
21. Vasilopoulou CG, Margarity M, **Klapa MI**[*]. 2016. Metabolomic Analysis in Brain Research: Opportunities and Challenges. *Front Physiol.* 7:183 (Q2)
22. Aggelopoulos CA. Svarnas P, **Klapa MI**, Tsakiroglou CD. 2015. Dielectric barrier discharge plasma used as a means for the remediation of soils contaminated by non-aqueous phase liquids. *Chem Eng J* 270:428-436 (Q1)
23. Kazi M, Bousiakou LG, **Klapa MI**, Fatani A, Karikas GA. 2015. Determining residual anti-ulcer and anti-platelet pharmaceutical agents after wastewater treatment at the South tertiary municipal treatment plant in Riyadh, Saudi Arabia. *Res. J. Chem. Environ.* 19: 18-25 (Q4)
24. Grintzalis K, Vernardis SI, **Klapa MI**, Georgiou CD. 2014. Role of oxidative stress in sclerotial differentiation and aflatoxin B1 biosynthesis in Aspergillus flavus. *Appl Microbiol Biotechnol* 80: 5561 (Q1)
25. Gkourogianni A, Kosteria I, Telonis AG, Margeli A, Mantzou E, Konsta M, Loutradis D, Mastorakos G, Papassotiriou I, **Klapa MI**, Kanaka-Gantenbein C, Chrousos GP. 2014. Plasma Metabolomic Profiling Suggests Early Indications for Predisposition to Latent Insulin Resistance in Children Conceived by ICSI *PLOS One* 9: e94001 (Q1)
    - received G. Tollis Award of Hellenic Society of Endocrinology
26. **Klapa MI**, Tsafou K, Theodoridis E, Tsakalides A and Moschonas NK. 2013. Reconstruction of the experimentally supported human protein interactome: what can we learn? *BMC Systems Biology* 7:96 (Q1)
    - characterized as highly accessed in first year of publication
27. Vernardis SI, Goudar CT, **Klapa MI**[*]. 2013. Metabolic profiling reveals that time related physiological changes in mammalian cell perfusion cultures are bioreactor scale independent. *Metab Eng* 19:1-9 (Q1)

28. Spagou K., Theodoridis G., Wilson I., Raikos N., Greaves P., Edwards R., Nolan B. & **Klapa MI**[*]. 2011. A GC-MS metabolomic profiling study of plasma samples from mice on low- and high- fat diets. *J Chromatogr B* 879:1467-75 (Q2)
29. Constantinou C, Chrysanthopoulos PK, Margarity M, **Klapa MI**[*]. 2011. GC-MS metabolic analysis reveals significant alterations in cerebellar metabolic physiology in a mouse model of adult onset hypothyroidism. *J. Proteome Res.* 10: 869-879 (Q1)
30. Kanani H., B. Dutta, **Klapa MI**[*]. 2010. Individual vs. combinatorial effect of elevated CO2 and salinity stresses on Arabidopsis thaliana liquid cultures: Comparing the early molecular response using time-series transcriptomic and metabolomic analyses. *BMC Systems Biology* 4:177 (Q1)
31. Chrysanthopoulos PK, Goudar CT, **Klapa MI**[*]. 2010. Metabolomics for High-Resolution Monitoring of the Cellular Physiological State in Cell Culture Engineering. *Metab Eng.* 12: 212-222 (Q1)
32. Zanov K[*], Yotova L, **Klapa M**. 2009. LC-MS Quantification of Thyroid Hormones, Their Metabolites, Amino Acids and Neurotransmitters in Liver Tissue. *Biotechnology & Biotechnological Equipment* 23 (sup1): 818-822 (Q3)
33. Dutta B, Kanani H, Quackenbush J and **Klapa MI**[*]. 2009. Time-series integrated "omic" analyses to elucidate short-term stress-induced responses in plant liquid cultures. *Biotechnol. Bioeng.* 102: 264-79 (Q1)
34. Kanani H, Chrysanthopoulos PK and **Klapa MI**[*]. 2008. Standardizing GC-MS metabolomics. *J. Chromatogr. B* 871: 191-201 (Q2)
35. Syriopoulos C, Panayotarou A, Lai K and **Klapa MI**[*]. 2008. Transcriptomic analysis of *Saccharomyces cerevisiae* physiology in the context of galactose assimilation perturbations. *RSC Mol. BioSyst.* 4:937-949 (Q1)
36. Tsantili IC, Karim MN, **Klapa MI**[*]. 2007. Quantifying the Metabolic Capabilities of the Engineered *Zymomonas mobilis* using Linear Programming Analysis. *Microbial Cell Factories* 6:8 (Q1)
37. Dutta B, Snyder P and **Klapa MI**[*]. 2007. Significance analysis of time-series transcriptomic data: A methodology that enables the identification and further exploration of the differentially expressed genes at each time-point. *Biotech. Bioeng.* 98: 668-678 (Q1)
38. Kanani H and **Klapa MI**[*]. 2007. Data Correction Strategy for Metabolomics Analysis using Gas Chromatography-Mass Spectrometry, *Metab Eng* 9: 39-51 (Q1)
39. Lai K and **Klapa MI**[*]. 2004. Alternative pathways of galactose assimilation: Could Inverse Metabolic Engineering provide an alternative for galactosemic patients? *Metab Eng.* 6:239-44 (Q1)
40. **Klapa MI**[*] and Quackenbush J. 2003. The Quest for the Mechanisms of Life. *Biotechol. Bioeng.* 84: 739-42 (Q1)
41. **Klapa MI**, Aon JC and Stephanopoulos G. 2003. Systematic quantification of complex metabolic flux networks using stable isotopes and mass spectrometry. *Eur J Biochem* 270: 3525 (replaced by The FEBS Journal; Q1)
42. **Klapa MI**, Aon JC and Stephanopoulos G. 2003. Using ion trap Mass Spectrometry in combination with gas chromatography for high resolution metabolic flux determination. *Biotechniques* 34: 832-849 (Q2)
43. Saeed AI, Sharov V, White J, Li J, Liang W, Bhagabati N, Braisted J, **Klapa M**, Currier T, Thiagarajan M., Sturn A, Snuffin M, Rezantsev A, Popov D, Ryltsov A, Kostukovich E, Borisovsky I, Liu Z, Vinsavich A, Trush V and Quackenbush J. 2003. TM4: A Free, Open Source System for Microarray Data Management and Analysis. *BioTechniques* 34:374-378 (Q2)
44. Varela C, Agosin E, Baez M, **Klapa M** and Stephanopoulos G. 2003. Metabolic flux redistribution in Corynebacterium glutamicum in response to osmotic stress. *Appl Microbiol Biotechnol* 60: 547-555 (Q1)

45. **Klapa MI**, Park SM, Sinskey AJ, Stephanopoulos GN. 1999. Metabolite and isotopomer balancing in the analysis of metabolic cylces: I. Theory. *Biotechnol Bioeng.* 62: 375-391 (Q1)
46. Park SM, **Klapa MI**, Sinskey AJ, Stephanopoulos GN. 1999. Metabolite and isotopomer balancing in the analysis of metabolic cylces: II. Applications. *Biotechnol Bioeng.* 62: 392-401 (Q1)

FULL PAPERS IN PEER-REVIEWED CONFERENCE PROCEEDINGS

A. International Conferences

1. Maga-Nteve C, **Klapa MI***. 2016. Streamlining GC-MS metabolomic analysis using the M-IOLITE software suite. Foundations of Systems Biology in Engineering - FOSBE 2016 Magdeburg, Germany, 9—12 October 2016 *IFAC-PapersOnLine* 49:286-288
2. Vasilopoulou CG, Margarity M, **Klapa MI***. 2016. Metabolomics and Network Biology: Sex Comparative Analysis of Mouse Brain Regional Metabolic Physiology. Foundations of Systems Biology in Engineering - FOSBE 2016 Magdeburg, Germany, 9—12 October 2016 *IFAC-PapersOnLine* 49:283-285
3. Magga-Nteve Ch, **Klapa MI***. 2015. M-IOLITE: Metabolomics Analysis Software Suite. Proceedings of Foundations of Systems Biology in Engineering Conference - FOSBE 2015, August 9-12, 2015, Boston, USA
4. Vasilopoulou CG, Margarity M, **Klapa MI***. 2015. Investigating the metabolic profile of specific brain regions under adult onset hypothyroidism in a mouse model using GC-MS metabolomics. Proceedings of Foundations of Systems Biology in Engineering Conference - FOSBE 2015, August 9-12, 2015, Boston, USA
5. Vernardis SI, Goudar CT, **Klapa MI***. 2013. Metabolomics and Network Biology for sensitive monitoring of how growth environment changes affect the physiology of industrial-scale perfusion cultures. 12th IFAC Symposium on Computer Applications in Biotechnology 2013 *IFAC Proceedings Volumes* 46: 227-232.
6. Vernardis SI, Chrysanthopoulos PK, Goudar CT, **Klapa MI***. 2010. Metabolomics as molecular analysis tool in cell culture engineering. 11th IFAC Symposium on Computer Applications in Biotechnology 2010 *IFAC Proceedings Volumes* 43: 491-495.
7. Tsantili IC, Karim MN, **Klapa MI***. 2007. Quantifying the Metabolic Capabilities of *Zymomonas mobilis* using Linear Programming Analysis. Proceedings of "Foundations of Systems Biology in Engineering (FOSBE) 2007" Conference, September 9-12, 2007, Stuttgart, GERMANY.
8. **Klapa MI**, Papathanasiou AG, Boudouvis AG. 1998. Equilibrium of Rotating Ferromagnetic Liquid Drops. In *Proceedings of the 4th ECCOMAS Computational Fluid Dynamics Conference* pp. 809-814, K. D. Papailiou, D. Tsahalis, J. Periaux, C. Hirsch, M. Pandolfi (Eds.), Athens, Greece, September, 1998, J. Wiley & Sons, New York.

B. National Conferences

1. Dimitrakopoulos GN, Gioutlakis A, **Klapa MI** & Moschonas NK. 2019. Evaluating the expansion of the experimentally determined human protein interactome using the PICKLE meta-database. 12th Panhellenic Scientific Conference in Chemical Engineering, Athens, Greece, May 29-31 2019
2. Chasapis CT, Savvopoulou V & **Klapa MI***. 2019. *In silico* reconstruction of protein-protein interaction networks of bacteria, used in synthetic biology applications. 12th Panhellenic Scientific Conference in Chemical Engineering, Athens, Greece, May 29-31 2019.
3. Marra M-S, Vasilopoulou C and **Klapa MI***. 2016. Metabolomics in Systems Medicine & Applications. 22nd Panhellenic Scientific Conference of Medical Students, Patras, Greece, May 13-15 2016

- 10-page essay accompanying the e-poster; received the Best e-poster award

4. Vasilopoulou CG, **Klapa MI***. 2015. Metabolomics in brain research. Proceedings of the 9th Panhellenic Interdisciplinary Conference on Alzheimer's Disease and Related Disorders, Thessaloniki, Greece, May 14-17 2015.
5. Syriopoulos H, Panayotarou A, Katsikani C, Patiou P, Pesheva B, Lai K and **Klapa MI***. 2007. *In vivo* analysis of galactosemia using yeast as the model system. Proceedings of the 6th Hellenic Conference in Chemical Engineering, Volume B, pp.1109-1112.
6. Kostourou MA, Koumoundouros GN, Flytzanis CN and **Klapa MI***. 2007. Metabolomic analysis of adult male and female zebrafish for the identification of sex-determining metabolic biomarkers using gas chromatography-mass spectrometry. Proceedings of the 6th Hellenic Conference in Chemical Engineering, Volume B, pp.1121-1124 (in Greek)
7. Tsantili IC, Karim MN, **Klapa MI***. 2007. Evaluating the Metabolic Boundaries of the Genetically Engineered *Zymomonas mobilis* using Linear Programming. Proceedings of the 6th Hellenic Conference in Chemical Engineering, Volume B, pp.1153-1156
8. Kanani H, Dutta B, Vantoai T, Moy L, Linford L, Hasseman J, Quackenbush J and **Klapa MI***. 2005. High-throughput time-series analysis of the short-term *Arabidopsis thaliana* response to environmental stresses: a quantitative systems biology approach. 5th Conference of the Greek Chemical Engineers, March 25-27, Thessaloniki, Greece.
9. Tsantili I, Dimitriou D and **Klapa MI***. 2005. Linear Programming Analysis of *Zymomonas mobilis* for optimized ethanol production. 5th Conference of the Greek Chemical Engineers, March 25-27, Thessaloniki, Greece (in Greek)
10. Spathis AD, Antonopoulos I, Panagopoulos N, Matsokis N, Angelatou F, Episkopou V, **Klapa MI*** and Margarity M*. 2004. In search of the etiology of Parkinson's disease using full genomic DNA microarrays of weaver mutant mice. 56th Meeting of the Hellenic Society of Biochemistry and Molecular Biology, November 25-27, Larissa, Greece.

OTHER ARTICLES

1. **Klapa** M. 2018. The clinical relevance of metabolomics. Feature Article, European Society of Pediatric Endocrinology (ESPE) Newsletter. Issue 41 (Autumn 2018), p. 7.
    - feature article in light of my invited talk at the ESPE 2018 Meeting

CONFERENCE ABSTRACTS IN PEER-REVIEWED INTERNATIONAL JOURNALS OR INDEXED PROCEEDINGS COLLECTIONS

1. Dimitrakopoulos GN, Gioutlakis A, **Klapa MI**, Moschonas NK. 2019. Evaluating the expansion of the experimentally determined human protein interactome using the PICKLE meta-database. *Eur J Hum Genet* 27 (Suppl.2; Abstracts from the 52nd European Society of Human Genetics (ESHG) Conference 2019: Posters): P16.41A, p. 1705.
2. Tsare E-P, Gioutlakis A, **Klapa MI**, Moschonas NK. 2019. Investigating the genetic architecture of hypertension through combined analysis of genome-wide association studies (GWAS) data and the human protein interaction network. *Eur J Hum Genet* 27 (Suppl.1; Abstracts from the 51st European Society of Human Genetics (ESHG) Conference 2018: Posters): P16.39C, p. 583-584
3. **Klapa M***. 2018. The clinical relevance of metabolomics. *Hormone Res in Pediatrics* 90 (suppl. 1; European Society for Paediatric Endocrinology (ESPE), 57th Annual Meeting, Athens, September 2018: Abstracts): NA1.1, p. 17-17.
    - invited talk in session "Novel Advances and Controversies in Paediatric Endocrinology"
4. Telonis AG, Gkourogianni A, Papassotiriou I, Konsta M, Papastamataki M, Margeli A, Bartzeliotou A, Mantzou E, Kosteria I, Mastorakos G, Loutradis D, Chrousos GP*, **Klapa MI***,

Kanaka-Gantenbein C*. 2018. High-Throughput Untargeted Plasma Metabolomics Unravels Gender Dimorphic Metabolic Trajectories in Naturally Conceived and ICSI Prepubertal Children. *Hormone Res in Pediatrics* 90(suppl. 1; European Society for Paediatric Endocrinology (ESPE), 57th Annual Meeting, Athens, September 2018: Abstracts): RFC6.5, p.94-95.

5. Nicolaides NC, Ioannidi M-K, Koniari E., Sertedaki A., **Klapa MI***, Chrousos GP, Charmandari E*. 2018. Untargeted Plasma Metabolomics in Subjects with Differences in Tissue Glucocorticoid Sensitivity Identifies a Novel Metabolic Signature. *Hormone Res in Pediatrics* 90(suppl. 1; European Society for Paediatric Endocrinology (ESPE), 57th Annual Meeting, Athens, September 2018: Abstracts): FC1.5, p. 29-29.
    - received ESPE 2018 Travel Grant Award to post-doctoral researchers
6. Papadimitropoulos M, Anastasopoulou, Galliopoulou E, Manousopoulou A, Bicciato S, Garbis S, Sarafidou T, **Klapa MI***, Moschonas NK*. 2019. Integrated high-throughput biomolecular analyses of *FRA10AC1* altered expression in a human cell model. *Eur J Hum Genetics* 26 (Suppl. 1; Abstracts from the 50th European Society of Human Genetics Conference 2017: Posters): P16.32D, p.712-713.
7. Siopi M, Malavaki C, Drainas V, Karakatsanis S, Roumpakis C, Eldeik E, Korantanis K, Sambatakou H, Sipsas NV, Tsirigotis P, Pagoni M, **Klapa M***, Meletiadis J*. 2017. Serum metabolomics for the diagnosis of invasive aspergillosis. *Mycoses* 60 Issue S2 (8th Trends in Medical Mycology, Organised under the auspices of EORTC-IDG and ECMM, 6-9 October 2017, Belgrade, Serbia: Posters): P100, pp.103-104.
8. Galliopoulou E, Gioutlakis A, Mamuris Z, **Klapa MI**, Moschonas NK, Sarafidou T. 2015. The protein-protein interaction network of the human spliceosome. *Eur J Hum Genet* 23 Suppl. 1 (Abstracts of European Society of Human Genetics Conference 2015): PS16.67, pp. 318
9. Galliopoulou E, Gioutlakis A, Mamuris Z, **Klapa MI**, Moschonas NK, Sarafidou T. 2015. The human spliceosomal protein-protein interaction network. *FEBS J* 282 (S1) (40th FEBS Congress, The Biochemical Basis of Life, Berlin, Germany, July 4-9, 2015: Poster Sessions): P05-019, pp.214.
10. Vernardis S, Goudar CT, **Klapa MI*** 2010. Characterizing time-dependent changes in mammalian cell culture physiology through metabolite profiling. *ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY* 239 (239th National ACS meeting, San Francisco, CA, March 21-25, 2010):125-BIOT
11. Vernardis S, Chrysanthopoulos PK, Goudar CT, **Klapa MI***. 2009. Metabolomics as High-throughput Biomolecular Analysis Tool In Industrial Therapeutic Protein Production. *Clinical Chemistry and Laboratory Medicine* 47(Issue 9; 8th Panhellenic Clinical Chemistry Congress, Patras, Greece, October 2–4, 2009): A98-A99
12. Zanov K, Yotova L, **Klapa MI***. 2009. Optimization of a high-throughput methodology for tissue analysis of thyroid hormones and their metabolites using Liquid Chromatography -Mass Spectrometry. *Clinical Chemistry and Laboratory Medicine* 47 (Issue 9; 8th Panhellenic Clinical Chemistry Congress, Patras, Greece, October 2–4, 2009): A99
13. Myxaki A, Syriopoulos C, Lai K, **Klapa MI***. 2008. Transcriptomic analysis of *Saccharomyces cerevisiae* physiology in the context of galactose assimilation defects. *FEBS J.* 275 Issue S1 (Abstracts of the 33rd FEBS Congress and 11th IUBMB Conference: Oral Presentations): OP5E-1, pp.89-89
14. Constantinou C, Chrysanthopoulos P, Margarity M, **Klapa M***. 2008. Identifying the effects of adult-onset hypothyroidism on mouse cerebral cortex using quantitative gas chromatography-mass spectrometry metabolomics. *FEBS J.* 275 (Abstracts of the 33rd FEBS Congress and 11th IUBMB Conference: Poster Presentations): PP7A-16, pp.303-303
15. Bostantjopoulou S, Spathis AD, Luchini A, Dolcetti L, Chatzizisi O, Gerasimou G, Mandruzzato S, Bicciato S, **Klapa MI***, Margarity M*. 2006. *Movement Disorders* 21 (Suppl. 15; Tenth International Congress of Parkinson's Disease and Movement Disorders): P805, pp. S548-S548

16. **Klapa MI**, Aon JC, Stephanopoulos G. 2002. Quantifying the effect of different substrates on the *Corynebacterium glutamicum* physiology using flux analysis and mass spectrometry. *ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY* 224: U204-U204
17. **Klapa MI**, Stephanopoulos G. 2000. Observability and redundancy analysis of complex metabolic networks. *FASEB J.* 14 (Issue 8; ASBMB/ASPET Joint Satellite and Annual Meeting, Boston, MA, June 3-8, 2000): A1313-A1313.

Participation in Scientific Conferences

- List of co-authored studies presented to conferences/symposia after full paper or abstract submission review; invited lectures are included in previous section.

INTERNATIONAL CONFERENCES

1. Alexis Panagiotopoulos, George Mitsainas, **Maria I. Klapa**. 2021. Snake venom metabolomics: Comparative analysis between *Vipera ammodytes meridionalis* and *Malpolon insignitus fuscus* in the Peloponnese. 1st International Congress European Venom Network (EUVEN2021) 14-16 September 2021 (virtual)
2. Marilena D.A. Pantziri & **Maria I. Klapa**. 2021. Systemic Collection and Comparison of the Human Genome-Scale Metabolic Network Models. 7th Conference on Constraint-Based Reconstruction and Analysis (COBRA 2021), March 1-2 2021 (virtual)
3. Tooulakou G., Manolaki P., Byberg C.U., Eller F., Sorrell B.K., Riis T. and **Klapa M**. 2020. Integrated eco-physiological and metabolomic analyses of the amphibious plant *Butomus umbellatus* under light limitation and nutrient varying conditions. BBCC2020 (Bioinformatics and Computational Biology Conference - BBCC2020), Department of Agricultural Sciences, University of Naples "Federico II", Portici, Naples, Italy, November 16-18, 2020 (virtual)
4. M.K. Ioannidi, M. Margarity, and **M.I. Klapa**. Profiling the effect of Adult Onset Hypothyroidism (AOH) on the mouse heart in both sexes integrating untargeted GC- and LC-MS metabolomics, 15th International Conference of the Metabolomics Society, Hague, Netherlands, June 23-27 2019.
5. E. Lionaki, I. Gkikas, I. Daskalaki, M.K. Ioannidi, **M.I. Klapa**, N. Tavernarakis. Mitochondrial content determines lifespan through metabolic reprogramming 22nd International *C. elegans* Conference, Genetics Society of America (GSA), June 20-24 2019, Los Angeles, USA
6. Dimitrakopoulos, G. N., Gioutlakis, A., **Klapa, M. I.**, & Moschonas, N. K. 2019. Evaluating the expansion of the experimentally determined human protein interactome using the PICKLE meta-database European Human Genetics Conference, Gothenburg, Sweden, 15-18 June 2019.
7. Telonis AG, Gkourogianni A, Papassotiriou I, Konsta M, Papastamataki M, Margeli A, Bartzeliotou A, Mantzou E, Kosteria I, Mastorakos G, Loutradis D, Chrousos GP[*], **Klapa MI**[*], Kanaka-Gantenbein C[*]. 2018. High-Throughput Untargeted Plasma Metabolomics Unravels Gender Dimorphic Metabolic Trajectories in Naturally Conceived and ICSI Prepubertal Children. 57th Annual Meeting of the European Society for Pediatric Endocrinology (ESPE2018), Athens, Greece, September 27-19 2018.
8. Nicolaides NC, Ioannidi M-K, Koniari E., Sertedaki A., **Klapa MI**, Chrousos GP, Charmandari E. 2018. Untargeted Plasma Metabolomics in Subjects with Differences in Tissue Glucocorticoid Sensitivity Identifies a Novel Metabolic Signature. 57th Annual Meeting of the European Society for Pediatric Endocrinology (ESPE2018), Athens, Greece, September 27-19 2018.
9. Tsare E-P, Gioutlakis A., Klapa M. I., Moschonas N.K. 2018. Investigating the genetic architecture of hypertension through combined analysis of genome-wide association studies (GWAS) data and the human protein interaction network. European Human Genetics Conference in conjunction with the European Meeting on Psychosocial Aspects of Genetics,

Milan, Italy, June 16-19 2018.

10. Gioutlakis A., **M.I. Klapa**, N. K. Moschonas. 2018. PICKLE 2.0: A human protein-protein interaction meta-database employing data integration via genetic information ontology. ELIXIR 2018 All Hands Meeting Berlin, June 4-7 2018.
11. Maga-Nteve Ch. and **Klapa M.I.** 2018. M-IOLITE: An integrated software suite for streamlining GC-MS metabolomic data analysis. ELIXIR 2018 All Hands Meeting Berlin, June 4-7 2018.
12. Maria-Konstantina Ioannidi, M. Margarity and **M.I. Klapa**. 2018. Metabolic Profiling of the heart under Adult Onset Hypothyroidism (AOH) using a mouse model. 1st Olympiad in Cardiovascular Medicine, International Symposium on Experimental & Clinical Cardiovascular Medicine. Athens, May 17-19 2018.
13. Tooulakou G., Emmanouil M., Papadimitropoulos M.E., Haitas V., Kalaitzis P., **Klapa M.I.** 2017. A metabolomic study of the salinity effect on tomato (*Solanum lycopersicum*), Taiwan-Japan 2017 Plant Biology Conference, Taipei, November 3-6 2017.
14. Tooulakou G., Nikolopoulos D., Liakopoulos G., **Klapa M.I.**, Karabourniotis G. 2017. Calcium oxalate crystals in alarm photosynthesis, Taiwan-Japan 2017 Plant Biology Conference, Taipei, November 3-6 2017.
15. Papadimitropoulos M.E., Anastasopoulou S., Galliopoulou E., Manousopoulou A., Bicciato S., Garbis S., Sarafidou T., **Klapa M.I.**, Moschonas N.K. 2017. Integrated high-throughput biomolecular analyses of FRA10AC1 altered expression in a human cell model, European Society of Human Genetics Conference (ESHG2017), Copenhagen, Denmark, May 27-30 2017.
16. Siopi M., Malavaki C., Drainas V., Karakatsanis S., Roumpakis C., Eldik E., Kourantanis K., Sambatakou H., Sipsas N.V., Tsirigotis P., Pagoni M., **Klapa M**., Meletiadis J. 2017. Metabolic fingerprinting as a diagnostic tool for invasive aspergillosis: a pilot study, 27th European Congress of Clinical Microbiology and Infectious Diseases (ECCMID), Vienna, Austria, April 22-25 2017.
17. Chasapis C.T., Savvopoulou V., **Klapa M.I.** 2016. Construction of protein-protein interaction and metabolic networks of *Streptomyces lividans.* International Conference on Metabolic Science: Driving Bioindustry and Beyond, Shanghai, China, October 20-23 2016.
18. Magga-Nteve Ch. and **Klapa MI**. 2016. Streamlining GC-MS Metabolomic Analysis Using the M-IOLITE Software Suite. Proceedings of Foundations of Systems Biology in Engineering Conference 2016 (FOSBE2016), Magdeburg, Germany, October 9-12, 2016 (*full paper*)
19. Vasilopoulou CG, Margarity M, **Klapa MI**. 2016. Metabolomics and Network Biology: Sex Comparative Analysis of Mouse Brain Regional Metabolic Physiology. Proceedings of Foundations of Systems Biology in Engineering Conference 2016 (FOSBE2016), Magdeburg, Germany, October 9-12, 2016 (*full paper*)
20. Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2016. PICKLE (Protein InteraCtion KnowLedgebasE) 2.0: Knowledge-driven integration of human protein-protein interaction data via genetic information ontology. Joint International Conference of the Hellenic Crystallographic Association and the Hellenic Society for Computational Biology and Bioinformatics (HeCra – HSCBB16), Athens Greece, October 7-9 2016.
21. Papadimitropoulos M.-E., Tooulakou G., Yannakos I., Yannopoulos H., Haitas V., Katsoulas N., Kittas C., Kalaitzis P. and **Klapa M.I.** 2016. Metabolomics in Systems Agro-Biotechnology. Joint International Conference of the Hellenic Crystallographic Association and the Hellenic Society for Computational Biology and Bioinformatics (HeCra – HSCBB16), Athens Greece, October 7-9 2016.
    - received Best Poster Presentation Award
22. Vasilopoulou C.G., Margarity M., **Klapa M.I.** 2017. Metabolic network analysis of mammalian brain; a case study of adult onset hypothyroidism. Joint Conference of the Hellenic Crystallographic Association and the Hellenic Society for Computational Biology and

Bioinformatics (HECRA-HSCBB16), Agricultural University of Athens, Athens, Greece, October 7-9 2016.

23. Papadimitropoulos M.E., Tooulakou G., Giannakos I., Kittas C., Kalaitzis P. and **Klapa M.I.** 2016. Studying the effects of combined high salinity and elevated CO_2 on tomato development using GC-MS and LC-MS metabolomic analysis, 4th International Metabolomics Workshop, Thessaloniki, Greece, April 17-19 2016.
24. Tooulakou G., Maga-Nteve C., **Klapa M.I.** 2016. GC-MS metabolomics: Best Practice for data acquisition, normalization and analysis (educational presentation - mini course/seminar from graduates and postdocs, 4th International Metabolomics Workshop, Thessaloniki, Greece, April 17-19 2016.
25. Vasilopoulou C.G., Margarity M., **Klapa M.I.** 2016. Metabolomics in brain research; a case study of adult onset hypothyroidism reveals brain regional variation and sex differentiation. 4th International Metabolomics Workshop, Thessaloniki, Greece, April 17-19 2016.
26. Vasilopoulou C.G., Margarity M., **Klapa M.I.** 2015. Metabolomics in brain research; a case study of adult onset hypothyroidism reveals brain regional variation and sex differentiation, Federation of European Neuroscience Societies (FENS 2015): featured regional meeting, Thessaloniki, Greece, October 7-10 2015.
27. Vasilopoulou CG, Margarity M, **Klapa MI**. 2015.Investigating the metabolic profile of specific brain regions under adult onset hypothyroidism in a mouse model using GC-MS metabolomics, Foundations of Systems Biology in Engineering, Boston, USA, August 9-12, 2015 (*full paper*).
28. Maga-Nteve C., Klapa M. I. 2015. M-IOLITE: Metabolomic analysis software suit. Foundations of Systems Biology in Engineering, Boston, USA, August 9-12 2015 (*full paper*).
29. Galliopoulou E., Gioutlakis A., Mamuris Z., **Klapa M.I.**, Moschonas N.K., Sarafidou T. 2015. The human spliceosomal protein-protein interaction network. 40th FEBS Congress, Berlin, Germany, July 4-9 2015.
30. Galliopoulou E., Gioutlakis A., Mamuris Z., **Klapa M.I.**, Moschonas N.K., Sarafidou T. 2015. The protein-protein interaction network of the human spliceosome. European Conference of Human Genetics (ESHG), Glasgow, Scotland, UK, June 6 - 9 2015.
31. Ioannidi M-K, Vasilopoulou C.G., Diokmetzidou A., Capetanaki Y. and **Klapa M.I.** Metabolomic analysis of dilated cardiomyopathy in a mouse model. 1st International Conference on Research in Health Care, Athens, Greece, June 5-7 2015.
32. Vasilopoulou CG, Maga-Deve Ch, Constantinou C, Margarity M, **Klapa MI**. 2015. Metabolomic analysis of brain under adult onset hypothyroidism in a mouse model. 1st International Conference on Research in Health Care, Athens, Greece, June 5-7 2015.
33. Maga-Nteve C., **Klapa M.I.** 2015. M-IOLITE: Metabolomic analysis software suite, 1st International Conference on Research in Health Care, Athens, Greece, June 5-7 2015.
34. Aggelopoulos C., Gkelios A., Svarnas P., Kaltsonoudis C., **Klapa M**., Tsakiroglou C. 2015. Dielectric Barrier Discharge (DBD) Plasma for the Remediation of NAPL Contaminated Soils. 7th International Conference on Porous Media, Padova, Italy, May 18-21 2015.
35. Vasilopoulou C.G., Maga-Deve Ch.C., Constantinou C., Margarity M., **Klapa M.I.** 2014. Investigating brain regional variation under adult onset hypothyroidism (AOH) in a mouse model using GC-MS metabolomics. Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
    - received Best Oral Presentation Award
36. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2014. Integrating gene-disease associations in the human protein interactome. Metabolomics Series -GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.

37. Papadimitropoulos M.-E.P., Perrakis A., Yannakos I., Tooulakou G., Manioudiaki M., Bartzanas T., Katsoulas N., Kittas C., Kalaitzis P., **Klapa M.I.** 2014. Studying the effects of combined high salinity and elevated CO_2 on tomato development using metabolomic analysis. Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
38. Moschovi A.M., Dracopoulos V., Yannopoulos S.N., **Klapa M.I.** 2014. Can hydrogels contribute to metabolomics? Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
39. Maga-Deve Ch., **Klapa M.I.** 2014. M-IOLITE: An integrated suite for streamlining GC-MS metabolomic analysis. Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
40. Ioannidi M.-K., Vasilopoulou C.G., Diokmetzidou A., Loverdou N., Capetanaki Y., **Klapa M.I.** 2014. Metabolomic analysis of dilated cardiomyopathy in a mouse model. Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
    - received Best Poster Presentation Award
41. Kafkia E.C., Galliopoulou E., Sarafidou T., Moschonas N.K. and **Klapa M.I.** 2014. Optimized sample collection protocol for metabolomic analysis of an adherent *HeLa* cell culture. Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
42. Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2014. PICKLE: Design and Implementation of a Protein-Protein Interaction Meta-Database. Metabolomics Series -GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology, Patras, Greece, September 18-20 2014.
43. Galliopoulou E., Gioutlakis A., Mamuris Z., **Klapa M.I.**, Moschonas N.K., Sarafidou T. 2014. The protein-protein interaction network of the human spliceosome. Metabolomics Series-GR Workshop III: Metabolic and Protein Network Analysis in Systems Biology (MET-GR III), Patras, Greece, September 18-20 2014.
44. Vasilopoulou C.G., Maga-Deve Ch., Margarity M., **Klapa M.I.** 2014. A metabolomic study in a mouse model of adult onset hypothyroidism reveals significant differences among brain regions. 9th FENS Forum of Neuroscience, Milan, Italy, July 5-9 2014.
45. Vasilopoulou C., Magga-Nteve Ch., C. Constantinou, Margarity M., **Klapa M.I.** 2013. Metabolic profiling of brain regional variation under adult-onset hypothyroidism using a mouse model. 9th Annual Conference of the Metabolomics Society, Session: Metabolomic Profiling in Neuroscience, SECC, Glasgow, Scotland, July 1-4 2013.
46. Vernardis S., Goudar C.T., **Klapa M.I.** 2013.Metabolomics and Network Biology for sensitive monitoring of how growth environment changes affect the physiology of industrial-scale perfusion cultures, Computer Applications in Biotechnology (CAB2013), Mumbai, India, December 16-18 2013 (*full paper*).
47. Vernardis S., Goudar C.T., **Klapa M.I.** 2013. Metabolomics and Network Analysis for Sensitive Physiological Monitoring in Industrial Cell Culture Engineering. AIChE Annual Meeting, Session: Cell Culture III: Metabolic Flux Analysis and Modeling, San Francisco, CA, USA, November 3-8 2013.
48. Magga-Nteve Ch., Vasilopoulou C., Margarity M., **Klapa M.I.** 2013. Comparative Analysis of the Cerebellar Metabolic Physiology Between Sexes in a Mouse Model of Adult Onset Hypothyroidism Using GC-MS Metabolomics. AIChE Annual Meeting, Session: Paradigms in Systems Biology II, San Francisco, CA, USA, November 3-8 2013.
49. Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2013. PICKLE: Design and Implementation of a Meta-Database for the Human Protein Interactome. Genomic Medicine in the Mediterranean (GM2) Conference, Crete, Greece, October 2-5 2013.
    - received Best Poster Presentation Award

50. Gkourogianni A., Kosteria I., Telonis A., Mastorakos G., Papassotiriou G., Kanaka C., **Klapa MI**, Chroussos G. 2013. Indices of Insulin Resistance in Children Born after Intracytoplasmic Sperm Injection (ICSI): Biochemical and Metabolomics Analyses. The Endocrine Society's Annual Meeting and Expo (ENDO 2013), San Francisco, USA, June 15-17 2013.
    - selected for special media attention
51. Kafkia E.C., Galliopoulou E., Sarafidou T., Moschonas N.K., **Klapa M.I.** 2012. Investigating the effect of sample collection and washing on metabolomics analysis of a HeLa cell culture", Workshop on holistic analytical technologies for biomedical, food and plant sciences, Topic: Metabolomics/Metabonomics in Systems Biology, Athens, Greece, November 9-11 2012.
52. Vasilopoulou C.G., Maga-Nteve C.C., Constantinou C., Margarity M., **Klapa M.I.** 2012. Investigating the mammalian brain regional variation in both sexes using GC-MS metabolomics. Workshop on holistic analytical technologies for biomedical, food and plant sciences, Topic: Metabolomics/Metabonomics in Systems Biology, Athens, Greece, November 9-11 2012.
53. Vernardis S.I., Goudar C.T., **Klapa M.I.** 2012. Metabolomics as a sensitive molecular analysis too in industrial cell culture engineering. 7th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries (EMCC7), Corfu Greece, April 27-May 1 2012.
54. Maga-Nteve CC, Vasilopoulou CG, Constantinou C, Margarity M, **Klapa MI**. 2012. High-Throughput Analysis of Brain Metabolic Physiology under Adult Onset Hypothyroidism using a Mouse Model of the Disease. 7th Chemical Engineering Conference for Collaborative Research in Eastern Mediterranean Countries (EMCC7), Corfu Greece, April 27-May 1 2012.
    - received Best Poster Presentation Award
55. Tsafou K., Theodoridis E., Tsakalides A., **Klapa M.I.**, Moschonas N.K. 2011. Reconstruction of the human protein interactome from five literature-curated databases. 7th GRACM International Congress on Computational Mechanics, Athens, Greece, 30 June - 2 July 2011.
56. Magga-Nteve Ch., Constantinou C., Margarity M., **Klapa M.I.** 2011. Comparing the Metabolic Response of Male and Female Cerebellum to Prolonged Adult-Onset Hypothyroidism in a Mouse Model using Metabolic Profiling Analysis. 7th GRACM International Congress on Computational Mechanics, Athens, Greece, 30 June-2 July 2011.
57. S. Vernardis, P. Chrysanthopoulos, C.T. Goudar and **M.I. Klapa**. 2010. Metabolomics as a Molecular Analysis Tool in Cell Culture Engineering. Computer Applications in Biotechnology Conference (CAB) 2010, Leuven, Belgium, July 4-7 2010 (*full paper*).
58. S. Vernardis, C.T. Goudar and **M.I. Klapa**. 2010. Characterizing time-dependent changes in mammalian cell culture physiology through metabolite profiling. Spring 2010 National Meeting and Exposition of the American Chemical Society (ACS), San Francisco, CA, USA, March 21-25, 2010.
59. S. Vernardis, P. Chrysanthopoulos, C.T. Goudar and **M.I. Klapa**. 2009. Metabolomics in Industrial-Scale Cell Culture Engineering. 5th Meeting of the Spanish Network of Systems Biology: Fostering Systems and Synthetic Biology in Southern Europe, Madrid, Spain, December 13-15, 2009.
60. Tsafou K., Theodoridis E., Makris C., **Klapa M.I.**, Tsakalidis A. and Moschonas N.K. 2009. PICKLE_DB: Developing a knowledge base for the human protein interactome. 5th Meeting of the Spanish Network of Systems Biology: Fostering Systems and Synthetic Biology in Southern Europe, Madrid, Spain, December 13-15, 2009.
61. K. Spagou, **M.I. Klapa**, C. Constantinou, H. Gika, G. Theodoridis, H. Tsoukali, N. Raikos, I. Wilson. 2009. Gas Chromatography- Mass Spectrometry Metabolite Profiling of Plasma from Low and High Fat Diet Mice. 6th International Conference "Instrumental Methods of Analysis-IMA", Athens, Greece, October 4-8, 2009.
62. K. Spagou, **M.I. Klapa**, C. Constantinou, H. Gika, G. Theodoridis, H. Tsoukali, N. Raikos, I.

Wilson. 2009. Gas Chromatography- Mass Spectrometry Metabolite Profiling of Plasma from Low and High Fat Diet Mice. 18th International Reid Bioanalytical Forum, Guilford, UK, July 06-09, 2009.

63. P. K. Chrysanthopoulos, C.T. Goudar, **M. I. Klapa**. 2008. Metabolomics as Molecular Analysis Tool in Cell Culture Engineering. Metabolic Engineering Conference VII: Health and Sustainability, Puerto Vallarta, Mexico, September 14-19, 2008.
64. M. A. Kostourou, C.N. Flytzanis, G. Koumoundouros and **M. I. Klapa**. 2008. Metabolomic analysis of sex-specific pathways in adult zebrafish. Metabolic Engineering Conference VII: Health and Sustainability, Puerto Vallarta, Mexico, September 14-19, 2008.
65. Myxaki A., Syriopoulos C., Lai K., **Klapa M.I.** 2008. Transcriptomic analysis of Saccharomyces cerevisiae physiology in the context of galactose assimilation defects. 33rd FEBS Congress and 11th IUBMB Conference, Athens, Greece, June 28 - July3, 2008.
66. Constantinou C., Chrysanthopoulos P., Margarity M., **Klapa M**. 2008. Identifying the effects of adult-onset hypothyroidism on mouse cerebral cortex using quantitative gas chromatography-mass spectrometry metabolomics. 33rd FEBS Congress and 11th IUBMB Conference, Athens, Greece, June 28 - July3, 2008.
67. B. Dutta, H. Kanani, J. Quackenbush and **M.I. Klapa**. 2007. Comparison of Multiple Stress Responses of a Systematically Perturbed System in "Genomic Approaches to Systems Biology" session, AIChE Annual Meeting 2007, Salt Lake City, Utah, November 4-11, 2007
68. H. Kanani and **M. I. Klapa**. 2007. Time-Series Metabolomic Analysis for Identifying Metabolic Engineering Targets in Plant System in "Quantitative Metabolic Phenotyping in Plant and Animal Systems" session, AIChE Annual Meeting 2007, Salt Lake City, Utah, November 4-11, 2007
69. H. Kanani and **M.I. Klapa**. 2007. Identifying New Biochemical Pathways and Regulatory Elements using Time-Series Metabolomic Analysis in "Proteomics and Metabolomics Approaches to Systems Biology" session, AIChE Annual Meeting 2007, Salt Lake City, Utah, November 4-11, 2007
70. I.C. Tsantili, M.N. Karim, **M.I. Klapa**. 2007. Estimating the Metabolic Boundaries of Zymomonas mobilis using Linear Programming Analysis. "Foundations of Systems Biology in Engineering (FOSBE) 2007", Stuttgart, Germany, September 9-12, 2007 (*full paper*).
71. H. Kanani and **M.I. Klapa**. 2007. Integrated Time-Series Metabolomic and Transcriptional Profiling Analyses of Arabidopsis thaliana Response to Elevated CO2 and Osmotic Stress. Metabolomics Society 3rd Annual Conference, Manchester, UK, June 11-14, 2007
72. P. Chrysanthopoulos, C. Constantinou and **M.I. Klapa**. 2007. Metabolomic Analysis of Adult Hypothyroidism Effects On Different Brain Regions. Metabolomics Society 3rd Annual Conference, Manchester, UK, June 11-14, 2007
73. M. Kostourou, G. Koumoundouros, K. Flytzanis and **M.I. Klapa** (the study was presented by C. Constantinou). 2007. GC-MS metabolomic Analysis of adult male and female zebrafish for the study of sex-determination metabolic markers. Metabolomics Society 3rd Annual Conference, Manchester, UK, June 11-14, 2007
74. C. Syriopoulos, A. Panayotarou, B. Pesheva, P. Patiou, K. Lai and **M.I. Klapa** (the study was presented by C. Constantinou). 2007. Metabolomic Analysis of Galactose Assimilation Defects Using Yeast as the Model System. Metabolomics Society 3rd Annual Conference, Manchester, UK, June 11-14, 2007
75. Dutta B, Kanani H, Quackenbush J. and **Klapa MI**. 2006. Comparison of system response to individual and combined stresses using integrated OMICS approach. RECOMB Satellite Conference on Systems Biology, San Diego, CA, USA, December 1-3, 2006
76. Bhaskar Dutta, Harin H. Kanani, John Quackenbush, **Maria I. Klapa**. 2006. Integrated Time-Series Metabolomic and Transcriptional Profiling Analyses of Arabidopsis thaliana response to elevated CO2 and osmotic stress. AIChE Annual Meeting, San Francisco, CA, USA, November

12-17, 2006

77. I. Tsandili, M.N. Karim, **M.I. Klapa**. 2006. Quantifying the Metabolic Capabilities of Engineered Zymomonas Mobilis for Ethanol Production from Hexoses and Pentoses Using Linear Programming Analysis. AIChE Annual Meeting, San Francisco, CA, USA, November 12-17, 2006
78. Kanani H. and **M.I. Klapa**. 2006. Data Correction, Normalization and Validation for Enhanced Accuracy of GC-MS Metabolomic Analysis: Time Series Metabolomic Analysis of Arabidopsis thaliana Response to Elevated CO2 a Case Study. AIChE Annual Meeting, San Francisco, CA, USA, November 12-17, 2006
79. Dutta B., Snyder R. and **M.I. Klapa**. 2006. Significance Analysis of Time-Series High-Throughput Transcriptional Profiling Data: Applied to Arabidopsis Thaliana Liquid Cultures Subjected to Environmental Stresses. AIChE Annual Meeting, San Francisco, CA, USA, November 12-17, 2006
80. Kanani H and **Klapa MI**. 2006. Accurate Time-Series Metabolomic Analysis of a Systematically Perturbed Arabidopsis thaliana liquid culture system for Studying Regulation of Plant Primary Metabolism. AIChE Annual Meeting, San Francisco, CA, USA, November 12-17, 2006
    - received Best Poster Presentation Award
81. Bhaskar Dutta, Harin H. Kanani, John Quackenbush, **Maria I. Klapa**. 2006. Can We Predict Combined Stress Response from Individual Responses? AIChE Annual Meeting, San Francisco, CA, USA, November 12-17, 2006
82. Bostantjopoulou S., Spathis A.D., Luchini A., Dolcetti L., Chatzizisi O., Gerasimou G., Mandruzzato S., Bicciato S., **Klapa M.I.**, Margarity M.. 2006. 10th International Congress of Parkinson's Disease and Movement Disorders, Kyoto, Japan, October 28-November 2, 2006
83. Constantinou C., Chrysanthopoulos P., Margarity M. and **Klapa M.I.** 2006. Unraveling Adult Hypothyroid Mouse Brain using GC-MS Metabolomics, Short Call Presentation, Annual Meeting of the American Thyroid Association, Phoenix, AZ USA, October 10-14, 2006
84. **M.I. Klapa** and Kanani H. 2006. Data Correction, Normalization and Validation for Enhanced Accuracy of Metabolomic Analysis using Gas Chromatography-Mass Spectrometry. Metabolic Engineering VI: From recDNA towards Engineering Biological Systems, NH Leeuwenhorst, Noordwijkerhout, The Netherlands, October 1-5, 2006
85. Syriopoulos C., Panayotarou A., Lai K. and **Klapa M.I.** 2006. Metabolomic Analysis of Galactosemia using Yeast as the Model System. Metabolic Engineering VI: From recDNA towards Engineering Biological Systems, Noordwijkerhout, The Netherlands, October 1-5, 2006
86. Kanani H. and **M.I. Klapa**. 2006. Unraveling regulatory mechanisms governing the primary metabolism of Arabidopsis thaliana liquid culture system through time-series metabolomics analysis of its short-term response to systematic perturbations. Metabolic Engineering VI: From recDNA towards Engineering Biological Systems, Noordwijkerhout, The Netherlands, October 1-5, 2006
87. Dutta B., Snyder R. and **M.I. Klapa**. 2006. MiTimeS: A framework for time-series significance analysis of transcriptomic data. Metabolic Engineering VI: From recDNA towards Engineering Biological Systems Noordwijkerhout, The Netherlands, October 1-5, 2006.
88. Chrysanthopoulos P., Linardaki Z, Constantinou C., Margarity M and **Klapa M.I.** 2006. Metabolomics Analysis of Adult Mouse Hypothyroid Brain, FENS, Vienna, Austria, July 8-14,2006
89. Spathis A.D., Antonopoulos I., Panagopoulos N., Matsokis N., Angelatou F., Episkopou V., **Klapa M.I.** and Margarity M. 2006. Identification of Candidate Genes Involved in the Initiation of Nigrostriatal Degeneration in the Weaver Mouse using Full-Genome DNA Microarrays, FENS, Vienna, Austria, July 8-14,2006.
90. Kanani, H. and **Klapa, M.I**. 2006. Data Correction Strategy for Metabolomics Analysis using

Gas Chromatography-Mass Spectrometry, 2nd Scientific Meeting of the Metabolomics Society, Boston, MA USA, June 24-29, 2006.

91. Chrysanthopoulos P., Linardaki Z, Constantinou C., Margarity M and **Klapa M.I.** 2006. GC-MS Metabolomics and Brain Regional Variation, 2nd Scientific Meeting of the Metabolomics Society, Boston, MA USA, June 24-29, 2006
92. Chrysanthopoulos P., Linardaki Z, Constantinou C., Margarity M and **Klapa M.I.** 2006. Cerebral Cortex vs. Cerebellum: Metabolomic Profiling Analysis of Brain Tissue, 1st International Symposium on Systems Biology, Murcia, Spain, June 1-2, 2006
93. B. Dutta, H.H. Kanani, J. Quackenbush, **M.I. Klapa**. 2006. Integrated Time-Series Metabolomic and Transcriptional Profiling Analyses of Arabidopsis thaliana response to Elevated CO2 and Osmotic Stress, 4th International Conference on Plant Metabolomics, Reading, UK, April 7-10, 2006
94. Kanani, H. and **Klapa, M.I**. 2006. Data Correction Strategy for Metabolomics Analysis using Gas Chromatography-Mass Spectrometry 4th International Conference on Plant Metabolomics, Reading, UK, April 7-10, 2006.
    - among few submitted contributions selected for oral presentation
95. Bhaskar Dutta, Harin Kanani, John Quackenbush and **Maria I Klapa**. 2006. High-Throughput Time-Series Transcriptional Profiling Analysis of a Biological System Subjected to Multiple Perturbations: a Case Study in Systems Biology. Sackler Colloquia of National Academy of Sciences, Washington DC, April 3-5, 2006.
96. B. Dutta, R.W. Snyder and **M.I. Klapa**. 2006. Significance Analysis Of Time-Series High-throughput Transcriptional Profiling Data: Applied to Arabidopsis thaliana Liquid Cultures Subjected to Environmental Stresses, XIV Plant and Animal Genome Conference, San Diego, CA, USA, January 14-18, 2006 .
97. B. Dutta, H.H. Kanani, J. Quackenbush, **M.I. Klapa**. 2005. Dynamic Transcriptional Profiling Analysis of Arabidopsis Thaliana under CO2 and NaCl Stress, Annual Meeting of the American Institute of Chemical Engineers (AIChE), Cincinnati, OH, USA, October 30 -November 4, 2005.
98. H.H. Kanani, B. Dutta, J. Quackenbush, **M.I. Klapa**. 2005. High-Throughput Time-Series Metabolomic Analysis to Identify Regulation of *Arabidopsis thaliana* Response to Elevated CO2 by Sugar Signaling, Annual Meeting of the American Institute of Chemical Engineers (AIChE), Cincinnati, OH, USA, October 30-November 4, 2005
99. Kanani, H., Dutta, B., Vantoai, T., Moy, L., Linford, L., Hasseman, J., Quackenbush, J. and **Klapa, M.I**. 2005. Time-series integrated high-throughput genomic and metabolomic time-course analysis of a systematically perturbed plant system. 7th World Congress in Chemical Engineering, Glasgow, UK, July 10-14, 2005
100. Kanani, H. and **Klapa, M.I**. 2005. Data Correction Strategy for Metabolomics Analysis using Gas Chromatography-Mass Spectrometry. Plant Metabolic Engineering Gordon Research Conference, Tilton, NH, USA, July 10-14, 2005
101. Kanani, H., Dutta, B., Vantoai, T., Moy, L., Linford, L., Hasseman, J., Quackenbush, J. and **Klapa, M.I**. 2005. Integrated high-throughput genomic and metabolomic time-course analysis of a systematically perturbed plant system. Arabidopsis Mini Symposium, College Park, MD, March 2005
102. Kanani, H., Dutta, B., Vantoai, T., Moy, L., Linford, L., Hasseman, J., Quackenbush, J. and **Klapa, M.I**. 2005. Integrated high-throughput genomic and metabolomic time-course analysis of a systematically perturbed plant system. Mid-Atlantic Biochemical Engineering Consortium, Rutgers, NJ, March 2005
103. Dutta B., Kanani H., Vantoai T., Linford L., Moy L., Hasseman J., Quackenbush J. and **Klapa M.I.** 2004. Holistic Analysis of systematically perturbed Arabidopsis thaliana physiology: A Quantitative Systems Biotechnology Approach in Session [428] - Systems Engineering Approaches in Biology II, Annual Meeting of the American Institute of Chemical Engineers

(AIChE), Austin, TX, November 7-12, 2004

104. **Klapa M.I.** and Lai K. 2004. Alternative pathways of galactose assimilation: Could Inverse Metabolic Engineering provide an alternative to galactosemic patients? Session [490] - Systems Biology "Omics" Technology Application I, Annual Meeting of the American Institute of Chemical Engineers (AIChE), Austin, TX, November 7-12, 2004
105. Kanani, H., Dutta, B., Vantoai, T., Moy, L., Linford, L., Hasseman, J., Quackenbush, J. and **Klapa, M.I**. 2004. Integrated high-throughput genomic and metabolomic time-course analysis of a systematically perturbed plant system. Maryland Technology Review Day, College Park, MD, November 2004
106. **Klapa, M.I**., Dutta B., Kanani H., Vantoai T., Linford L., Moy L., Hasseman J., and John Quackenbush. 2004. High-throughput time-series analysis of the short-term Arabidopsis thaliana response to environmental stresses: a quantitative systems biology approach, Metabolic Engineering Conference V, Squaw Creek Valley, CA, USA, September 2004
107. Kanani H., Dutta B., Vantoai T., Linford L., Moy L., Hasseman J., Quackenbush J. & **Klapa M.I.** 2004. Metabolic Profiling Analysis of the short- term Arabidopsis thaliana response to environmental stresses, 3rd International Congress on Plant Metabolomics, Iowa State University, Ames, Iowa, June 3-6, 2004.
108. **Klapa, M.I.** , Dutta B., Kanani H., Vantoai T., Linford L., Moy L., Hasseman J., and John Quackenbush. 2003. Integrated Genomic and Metabolic Analyses of Arabidopsis thaliana Physiology. Annual Meeting of the American Institute of Chemical Engineers (AIChE), San Francisco, CA, November 17-21, 2003.
109. Dutta B, Kanani H., Vantoai T., Linford L., Moy L., Hasseman J., John Quackenbush and **Klapa M.I.** 2003. Transcriptional profiling of the short-term *Arabidopsis thaliana* response to increased CO2 levels using full genome DNA microarrays Mid-Atlantic Plant Molecular Biology Society, Laurel, MD, USA, August 7-8, 2003.
110. Kanani H., Dutta B., Vantoai T., Linford L., Moy L., Hasseman J., John Quackenbush and **Klapa M.I.** 2003. Metabolic profiling of the short-term *Arabidopsis thaliana* response to increased CO2 levels using Gas Chromatography-Mass Spectrometry, Mid-Atlantic Plant Molecular Biology Society, Laurel, MD, USA, August 7-8, 2003
111. **Klapa M** , Kanani H, Dutta B, Sushak K, Vantoai T., Linford L., Moy L., Hasseman J., and John Quackenbush. 2003. Integrated genomic and metabolic analyses of *Arabidopsis thaliana*, Mid-Atlantic Biochemical Engineering Consortium, College Park, MD, USA, March 15, 2003
112. **Maria I. Klapa**, J.C. Aon, Gregory Stephanopoulos. 2002. Elucidation of the Corynebacterium glutamicum physiology using stable isotopes and mass isotopomer measurements of biomass hydrolysates, Metabolic Engineering Conference IV, Tuscany, Italy, October, 2002
113. **M.I. Klapa**, J.C. Aon and Gregory Stephanopoulos. 2002. Quantifying the effect of different carbon sources on the Corynebacterium glutamicum physiology using flux analysis and mass spectrometry, 2002 ACS Annual Meeting, Session: Bioinformatics, Genomics and Proteomics, Boston, MA, August 18-25, 2002
114. **M.I. Klapa**, J.C. Aon and Gregory Stephanopoulos. 2001. Measurement of Mass Isotopomer Fractions by Gas Chromatography- Mass Spectrometry for High Resolution Metabolic Flux Quantification, AIChE Annual Meeting, Session: Advances in Metabolic Engineering: From Genomics to Pathways, Reno, NV, November 4-9, 2001
115. **M.I. Klapa**, J.C. Aon and Gregory Stephanopoulos. 2000. Quantification of *Corynebacterium glutamicum* metabolic flux network using stable isotopes and Mass Spectrometry, AIChE Annual Meeting, Session: Advances in Bioinformatics, Los Angeles, CA, November 12-17, 2000
    - associated with Graduate Student Travel Grant, Topical Conference in Bioinformatics and Genomics
116. **M.I. Klapa** and Gregory Stephanopoulos. 2000. Observability and Redundancy Classification in Complex Metabolic Networks, ASBMB/ASPET joint Satellite and Annual Meeting, Session:

Modeling of Cellular Networks, Boston, MA, June 3-8, 2000

117. Eduardo Agosin, **Maria I. Klapa**, Cristian Varela and Gregory Stephanopoulos. 1999. Metabolic Flux Redistribution in Response to Osmotic Stress in Corynebacterium glutamicum, IXth International conference on bacteriology and Applied Microbiology, IUMS, Sydney, Australia, August 16-20, 1999
118. **M.I. Klapa**, S.K. Rijhwani and Gregory Stephanopoulos. 1998. Design of Isotopic-Tracer Experiments for Flux Quantification, AIChE Annual Meeting, Session: Advances in Metabolic Engineering, Miami, Florida, November 15-20, 1998
119. Eduardo Agosin, **Maria I. Klapa** and Gregory Stephanopoulos. 1998. Metabolic Flux Redistribution in Response to Osmotic Stress in Corynebacterium glutamicum, Metabolic Engineering Conference, Elmau, Germany, October 25-30, 1998
120. **M.I. Klapa** and Gregory Stephanopoulos. 1998. Design of Isotopic-Tracer Experiments for Flux Quantification, Metabolic Engineering Conference, Elmau, Germany, October 25-30, 1998
121. **Klapa, M.I**., Papathanasiou, A.G., Boudouvis, A.G 1998. Equilibrium of Rotating Ferromagnetic Liquid Drops. 4th ECCOMAS Computational Fluid Dynamics Conference, Athens, Greece, September 1998.
122. **M.I. Klapa** and A.G. Boudouvis. 1995. Free Boundary Problem Computations in Capillary Magnetohydrostatics, Workshop on Numerical and Computational Methods for Free Boundary Problems, Freiburg, Germany, September 4-5, 1995 (full paper).

NATIONAL CONFERENCES – INSTITUTIONAL SYMPOSIA

1. Tooulakou G., Manolaki P., Byberg C.U., Eller F., Sorrell B.K., Riis T and **Klapa MI**. 2021. Integrated eco-physiological and metabolomic analysis of the amphibious plant *Butomus umbellatus* under light limitation and nutrient varying conditions. 17th Panhellenic Scientific Conference "HELECOS-10 – Ecology and Natural Conservation: Progress and Challenges in an Era of Crisis", October 14-17 2021 (virtual)
2. Georgios Dimitrakopoulos, **Maria I. Klapa** and Nicholas Moschonas. 2021. PICKLE 3.0: Integrating the mouse protein interactome in the meta-database by extending the genetic information ontology network. 15th Conference of the Hellenic Society for Computational Biology and Bioinformatics HSCBB21, 10-11 December 2021 (virtual)
3. Dimitrakopoulos GN, **Klapa MI** and Moschonas NK. 2020. Enriching PICKLE meta-database with the mouse protein interactome. 2020 All Hands Meeting, ELIXIR-GR, September 22 2020 (virtual)
4. M.K. Ioannidi, M. Margarity, and **M.I Klapa**. 2019. Sex-comparative metabolic profiling of the Adult Onset Hypothyroidism (AOH) effect on the mouse heart. 14th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB19), Patras, Dec. 8-10, 2019
    - received Best Poster Presentation Award
5. Evridiki-Pandora Tsare, **Maria I. Klapa**, Nicholas K. Moschonas. 2019. Interpreting hypertension GWAS associated data via protein network analysis 14th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB19), Patras, Dec. 8-10, 2019
    - received Best Poster Presentation Award
6. V. Savvopoulou, C.T. Chasapis, A. Vlamis & **M.I. Klapa**. 2019. *Moorella thermoacetica*'s PPI network: Creating a useful tool for the non-photosynthetic CO2 bioconversion into high-value chemicals. 5th Workshop of Graduates and Post Docs in Chemical Engineering Sciences (CES-WGP5), November 6, 2019, FORTH/ICE-HT, Patras, Greece
7. Tooulakou G, Papadimitropoulos M.-E., **Klapa M.I**. 2019. Metabolomic Analysis of the Salinity Effect on Tomato (*Solanum lycopersicum*). 29th Scientific Conference of Hellenic Society of Horticular Science, October 15-18, Patras, Greece
8. C.T. Chasapis, V. Savvopoulou **& M.I. Klapa**. 2019. *In silico* reconstruction of protein-protein

interaction networks of bacteria, used in synthetic biology applications. 12th Scientific FORTH Retreat, FORTH/ICE-HT, Patras, October 14-16 2019.

9. M.K. Ioannidi, M. Margarity, and **M.I Klapa**. 2019. Profiling the effect of Adult Onset Hypothyroidism (AOH) on the mouse heart in both sexes integrating untargeted GC- and LC-MS metabolomics. 12th Scientific FORTH Retreat, FORTH/ICE-HT, Patras, October 14-16 2019
10. Dimitrakopoulos, G. N., Gioutlakis, A., **Klapa, M. I**., & Moschonas, N. K. 2019. Evaluating the expansion of the experimentally determined human protein interactome using the PICKLE meta-database. 12th Scientific FORTH Retreat, FORTH/ICE-HT, Patras, October 14-16 2019
11. Tooulakou G., Papadimitropoulos M.E, Pappas I., **Klapa, M. I**. 2019. Methodology for quality validation of the plant culture & final product using metabolomics and systems biology. 12th Scientific FORTH Retreat, FORTH/ICE-HT, Patras, October 14-16 2019
12. Evridiki-Pandora Tsare, **Maria I. Klapa**, Nicholas K. Moschonas. 2019. Investigating the genetic architecture of hypertension through the integrated analysis GWAS the human protein interaction network. 12th Scientific FORTH Retreat, FORTH/ICE-HT, Patras, October 14-16 2019
13. Dimitrakopoulos, G. N., Gioutlakis, A*.,* **Klapa, M. I.,** & Moschonas, N. K. 2019. Evaluating the expansion of the experimentally determined human protein interactome using the PICKLE meta-database 12th Panhellenic Scientific Conference in Chemical Engineering, May 29-31 2019, Athens, Greece
14. C.T. Chasapis, V. Savvopoulou & **M.I. Klapa**. 2019. *In silico* reconstruction of protein-protein interaction networks of bacteria, used in synthetic biology applications. 12th Panhellenic Scientific Conference in Chemical Engineering, May 29-31 2019, Athens, Greece.
15. Chasapis C, Rückert C., Busche T., Kalinowski J., Economou A., **Klapa M.I.** 2019. The *in silico* reconstructed protein - protein interaction network *of Streptomyces lividans*. 8th Conference of the Hellenic Scientific Society of MIKROBIOKOSMOS, April 18-20, 2019, Patras, Greece.
16. Savvopoulou V, Chasapis C, Vlamis A & **Klapa MI**. 2019. *In silico* reconstruction of the protein-protein interaction network of *Moorella thermoacetica*, used for the non-photosynthetic CO2 bioconversion into useful chemicals. 8th Conference of the Hellenic Scientific Society of MIKROBIOKOSMOS, April 18-20, 2019, Patras, Greece.
    - received Best Poster Presentation Award
17. Tsare E.-P., **Klapa M.I.**, Moschonas N. K. 2018. Investigating the genetic predisposition for hypertension through the analysis of a systematically curated GWAS dataset (1300 genetic loci/56 studies/>1.5 million individuals) in the context of the human protein interaction network. 3rd Conference of the Society of Medical Geneticists of Greece, Athens Nov 2-4 2018.
    - received Best Oral Presentation Award
18. Ivantsik U. R., **Klapa M.I.** & Moschonas N.K. 2018. Development and analysis of *HeLa* cell clones stably overexpressing FRA10AC1, a protein component of the human spliceosome. 4th Workshop of Graduates and Post-Docs in Chemical Engineering Sciences (CES-WGP4), Patras, October 31 2018.
19. Savvopoulou V., Chasapis Ch., Vlamis A. and **Klapa M.I.** 2018. *In silico* reconstruction of the protein-protein interaction network of *Moorella thermoacetica*, used for the non-photosynthetic CO_2 bioconversion into useful chemicals. 4th Workshop of Graduates and Post-Docs in Chemical Engineering Sciences (CES-WGP4), Patras, October 31 2018.
20. Tsare E.-P., Gioutlakis A., Karafoulidou, **Klapa M.I.**, Moschonas N. K. 2018. Elucidating the genetic architecture of diseases by integrated analysis of GWAS data in the context of the human protein interactome. Symposium in Clinical Genetics and Genomics. 18th Educational Seminar in Genetics, Hellenic Society of Medical Genetics, Athens June 1-2, 2018.
21. Malavaki C.J., Brann E., Henriksson H., Drainas V., Skalkidou A., **Klapa M.** 2017. Searching for biomarkers of perinatal depression based on a metabolomics approach. 68th Congress of

the Hellenic Society of Biochemistry and Molecular Biology (68th HSBMB Conference), Athens, November 10-12 2017.

22. Siopi M., Malavaki C., Drainas V., Karakatsanis S., Roumpakis C., Eldik E., Kourantanis K., Sambatakou H., Sipsas N.V., Tsirigotis P., Pagoni M., **Klapa M.**, Meletiadis J. 2017. Metabolic fingerprinting as a diagnostic tool for invasive aspergillosis: a pilot study. 7th Conference of the Hellenic Society of Medical Mycology, Athens, Greece, November 3-5 2017.
    - received Best Oral Presentation Award
23. E-P. Tsare, A. Gioutlakis, **M.I. Klapa**, N. K. Moschonas. 2017. Investigating the genetic architecture of hypertension through integrated analysis of GWAS and the human protein interaction network. 18th Conference of Medical Chemistry, Patras, October 30-31 2017.
24. Kaltsi C., Papadimitropoulos M.-E., Tselios T., **Klapa M.I.** 2017. Using tandem mass spectrometry for metabolite identification in untargeted liquid chromatography-mass spectrometry metabolomics, 18th Conference of Medical Chemistry, Patras, October 30-31 2017.
25. **Klapa MI**. 2017. Metabolic & Protein Networks in Systems Biology. 11th FORTH Retreat, Heraklion, October 13-14 2017.
26. E-P. Tsare, A. Gioutlakis, **M.I. Klapa**, N. K. Moschonas. 2017. Investigating the genetic architecture of hypertension through integrated analysis of GWAS and the human protein interaction network, 11th FORTH Retreat, Heraklion Greece 13-14 October 2017.
27. Maria-Konstantina Ioannidi, C.G. Vasilopoulou, C. Maga-Nteve, M. Margarity, and **M.I Klapa**. 2017. Metabolomics in Systems Biology: Integrated analysis of Brain and Peripheral Tissues in an Adult-Onset Hypothyroidism (AOH) Mouse Model. 11th FORTH Retreat, Heraklion, Crete, October 13-14 2017.
28. M.E. Papadimitropoulos, S. Anastasopoulou, E. Galliopoulou, A. Manousopoulou, S. Bicciato, S. Garbis, T. Sarafidou, **M.I. Klapa**, and N. K. Moschonas. 2017. Integrated high-throughput biomolecular analyses in a human cell model of *FRA10AC1* altered expression, a gene involved in pre-mRNA processing. 11th FORTH Retreat, Heraklion, Greece, 13-14 October 2017.
29. Chasapis Ch. and **Klapa MI**. 2017. In-silico reconstruction of bacterial protein - protein interaction networks. 11th FORTH Retreat, Heraklion, Greece, 13-14 October 2017.
30. E-P. Tsare, A. Gioutlakis, **M. I. Klapa**, N. K. Moschonas. 2017. Investigating the genetic architecture of hypertension through integrated analysis of GWAS and the human protein interaction network. 13th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB17), Athens, Greece, October 11-13 2017.
31. Maria-Konstantina Ioannidi, M. Margarity and **M.I Klapa**. 2017. Metabolomics in Systems Physiology: Studying the effect of adult-onset-hypothyroidism (AOH) on heart primary metabolism in a mouse model. 13th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB17), Athens, Greece, October 11-13 2017.
32. Paparrodopoulos S., **Klapa M.I.** 2017. Development of standardized meta-analysis methods for omic data integration. 13th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB17), Athens, Greece, October 11-13 2017.
33. E-P. Tsare, A. Gioutlakis, **M.I. Klapa**, N. K. Moschonas. 2017. Investigating the genetic architecture of hypertension through integrated analysis of GWAS and the human protein interaction network. 3rd Workshop of Graduates and Post-Docs in Chemical Engineering Sciences, FORTH/ICE-HT, Patras, Greece, October 4 2017.
34. Maria-Konstantina Ioannidi, M. Margarity and **M.I Klapa**. 2017. Metabolomics in Systems Physiology: Studying the effect of adult-onset-hypothyroidism (AOH) on heart primary metabolism in a mouse model . 3rd Workshop of Graduates and Post-Docs in Chemical Engineering Sciences, FORTH/ICE-HT, Patras, Greece, October 4 2017.
35. Chasapis Ch and **Klapa MI**. 2017. In-silico reconstruction of bacterial protein - protein interaction networks. 3rd Workshop of Graduates and Post-Docs in Chemical Engineering

Sciences, FORTH/ICE-HT, Patras, Greece, October 4 2017.

36. Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2017. PICKLE v2.0: A human protein-protein interaction metadatabase employing data integration via genetic information ontology. 11th Panhellenic Scientific Conference in Chemical Engineering, Thessaloniki, Greece, May 25-27 2017.
37. Chasapis C.T., Savvopoulou V., **Klapa M.I.** 2017. Reconstructing the protein-protein interaction and metabolic networks of *Streptomyces lividans*. 11th Panhellenic Scientific Conference in Chemical Engineering, Thessaloniki , Greece, May 25-27 2017.
38. Maria-Konstantina Ioannidi, M. Margarity and **M.I Klapa**. 2017. Mass-Spectometry metabolomic analysis of the heart tissue in a mouse model under the effect of adult-onset-hypothyroidism (AOH). 12th Workshop of Graduate Students, Department of Biology, University of Patras, May 11 2017.
39. E-P. Tsare, A. Gioutlakis, **M.I. Klapa**, N. K. Moschonas. 2017. Investigating the genetic architecture of hypertension through integrated analysis of GWAS and the human protein interaction network. 43rd Panhellenic Medical Conference, Athens, May 10-13 2017.
40. **Klapa M.I.**, Papadimitropoulos M.-E., Galliopoulou E., Anastasopoulou S., Vasilopoulou C., Manousopoulou A., Bicciato S., Garbis S., Sarafidou T., Moschonas N. 2016. Integrated high-throughput biomolecular analyses of *FRA10AC1* altered expression in a human cell model, 67th Annual Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB), University of Ioannina, Greece, November 25-27 2016.
41. Malavaki C.J., Drainas V., Siopi M., Meletiadis J., **Klapa M.I.** 2016. Blood plasma metabolomics in patients with aspergillosis, 67th Annual Conference of the Hellenic Society for Biochemistry and Molecular Biology (HSBMB), University of Ioannina, Greece, November 25-27 2016.
42. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2016. Investigating the genetic disease architecture through the protein interactome. 2nd Conference of the Society of Medical Geneticists of Greece, Athens, November 4-6, 2016.
43. Papadimitropoulos M.-E., Tooulakou G., Yannakos I., Yannopoulos H., Haitas V., Katsoulas N., Kittas C., Kalaitzis P. and **Klapa M.I.** 2016. Metabolomics in Systems Agro-Biotechnology. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.
44. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2016. Investigating the genetic disease architecture through the protein interactome. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.
45. Maga-Nteve Ch. and **Klapa M.I.** 2016. Streamlining GC-MS metabolomic analysis using the M-IOLITE software suite. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.
46. Malavaki C., Drainas V., Siopi M., Meletiadis J. and **Klapa MI**. 2016. Searching for early diagnosis biomarkers of aspergillosis using blood plasma metabolomics. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.
    - received Best Poster Award
47. Galliopoulou E., Gioutlakis A., Mamuris Z., **Klapa MI**, Moschonas NK, Sarafidou T. 2016. The human spliceosomal protein-protein interaction network. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.
48. **Klapa MI**, Papadimitropoulos M.-E., Galliopoulou E., Anastasopoulou S., Vasilopoulou C., Manousopoulou A., Bicciato S., Garbis S., Sarafidou T. and Moschonas N. 2016. Integrated omic analysis of altered *FRA10AC1* expression in *HeLa* cells. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.
49. Chasapis Ch., Savvopoulou V. and **Klapa M.** 2016. Reconstruction of Protein-Protein

Interaction & Metabolic Networks of *Streptomyces lividans*. 2nd Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, September 21 2016.

50. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2016. Investigating genetic disease architecture through the human protein interactome, 17th Medicinal Chemistry Conference, Spetses, Greece, August 29-31 2016.
51. Marra M.-S., Vasilopoulou C. and **Klapa M.I.** 2016. Metabolomics in Systems Medicine & Applications. 22nd Panhellenic Scientific Conference of Medical Students, Patras, Greece, May 13-15 2016 *(full paper)*.
    - received Best e-Poster Award; first ever to biology (non-medical school) students
52. Papadimitropoulos M.-E., Tooulakou G., Giannakos E., Bartzanas T., Katsoulas N., Kittas K., Kalaitzis P., **Klapa M.I.** 2016. Metabolomics in Systems Agrobiotechnology: Studying the integrated effect of salinity stress and elevated CO_2 in the growth environment of tomato plant cultures. 11th Graduate Students' Workshop of U. of Patras Biology Dept. April 7 2016.
53. Papadimitropoulos M.-E., Tooulakou G., Giannakos I., Bartzanas T., Katsoulas N., Kittas C., Kalaitzis P., **Klapa M.I.** 2015. Metabolomics in systems agro-biotechnology: studying the combined effect of high salinity and elevated CO_2 in the growth environment of tomato plants, 66th Panhellenic Conference of Hellenic Society of Biochemistry and Molecular Biology, Athens, Greece, 11-13 December 2015.
54. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2015. Investigation genetic disease architecture in the context of the human protein interactome, The 10th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB15), Athens, Greece, October 9-11 2015.
    - received Best Oral Presentation Award
55. Ioannidi M-K, Vasilopoulou C.G., Diokmetzidou A., Capetanaki Y., **Klapa M.I.** 2015. Metabolomic in systems biology: dilated cardiomyopathy (DCM) mouse study. The 10th Conference of the Hellenic Society for Computational Biology & Bioinformatics (HSCBB15), Athens, Greece, October 9-11 2015.
56. Tooulakou G., Papadimitropoulos M.E., Yannopoulos C., Haitas V., Klaitzis P., **Klapa M.** 2015. Metabolomic analysis of the salinity effect on tomato plants (*Solanum lycopersicum*), 14th Panhellenic Conference of Greek Botanic Society, Patras, Greece, October 8-11 2015.
57. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2015. The architecture of diseases in the context of the human protein- protein interactions network (interactome). 41st Panhellenic Medical Conference, Athens, Greece, June 10-13 2015.
    - received Distinction of Basic Research
58. Ioannidi M-K, Vasilopoulou C.G., Diokmetzidou A., Capetanaki Y., **Klapa M.I.** 2015. Metabolomic in systems biology: dilated cardiomyopathy (DCM) mouse study. 1st Panhellenic Medical Conference, Athens, Greece, June 10-13 2015.
59. Vasilopoulou A., Maga-Nteve C., Margarity M., **Klapa M.**, Constantinou K. 2015. Investigating brain regional variation under adult onset hypothyroidism in a mouse model using GC-MS metabolomics, 10th Panhellenic Scientific Conference in Chemical Engineering, Patras, Greece, June 4-6 2015.
60. Moschovi A.M., Yannopoulos S.N., Drakopoulos V., **Klapa M.** 2015. Investigation of the contribution of molecular imprinted hydrogels in the metabolomic analysis of biological systems, 10th Panhellenic Scientific Conference in Chemical Engineering, Patras, Greece, June 4-6 2015.
61. Maga-Nteve C., **Klapa M.** 2015. M-IOLITE: An integrated suite for the streamlining of metabolomic analysis. 10th Panhellenic Scientific Conference in Chemical Engineering, Patras, Greece, June 4-6 2015.
62. Aggelopoulos C., Gelios A., Svarnas P., Kaltsonoudis C., **Klapa M.**, Tsakiroglou C. 2015.

Atmospheric pressure dielectric barrier discharge (DBD) in a plane-to Grid reactor for the remediation of NAPL-Contaminated soils, 10th Panhellenic Scientific Conference in Chemical Engineering, Patras, Greece, June 4-6 2015.

63. Maga-Nteve Ch., **Klapa M.** 2015. M-IOLITE: An integrated suite for the streamlining of the metabolomic analysis. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
64. Vasilopoulou C.G., Maga-Nteve Ch., Margarity M. and **Klapa M.I.** 2015. Investigating brain regional variation under adult onset hypothyroidism in a mouse model using metabolomics. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
65. Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2015. PICKLE: A knowledge-driven approach to integrating human protein-protein interaction data via genetic information ontology. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
    - received Best Oral Presentation Award
66. Tooulakou G., Papadimitropoulos M.-E., Kalaitzis P., Karabourniotis G., **Klapa M.** 2015. Studying the effect of stress in the growth environment of plants using metabolomics: carbon starvation and salinity stress. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
67. Aggelopoulos C.A., Gkelios A., Svarnas P., Kaltsonoudis C., **Klapa M.**, Tsakiroglou C.D. 2015. Dielectric barrier discharge (DBD) plasma for the remediation of NAPL-contaminated soils. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
68. Moschovi A.M., Yannopoulos S.N., Drakopoulos V., **Klapa M.** 2015. Can hydrogels contribute to metabolomics? 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
69. Ioannidi M.-K. and **Klapa M.** Metabolomic analysis of dilated cardiomyopathy in a mouse model 2015. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
70. Papadimitropoulos M.-E., Tooulakou G., Giannakos I., Kittas C., Kalaitzis P., **Klapa M.** 2015. Studying the effects of combined high salinity and elevated CO_2 on tomato development using GC-MS and LC-MS metabolomic analysis. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
71. Tsare E.-P., Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2015. Investigating genetic disease architecture through the human protein interactome. 1st Workshop of Graduates and PostDocs in Chemical Engineering Sciences, Patras, Greece, May 27 2015.
72. Vasilopoulou C.G., **Klapa M.I.** 2015. Metabolomics in brain research, 9th Panhellenic Interdisciplinary Conference on Alzheimer's Disease and Related Disorders, Thessaloniki, Greece, May 14-17 2015 *(full paper).*
73. Gioutlakis A., **Klapa M.I.**, Moschonas N.K. 2014. Knowledge-driven integration of human protein-protein interaction data via genetic information ontology, 9th Panhellenic Conference of the Hellenic Society of Computational Biology and Bioinformatics (HSCBB14), Athens, Greece, October 10-12 2014.
74. Vernardis S.I., Goudar C.T., **Klapa M.I.** 2013. Metabolomics in cell culture engineering: investigating the effect of varying growth conditions on the metabolomics physiology of perfusion cultures, 9th Panhellenic Scientific Conference in Chemical Engineering, Athens, Greece, May 23-25 2013.
75. Galliopoulou E., Mamouris Z., **Klapa M.I.**, Moschonas N.K., Sarafidou T. 2013. Protein Interaction Network of the Human Spliceosome, 1st Meeting of the Society of Greek Medical Geneticists of Greece, May 30-31 and June 1 2013.

76. Vasilopoulou C.G., Maga-Nteve C.C., Constantinou C., Margarity M., **Klapa M.I.** 2012. Investigating the Mammalian Brain Regional Variation in both sexes using GC-MS Metabolomics, Workshop on holistic analytical technologies for biomedical, food and plant sciences, Topic: Metabolomics/metabonomics in Systems Biology, Athens, Greece, November 9-11 2012.
77. Kafkia E.C., Galliopoulou E., Sarafidou T., Moschonas N.K., **Klapa M.I.** 2012. Investigating the effect of sample collection and washing on metabolomics analysis of a HeLa cell culture, Workshop on holistic analytical technologies for biomedical, food and plant sciences, Topic: Metabolomics/metabonomics in Systems Biology, Athens, Greece, November 9-11 2012.
78. Telonis A., Gkourogianni A., Kosteria I., Kanaka-Gantenbein C., Chrousos G., **Klapa M.I.** 2012. Metabolomics in Clinical Prognosis: Indications of Predisposition to Metabolic Disorders in Result to Assisted Reproduction, 8th Annual Meeting of the Panhellenic Association of Bioscientists, Patras, Greece, October 18-20 2012.
    - received Best Oral Presentation Award
79. Tsafou K., Theodoridis E., **Klapa M.I.**, Tsakalides A., Moschonas N.K. 2011. Reconstruction of the known human protein-protein interaction network from five major literature-curated databases. 6th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Patras, Greece, October 7-9, 2011.
80. Vernardis S., Goudar C., **Klapa M.I.** 2011. Metabolomic Analysis in Industrial Cell Culture Engineering: Enhanced Sensitivity in Monitoring Physiological Changes. 6th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Patras, Greece, October 7-9, 2011.
81. Ch. Maga-Nteve, C. Constantinou, M. Margarity and **M.I. Klapa**. 2011. Capturing the metabolic physiology of mouse cerebellum in a model of prolonged adult-onset hypothyroidism using metabolomic analysis. 6th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Patras, Greece, October 7-9, 2011.
82. Galliopoulou E., Mamouris Z., **Klapa M.I.**, Moschonas N.K., Sarafidou T. 2011. The *FRA10AC1*-spliceosomal complex protein interaction network. 6th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Patras, Greece, October 7-9, 2011.
    - received Best Poster Presentation Award
83. Vernardis S., Goudar C., **Klapa M.I.** 2011. GC-MS metabolomics as a sensor of physiological changes due to perturbations in the cell culture growth environment, 8th Panhellenic Chemical Engineering Conference. Greece, May 26-28 2011.
84. Tsafou K., Theodoridis E., **Klapa M.I.**, Tsakalides A., Moschonas N.K. 2011. Development and analysis of an integrated human protein interactome database", 8th Panhellenic Conference of Chemical Engineering, Thessaloniki, Greece, May 26-28 2011.
85. Symeonidi, G. Koumoundouros, C. Flytzanis and **M.I. Klapa**. 2010. Full-genome transcriptomic analysis of thermally induced gene expression in zebrafish larvae. 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Alexandroupoli, Greece, October 17-19, 2010.
    - received Best Oral Presentation Award
86. Ch. Maga-Nteve, C. Constantinou, M. Margarity and **M.I. Klapa**. 2010. Cortex vs Cerebellum: GC-MS metabolomic analysis reveals differences in their metabolic regulation. 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Alexandroupoli, Greece, October 17-19, 2010.
87. K. Tsafou, E. Theodoridis, C. Makris, **M.I. Klapa**, A. Tsakalidis and N.K. Moschonas. 2010. Development and Analysis of an Integrated Human PPI Local Database from Three Major Literature-Curated Public Datasets. 5th Conference of the Hellenic Society for Computational Biology and Bioinformatics, Alexandroupoli, Greece, October 17-19, 2010.
88. K. Spagou, G.Theodoridis, I. Wilson, N. Raikos, P. Greaves, R.Edwards, B. Nolan and **M.I.**

Klapa. 2010. A GC-MS metabolomic profiling study of plasma samples from mice on low- and high- fat diets. 61st Annual Meeting of the Hellenic Society of Biochemistry and Molecular Biology, Alexandroupoli, Greece, October 15-17, 2010.

89. S. Vernardis, C. T. Goudar and **Maria I. Klapa**. 2010. Metabolomics: A high-resolution biomolecular analysis tool in cell culture engineering. 61st Annual Meeting of the Hellenic Society of Biochemistry and Molecular Biology, Alexandroupoli, Greece, October 15-17, 2010.
90. K. Tsafou, E. Theodoridis, C. Makris, **M. I. Klapa**, A. Tsakalidis and N.K. Moschonas. 2009. PICKLE_ DB: Towards the development of a knowledge base for the human protein interactome, 60th Annual Meeting of the Hellenic Society of Biochemistry and Molecular Biology, Athens, Greece, November 20-22, 2009
91. S. Vernardis, P. K. Chrysanthopoulos, C. T. Goudar and **Maria I. Klapa**. 2009. Metabolomics as a tool for high-resolution biomolecular analysis in industrial cell culture engineering, 8th Panhellenic Conference of Clinical Chemistry, Patra, Greece, October 2-3, 2009
92. Kliment Zanov, Lubov Yotova and **Maria I. Klapa**. Development of metabolomic protocol for tissue analysis of thyroid hormones and their metabolites using Liquid Chromatography-Mass Spectrometry, 8th Panhellenic Conference of Clinical Chemistry, Patra, Greece, October 2-3, 2009.
93. C. H. Syriopoulos, A. Panayotarou, C. Katsikani, P. Patiou, B. Pesheva, K. Lai and **M.I. Klapa**. 2007. *In vivo* analysis of galactosemia using yeast as the model system. 6th Panhellenic Conference in Chemical Engineering, Athens, Greece, June 2007 *(full paper).*
94. I. Tsandili, M.N. Karim, **M.I. Klapa**. 2007. Evaluating the Metabolic Capabilities of the Genetically Engineered *Zymomonas mobilis* using Linear Programming Analysis. 6th Panhellenic Conference in Chemical Engineering, Athens, Greece, June 2007 *(full paper).*
95. M. Kostourou, G. Koumoundouros, K. Flytzanis and **M.I. Klapa**. 2007. Metabolomic analysis of adult male and female zebrafish for the identification of sex-determining metabolic biomarkers using gas chromatography-mass spectrometry. 6th Panhellenic Conference in Chemical Engineering, Athens, Greece, June 2007 *(full paper).*
96. Chrysanthopoulos P., Linardaki Z, Constantinou C., Margarity M and **Klapa M.I.** 2006. Studying Brain Regional Variation using GC-MS Metabolomics, Annual Meeting of the Hellenic Society of Neurosciences, Heraklion, September 29-October 1, 2006.
97. Spathis A.D., Antonopoulos I., Panagopoulos N., Matsokis N., Angelatou F., Episkopou V., **Klapa M.I.** and Margarity M. 2005. Identification of Candidate Genes Involved in the Initiation of Nigrostriatal Degeneration in the Weaver Mouse using Full-Genome DNA Microarrays. 19th Annual Meeting of the Hellenic Society of Neurosciences, Patras, Greece, September 30-October 2, 2005 *(full paper).*
98. Kanani, H., Dutta, B., Vantoai, T., Moy, L., Linford, L., Hasseman, J., Quackenbush, J. and **Klapa, M.I**. 2005. High-throughput time-series analysis of the short-term Arabidopsis thaliana response to environmental stresses: a quantitative systems biology approach. 5th Panhellenic Conference in Chemical Engineering, Thessaloniki, Greece, March 25-27, 2005 *(full paper).*
99. Tsantili I., Dimitriou D. and **Klapa M.I.** 2005. Linear Programming Analysis of *Zymomonas mobilis* for optimized ethanol production. 5th Panhellenic Conference in Chemical Engineering, Thessaloniki, Greece, March 25-27, 2005 *(full paper).*
100. Chrysanthopoulos P., Arvaniti E., **Klapa M.I.** 2005. Metabolomics: The High-Throughput Technique for the Acquisition of the Metabolic Fingerprint of a Biological System. 1st Bioscience Conference of the University of Patras, Patras, Greece, May 19-20, 2005.
101. Syriopoulos C.H., Lai K. and **Klapa M.I.** 2005. In vivo analysis of the alternative pathways of galactose assimilation in yeast. First Bioscience Conference of the University of Patras, Patras, Greece, May 19-20, 2005.
102. Spathis A.D., Antonopoulos I., Panagopoulos N., Matsokis N., Angelatou F., Episkopou V.,

Klapa M.I. and Margarity M. 2004. In search of the etiology of Parkinson's disease using full genomic DNA microarrays of weaver mutant mice. 56th Meeting of the Hellenic Society of Biochemistry and Molecular Biology, Larissa, Greece, November 25-27, 2004.

- received Best Poster Presentation Award