

## BIOGRAPHICAL SKETCH



### PERSONNAL DATA

**NAME:** Anastasia Pantazaki  
**FATHER'S NAME:** Athanasios  
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**UNIVERSITY STUDIES:** DEUG (Diplome d'Etudes d'Université Generale), Grenoble France (1977), Transcription and attendance at the Department of Chemistry, AUTH (1978-1982), Diplome of Chemistry of AUTH. June 1982

**DOCTORAL THESIS:**  
**EDUCATION/TRAINING:** (1984-1989) Doctoral dissertation, Dept of Chemistry, AUTH.  
1976-1978 DEUG B (Diplôme d'études d'Univ. Generals), Université de Grenoble, France, 1978-1982 B. A. in Chemistry, AUTH, 1982-1984 Chemist position in industry, 1984-1989 Ph. D. in Biochemistry, AUTH

**ACADEMIC APPOINTMENTS:**  
**1989-1990:** Teacher of Chemistry-Biology in High school,  
**1990-2000:** Scientific Collaborator at Dept. of Chemistry, Lab. of Biochemistry, **2000-2004:** Lecturer, **2004-2013:** Assistant Professor, **2013-2018:** Associate Professor AUTH. **2018-now:** Professor AUTH.

#### • LABORATORY WORK

Supervisor for Diploma Thesis of chemists (42): Advisor (29)/and Co-advisor (12), Supervisor of Msc of Biochemistry: Advisor (16)/and Co-advisor (8), Advisor of PhDs (5).

#### • PUBLICATIONS

112 published papers in international magazines with judges, 9 chapters in books (1 in a Greek book, 1 review in an English e-book, 7 chapters review articles in English books). 3 other articles (2 invited reviews and 1 invited commentary review) and 3 review articles (2 in Greek scientific journals and 1 in book of practical courses).

#### • PRESENTATIONS IN CONFERENCES

120 announcements of experimental papers data in scientific conferences, published as short publications, presentations in conferences or abstracts of conferences (79 international and 38 pan-Hellenic). The collective statistics of the research publications as shown in the table below are: Total impact factor: 240,535, Total number of citations is 2147 and h (h index) is 29, while the hetero-citations: 1984 and h index: 27.

#### • REPRESENTATIVE PUBLICATIONS IN JOURNALS FROM THE LAST TEN YEARS

1. E.E. Tzekaki, M.Tsolaki, A.A. Pantazaki\*, G.Geromichalos, E.Lazarou, M.Kozori, Z. Sinakos (2020) Influence of the extra virgin olive oil (EVOO) on the fibrinolysis system factors of Mild Cognitive Impairment (MCI) patients and on Alzheimer's disease (AD) hallmarks (under review)
2. Tzekaki EE, Tsolaki M, Pantazaki AA, Geromichalos G, Lazarou E, Kozori M, Sinakos Z. (2019) Administration of the extra virgin olive oil (EVOO) in mild cognitive impairment (MCI) patients as a therapy for preventing the progress to AD. Hell J Nucl Med. Sep-Dec;22 Suppl 2:181.
3. Pappaspyropoulos A., Tsolaki M., Foroglou N., Pantazaki A. A. (2020) Modeling and targeting Alzheimer's disease with organoids. Front. Pharmacol. March 2020 | Vol.11 | Art. 396 doi: 10.3389/fphar.2020.00396 IF=4.225
4. Halevas E, Mavroidi B, Swanson CH, Smith GC, Moschona A, Hadjispyrou S, Salifoglou A, Pantazaki AA, Pelecanou M, Litsardakis G. (2019) Magnetic cationic liposomal nanocarriers for the efficient drug delivery of a curcumin-based vanadium complex with anticancer potential. J Inorg Biochem. 199:110778

5. Tzekaki E., Tsolaki M., Pantazaki A.\* (2019) *Technical characteristics of Alzheimer model based on organ technology (organoid)*. Hell J Nucl Med. Jan-Apr;22 Suppl:195-208. (review)
6. Lougiaki Ph., Tsolaki M. and Pantazaki A.A.\* (2019) *Bioinks and In Vitro Neurovascular Unit Production – New Prospects in Alzheimer’s disease research* Hell J Nucl Med. Jan-Apr;22 Suppl: 209-222 (review)
7. E.G. Halevas, A.A. Pantazaki (2018) *Natural Polyphenol-Dendrimers Nano-Formulations for Therapeutic Applications in Medicine*. Advances in Biochemistry & Applications in Medicine. Chapter 6. pp.1-19
8. Antonoglou O, Lafazanis K, Mourdikoudis S, Vourlias G, Lialiaris T, Pantazaki A, Dendrinou-Samara C. (2019) Biological relevance of CuFeO<sub>2</sub> nanoparticles: Antibacterial and anti-inflammatory activity, genotoxicity, DNA and protein interactions. Mater Sci Eng C Mater Biol Appl. 99:264-274.
9. Velali, E., Pantazaki\*, A., Besis, A., Choli-Papadopoulou, T., Samara, C. (2019) Oxidative stress, DNA damage, and mutagenicity induced by the extractable organic matter of airborne particulates on bacterial models. Regul Toxicol Pharmacol. 104:59-73
10. Andreadou E., Pantazaki A.\*, Daniilidou M., Tsolaki M. (2017) Rhamnolipids (RLs) - microbial virulence factors - in Alzheimer's disease. *J Alzheimers Dis* 59: 209–222. IF=3.731
11. Velali E. , Papachristou E., Pantazaki A., Choli-Papadopoulou T., Argyrou N., Tsourouktsoglou T., Lialiaris S., Constantinidis A., Lykidis D. , Lialiaris T. S., Besis A., Voutsas D. , Samara C.\* (2016) Cytotoxicity and genotoxicity induced *in vitro* by solvent-extractable organic matter of size-segregated urban particulate matter. *Environ Pollut* 218:1350-1362. IF=5.099, Citations 11.
12. Andreadou E., Moschopoulou A., Simou O., Lialiaris T. and Pantazaki A. (2015) *T. thermophilus* Rhamnolipids Induce Cytogenetic Damage on Human Lymphocytes and Bind DNA *in vitro*. *British Biotechnology Journal* 10(3): 1-12, Article no.BBJ.21907 NAAS=4.65
13. Tsolaki M.N., Koutsouraki E., Katsipis G.K., Myserlis P.Gr., Chatzithoma M.A. and Pantazaki A.A.\* (2017) *Alternative Anti-Infective/Anti-Inflammatory Therapeutic Options for Fighting Alzheimer’s Disease*. Chapter 1, 6: 1-161. Bentham eBooks series “Frontiers in Anti-Infective Drug Discovery”, Bentham Science Publishers.
14. Giagkas D.C., Choli-Papadopoulou T. and Pantazaki A.A. (2013) Development of an Antibody for Detection of Rhamnolipids Characterized as a Major Bacterial Virulence Factor. *Antibodies*, 2: 501-516. Open access
15. Pantazaki A. A., Choli-Papadopoulou T. (2012) On the *Thermus thermophilus* HB8 potential pathogenicity triggered from rhamnolipids secretion. Morphological alterations and cytotoxicity induced on fibroblastic cell line. *Amino acids* 42(5):1913-26. IF=3.173
16. Papanephytous C. P., Papi R.M., Pantazaki A.A., and Kyriakidis D.A. (2012) Flagellin gene (fliC) of *Thermus thermophilus* HB8: Characterization of its product and involvement to flagella assembly and microbial motility *Appl. Microbiol. Biotechnol.* 94(5): 1265-77 IF=3.420

#### REPRESENTATIVE PUBLICATIONS IN CONFERENCES PROCEEDINGS

1. E. E. Tzekaki, M. Tsolaki, A. A. Pantazaki, G. Geromichalos, E. Lazarou, M. Kozori, Z. Sinakos, N. Petridou, E. Tabakis, I. Lazarou, M. Karakota, E. Melliou, P. Magiatis. *Greek Extra Virgin Olive Oil in Mild Cognitive Impairment patients: Clinical and laboratory result*. The MICOIL Study. 2<sup>nd</sup> International Yale Symposium on Olive Oil and Health European Cultural Center of Delphi, Greece, December 1-4, 2019, Abstracts p. 9-10
2. E. E. Tzekaki, M. Tsolaki, A. A. Pantazaki, G. Geromichalos, E. Lazarou, M. Kozori, Z. Sinakos *Administration of the extra virgin olive oil (EVOO) in Mild Cognitive Impairment Patients (MCI) as a therapy for preventing the progress to AD*, 5<sup>th</sup> International Medical Olympiad Thessaloniki, Greece 03-06/10/2019 (Book of Abstracts pages: 59-60).
3. E. Tzekaki, M. Tsolaki, A. Pantazaki «*Technical characteristics of Alzheimer model based on organ technology (organoid)*». 11<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders (PICAD) and 23<sup>rd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki, Greece 14-17/02/2019.
4. Lougiaki Ph., Tsolaki M. and Pantazaki A.A *Bioinks and In Vitro Neurovascular Unit Production – New Prospects in Alzheimer’s disease research*. 11<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders (PICAD) and 23<sup>rd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki, Greece 14-17/02/2019.

5. Angeliki Malamidou, Georgios Koliakos, Anastasia Pantazaki. Levels of Bmi1 mRNA increased upon oxidative stress in CHO cells while decreased in CHO cells that overexpress hTERT. 40th EEBE conference, 24-26 May 2018, Veroia Greece (oral presentation)
6. Angeliki Malamidou, Georgios Koliakos, Anastasia Pantazaki\* Protective Effect of Quercetin against Oxidative Stress-Induced Cytotoxicity in Chinese hamster ovary (CHO) and CHO- Telomerase Reverse Transcriptase (TERT) cells. 68<sup>th</sup> HSBMB Conference, 23-25 November 2018, Larisa, Greece
7. Malamidou A., Pantazaki A., Tsolaki M. Detection of B lymphoma Mo-MLV insertion region 1 homologue (Bmi1) Polycomb protein in biological fluids of Alzheimer's disease patients. 10th Panhellenic Conference of Alzheimer's Disease and Related Disorders (PICAD) and 2nd Mediterranean Conference of Neurodegenerative Diseases (MeCOND). 2-5 February 2017, Thessaloniki, Greece (Oral presentation)
8. Malamidou A., Koliakos G., Tsolaki M. Pantazaki A. Detection of B lymphoma Mo-MLV insertion region 1 (Bmi1) Polycomb protein, p53 and DING protein in biological fluids of Alzheimer disease patients. 68th HSBMB Conference, 10-12 November 2017, Athens, Greece
9. Pantazaki A.A. (2017) Emerging role of bacterial components in neurodegenerative diseases. 10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki 2-5 February 2017.
10. Andreadou E. G., Pantazaki A. A.\*, Daniilidou M., Tsolaki M. (2017) Rhamnolipids (RLs) virulence factors microbiota-derived in Alzheimer's disease. 10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki 2-5 February 2017.
11. Papi R., Pantazaki A. A. (2017) Microbial sources of amyloid in respect of amyloidogenesis and Alzheimer's disease. 10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki 2-5 February 2017.
12. Zisi M., Papi R., Doxakis A., Papaioannou N., Tsolaki M. and Pantazaki A. (2017) Investigation for bacterial components in brain tissue from AD patients. 10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki 2-5 February 2017.
13. Katsipis G., Tsolaki M., Pantazaki A.A. (2017) Detection of Glial Fibrillary Acidic protein (GFAP) and inflammatory markers in biological fluids of Alzheimer disease patients. 10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki 2-5 February 2017.
14. Katsipis G., Tzounis L., Litsardakis G., Tsolaki M., Pantazaki A.A.\* (2017) Immunosensor Construction for Detection of Glial Fibrillary Acidic protein (GFAP) in Alzheimer's disease patients' biological fluids. 10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases. Thessaloniki 2-5 February 2017.
15. Andreadou E.G., Pantazaki A.A., Daniilidou M., Tsolaki M. (2015) The involvement of bacterial metabolites rhamnolipids in Alzheimer's disease. 9<sup>th</sup> Panhellenic Conference on Alzheimer's disease and 1<sup>st</sup> Mediterranean on Neurodegenerative Diseases, Thessaloniki 14-17 May 2015.
16. Velali E., Papachristou E., Pantazaki A.A.\*, Choli-Papadopoulou T., Samara C. (2015) Bacterial mutagenicity, oxidative stress and DNA damage caused by airborne particulate matter PM collected from Thessaloniki. 40<sup>th</sup> Congress of FEBS, Berlin, Germany
17. Pantazaki A.A., Velali E. E., Papachristou E., Choli-Papadopoulou T., Samara C. (2014) Investigation of the cytotoxic mechanisms induced by airborne particulate matter on human lung cells (MRC-5). Paris FEBS Journal 281(Suppl. 1) (2014) 65-783. WED-302, p.718.

- **RELATIVE CHAPTERS IN BOOKS**

1. E-book: Tsolaki M.N., Koutsouraki E., Katsipis G.K., Myserlis P.Gr., Chatzithoma M.A. and Pantazaki A.A.\* (2017) Alternative Anti-Infective/Anti-Inflammatory Therapeutic Options for Fighting Alzheimer's Disease. Chapter 1, 6: 1-161. Bentham eBooks series "Frontiers in Anti-Infective Drug Discovery", Bentham Science Publishers.
2. E.G. Halevas, G.K. Katsipis and A.A. Pantazaki\* (2017) Chapter entitled " **Memory enhancers**" for the book entitled: "Biotechnological applications of biopolymers: Polyhydroxyalkanoates. Springer Nature. (In press)

- **INVITED PRESENTATIONS TO INTERNATIONAL CONFERENCES**

The representative publications in peer-reviewed conferences proceedings No 1 to 9.

- **RESEARCH EXPEDITIONS THAT THE APPLICANT PRINCIPAL INVESTIGATOR HAS LED**

PhD Theses:

1. Tzekaki Eleni entitled "Development of organoids for modeling human diseases and studying the impact of innovative therapeutic approaches».
2. Malamidou Angeliki entitled "Contribution of oxidative stress to Alzheimer's disease and the involvement of Bmi1 Polycomb proteins. Therapeutic approaches using nanotechnology ". Starting in 2016.
1. Katsipis Georgios entitled: "Factors Affecting Structure and Function of Amyloid in Eukaryotic and Prokaryotic Cells". Starting in 2017
2. Tsiakiri Eleni (2019) *Biological treatment for the elimination of melanidin from water systems and wastes*
3. Velali Ekaterini (2018) *In vitro study of the biological activity of airborne particulate matter using eukaryotic and bacterial cells"*
4. Andreadou Eleni (2015) entitled "Specific phosphatases and bacterial virulence factors as biomarkers in Alzheimer disease"

- **ORGANIZATION OF INTERNATIONAL CONFERENCES IN THE FIELD OF THE APPLICANT**

Membership in the steering and/or organising committee of the "10<sup>th</sup> Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2<sup>nd</sup> Mediterranean Conference on Neurodegenerative Diseases". Thessaloniki 2-5 February 2017.

- **Other scientific activities**

Member of the team of the Center for Interdisciplinary Research and Innovation (KEDEK-AUTH) and supervisor of the NN core research and Biobank team of the Neurodegenerative Disease Research Laboratory, co-ordinated by Neurology Professor M. Tsolaki (<http://kedek.auth.gr/?q=el/node/1104>).

- **LIST OF THE FUNDED PROJECTS AS COORDINATOR AND PARTNER**

Research Funding Programs (11 as coordinator or partner, total budget: 200,000.00 €.

1. Research Funding Program: Thales. Investing in knowledge society through the European Social Fund. Project code/Title: MIS 377304/"*Bioactivity of airborne particulates in relation with their size, morphology and chemical composition*". This research has been co-financed by the European Union (European Social Fund – ESF) and Greek national funds through the Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - (2011-2015) Partner responsible for Biochemistry Team. Funding: 600000 €. For Biochemistry Lab: 86500 €.
2. Research Funding Program: 'SYNERGASIA II', Project (MOL-TREAT)co-Financed by the European Union and the Greek State Program EPAN-II (OPC-II)/ESPA (NSRF) (2013-2015) "*Integrated treatment of high molasses wastewater for recovery of high added value products and reduction of pollutant loading*" Partner responsible for Biochemistry Team. Funding: 600000 €. For Biochemistry Lab: 39200 €.
3. Research Funding Program: Archimedes III, Alexandrio Technological Educational Institute of Thessaloniki. "*Synthesis and identification of new complex compounds of transition metals with antimicrobial properties and oxygen scavenging capacity and exploring their potential applications in active packaging technology*" (2013-2015). Responsible A. Pritsa. Partner responsible for Biochemistry Team. Funding: 20000 €
4. Bilateral Research projects France-Greece (2006-2008) "*Valorization of new biopolymers produced by biotechnological manner and applied in microanalysis*". Scientific Responsible: A.A. Pantazaki. Funding: 18600 €
5. Bilateral Research Projects France-Greece (2003-2005): "*Microarrays of polymers for DNA or Enzymes immobilization. Application in biosensors and DNA chips*". Scient. Respon. A.A. Pantazaki, Minister of Development, General Secretariat of Research and Technology, Common projects of Research and Technology (France-Greece) 2 years. Scientific Responsible: A.A. Pantazaki. Funding: 20000 €

6. ΗΠΑΚΛΕΙΤΟΣ ΙΙ. “*Interaction of transition metals with carboxylate-containing drugs or herbicides*”. Operational Program "Education and Lifelong Learning" of the National Strategic Reference Framework (NSRF) - Research Funding Program: Investing in knowledge society through the European Social Fund. (2010-2013). Scientific responsible: D. Kessissoglou Funding: 40000 €.
7. BIOPRODUCTION: “*Sustainable Microbial and Biocatalytic Production of Advanced Functional Materials*”. (2006-2010) European Commuty. Coordinator K. Kyparrisidis-D. Kyriakidis. Funding: 1.000.000. For the Biochemistry Lab: 400.000€. Partner.
8. Pythagoras ΙΙ. “*Contribution of the two-component signal transduction system AtoS-AtoC-AtoC/Az in bacterial mechanisms (biosynthesis of metabolites, pathogenesis, resistance in antibiotics)*”. (Scientific Responsible: D. Kyriakidis) 2 years. Funding: 50.000 €. Partner
9. Human Capital Mobility Network: “*Copper ferrocyanide fixation on silica. Preparation of supports for the decontamination of radioactive cesium*”. Responsables: Loosneskovic C., Vidal-Madjar Cl. 1996-1998

- **PATENTS: 3 patents**

1. **Patent 1.** Patent record available from the European Patent Office (1999) Composite material based on hexacyanoferrates and polymer, method for making it and use. Publication date: 1999-06-23, Publication number: EP0923412 (A1). Inventors: Loos-Neskovic; Christiane (Fontenay aux Roses, FR), Vidal-Madjar; Claire (Paris, FR), Dulieu; Jacqueline (Malakoff, FR), **Pantazaki; Anastasia** (Thessaloniki, GR). Assignée: Commissariat à l'Energie Atomique (Paris, FR) Centre National de la Recherche Scientifique (Paris, FR)
2. **Patent 2.** Patent record available from the World Intellectual Property Organization (WIPO) (Publication date: 1999-01-21, Publication number: WO9902255 (A1). Inventors: Loos-Neskovic; Christiane (Fontenay aux Roses, FR), Vidal-Madjar; Claire (Paris, FR), Dulieu; Jacqueline (Malakoff, FR), **Pantazaki; Anastasia** (Thessaloniki, GR). Assignée: Commissariat à l'Energie Atomique (Paris, FR) Centre National de la Recherche Scientifique (Paris, FR)
3. **Patent 3.** United States Patent No 6,558,552 May 6, 2003. Composite material based on hexacyanoferrates and polymer, method for making it and use. Inventors: Loos-Neskovic; Christiane (Fontenay aux Roses, FR), Vidal-Madjar; Claire (Paris, FR), Dulieu; Jacqueline (Malakoff, FR), **Pantazaki; Anastasia** (Thessaloniki, GR). Assignée: Commissariat à l'Energie Atomique (Paris, FR) Centre National de la Recherche Scientifique (Paris, FR). Inventor.

- **VISITS IN DIFFERENT DEPARTMENTS OF THE WORLD-COLLABORATIONS**

I have visited and collaborated with many researchers who work in the following entities and having joint publications: Centre National de Recherche Scientifique, Laboratoire de la Recherche sur les Polymères, Paris XII, France; Laboratoire de Spectrochimie Infrarouge et Raman, Univ. Paris VI, France; Lab. de protéines and nanotechnologies in séparation sciences, Faculté de Pharmacie, University Paris Sud XI, Chatenay Malabry, France.

**Other collaborations with Foreign operators:** Institute of Chemistry, Wroclaw, Poland; Laboratoire de Physico-Chimie des Biopolymères, Univ. Paris XII, France ; Laboratoire de Spectrochimie Infrarouge et Raman, Univ. Paris VI, France ; Laboratoire de Recherche sur les Polymères, CNRS, France ; Institut für Mikrobiologie, Münster, Germany ; Laboratoire de Chimie Analytique de Paris-Sud, Faculte de Pharmacie, Chatenay-Malabry, France; Dept. of Instrumental Analysis and Environment Chemistry, Spain; Centre d'Etude de Chimie Métallurgique, France; Universidad Autonoma de Zacatecas, Centro Regional de Estudios Nucleares, Mexico.

**With Internal entities:** Theageneio Anticancer Institute, University of Ioannina, University of Patra, Medical School of the University of Alexandroupolis as well as Departments of Aristotle University, Institute «Demokritos», Greek Association of Alzheimer’s Disease and Related Disorders within the research projects.