

MEMORANDUM

OF

DR. ANASTASIA A. PANTAZAKI
PROFESSOR OF DEPARTMENT OF CHEMISTRY
AUTH

BIOGRAPHICAL DATA
SCIENTIFIC ACTIVITY

THESSALONIKI 2019

BIOGRAPHICAL SKETCH

PERSONNAL DATA

NAME:	Anastasia Pantazaki
FATHER'S NAME:	Athanasios
ADRESS:	Laboratory of Biochemistry, Dept. of Chemistry, Aristotle Univ. of Thessaloniki, 54124 Thessaloniki Tel. 2310-997838, Fax: 2310-997689 E-mail: natasa@chem.auth.gr
DATE AND PLACE OF BIRTH:	01-12-1956 Tholos Phyllidos Serres
STUDIES : HIGH SCHOOL- LYCEUM: UNIVERSITY STUDIES:	High School of Gazoros Serres-IA' Lyceum of Females Team, Thessaloniki 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. Graduation with a degree of "Well" 6.36, June 1982 (1984-1989) Doctoral dissertation, Dept of Chemistry, AUTH.
DOCTORAL THESIS:	Pantazaki A.A., "Phosphodiesterolytic activity in mouse liver cytoplasm. Purification and study of properties of four enzymes", Ph.D. Thesis, Thessaloniki, 1989. Degree «Excellent».
FOREIGN LANGUAGES:	French, English
EDUCATION/TRAINING:	1976-1978 DEUG B (Diplôme d'études d'Univ. Generals), Université de Grenoble, France 1978-1982 B. A. in Chemistry, Aristotle University of Thessaloniki, Greece 1982-1984 Chemist position in industry 1984-1989 Ph. D. in Biochemistry, Aristotle University of Thessaloniki, Greece 1989-1991: Teacher of Chemistry-Biology in High school
ACADEMIC APPOINTMENTS:	1991-2000: Scientific Collaborator at Dept. of Chemistry, Lab. of Biochemistry, Univ. of Thessaloniki 2000-2004: Lecturer 2004-2013: Assistant Professor 2013-2018: Associate Professor 2018-until now: Professor

EDUCATIONAL EMPLOYMENT**LABORATORY EMPLOYMENT**

I have participated for many years in the exercises of the students of the Chemistry, Pharmaceutical and Biology Departments at the Biochemistry, Enzymology and Clinical Chemistry Laboratory Courses as well as in the correction of the exercises for the evaluation of the students, since my appointment as a Special Postgraduate Scholar (EMY), Special Teaching Technical Staff (ΕΔΤΠ), Lecturer and Assistant. Today I participate as Associate Professor at the Biochemistry Laboratory Courses of the students of the Chemical and Pharmaceutical Department. Note that I have been assigned for many years to the Biochemistry Laboratory Courses of the Chemistry Department until my election to the Lecturer position.

TEACHING EMPLOYMENT

I teach in the Undergraduate Studies Program of the Chemistry Department the following subjects:

1. Biochemistry II
2. Biotechnology
3. Enzymology
4. Laboratory of Biochemistry

In co-teaching in the Undergraduate Studies Program of the Pharmaceutical Department the courses:

1. Biochemistry II
2. Enzymology

In co-teaching in the Undergraduate Studies Program of Biology Department the course:

1. Enzymology

In co-teaching in the Postgraduate Studies Program of the Chemistry Department as Associate Professor the courses:

1. Nucleic Acid Chemistry and Metabolism - Recombination Principles of DNA.
2. Biotechnology
3. Laboratory techniques in Biochemistry
4. Molecular Metabolic Control Mechanisms

In co-teaching in the Postgraduate Studies Program of the Medical School, Demokriton University of Thrace, Alexandroupolis, entitled "Biomedical and Molecular Sciences in Diagnosis and Treatment of Diseases" for the academic years 2015-16, 2016-2017.

DOCTORAL THESIS

Pantazaki A.A., "Phosphodiesterolytic activity in mouse liver cytoplasm. Purification and study of properties of four enzymes ", Ph.D. Thesis, Thessaloniki, 1989.

RESEARCH WORKS IN SCIENTIFIC JOURNALS AND PROCEEDINGS OF CONGRESSES

PUBLICATIONS IN INTERNATIONAL SCIENTIFIC JOURNALS

1. Yupsanis, T.* and Pantazaki, A.A. (1988) Specificity of chromatin-associated barley nucleases towards a synthetic deoxynucleotide. *J. of Experimental Botany* 39: 1469-1473
2. Pantazaki, A.A. and Georgatsos, J.G.* (1990) A guanyloribonuclease of mouse liver cytosol. *Eur. J. Biochem.* 192: 115-117
3. Kouretas, D., Antonoglou, O.* and Pantazaki, A.A. (1990) Specificity of ribonucleases in the serum of healthy individuals and hepatoma patients. *Clin. Chem. Enzym. Comm.* 3: 19-26
4. Lialiaris, Th.*, Pantazaki, A.A., Sivridis, E., and Mourelatos, D. (1992) Chlorpromazine-induced damage on nucleic acids; a combined cytogenetic and biochemical study. *Mutation Research-Fundamental and Molecular Mechanisms of Mutagenesis* 265: 155-163
5. Yupsanis, T., Eleftheriou, Ph., Pantazaki, A.A. and Georgatsos, J.G.* (1993) Multiplicity of metal-independent protein phosphatases of germinated alfalfa seeds. *J. Plant Physiol.* 141: 257- 262
6. Pantazaki A.A., Liakopoulou-Kyriakides M. and Kyriakidis D.A.* (1997) Ornithine decarboxylase in *Thermus thermophilus*: An RNA-associated enzyme. *Amino Acids* 13: 299-309
7. Raptopoulou C.P., Paschalidou S., Pantazaki A.A., Terzis A., Perlepes S.P.*, Lialiaris Th., Bakalbassis E.G., Mrozinski J. and Kyriakidis D.A. (1998) Bis(acetato)bis(1-methyl-4,5- diphenyli-midazole)copper(II): Preparation, characterization, crystal structure, DNA strand breakage and cytogenetic effect. *J. Inorg. Biochemistry* 71: 15-27.
8. Pantazaki A.A., Karageorgas A., Liakopoulou-Kyriakides M. and Kyriakidis D.A.* (1998) A hyper-alkaline and thermostable phosphatase in *Thermus thermophilus*. *Applied Bioch. Biotech.* 75: 249-259
9. Pantazaki A.A., Baron M.-H., Renault M. and Vidal-Madjar Cl.* (1998) Characterization of human serum albumin irreversibly adsorbed on anion-exchange chromatographic support. *J. Coll. Interf. Sci.* 207: 324-331
10. Pantazaki A.A., Anagnostopoulos C.G., Lioliou E.E. and Kyriakidis D.A.* (1999) Characterization of ornithine decarboxylase and regulation by its antizyme in *Thermus thermophilus*. *Molec. Cellul. Biochem.* 195: 55-64
11. Liakopoulou-Kyriakides M.*, Tsoleridis C.A., Pantazaki A.A. and Metaxas A. (1999) Nucleotidyl-tyrosine and nucleotidyl-peptides containing tyrosine hydrolysis by various enzymes, separation and characterization by HPLC. *Epith Klin. Farmakol., International Edition* 13: 43-48
12. Pantazaki A.A., Taverna M.* and Vidal-Madjar Cl. (1999) Recent advances in the capillary electrophoresis of recombinant glycoproteins. *Analytica Chimica Acta* 383: 137-156 (Invited review).

13. Pantazaki A.A. and Lialiaris Th.* (1999) A combined biochemical and cytogenetic study of thioridazine-induced damage to nucleic acids. *Mutagenesis* 14: 243-248
14. Theodorou A., Demertzis M.A., Kovala-Demertzi D.*, Lioliou E.E., Pantazaki A.A. and Kyriakidis D.A.* (1999) Copper (II) complexes of diclofenac: Spectroscopic studies and DNA strand breakage. *Biometals* 12: 167-172
15. Loos-Neskovic C.*, Vidal-Madjar Cl., Jimenez B., Pantazaki A., Tamburini A., Fedoroff M. and Persidou E. (1999) A copper hexacyanoferrate/polymer/silica composite as selective sorbent for the decontamination of radioactive caesium. *Radiochim. Acta* 85: 143-148
16. Girousi S.T.*, Pantazaki A.A., and Voulgaropoulos A.N. (2000) Mitochondria-based amperometric biosensor for the determination of L-glutamic acid. *Electroanalysis* 13 (3): 1-3
17. Girousi S.T.*, Apostolidou C.D., Pantazaki A.A., and Voulgaropoulos A.N. (2001) Mitochondria-based amperometric biosensor for the determination of succinic acid. *Analytical Letters*. 34: 1079-1086
18. Jaulmes A., Vidal-Madjar C.* and Pantazaki A.A. (2001) Adsorption kinetics of human serum albumin on various types of chromatographic support. *Chromatographia* 53: S-417-423
19. Pantazaki A.A., Pritsa A.A. and Kyriakidis D.A.* (2002) Biotechnologically relevant enzymes from *Thermus thermophilus*. *Appl. Microbiol Biotechnol* 58: 1-12 (Invited commentary review).
20. Pachatouridis Ch., Iakovidou Z., Myoglou E., Mourelatos D., Pantazaki A. A., Papageorgiou V.P., Kotsis A. and Liakopoulou-Kyriakides M.* (2002) Synthesis and cytogenetic effects of aminoquinone derivatives with a di- and a tripeptide. *Anti-Cancer Drugs* 13: 1-7
21. Gherghi Ch.*, Girousi S.T., Pantazaki A.A., Tzimou-Tsitouridou R. and Voulgaropoulos A.N. (2003) Electrochemical DNA-biosensors applicable for the study of interactions between DNA and DNA intercalators. *Int J Environ Anal Chem* 16: 693-700
22. Kovala-Demertzi D.*, Demertzis M.A., Filiou E., Pantazaki A.A., Miller J.R., Zheng Y., Kyriakidis D.A.* (2003) Platinum (II) and palladium (II) complexes with 2-acetylpyridine-4N-ethylthiosemicarbazone able to overcome the cis-platin resistance. Structure, antibacterial activity and DNA strand breakage. *Biometals* 16: 411-418
23. Alexiou M., Tsivikas I., Dendrinou-Samara C., Pantazaki A.A., Trikalitis P., Lalioti N., Kyriakidis D.A., Kessissoglou D.P*. (2003) High nuclearity nickel compounds with three, four or five metal atoms showing antibacterial activity. *J. Inorg. Biochem.*93: 256-264
24. Tsivikas I., Alexiou M., Pantazaki A.A., Dendrinou-Samara C., Kyriakidis D. A.*, Kessissoglou D.P.* (2003) The effect of fused 12-membered nickel metallacrowns on DNA and their antibacterial activity. *Bioinorg Chem Appl* 1: 85-97
25. Pantazaki A.A., Tambaka M.G., Langlois V., Guerin P. and Kyriakidis D.A.* (2003) Polyhydroxyalkanoate (PHA) biosynthesis in *Thermus thermophilus*: Purification and biochemical properties of PHA synthase. *Mol and Cel Biochem* 254: 173-183
26. Millot M.-C, Debranch T., Pantazaki A., Gherghi I., Seville B., Vidal-Madjar C.* (2003) Ion-exchange chromatographic supports obtained by formation of

- polyelectrolyte multi-layers for the separation of proteins. *Chromatographia* 58: 365-373
27. Lioliou E.E., Pantazaki A.A. and Kyriakidis D.A.* (2004) *Thermus thermophilus* genome analysis: benefits and implications. *Microbial Cell Factories* 3: 5-9 (Invited commentary review).
 28. Vidal-Madjar C.*, Cañada-Cañada F., Gherghi I., Jaulmes A., Pantazaki A., Taverna M. (2004) Direct zonal HPLC method for the kinetic study of actinomycin-DNA binding. *J. Chromatog. A* 1042: 15-22
 29. Pantazaki A.A., Ioannou A.K. and Kyriakidis D.A.* (2005) A thermostable β -ketothiolase of polyhydroxyalkanoates (PHAs) in *Thermus thermophilus*: Purification and biochemical properties. *Molec. Cellul. Biochem.* 269: 27-36.
 30. Chaviara AT, Cox PJ, Repana KH, Pantazaki AA, Papazisis KT, Kortsaris AH, Kyriakidis DA, Nikolov GS, Bolos CA.* (2005) The unexpected formation of biologically active Cu(II) Schiff mono-base complexes with 2-thiophene-carboxaldehyde and dipropylenetriamine: crystal and molecular structure of $\text{Cu}(\text{dpta})\text{SCl}_2$. *J. Inorg. Biochem.* 99: 467-76
 31. Vidal-Madjar C.*, Cañada-Cañada F., Jaulmes A., Pantazaki A., Taverna M. (2005) Numerical simulation of the chromatographic process for direct ligand-macromolecule binding studies. *J. Chromatog. A* 1087 (1-2): 95-103
 32. Ioannou A.K., Pantazaki A.A., Girousi S.Th., Voulgaropoulos A.N.*, Millot M-C. and Vidal-Madjar C. (2006) DNA biosensors based on carbon paste electrodes modified by polymer multilayers. *Electroanalysis* 18 (5): 456-464
 33. Theodorou M.C., Panagiotidis C.A., Panagiotides C., Pantazaki A.A. and Kyriakidis D. A.* (2006) Involvement of the Regulation of by AtoS-AtoC signal transduction system in poly-(R)-3-hydroxybutyrate biosynthesis in *Escherichia coli*. *Biophys. Biochim. Acta* 1760(6): 896-906
 34. Dimitrakopoulou A., Dendrinou-Samara C., Pantazaki A.A., Raptopoulou C., Terzis A., Samaras E. and Kessissoglou D.P.* (2007) Interaction of Fe(III) with herbicide-carboxylato ligands. Di-, tri- and tetra-nuclear compounds. Structure, antimicrobial study and DNA interaction. *Inorg. Chim. Acta* 360: 546-556
 35. Lialiaris T.S.*, Pantazaki A.A., Papachristou F.E., Lyratzopoulos E., Natsis K., and Kortsaris A.H. (2007) The mutagenic potential of vitamin C on human lymphocytes and native nucleic acids. *J of Biolog. Research* 8: 189-197
 36. Pantazaki A.A.*, Tsolkas G.P. and Kyriakidis D.A. (2008) A DING phosphatase in *Thermus thermophilus*. *Amino Acids* 34: 437-448
 37. Dimitrakopoulou A., Dendrinou-Samara C., Pantazaki A.A., Alexiou M., Nordlander E.*, Kessissoglou D. P.* (2008) Synthesis, structure and interactions with DNA of novel tetranuclear, $[\text{Mn}_4(\text{II/II/II/IV})]$ mixed-valence complexes. *J. Inorg. Biochem.* 102: 618-628
 38. Chaviara AT, Kioseoglou EE, Pantazaki AA, Tsipis AC, Karipidis PA, Kyriakidis DA., Bolos CA.* (2008) DNA interaction studies and evaluation of biological activity of homo- and hetero-trihalide mononuclear Cu(II) Schiff base complexes. Quantitative structure-activity relationships. *J. Inorg. Biochem.* 102:1749-64.
 39. Katsoulakou, E., Tiliakos, M., Papaefstathiou, G., Terzis, A., Raptopoulou, C., Geromichalos, G., Papazisis, K., Papi, R., Pantazaki, A., Kyriakidis, D., Cordopatis, P., Manessi-Zoupa, E.* (2008) Diorganotin(IV) complexes of dipeptides containing the α -aminoisobutyryl residue (Aib): Preparation, structural characterization, antibacterial and antiproliferative activities of $[(n\text{-Bu})_2\text{Sn}(\text{H}_1\text{L})]$ (LH = H-Aib-L-Leu-OH, H-Aib-L-Ala-OH). *J Inorg Biochem.* 102: 1397-1405

40. Papaneophytou, C.P., Pantazaki, A. A. Kyriakidis, D.A.* (2009) An extracellular polyhydroxybutyrate depolymerase in *Thermus thermophilus* HB8. *Appl. Microbiol. and Biotechnol.* 83:659-68.
41. Pantazaki A. A., Papaneophytou C.P., Pritsa A.G., Liakopoulou-Kyriakides M., Kyriakidis D.A.* (2009) Production of polyhydroxyalkanoates from whey by *Thermus thermophilus* HB8. *Process Biochemistry* 44: 847–853
42. Afrati T., A.A. Pantazaki, Dendrinou-Samara C., Catherine Raptopoulou, A.Terzis, Kessissoglou D.P.* (2010) Copper inverse-9-Metallacrown-3 compounds interacting with DNA. *Dalton Trans.* 39: 765–775
43. Guerrouache M., Pantazaki A., Millot M.-C., and Carbonnier B.* (2010) Zwitterionic polymeric monoliths for HILIC/RP mixed mode for CEC separation applications. *J of Separation Science* 33: 787-92.
44. Mpountoukas P., Pantazaki A.A.*, Kostareli E., Christodoulou P., Kareli D., Pouliliou S., Mourelatos C., Lialiaris T.S.* (2010) Cytogenetic evaluation and DNA interaction studies of the food colorants amaranth, erythrosine and tartrazine. *Food and Chemical Toxicology* 48: 2934-2944
45. Pantazaki A. A.*, Dimopoulou M. I., Simou O.M., Pritsa A. A. (2010) Sunflower seed oil and oleic acid utilization for the production of rhamnolipids by *Thermus thermophilus* HB8. *Appl. Microbiol. Biotechnol.* 88: 939-51.
46. Papaneophytou C.P., Velali E.E., Pantazaki A.A.* (2011) Purification and characterization of an extracellular medium-chain length polyhydroxyalkanoate depolymerase from *Thermus thermophilus* HB8. *Polym Degrad and Stab* 96: 670-678
47. 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.
48. Pantazaki A.A.*, Papaneophytou C.P., Lambropoulou D.A. (2011) Simultaneous polyhydroxyalkanoates and rhamnolipids production by *Thermus thermophilus* HB8 *AMB Express* 1:17 doi:10.1186/2191-0855-1-171: 17
49. Papaneophytou C. P., Pantazaki A.A.* (2011) A novel affinity chromatographic material for the purification of extracellular polyhydroxybutyrate depolymerases. *J Polym Environ* DOI 10.1007/s10924-011-0345-x
50. Papaneophytou 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
51. Tarushi, A., Kljun, J., Turel, I., Pantazaki, A.A., Psomas, G., Kessissoglou, D.P.* (2013) Zinc(ii) complexes with the quinolone antibacterial drug flumequine: Structure, DNA- and albumin-binding. *New J. Chem.* 37: 342-355
52. Zampakou, M., Akrivou, M., Andreadou, E.G., Raptopoulou, C.P., Psycharis, V., Pantazaki, A.A., Psomas, G.* (2013) Structure, antimicrobial activity, DNA- and albumin-binding of manganese(II) complexes with the quinolone antimicrobial agents oxolinic acid and enrofloxacin. *J. Inorg. Biochem.* 121: 88-99
53. Tarushi A., Lafazanis K., Kljun J., Turel I., Pantazaki A.A., Psomas G., Kessissoglou D.P. * (2013) First- and second-generation quinolone antibacterial drugs interacting with zinc(II): Structure and biological perspectives. *J. Inorg. Biochem.* 121: 53-65

54. Tsiaggali M.A., Andreadou E.G., Hatzidimitriou A.G., A.A. Pantazaki*, and P. Aslanidis*. (2013) Copper (I) halide complexes of N-methylbenzothiazole-2-thione: Synthesis, structure, luminescence, antibacterial activity and interaction with DNA. *J. Inorg. Biochem.* 121: 121-128
55. Simou, O.M., Pantazaki, A.A.* (2013) Evidence for lytic transglycosylase and β -N-acetylglucosaminidase activities located at the polyhydroxyalkanoates (PHAs) granules of *Thermus thermophilus* HB8. *Appl. Microbiol. Biotechnol.* 1-17.
56. 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(3): 501-516 **Open access**
57. Giannousi K, Lafazanis K, Arvanitidis J, Pantazaki A, Dendrinou-Samara C. (2014) Hydrothermal synthesis of copper based nanoparticles: Antimicrobial screening and interaction with DNA. *J Inorg Biochem.* 133C:24-32.
58. Evangelinou O., Hatzidimitriou A.G., Velali A., Pantazaki A.A.*, Voulgarakis N., Aslanidis P*. (2014) Mixed-ligand copper(I) halide complexes bearing 4,5-bis(diphenylphosphano)-9,9-dimethyl-xanthene and N-methylbenzothiazole-2-thione: Synthesis, structures, luminescence and antibacterial activity mediated by DNA and membrane damage. *Polyhedron*. 72: 122–129
59. Papazoglou, I., Papadopoulos, A.G., Skoulika, S., Lafazanis, K, Geromichalos, G.D., Pantazaki, A.A., Aslanidis, P*. (2014) Metal-assisted desulfurization of 2-thioorotic acid: Structure, theoretical (DFT) investigations, in vitro antibacterial and cytotoxic activity and DNA degradation ability of a copper(II) complex containing in situ formed bis(4-carboxylato-6-oxo-pyrimidine-2-yl)sulfide. *Polyhedron* 78: 18-23
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63. Aslanidis P.*, Hatzidimitriou A.G., Andreadou E.G., Pantazaki A.A.*, Voulgarakis N. (2015) Silver(I) complexes of N-methylbenzothiazole-2-thione: synthesis, structures and antibacterial activity. *Mater Sci Eng C Mater Biol Appl.* 50:187-93.
64. Papanikolaou P.A.*, Papadopoulos A.G.*, Andreadou E.G., Hatzidimitriou A., Cox P.J., Pantazaki A.A. and Aslanidis P.* (2015) The structural and electronic impact on the photophysical and biological properties of a series of Cu^I and Ag^I complexes with triphenylphosphine and pyrimidine-type thiones. *New J. Chem.*, Advance Article 39:4830-4844
65. Giannousi K., Menelaou M., Arvanitidis J., Angelakeris M., Pantazaki A. and Dendrinou-Samara C. (2015) Hetero-nanocomposites of magnetic and antifungal nanoparticles as a platform for magnetomechanical stress induction in *Saccharomyces cerevisiae*. *J. Mater. Chem. B*, 3, 5341-5351

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67. 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
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71. Giannousi K, Hatzivassiliou E, Mourdikoudis S, Vourlias G, Pantazaki A., Dendrinou-Samara C*. (2016) Synthesis and biological evaluation of PEGylated CuO nanoparticles. *J Inorg Biochem.* 164:82-90.
72. Tsitouroudi F., Karatza A., Karoulias S., Pantazaki A., Andriotis E.G. and Choli-Papadopoulou T.* (2017) “In cell” biotinylation and immobilization of BMP2 (Bone Morphogenetic Protein 2) on polymeric surfaces. *Biochemical Engineering Journal* 123: 1-12
73. Andreadou E., Pantazaki A.*, Daniilidou M., Tsolaki M. (2017) Rhamnolipids (RLs) - microbial virulence factors - in Alzheimer's disease. *J Alzheimers Dis* 59: 209–222
74. Besis A, Tsolakidou A, Balla D, Samara C*, Voutsas D*, Pantazaki A., Choli-Papadopoulou T, Lialiaris TS. (2017) Toxic organic substances and marker compounds in size-segregated urban particulate matter - Implications for involvement in the *in vitro* bioactivity of the extractable organic matter. *Environ Pollut.* 230:758-774
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77. Geromichalos G., Tarushi A., Lafazanis K., Pantazaki A. A., Kessissoglou D., Psomas G. (2018) *In vitro* and *in silico* study of the biological activity of manganese (III) inverse-[9-MC-3]- metallacrowns and manganese(II) complexes with the anti-inflammatory drugs diclofenac or indomethacin. *J Inorg Biochem.* 187: 41-55
78. A. Tarushi, G. D. Geromichalos, K. Lafazanis, C. P. Raptopoulou, V.

- Psycharis, N. Lalioti, A. A. Pantazaki, D. P. Kessissoglou, V. Tangoulis and G. Psomas. (2018) A step-ladder manganese(III) metallacrown hosting mefenamic acid and a manganese(II)–mefenamate complex: synthesis, characterization and cytotoxic activity. *New Journal of Chemistry* 42: 6955-6967
79. Varna D., Kapetanaki E., Koutsari A., Psomas G., Angaridis P., Papi R., Pantazaki A. A., Aslanidis P. (2018) Heterocyclic thioamide/phosphine mixed-ligand silver(I) complexes: Synthesis, molecular structures, DNA-binding properties and antibacterial activity. *Polyhedron*. 151: 131-140
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 85. E. Velali, A.A. Pantazaki, A. Basis, T. Choli-Papadopoulou, C. Samara (2019) Oxidative stress, DNA damage, and mutagenicity induced by the extractable organic matter of airborne particulates on bacterial models. *Regulatory Toxicology and Pharmacology* 104 (2019) 59–73
 86. 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. Greek, Modern.
 87. Lougiaki P, Tsolaki M, Pantazaki A. (2019) [Bioinks and in vitro neurovascular unit production - New prospects in Alzheimer's disease research]. *Hell J Nucl Med*. 2019 Jan-Apr;22 Suppl:209-222. Review. Greek, Modern.
 88. Varna D, Zainuddin DI, Hatzidimitriou AG, Psomas G, Pantazaki AA, Papi R, Angaridis P, Aslanidis P. (2019) Homoleptic and heteroleptic silver(I) complexes bearing diphosphane and thioamide ligands: Synthesis, structures, DNA interactions and antibacterial activity studies. *Mater Sci Eng C Mater Biol Appl*. 99:450-459.
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phenol: Synthesis, structural characterization, and in vitro and in silico biological activity studies. *J Inorg Biochem.* 199:110792.

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BOOKS CHAPTERS

1. I.G. Georgatsos, D.A. Kyriakidis, T. Yupsanis, D. Choli-Papadopoulou, T. Giannakouros, E. Nikolakaki, A.A. Pantazaki, K. Kotinis, A. Karagiorgas, S. Asvesta "Laboratory Exercises in Biochemistry" (2004) (Edition ZITI pp 1 -148, Thessaloniki
2. Giannousi K., Pantazaki A. and Dendrinou-Samara C.* (2016) Copper based nanoparticles as Antimicrobials. *Multi Volume SET (I-V) Therapeutic Nanostructures in Medicine*, Editor: A.M. Grumezescu (published by Elsevier) Subject: Nanostructures for Antimicrobial Therapy, Chapter No 23: 515-529.
3. 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. DOI: 10.2174/9781681084794117060003, **eISBN**: 978-1-68108-479-4, 2017, **ISBN**: 978-1-68108-480-0, **ISSN**: 2451-9162 (**Print**), **ISSN**: 1879-663X (**Online**).
4. Halevas E.G. and Pantazaki A.A. (2018) Chapter: Polyhydroxyalkanoates: Chemical structure. Book entitled "Polyhydroxyalkanoates: Biosynthesis, Chemical structure and Applications. Nova Science publishers, Inc. edited by H. Williams and P. Kelly pp. 133-166. ISBN: 978-1-53613-439-1.
5. Halevas E.G., Katsipis G.K. and Pantazaki A. A. (2018) Book entitled: Biotechnological Applications of Biopolymers: Polyhydroxyalkanoates. Chapter 9: Memory enhancers. Springer Nature. P. 171-206. Edited by V.C. Kalia ISBN 978-981-13-3758-1 ISBN 978-981-13-3759-8 (eBook) <https://doi.org/10.1007/978-981-13-3759-8>
6. Giourieva, V.S., Papi, R.M., Pantazaki, A.A (2018) Chapter: Polyhydroxyalkanoates: New browsing the PHAs biosynthesis insights in native and recombinant strains. Book entitled "Polyhydroxyalkanoates: Biosynthesis, Chemical structure and Applications. Nova Science publishers, Inc. edited by H. Williams and P. Kelly pp. 133-166. ISBN: 978-1-53613-439-1. pp. 71-110.
7. Halevas E.G., Andriotis E.G., Papi R., and Pantazaki A.A. (2018) Chapter: Polyhydroxyalkanoates: an ideal polymeric material in food packaging. Book entitled "Polyhydroxyalkanoates: Biosynthesis, Chemical structure and Applications. Nova Science publishers, Inc. edited by H. Williams and P. Kelly pp. 133-166. ISBN: 978-1-53613-439-1. pp. 287-305.
8. C. Papaneophytou, E.G. Halevas, G.K. Katsipis and A.A. Pantazaki (2018) Chapter 4 entitled "Drugs carriers" for the book entitled: "Biotechnological applications of biopolymers: Polyhydroxyalkanoates. Springer Nature. pp. 77-124. Edited by V.C. Kalia ISBN 978-981-13-3758-1 ISBN 978-981-13-3759-8 (eBook) <https://doi.org/10.1007/978-981-13-3759-8>

9. Giourieva V., Papi R. and A.A. Pantazaki (2018) Chapter 2 entitled "Antibacterial Agents" for the book entitled: "Biotechnological applications of biopolymers: Polyhydroxyalkanoates. Springer Nature. pp. 49-76. Edited by V.C. Kalia ISBN 978-981-13-3758-1 ISBN 978-981-13-3759-8 (eBook) <https://doi.org/10.1007/978-981-13-3759-8>
10. Halevas, E.G., Pantazaki, A.A. (2018) Advances in the optimized synthesis of biotechnologically valuable products from bioengineered microbial cell factories. *Biointerface Research in Applied Chemistry* 8(4), pp. 3463-3482 ISSN 2069-5837
11. Noutsios, G.T., Pantazaki, A.A. (2018) Biomedical applications of biopolymers in airway disease (Review) *Pneumon* 31: 24-34
12. Halevas E. G. Pantazaki A. A. (2018) Natural Polyphenol-Dendrimers Nano-Formulations for Therapeutic Applications in Medicine. *Advances in Biochemistry & Applications in Medicine* Chapter 6, 1-19.

SUPERVISOR PROFESSOR OF DOCTORAL STUDENTS FOR THESIS DISSERTATION

1. Andreadou Eleni PhD Thesis (2015) entitled "*Specific phosphatases and bacterial virulence factors as biomarkers in Alzheimer disease*" (Completed: 2015)
2. Velali Ekaterini PhD Thesis entitled: "*In vitro study of the biological activity of airborne particulate matter using eukaryotic and bacterial cells*", which was developed as part of the THALIS program. The doctoral dissertation is ready for presentation.
3. Tsiakiri Eleni PhD Thesis entitled "*Biological treatment for the elimination of melanidin from water systems and wastes*", part of which was elaborated under the "SYNERGASIES" program. The experimental part of the doctoral dissertation is almost complete.
4. Malamidou Angeliki PhD Thesis entitled "*Contribution of oxidative stress to Alzheimer's disease and the involvement of Bmi1 Polycomb proteins. Therapeutic approaches using nanotechnology*". Starting in 2016
5. Katsipis Georgios PhD Thesis titled: "*Factors Affecting Structure and Function of Amyloid in Eukaryotic and Prokaryotic Cells*". Starting in 2017

SUPERVISION OF UNDERGRADUATES THESES

SUPERVISION / CO-SUPERVISION OF STUDENTS'S UNDERGRADUATES THESES CARRIED OUT IN AUTH

I initially participated in 12 dissertations of the students of the Chemistry Department from my appointment up to the lecturer's degree in co-supervision with Prof. D. Kyriakidis (based on the law of non-occupation of the lecturers) and subsequently in another 26 dissertations, in my supervision. In addition, I took part in the supervision of 3 other undergraduate students from the Chemistry Department who worked abroad in my partner's lab. The necessary data are shown in the table below:

No	NAME	TITLE OF UNDERGRADUATE THESES	SUPREVISOR PROFESSOR	YEA R
1	Angelaki Efthalia	Purification and study of phosphatases in the bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	1993
2	Eleotrivaris Dimitris	Localization of ornithine decarboxylase in the <i>Thermus thermophilus</i> ribosome and attempt to improve its purification	D. Kyriakidis <u>A. Pantazaki</u>	1996
3	Kyriakaki Maria	Binding of the decarboxylase of ornithine to nucleic acid in the bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	1997
4	Astara Eftyhia	Isolation of the RNA fragment associated with the ornithine decarboxylase from the bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	1997
5	Mpinta Zapheira	Isolation of ribosomal RNAs (23S and 16S) to investigate their possible binding to ODC	D. Kyriakidis <u>A. Pantazaki</u>	1998
6	Telidou Thalia	Detection and partial purification of phosphatases from the bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	1999
7	Mihalodimitrakis Konstantinos	Purification of acid phosphatase φωσφατάσης from the bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	1999
8	Haroniti Anna	Purification of alkaline phosphatase φωσφατάσης from the bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	2000
9	Ioannou K. Andrea	Partial purification and study of the properties of the enzyme β -ketoacyl-CoA thiolase by the thermophilic bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	2002
10	Sarantinou Antonia	Partial purification of PHA-synthase and thiolase by bacterium <i>T. thermophilus</i> , study of by β -keto thiolase	D. Kyriakidis <u>A. Pantazaki</u>	2003
11	Mandalou Dimitra	Biosynthesis of polymers by the bacterium <i>Thermus thermophilus</i> in the presence of sodium octanoate and purification of PHA-synthase	D. Kyriakidis <u>A. Pantazaki</u>	2003
12	Lalickou Maria	Purification and characterization of a PHA granules-associated protein from the bacterium <i>T. thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	2005
13	Kosmidis Georgios	Regulation of PHA-synthase activity in the bacterium <i>Thermus thermophilus</i> during the biosynthesis of PHA polymers	<u>A. Pantazaki</u>	2006
14	Skyrianou Kalliopi	Isolation of the enzyme extracellular PHA-depolymerase from the thermophilic bacterium <i>T. thermophilus</i>	<u>A. Pantazaki</u>	2007
15	Velali Ekaterini	Isolation of the extracellular PHO-depolymerase enzyme from the thermophilic bacterium <i>T. thermophilus</i>	<u>A. Pantazaki</u>	2007
16	Christodoulou Pantelitsa	Effect of the dyes tartrazine, erythrosine and amaranth, and vitamin E on the DNA structure	<u>A. Pantazaki</u>	2009
17	Simou Olga	Valorization of oils for the production of	<u>A. Pantazaki</u>	2009

		rhomolipid-biosurfactants from the bacterium <i>T. thermophilus</i> .		
18	Ioannou Antonia	Study of the interaction on DNA and the antibacterial action of copper compounds	A. Pantazaki	2010
19	Kotzamanis Konstantinos	Bio-decolourization of dyes	A. Pantazaki	2010
20	Katsaiti Tatiana	Enzymatic potential of phosphatases under phosphate limitation in the bacterium <i>T. thermophilus</i> HB8. Purification of alkaline phosphatases	A. Pantazaki	2011
21	Kissa Apostolia Vaia	Rhamnolipids production with amino acids as a nitrogen source. Involvement of rhamnolipids into mobility in swarms of the bacterium <i>T. thermophilus</i> HB8 and in the biofilm formation	A. Pantazaki	2011
22	Tsiviki Maria	Purification of azoreductase from the bacterium <i>Thermus thermophilus</i> and study of its properties.	A. Pantazaki	2012
23	Kapsalis Kosmas	Bio Discoloration of dyes using the fungus <i>Saccharomyces cerevisiae</i>	A. Pantazaki	2012
24	Mpirou Stefania	Hypophosphatemia, virulence of <i>Pseudomonas</i> and PstS protein expression	A. Pantazaki	2013
25	Drakaki-Kavalari Ioanna	Melanoidin decorization from bacteria and the fungus <i>Saccharomyces cerevisiae</i>	A. Pantazaki	2013
26	Sombatzi Eleni	The contribution of <i>Saccharomyces cerevisiae</i> peroxidase to the melanidin bio-decolorization. Test of Melanidin cytotoxicity	A. Pantazaki	2014
27	Georgiou Ourania-Maria	Study of melanoidin bio-decolorization using laccase immobilized in glass beads and alumina beads.	A. Pantazaki	2014
28	Kyriakidis Vassilios-Euripides	Rhamnolipids production from the bacterium <i>T. thermophilus</i> . Hemolytic and antibacterial tests		2015
29	Zafeiropoulou Vasiliki	Oxidative stress study, DNA Damage and Polymerase (ADP) Polymerase (PARP) expression in bacteria from air particulate matter.	A. Pantazaki	2015
30	Tsalis Theodoros	Effect of solvent-extractable organic matter of particle emission sources in biological systems <i>in vitro</i>	A. Pantazaki	2016
31	Lafazanis Constantinos	Study of the biological activity of inorganic complexes.	A. Pantazaki	2016
32	Voulia Phaedra	Enzymatic potential involved in the discoloration of melanidin	A. Pantazaki	2017
33	Voyiatzi Nikoleta	The contribution of oxidative stress and PARP-1 to Alzheimer's disease	A. Pantazaki	2017
34	Speikou Maria-Eleni	The effect of oxidative stress on Alzheimer's disease and drugs to overcome disease-The balm against oxidative stress	A. Pantazaki	2017
35	Zagkanikas Ioannis	Toll-like receptors. Invasion of flagellative bacteria in the Toll-like 5 receptor during the infection	A. Pantazaki	2017

36	Karagkiaouri Maria	Study of the oxidative / antioxidant activity of the vanadium (IV) complex based on curcumin		2018
37	Avgoulas Dimitrios	Study of the biological activity of the newly synthesized complex of vanadium (IV) complex based on curcumin in proteases and albumin.		2018
38	Niti Argiri	Advanced glycosylation end products and their effect on Alzheimer's disease, aging and diabetes		2018
39	Niki-Maria Xirou	Microbial sources of amyloid and its relation to amyloidogenesis and Alzheimer's disease		2019
40	Tsianou Athanasia	Study of PARP [Poly(ADP-ribose polymerase)] expression in the bacterium <i>Thermus thermophilus</i> HB8		2019

SUPERVISORY / CO-SUPERVISORY OF UNDERGRADUATE THESES EXPERIENCED ABROAD BY MY PARTICIPATION

1	Dimopoulou Maria	“Monolithic stationary phases for electrochromatography” (In the framework of the Erasmus transnational agreement with the University of Paris XII)	<u>A. Pantazaki</u> Marie-Claude Millot	2008
2	Tsardaka Irimi	“On-line preconcentration of IgG antibody on GMA/EDMA monolithic column using capillary electrophoresis (CZE)”(In the framework of the Erasmus transnational agreement with the University of Paris XII)	<u>A. Pantazaki</u> M. Taverna	2009
3	Xaidou Despina	“Atrazine detection by bragg grating and quartz crystal microbalance methods” In the framework of the Erasmus transnational agreement with the University of Paris XII) in co-supervision with Rector Professor Marie-Claude Millot	<u>A. Pantazaki</u> Marie-Claude Millot	2010

SUPERVISORY /CO- SUPERVISORY OF POSTGRADUATE THESES OF SPECIALIZATION DIPLOMA

I initially participated in the co-supervision of 8 postgraduate theses with supervision of other professors and 15 under my supervision.

No	NAME	TITLE OF POSTGRADUATE THESIS	SUPERVISOR PROFESSOR	YEAR
1	Tsivikas Ioannis	Study of anti-cancer and antibacterial action of nickel, copper and gallium	D. Kyriakidis <u>A. Pantazaki</u> D. Kessissoglou	2000

2	Tamvaka Maria	Biosynthesis of polyhydroxyalkanoates in <i>Thermus thermophilus</i> . Purification and biochemical properties of PHA synthase	D. Kyriakidis <u>A. Pantazaki</u>	2001
3	Filiou Eleni	Study of the biological action of complexes of platinum, palladium and zinc	D. Kyriakidis <u>A. Pantazaki</u>	2001
4	Alexiou Maria	Antibacterial activity of nickel compounds with high nuclearity with 3, 4 or 5 metal atoms	D. Kyriakidis <u>A. Pantazaki</u> D. Kessissoglou	2003
5	Ioannou Andrea	Polymer microarrays to immobilize enzymes and DNA. Application to biosensors and DNA microcircuits	A. Voulgaropoulou <u>A. Pantazaki</u> S. Girusi	2004
6	Papaneophytou Christos	Production of biodegradable polymers in thermophilic bacterium <i>Thermus thermophilus</i>	D. Kyriakidis <u>A. Pantazaki</u>	2004
7	Kioseoglou Euphrosini	Antibacterial activity and coordination ability of Cu (II) polyhalogenic complexes with Schiff bases with DNA	D. Kyriakidis <u>C. Mpolos</u> <u>Pantazaki</u>	2005
8	Haristanidis Erotokritos	Study of depolymerase and synthase of biodegradable polymers (PHAs) in the bacterium <i>Thermus thermophilus</i> and immobilization of depolymerase on affinity nanospheres	D. Kyriakidis <u>A. Pantazaki</u>	2005
9	Noutsios Georgios	Regulation of polyhydroxyalkanoate (PHAS) biosynthesis in <i>T. thermophilus</i> by interaction of enzymes of PHA synthase and phosphotrans-acetylase	<u>A. Pantazaki</u>	2006
10	Kalantzi Eleni	Study of the intracellular depolymerase of biodegradable polymers (PHAs) in the thermophilic bacterium <i>Thermus thermophilus</i>	<u>A. Pantazaki</u>	2007
11	Kostareli Efterpi	Molecular detection of viral infections in patients with leukemia of large granulocytes T-lymphocytes	<u>A. Pantazaki</u>	2008
12	Churzamanoglu Georgia	Purification and study of lytic enzyme from <i>Thermus thermophilus</i>	<u>A. Pantazaki</u>	2008
13	Velali Ekaterini	Isolation of siderophores and its receptor from the bacterium <i>Thermus thermophilus</i> HB8 and study of their properties	<u>A. Pantazaki</u>	2011
14	Giagkas Dimitrios	Production and study of the functionality of antibodies against rhamnolipids from the bacterium <i>Thermus thermophilus</i>	<u>A. Pantazaki</u>	2012
15	Tsiakiri Eleni	Phycoerythrin purification and study of their properties by the bacterium <i>Thermus thermophilus</i>	<u>A. Pantazaki</u>	2012
16	Simou Olga	Purification of the lytic activities from <i>Thermus thermophilus</i> and study of its properties	<u>A. Pantazaki</u>	2012
17	Tsanaktsidou	Investigation of the possible relationship	<u>A. Pantazaki</u>	2014

	Thomai	of rhamnolipids to DING proteins and flagellin.		
18	Rouptsiou Ekaterini	Study of the mechanism of anticancer action of phytochemical polyphenols on human cancer cells	<u>A. Pantazaki</u>	2016
19	Katsipis Georgios	Detection of immuno-biosensor and other immunological methods of glial fibrillary acid protein (GFAP) in biological fluids of Alzheimer's patients. Relationship with neuro-inflammation factors	<u>A. Pantazaki</u>	2016
20	Margarita-Maria Meletsika	Differentiation of monocytes in macrophages and phagocytosis of iron oxide nanoparticles and silica coated with thioflavin	<u>A. Pantazaki</u>	2016
21	Giourieva Veronica	Cloning of the TolQ gene, over expression of the protein and study of its interaction with its receptor	<u>A. Pantazaki</u>	2018
22	Lafazanis Constantinos	Study of biological properties of copper monoxide (Cu ₂ O) and copper-iron oxide delafossite (CuFeO ₂)	<u>A. Pantazaki</u>	2018
23	Tsalouxidou Victoria	Effect of a novel ternary V(IV) antioxidant material based on curcumin as a potential inhibitor of phosphatases	<u>A. Pantazaki</u>	2019

CONTRIBUTION AS A MEMBER OF TRI-MEMBER COMMITTEE OF POSTGRADUATE THESES EXAMINATION

I participated as a member of a Tri-member Examination Committee in the following postgraduate studies:

No	NAME	TITLE OF THESIS	TRIE-MEMBER COMMITTEE	YEAR
1	Tsagkalia Ekaterini	Structural and functional studies of the <i>Thermus thermophilus</i> L4 ribosomal protein	T.Choli P. Arzoglou <u>A. Pantazaki</u>	2004
2	Kasemian Lousi	Functional characterization of the sensory kinase of the signal transduction system AtoS-AtoC / Az in <i>E. coli</i>	D. Kyriakidis T.Yupsanis <u>A. Pantazaki</u>	2007
3	Grammou Athina	Evaluation of the quality of recovered wastewater through biochemical biomarkers	A. Papadopoulos T. Choli <u>A. Pantazaki</u>	2007
4	Papazachariou Louiza	Study of the L25 ribosomal protein from <i>Helicobacter pylori</i> : Cleansing and interaction with <i>Bacillus subtilis</i> Y1qF protein	T. Choli <u>E. Nikolakaki</u> <u>A. Pantazaki</u>	2008

5	Mpefani Christina	Adhesion of activated neutrophils - after incubation with HPNAP and its segments - in endothelial cells and effect of AGP proteins of Chios mastic	G. Koliakos T. Choli <u>A. Pantazaki</u>	2008
6	Mimikakou Georgia	Finding the PHA synthase gene in the <i>Thermus thermophilus</i> bacterium	D. Kyriakidis T. Giannakouros <u>A. Pantazaki</u>	2008
7	Dimitrakopoulou Anastasia	Synthesis, study and interaction with DNA of polynuclear iron and manganese complexes	D. Kessissoglou A. Dendrinou <u>A. Pantazaki</u>	2008
8	Tarousi Alketa	Zinc complexes with quinolone antimicrobial drugs substituents: structure-interaction with DNA	D. Kessissoglou P. Aslanidis <u>A. Pantazaki</u>	2009
9	Daniilidou Makrina	Synthesis and study of siRNAs targeting SRPK1 / SRPK1a protein kinases	E. Nikolakaki T. Choli <u>A. Pantazaki</u>	2009
10	Lamprou Paraskevas	Universality of 50S ribosomal subunit assembly in Gram-positive and Gram-negative bacteria	T. Choli E. Nikolakaki <u>A. Pantazaki</u>	2009
11	Tseliki Georgia	Development of Hucal antibodies against SRPK1a. Study of functionality and specialization	T. Giannakouros T. Choli <u>A. Pantazaki</u>	2011
12	Vamvali Maria	Detection of elevated autoantibodies to SRPK1 protein kinase in serum and cerebrospinal fluid in patients with Alzheimer's disease	T. Giannakouros T. Choli <u>A. Pantazaki</u>	2011
13	Koutroumani Maria	Effect of the disulfide bond developed between cysteines 356 and 455 on the structure activity and subcellular localization of the protein kinase SRPK1	T. Giannakouros T. Choli <u>A. Pantazaki</u>	2011
14	Samaridou Eleni	Cloning and study of enzymes of the polyhydroxyalkanoic acid (PHAs) biosynthetic pathway of <i>Thermus thermophilus</i> HB8	D. Kyriakidis M. Liakopoulou <u>A. Pantazaki</u>	2012
15	Liakos Theodoros	Removal of melanidin from simulated and actual yeast industry wastes	N. Lazaridis M. Kostoglou <u>A. Pantazaki</u>	2013

16	Amuntzia Julia	Removal of dyes from aqueous systems by the biosorption technique using the yeast <i>Saccharomyces cerevisiae</i>	N. Lazaridis M. Kostoglou <u>A. Pantazaki</u>	2013
17	Stogios Gregorios	Overexpression of SRPK1a protein kinase in glioblastoma polymorphic cells	E. Nikolakaki T.Choli A. Pantazaki	2014
18	Mirkoopoulou Zoe-Ourania	Removal of melanidins from actual liquid waste from the yeast industry by adsorption	N. Lazaridis <u>A. Pantazaki</u>	2015
19	Apostolidou Chrysanthi	Study of the C-terminal region of TGF- β 3 factor in cell differentiation to chondrogenesis	T.Choli <u>A. Pantazaki</u> E. Nikolakaki	2017

PARTICIPATION IN THREE-MEMBERS ADVISORY BOARD OF DOCTORAL DISSERTATIONS

No	NAME	DOCTORAL DISSERTATION TITLE	ADVISORY BOARD OF DOCTORAL DISSERTATION	YEAR
1	Papaneophytou C.	Studies for the regulation of synthesis and for the structure of polymers produced by the bacterium <i>Thermus thermophilus</i> : nanotechnological applications	D. Kyriakidis M. Arsenakis <u>A. Pantazaki</u>	2008
2	Filippou P.	Study of the two component system AtoS-AtoC and implications in regulation of microbial cells functions	D. Kyriakidis T. Giannakouros <u>A. Pantazaki</u>	2008
3	Noutsos G.	Immobilization of biomolecules with antigenic properties in polymeric substrates for the production of diagnostic system and examination of <i>Brucella melitensis</i> biotypes	D. Kyriakidis T. Yupsanis <u>A. Pantazaki</u>	2009
3	Tarushi A.	Interaction of transition metals with drugs bearing carboxylic groups	D. Kessisoglou <u>A. Pantazaki</u> V. Tangoulis	2014
4	Mischopoulou M.	Bioprocessing of molasses wastes	N. Lazaridis A. Pantazaki P. Samaras	2014
5	Giannousi K.	Copper based nanoparticles for	C. Dendrinou	2016

		biological applications	A. Pantazaki G. Mosialos	
6	Kyritsi L.	Studies on the effect of selected drugs of different concentrations on normal cells, by means of biochemical and biophysical methods	T. Choli-Papadopoulou S. Logothetidis <u>A. Pantazaki</u> N. Frangis A. Zotou d. Lazari P. Arzoglou	2017
7	Antonoglou O.	Synthesis and characterization of bimetallic nanoparticles ideal for catalysis and bioabsorption applications	C. Dendrinou A. Pantazaki I. Lykakis	In progress

PARTICIPATION IN SEVEN-MEMBER EXAMINATION COMMITTEES OF DOCTORAL STUDENTS

No	Name	DOCTORAL DISSERTATION TITLE	EXAMINATION COMMITTEE	YEAR
1	Theodorou Marina	Involvement of <i>ato</i> genes on polyhydroxyalkanoate biosynthesis	D. Kyriakidis D. Drainas K. Drainas T. Giannakouros T. Yupsanis C. Panagiotidis <u>A. Pantazaki</u>	2005
2	Konsoula Zoe	Production of polymers by microorganisms using by-products of the food industry as substrates	M. Liakopoulou-Kyriakides V. Papageorgiou N. Stoforos E. Litopoulou-Tzanetaki M. Stamatoudis T. Yupsanis <u>A. Pantazaki</u>	2005
3	Koutsas Chris	Synthesis of oligopeptides and their conjugation with other, low N.W. organic compounds: study of the biological activity	M. Liakopoulou-Kyriakides G. Stravropoulos A. Kotali G. Papageorgiou M. Stamatoudis <u>A. Pantazaki</u>	2007
4	Tsagkalia Catherine	The involvement of the ribosomal proteins L4 and L22 in the passage of the newly synthesized polypeptide chains through the main exit	T. Choli-Papadopoulou D. Kyriakidis D. Kalpaxis K. Vorias T. Yupsanis <u>A. Pantazaki</u>	2009

		from the ribosome	E. Nikolakaki	
5	Papaioannou Emmanouil	Downstream processes for carotenoid production and purification from fungus <i>Blakeslea trispora</i> using different substrates	M. Liakopoulou-Kyriakides T. Roukas N. Stoforos V. Papageorgiou P. Kotzekidou-Rouka D. Christofilos <u>A. Pantazaki</u>	2009
6	Alexiadou Despoina	Development of electrochemical DNA biosensors using amplicons containing analogue bases or 5-methyl-cytosine interactions with proflavine	A. Voulgaropoulos S. Koudou-Andreou G. Papageorgiou D. Themelis S. Girousi G. Theodoridis <u>A. Pantazaki</u>	2009
7	Varzakakou Maria	Study of the phenomenon of autolysis and morphology of the fungus <i>Blakeslea trispora</i> during the production of β -carotene from cheese whey in submerged fermentation	T. Roukas P. Kotzekidou-Rouka M. Galiotou-Panagiotou M. Liakopoulou-Kyriakides <u>A. Pantazaki</u> S. Papanikolaou G. Karaoglanidis	2009
8	Afrati Tereza	Synthesis and study of Cu metallocrowns and polynuclear compounds of Mn, Ni, Fe & Au: chemical, magnetic and biochemical study	D. Kessisoglou C. Dendrinou C. Raptopoulou S. Perlepes K. Tsipis <u>A. Pantazaki</u> V. Tangoulis	2009
9	Penloglou Ioannis	Microbial production of the biodegradable poly(3-hydroxybutyrate) (PHB) with tailor-made molecular properties: experimental optimization and mathematical simulation	C. Kiparissides D. Kyriakidis M. Papagianne M. Arsenakis G. Liberatos <u>A. Pantazaki</u> C. Hatzidoukas	2010
10	Pentas Stefanos	Interaction of domain A1 of blood coagulation factor von Willebrand with the membrane protein A of <i>Staphylococcus aureus</i> : theoretical and experimental approach	T. Choli-Papadopoulou S. Logothetidis G. Papadopoulos N. Frangis C. Panagiotou D. Kyriakidis <u>A. Pantazaki</u>	2010
11	Μαντουρλιάς Θεοφάνης	Kinetic study of the lactid polymerization:	C. Kiparissides M. Liakopoulou-	2011

		polymer synthesis and characterization	Kyriakides M. Papagianni M. Stoukidis C. Karatasos D. Achilias <u>A. Pantazaki</u>	
12	Adnan Ahmed Zrari Salar	Biochemical studies on blood coagulation mechanism-Effect of recombinant von Willebrand factor-A1 domain on the process of hemostasis	D. Kyriakidis E. Nikolakaki <u>A. Pantazaki</u> C. Kotinis P. Arzoglou T. Choli-Papadopoulou T. Giannakouros	2012
13	Daniilidou Makrina	Biological functions of SRPKs in K562 erythroleukemic cells: detection of elevated autoantibodies against SRPK1 in Alzheimer's disease patients	E. Nikolakaki C. Pantopoulos V. Kotoula-Dimitriadou D. Kyriakidis T. Choli-Papadopoulou M. Tsolaki A. Pantazaki	2013
14	Tsitouroudi Fani	Bio-functionalization of surfaces for single molecule studies	T. Choli-Papadopoulou S. Logothetidis D. Kyriakidis T. Giannakouros A. Pantazaki D. Achilias V. Sarli	2014
15	Besis Athanasios	Study of Polybrominated Diphenyl Ethers (PBDEs) in the atmosphere	K. Samara D. Voutsas A. Anthemidis N. Kantiranis T. Choli-Papadopoulou A. Pantazaki	2014
16	Dafa Evaggelia	Cytogenic and molecular study of women bearing polycystic ovary syndrome	T. Lialiaris V. Liberis Z. Iakovidou-Kritsi S. Veletza N. Koutlaki A. Pantazaki E. Kontomanolis	2015
17	Koutroumani Maria	Molecular mechanisms regulating the activity and the subcellular localization of SR protein kinase 1	T. Giannakouros S. Georgatos G. Papadopoulos T. Choli-Papadopoulou M. Hadzopoulou-Cladaras E. Nikolakaki A. Pantazaki	2016
18	Karastogianni Sophia	Synthesis, characterization of	S. Girousi C. Dendrinou-Samara	2016

		Mn(II) complex with the ligands triethanolamine and thiophene-2-carboxylic acid and its analytical application to electrochemical (bio)sensors	D. Hadjipavlou-Litina A. S Zotou G. Zachariadis A. Oikonomou A. Pantazaki	
19	Mavromatidou Polyxeni	Cytogenic evaluation of patients bearing chronic renal failure	T. Lialiaris V. Vargemeis P. Passadakis I. Thodis A. Labropoulos S. Panagoutsos A. Pantazaki	2016
20	Karoulis Stylianos- Zafeirios	Studies in protein domains involved in cell differentiation for osteogenesis	T. Choli-Papadopoulou P. Patsalas G. Papadopoulos D. Leonidas G. Koliakos E. Nikolakaki A. Pantazaki	2017

CONTRIBUTION IN RESEARCH AND TRAINING PROJECTS FUNDED

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. ΗΠΑΚΑΕΙΤΟΣ II. “*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 Community. Coordinator K. Kyparrisidis-D. Kyriakidis. Funding: 1.000.000. For the Biochemistry Lab: 400.000€. Partner.
8. Pythagoras II. “*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
9. Interuniversity programme of PENED in association with Professor Kyriakidis, project code 1140 95 ED under the auspices of Department of Materials Science NCSR “DEMOKRITOS” under the scientific responsible Dr. A. Terzis and project title «*Synthesis, characterization, structural studies and bioreactivity evaluation of Cu(II) complexes with potential anticancer activity*».

FURTHER TRAINING ABROAD

I further trained at the Laboratory of Polymer Research (CNRS) at the University Paris XII within my educational leave which occurred from 1-2-1997 to 1-11-1997 as well as between 1-6-1998 and 31-8-1998. During my educational leave I participated with scholarship to the European Community research programme within the «Human Capital Mobility Network» which was entitled «Acquisition of chromatographic materials for the purification of radioactive wastes from radioactive caesium». The aim of this programme was utilize polymer based chromatographic materials that are as used as protein absorption substances in order to be used as metal absorbents after modification. The above programme completed successfully resulting in protection of French patent initially, consequently with American and International patent as it was previously mentioned. In addition to, the publication No **15** of the memorandum was published. Subsequently, part of the programme’s results were completed and presented in conference as it is mentioned in No **43** of the memorandum.

In the same period, I trained on microseparation techniques of proteins and nucleic acids using capillary electrophoresis including capillary isoelectric focusing, capillary gel electrophoresis, and micellar electrokinetic capillary chromatography. In addition I attended the workshop entitled: “4e journée d’électrophorèse capillaire”, June 1998. From this experience publication No **12** of the memorandum came out.

Furthermore, I was trained in protein separation using High Performance Liquid Chromatography (HPLC) evaluating the properties of newly synthesized polymer based chromatographic materials which coated or were absorbed on silica. As a result of this training came out the publication No **9** of the memorandum.

I worked in the same laboratory the periods from 1-6-1999 to 31-8-1999 and from 1-6-2000 to 31-8-2000 as guest researcher practicing protein separation techniques and utilizing kinetic absorption studies using the above mentioned chromatographic materials and High Performance Liquid Chromatography (HPLC). As a result from this experience the publications No **18**, **26** and the presentations No **42** and **43** of the memorandum came out.

Also, I worked on subjects of DNA-anticancer drugs interactions using High Performance Liquid Chromatography (HPLC). Part of the results were presented in poster announcements No **41** and **45** of the memorandum as well as resulted in publication No **28**.

Within the Bilateral Research Projects between France and Greece, in which I was Scientific responsible, I travelled to France for short periods in order to participate in research cooperation and complete the project. From the first two-year project (2003-2005) the postgraduate diploma dissertation No **5** as well as the publication No **32** came out. In addition, I travelled twice to France to complete the second project and to analyze the samples prepared in our laboratory.

Additionally, during my staying and working in the Laboratory of Polymer Research I cooperated with Professor Langlois Valerie and Professor Guerin Philippe who have great experience in production of biodegradable polymers in bacteria, and trained me on techniques of production, isolation and identification of bacterial polymers. This cooperation resulted in publication No **25**. The above expertise was transferred and was further developed in our laboratory in cooperation with Professor Kyriakidis resulting in research papers publications (No **25**, **33**, **40**, **41**, **46**, **49**).

EDUCATION VIA PARTICIPATION IN EDUCATIONAL SEMINARS

I have attended many educational seminars including:

1. International Conference of Biochemistry held in Spetses and lasted 15 days entitled: "*Genome function and organization*" (September 1984)
2. Balkan Congress of Biochemistry held in Filippoupoli of Bulgaria (April 1985)
3. International Conference of Biochemistry held in Spetses in September 1985 entitled: "*Maturation and migration of proteins*" duration 15 days.
4. I took part in the educational training of the Greek Productivity Centre of Thessaloniki (ELKEPA) which continued for three hundred and sixty hours (360 hours) from 15 May to 20 October 1989 on: «*Energy saving with biotechnological applications in Agriculture*» which was completed with the writing of article entitled: «*Anaerobic digestion of aqueous and solid sewage with farming origin*» Authors: Akrivos P., Zafeiropoulos M., Palaiohorinos Em., Pantazaki A., Hatzipanagiotou A.

5. I attained a workshop in Paris entitled: “*4e journee d’electrophorese capillaire*” which was about microseparation techniques of proteins and nucleic acids using capillary electrophoresis such as capillary isoelectric focusing, capillary gel electrophoresis, micellar electrokinetic capillary chromatography), June 1998.
6. Conference entitled “*Deciphering the organism’s genome then what?*” which was held in Thessaloniki, November 2000.
7. Two-day workshop: «*Cellular communication & Signaling*» which was held in Thessaloniki 3-4 April 2009.

CALLS FOR LECTURES IN TRAINING SEMINARS AND CONFERENCES

- Invited speaker in Biotechnology seminar which was organized by the Greek Productivity Centre of Alexandroupolis (ELKEPA) in 1991 entitled «*Simple applications of Biotechnology in Agriculture and Animal husbandry*».
- I participated in international “FEBS Advanced Course” entitled “*Gene manipulation of microbial production of valuable products*” in Thessaloniki between 2 and 6 September of 2002 entitled “*Affinity chromatography and applications to nucleic acids research*”.
- I participated in “FEBS Advanced Course” entitled “*Gene manipulation of microbial production of valuable products*” which was held in Thessaloniki from 19 to 23 of September 2003 entitled “*Affinity chromatography and applications to nucleic acids research*”.
- Speaker in the University Paris XII within the programme “Socrates, staff mobility” entitled «*Biodegradable biopolymers*».
- Invited speaker in the internal Medical Congress, specifically in «*International Congress of Clinical and Molecular Genetics*» which held in Alexandroupolis between 12 and 14/5/2006. My speech was entitled «*Biodegradable polymers produced in bacteria and biomedical applications*».
- Invited speaker in the 4th Annual Congress of International Drug Discovery Science and Technology (IDDST) 26-29/5/2006, Dalian and 30/5-2/6/2006, Xi’an, China.
- Invited speaker in the “8th Southeast Congress on Xenobiotic metabolism and Toxicity (XEMET 2010)” which was held in Thessaloniki between 1 and 5 October of 2010. The title of my speech was «*Rhamnolipids from T. thermophilus HB8 induces morphological alterations and cytotoxicity on fibroblastic cell line*», Pantazaki A., Choli-Papadopoulou T.
- Invited speaker in the «10th Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2nd Mediterranean Conference on Neurodegenerative Diseases, 2-5 February 2017, Grand Hotel Palace Thessaloniki, Greece», the title of my speech was «*Emerging role of bacterial components in neurodegenerative diseases*».

CONFERENCES-PARTNERSHIP ORGANIZATION

1. Member of the Local Organizing Committee of the international conference: “**FEBS Advanced Course on Methods in Protein Structure Analysis**” held in Chalkidiki, from 3rd April to 5th May 1995

2. Member of the Local Organizing Committee of the “**1st Panhellenic Conference of Clinical Chemistry**” held in Vouliagmeni from 18 to 20 of October 1996.
3. Member of Scientific Advisory Board of “**FEBS Advanced Course**” entitled “**Gene manipulation of microbial production of valuable products**” held in Thessaloniki from 2nd to 6th September 2002.
4. Member of the Scientific Advisory Board of “**FEBS Advanced Course**” entitled “**Gene manipulation of microbial production of valuable products**” held in Thessaloniki from 19th to 23rd of September 2003.
5. Scientific responsible of the cooperation research programme Socrates/Erasmus and University of Paris XII, France.
6. Scientific responsible of the cooperation research programme Socrates/Erasmus within the Bilateral Research Project of Aristotle University and the School of Pharmacy of the University Paris Sud XI, Chatenay Malabry, France.
7. Member of the Organizing Committee of the “**10th Panhellenic Conference on Alzheimer's Disease and Related Disorders and 2nd Mediterranean Conference on Neurodegenerative Diseases**”, 2-5 February 2017, Grand Hotel Palace Thessaloniki, Greece » where I organized a Round Table titled **Alzheimer's disease: the infectious / inflammatory hypothesis** "and which was staffed by 6 members of my research team with the same number of speeches.

PARTNERSHIPS WITH UNIVERSITIES, INSTITUTES AND COMPANIES

VISITS IN DIFFERENT DEPARTMENTS OF THE WORLD

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, Chatenay-Malabry, France

I have collaborated with many researchers who work in the following entities and having joint publications:

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, Faculté 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.

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.

Faculty Members: I have cooperated with a high amount of Faculty members of Department including: Aslanidis P., Voulgaropoulos A., Voutsas D., Girousi S., Dendrinou C., Katsoulos G., Hatzikostas C., Kessiosoglou D., Kyriakidis D., Lazaridis N., Bakalbasis E., Bolos C., Samara K., Stratis I., Tsoleridi K., Hatzidimitriou C.,

Choli-Papadopoulou T., Psomas G. and others as it mentioned in our joint publications.

PEER-REVIEWER OF SCIENTIFIC ARTICLES

Reviewer of scientific works in various journals:

Enzyme and Microbial Technology (1), Process Biochemistry (3), Food and Chemical Toxicology (5), Materials Science and Engineering B (1), Chemotherapy (1), Journal of Biological Research (1), Extremophiles (1), Journal of Biotechnology and Biomaterials (2), Cytotechnology (3), African Journal of Microbiology Research (3), Electrophoresis (1), Journal of Basic Microbiology (1), Chemical and Biological Technologies in Agriculture, (1) Journal of Environmental Chemical Engineering (3), Journal of Hazardous Materials (2), Arabian Journal for Science and Engineering (1), Biocatalysis (1), Drug Design, Development and Therapy (1), International Journal of Nanomedicine (2), Journal of Nanoparticles (1), PeerJ (1), Brazilian Archives of Biology and Technology (1), Food & Nutritional Journal (1), International Journal of Environmental Research and Public Health (1), Molecules (1), Research on Chemical Intermediates (1), British Journal of Medicine and Medical Research (1), PLOS One (1), Extremophiles (3), Molecules (1), Research on Chemical Intermediates (1), Environmental Pollution (1), Mechanisms of Ageing and Development (1).

EDITORIAL BOARD

Biointerface Research in Applied Chemistry

BIOCHEMISTRY EXAMINER

I have served as Biochemistry examiner for 2 years for the transfer of students abroad in entrance examinations in Greek institutes under the supervision of Aristotle University.

MEMBER OF SCIENTIFIC UNIONS

1. Member of Association of Greek Chemists
2. Member of Chemists Association of North Greece
3. Member of Hellenic Society of Biochemistry and Molecular Biology
4. Member of the Greek Alzheimer's Association and the Greek Federation of Alzheimer's Disease

RESPONSIBLE IN ORGANIZATION/REPRESENTATION

5. Member of American Chemical Society
1. Responsible for the Biochemistry and Enzymology laboratory exercises of the Department of Chemistry between 1999 and 2004.
2. Representative of E.M.Y in general meeting of Dept. of Chemistry the year 1986-1987.
3. Representative of laboratory of Biochemistry in the general meeting of Dept. of Chemistry the academic years 2001-2002, 2004-2005 and 2006-2007.

4. Representative of laboratory of Biochemistry in the undergraduate studies Commission of the Dept. of Chemistry the year 2001-2002.
5. Representative of laboratory of Biochemistry in the postgraduate studies Commission of the Dept. of Chemistry the year 2003-2004.
6. Representative of laboratory of Biochemistry at the postgraduate students' evaluation committee the year 2007-2008.
7. Representative of laboratory of Biochemistry at the scientific and cultural activities committee of Dept. of Chemistry.
8. Representative of laboratory of Biochemistry at the committee of writing study guides and periodicals of Dept. of Chemistry.
9. Representative of laboratory of Biochemistry of the monitoring committee of extension projects of the Dept. of Chemistry.
10. Representative of laboratory of Biochemistry at the evaluation committee MODIP (Quality Assurance Unit) of Dept. of Chemistry the years 2014-2017.
11. Representative of laboratory of Biochemistry in the postgraduate studies Commission of the Dept. of Chemistry the year 2016-2017.
12. Academic advisor of Dept. of Chemistry the year 2016-2017.

PARTICIPATION IN THE ELECTORAL COMMITTEES

In addition, I have participated in many electoral committees of DEP members electing Lecturers and Assistant Professors. I had been twice elected to participate in the three-member nomination committee and the committee of inquiry of Estelle Renard and Gisèle Volet of the University Paris XII, Val de Marne-Ecole Doctorale Sciences Ingénierie as well as in order to be given the title of Research leader (Habilitation de Recherche, HDR) I had written the rapport.

DOMAINS OF RESEARCH ACTIVITY

My research interests were oriented mainly on my knowledge of "Biochemistry with focus on Enzymes and Nucleic Acids" as defined by my appointment until 2016. As evidenced by the content of my published papers, I fall within the general field of Biochemistry, Biomedicine and Biotechnology. In particular, they focus on studies of the field of enzymes and nucleic acids as well as their potential biotechnological applications.

They summarize the following items as can be seen from the published papers:

- The purification and study of nucleolytic and other enzymes from various tissues and bacteria. Interaction of nucleases and nucleic acids. Determination of nucleases specificity.
- DNA purification and study of topoisomerases (enzymes that control or modify the topological DNA states and catalyze various types of conversions between topological isomers).
- The study of the biological activity of various newly synthesized inorganic complexes and nanoparticles and their interactions with nucleic acids (DNA and RNA), drugs (mainly anticancer drugs) eg antimicrobial activity, cytotoxicity, interaction with DNA for possible damage, study of oxidative stress etc. for the purpose of eventual use.
- Enzyme cleansing ornithine decarboxylase (ODC) as well as anti-enzyme for the study and control of biosynthesis and mechanism of regulation of polyamines in thermophilic organism by means of anti-enzyme. Interaction of ornithine

decarboxylase, ODC, with ribonucleic acid (RNA) in the form of a ribonucleoprotein complex.

- Phosphorylation-dephrylation: Purification and regulation of enzymes involved in this process (phosphatases, kinases) from thermophilic bacteria and plant tissues, with biotechnological interest.
- The study of the structural changes underlying an enzyme (or a functional or structural protein in general), its quaternary formation, and its active site when adsorbed to new chromatographic materials. Studies of these structural changes are necessary because preserving the structure of an enzyme is crucial for its functionality and biological activity. For these studies, HPLC (high pressure chromatography), adsorption, FTIR spectroscopy (Fourier transform infra-red).
- Enzyme and DNA Biosensor Study. Use of polymeric layer microarrays to immobilize enzymes and DNA of nanotechnological interest. Application to biosensors and DNA microcircuits. The construction of biosensors based on enzymes and nucleic acids is considered suitable for analytical use of metabolite measurement or for DNA-anticancer drug interaction studies.
- The production of biodegradable polymers or other secondary metabolites produced in bacteria. Taking advantage of the know-how I have gained and dealing mainly with techniques of isolation and identification of bacterial polymers during my stay at the Polymer Research Laboratory and my collaboration with professors Langlois Valerie and Guerin Philippe, we have been able to engage our laboratory with the specific subject matter and as successful as evidenced by their respective publications.
- The study of the biosynthesis and biodegradation of polymers such as polyhydroxyalkanoic acids in thermophilic bacteria, as well as the purification of enzymes involved in the two aforementioned processes such as polyhydroxyalkanoic acid synthase and depolymerase, keto thiolase etc. to elucidate the metabolic paths. The study of biosynthesis conditions and identification of biodegradable polymers such as polyhydroxyalkanoic acids in the presence of various sources of carbon and mainly by the use of industrial by-products such as whey in order to synthesize products with high added value.
- The production of biodegradable bio-pollutants by exploring the physiological role of their biosynthesis, regulating their production as well as their effect on eukaryotic cells.
- The study of biological study and approaching possible mechanisms of action of various types of nanoparticles for medicinal or agroculture applications
- The study of the biological activity of airborne particles such as cytotoxicity, DNA damage, approaching possible mechanisms of action.
- The study of the discoloration of environmental pollutants eg. Melanidin, colorants.
- Finally, the study of mechanisms of oxidative stress and other inflammatory factors contributing to Alzheimer's disease.