

Curriculum Vitae

Maria Konstandi, Ph.D
Professor of Pharmacology
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EDUCATION:

- 1980 **Bachelor of Science, B.S.** (Pharmacy)
Aristotle University of Thessaloniki
Thessaloniki, Greece.
- 1985 **Doctor of Philosophy, Ph.D.**
School of Medicine and School of Pharmacy, National and Kapodistrian
University of Athens, Athens, Greece.
Area of study: Neuropharmacology

POSTDOCTORAL TRAINING:

- 1987 Pharmacokinetics, "Agia Sofia" Hospital, Athens, Greece.
- 1990 Neurochemistry techniques (HPLC), University of Kuopio, Kuopio, Finland.
- 1990 Statistics, Dept of Biostatistics, University of Ioannina, Ioannina, Greece.
- 1991 Brain Dialysis, C.N.R.S./I.N.S.E.R.M., Neurobiologie des Regulation, College de France, Paris, France.
- 1992-1993 Enzymology and Molecular Pharmacology techniques. International Agency for Research on Cancer (IARC/WHO), Lyon, France.
- 1995 Advanced Course on Methods in Protein Structure Analysis, Halkidiki, Greece.
- 1996 Molecular Toxicology, International Agency for Research on Cancer (IARC/WHO), Lyon, France.
- 2000 Techniques in Experimental Schizophrenia, Neuroscience Center at St. Elizabeth's, National Institute of Mental Health, Bethesda, MD, USA.
- 2005 HPLC-based analysis of enzymatic activities. Department of Physiology and Pharmacology, School of Medicine, Karolinska Institutet, Stockholm, Sweden.
- 2008-2009 (19 months). Molecular Enzymology, Metabolomics, Gene Regulation, Signal Transduction, Cell Cultures, Lipid Metabolism. NCI/NIH, Laboratory of Metabolism, Bethesda, MD, USA.

POST DOCTORAL FELLOWSHIP:

Aug 1992-Oct 1993 International Agency for Research on Cancer (IARC/WHO),
Lyon, France.
Jan 2008-Sept 2009 Laboratory of Metabolism, NCI/NIH, Bethesda, MD, USA.

LANGUAGES:

English (fluent)
German (basic)

PROFESSIONAL EXPERIENCE

1/9/2016- Chair of the Department of Pharmacology, Faculty of
Medicine, University of Ioannina.

5/9/2015- Professor, Department of Pharmacology, Faculty of Medicine,
University of Ioannina.

24/10/08-5/9/2014 Associate Professor, Department of Pharmacology, Faculty of
Medicine, University of Ioannina.

23/8/96-24/10/08 Assistant Professor, Department of Pharmacology, Faculty of
Medicine, University of Ioannina.

5/12/1988-23/8/96 Lecturer, Department of Pharmacology, Faculty of Medicine,
University of Ioannina.

1986-1988 Pharmacist, General Hospital of Ioannina-Hatzikosta.

1986-1988 Assistant Professor of Pharmacology, Nursing Department,
Technological Institute of Epirus, Ioannina.

1980-1985 Researcher, Department of Experimental Pharmacology,
School of Medicine, National and Kapodestrian University of
Athens, Goudi 115 27, Mikras Asias, Athens.

EDUCATIONAL ACTIVITIES:

Over the last 23 years of my academic career, I have taught all aspects of Basic and Clinical Pharmacology in the curriculum of the third year medical students at the University of Ioannina, School of Medicine. During this period, I have also participated in the instruction of the Elective Courses, such as Molecular Pharmacology, Biochemical Pharmacology and Drugs of Abuse, which are included in the curriculum of the Department of Pharmacology. Furthermore, I devised and instructed the Elective Course “Development of New Drugs” for third year medical students. In addition to lecturing, I was actively involved in the instruction of laboratory exercises of Pharmacology. In these exercises, students are exposed to various topics in Pharmacology using various modalities, such as experimental animals, video and interactive computerized systems. The purpose of these exercises is to consolidate basic knowledge about the effect of drugs, their adverse effects and toxicity, their selectivity in binding with specific receptors, pharmacokinetics etc.

With the aim of enriching the view of students regarding drug development, I have organized educational visits in research institutes and prototype animal houses. Within this framework, I have also organised visits of the third year medical students to the “Novartis” Company in Basel, Switzerland. By visiting one of the biggest drug industries in the world, the students are given the opportunity to become acquainted with the structure and function of a pharmaceutical giant, as well as to understand the underlying economic and scientific issues involved in the research and production of new drugs. I firmly believe that educational activities such as these help students to broaden their scientific and professional perspectives and pursuits.

For several years I had the responsibility of organizing the Elective Course “Clinical Pharmacology”. The goal of this Course is to give the third year medical students the perspective of an experienced clinician on specific issues in Clinical Pharmacology, in order to help them combine more successfully the theory with practice in the future. For this purpose, I have recruited the active participation of experienced clinicians from the University Hospital of Ioannina.

In addition, I have been actively involved in both undergraduate and graduate educational programs aiming to train graduates in Biological Sciences on issues of Molecular Pharmacology, Enzymology and Neuropharmacology. In the framework of this activity, I have participated in the graduate program of the University of Ioannina entitled "Certification of Agricultural Products Quality." I have also mentored Ph.D students in a wide range of current molecular biology techniques, state-of-the-art analytical techniques, small animal surgery, behavioural evaluation techniques and cell cultures. In supervising my graduate student's research work from start to completion, they are guided in solving scientific and technical problems and interpretation of results, with the ultimate aim of publishing the results in high impact scientific journals. An important part of these graduate level educational programmes, both at the Department of Pharmacology and other international Research and Academic Institutes where I have worked as a visiting scientist, include active participation in journal clubs, and discussions on current issues in Pharmacology aimed at broadening the scientific horizons of doctoral candidates and members of the Laboratory.

SUPERVISION OF DOCTORAL DISSERTATIONS AND DIPLOMA THESIS:

- 2003-2007 «Depression: immunological and drug metabolizing profile of the FSL rats, a genetic animal model of depression: role of mirtazapine». Dr Olga Kotsovolou, pharmacist.
- 2005- «The role of dopamine in the regulation of the constitutive and B[α]P-induced states of CYP1A and CYP1B enzymes». Candidate: Panagiotis Harkitis, chemist.
- 2005- 2009 «The role of maternal deprivation stress in the regulation of hnRNPs and DARPP-32 in CNS- investigation of their involvement in the neurobiological substrate of schizophrenia». Dr Georgia Rentesi, biologist.
- 2006-2010 «Investigation of the role of adrenoceptor and dopaminergic signaling in the regulation of cytochromes CYP3A, CYP2C and CYP2D». Dr Evangelos P. Daskalopoulos, pharmacist.
- 2010- 2017 «Investigation of the role of oleuropein in lipid homeostasis and myocardial ischemia-reperfusion: role of the peroxisome proliferator activated receptors PPARs». Dr. Foteini Malliou, molecular biologist-geneticist.
- 2016- «Preclinical investigation of the potential anticancer properties of D2-dopaminergic receptor antagonists in chemical carcinogenesis» Candidate: Eirini-Christina Andriopoulou, biologist.
- 2018- «Investigation of the idiopathic inflammatory bowel disease treatment with immunomodulatory drugs and biological agents» Candidate: Aphrodite Orfanidou.
- 2019- «...» Candidate: Aristeidis Kofinas
- 1996- Supervisor of seven diploma theses of undergraduate students and four master theses of the Department of Molecular Biology, Democritus University of Thrace and the Department of Biological Applications and Technology, School of Health Sciences, University of Ioannina.

UNDERGRADUATE DIPLOMA THESES

- 2012-2013 «Neural plasticity: Role of PPARα activation with fenofibrate and oleuropein» Alexandra-Eleni Katsogridaki, biologist
- 2013-2014 «Influence of stress on SAA: role of oleuropein» Stela Zaikou.
- 2014-2015 «Influence of stress on neuronal plasticity: Role of PPARα activation with oleuropein» Thanos Mitsis, biologist
- 2014-2015 «Investigation of the role of PPARα activation in xenobiotic metabolism», Eirini-Christina Andriopoulou, biologist
- 2015-2016 «Investigation of the potential anticancer effect of sulpiride in *in vitro* models», Aristidis Kofinas, biologist
- 2016-2017 «Investigation of the role of hormones in A549 cell growth», Eleni Mouchtouri, biologist

MASTER THESES

- 2015-2017 «Investigation of the effect of sulpiride on human lung cancer cell metabolic profile », Nikos Dimou, pharmacist.
- 2017- 2018 «*In vitro* investigation of the potential anticancer effect of the antipsychotic drugs, haloperidol, sulpiride and clozapine in human lung cancer cells», Paraskevi Kirgou, biologist.
- 2018-2019 “Potential anticancer properties of antipsychotic drugs: Role of dopaminergic D2-receptor-linked pathways”, Fivos Kanellos.
- 2019- Aggeliki

MEMBER OF THE ADVISORY COMMITTEE FOR THE PREPARATION OF DOCTORAL DISSERTATIONS:

- 2009-2013 Topic:" Development of techniques for the assessment of drug effect in the eye". Prepared by Dr Marianthe Sotiropoulou, biologist.
- 1998-2004 Topic: "Effect of drugs on the metabolism of ethanol". Prepared by Dr Peter Karamanakos, physician.
- 2006-2009 Topic:"The role of the CB1 cannabinoid receptor in the neurobiological actions of addictive drugs. Implications in Treatment". Prepared by Dr Olga Houliara, physician.

And several others since then (6)

MEMBER OF THE EXAMINING COMMITTEE OF DOCTORAL DISSERTATIONS :

- 1996 Theme: "Biological role and regulatory factors of induction of aldehyde dehydrogenase-3". Dr Periklis Pappas, chemist.
- 1998 Theme: "Isolation of the Gonadotrophin Surge Attenuating Factor-GnSAF» Dr Aglaia Pappa, biologist.
- 1998 Theme: "Study of the effect of plant diterpenes and flavonoids in human leukemic cells" Dr Konstantinos Dimas, pharmacist.
- 1999 Theme: "Extrinsic and intrinsic regulation of hepatic xenobiotic metabolism" Dr Panagiotis Stephanou, biologist.
- 2000 Theme: "Psychosocial factors associated with the use of psychotropic drugs by secondary school students” Dr Athanasia Demetriou, psychologist.
- 2003 Theme: "Study of the alkaline neutralizing capacity to the skin surface in healthy subjects and in patients with various dermatological diseases" Dr. Mikel Nakuci, physician.
- 2007 Theme: "The survival of Dioscorides published handwritten remedies of Epirus" Dr Eftalia Tsagali, philologist.
- 2007 Theme:"Donakiosi (VIBRIO SPP) in fishfarming units" Dr Hercules Nousias, veterinarian.

2013 Theme: "Inhibition of growth factor -beta conversion and exclusion of the endothelin receptor in rats with pulmonary hypertension induced by monokrotalinin' Dr Aikaterini Megalou, physician.

ADMINISTRATIVE AND ORGANIZATIONAL ACTIVITIES:

During my tenure as a faculty member of the University of Ioannina-Medical School, I participated in the following administrative activities:

1. General Assemblies of the Functionalized Clinical-Laboratory Division (1990 -present)
2. General Assembly of the School of Medicine (1990-1992)
3. Electoral Board for evaluation of appointments or promotions of members of the School of Medicine of the University of Ioannina, of the National and Kapodistrian University of Athens, of the University of Patras, of the Democritus University of Thrace and the University of Thessaly (1994 -present).
4. Secretary of the Hellenic Society of Pharmacology (1994-1998)
5. Committee member on Drugs of Abuse of the University of Ioannina (2003 -present).
6. Committee member for the reception and evaluation of tenders for the supply of reagents and consumables for the Laboratories of Pharmacology and Physiology, of the Medical School and the Laboratory of Analytical Chemistry, of the Department of Chemistry, of the University of Ioannina (2000 -present).
7. Committee member for the reception and control of the scientific instruments/ consumables for the Department of Pharmacology and for other laboratories of the Medical School of the University of Ioannina (2000 -present).
8. Member of the supervising committee of several doctoral dissertations (1998 –present).
9. Member of the examining committee of several doctoral dissertations (1996 –present)
10. Supervisor of doctoral dissertations (2003-present).
11. Supervisor of diploma thesis (2005-present).
12. Evaluator of the State Scholarship Foundation (IKY) scholarships
13. Member of the organizing committee of several conferences:
 - a. 6th Panhellenic Neuroscience Meeting, Ioannina, 1990.
 - b. 1st Panhellenic Pharmacology Meeting, Ioannina, 1993.
 - c. 2nd Xenobiotic Metabolism and Toxicity Workshop of Balkan Countries, Ioannina, 1995.
14. Chairwoman of the 10th Biannual Conference of the Hellenic Pharmacological Society, Ioannina, 2018.

AD HOC REVIEWER FOR JOURNALS AND BOOKS:

1. Drug Metabolism and Disposition
2. Molecular Carcinogenesis
3. Steroids
4. Stress
5. Journal of Pharmacology and Experimental Therapeutics
6. Human Genomics
7. Neurotoxicity Research
8. Basic Clin Pharmacol Toxicol.
9. Pharmacological Research

10. Color Atlas of Pharmacology, 3^d edition, (eds: Heinz Lüllmann, Klaus Mohr, Albrecht Ziegler, Detlef Bieger).
11. The FEBs Journal

INVITED SPEAKER:

I am invited in several world conferences on Health Sciences related to stress, drug metabolism and toxicity every year including the following:

1. BIT's 4th Annual World Congress of Endobolism (WCE-2014) Haikou, China, 2014
2. BIT's 7th Annual World Protein and Peptide Conference. Dalian, China, 2014.
3. Role of stress in Drug Efficacy and Toxicity. Ioannina University Hospital, 2013.
4. Pharmaceutica, 2nd World Congress on Pharmaceutics & Novel Drug Delivery Systems, San Francisco, USA, 2012.
5. Metabolomics, International Conference and Exhibition on Metabolomics & Systems Biology, San Francisco, USA, 2012.
6. 2nd World Congress on Bioavailability & Bioequivalence 2011- Pharamaceutical R&D Summit, Renaissance Las Vegas, USA, 2011.
7. International Conference and Exhibition on Cell Science & Stem Cell Research, Philadelphia, USA, 2011.
8. Pharma, International Conference & Exhibition on Pharmaceutical Regulatory Affairs, Baltimore, USA, 2011.
9. International Conference & Exhibition on Pharmaceutical Biotechnology, Hyderabad, India, 2011.
10. Role of stress in synthesis of serum amyloid A proteins:investigation of the role of adrenergic systems and cytokines (University of Ioannina), 2011.
11. Stress effect on PPAR regulation: role of adrenergic systems (University of Ioannina), 2010.
12. 3rd World Congress on Magic Bullets, Nuremberg Germany, 2008
13. Drug-induced perturbations in diuresis (School of Medicine, University of Ioannina), 1999.
14. Role of stress in the regulation of drug metabolizing systems (School of Medicine, University of Ioannina), 1999.
15. Cocaine effect on P450 regulation (School of Medicine, University of Ioannina), 1994.
16. The involvement of different cytochrome P450s of the IIB family in cocaine metabolism (International Agency for Research on Cancer (IARC/WHO), Lyon, France), 1993.
17. Effect of d-amphetamine on a conditioned emotional response procedure (latent inhibition) (Dept. of Pharmacology and Toxicology, University of Kuopio, Kuopio, Finland), 1990.
18. Endocrine-related effects on the brain and their relation to behavior (School of Medicine, University of Ioannina), 1989.

And many more

MEMBER OF SCIENTIFIC ORGANIZATIONS:

1989- Hellenic Society of Pharmacology
1989- Hellenic Society for Neuroscience
1989- European Neuroscience Association (ENA)
1990- International Brain Research Organization (IBRO)
1993- International Union of Pharmacology (IUPHAR)
1996- Hellenic Society of Biochemistry
1996- European Biochemistry Organization (EBO)
2007- International Society for the Studies of Xenobiotics (ISSX).

RESEARCH PROJECTS:

Integrated Research Projects:

A. Sex hormones and cognitive functions - serotonin and eating behavior

Studies focusing on behavioral pharmacology and psychoneuroendocrinology showed in female rats strong variation in their ability of learning and memory in the various phases of the estrous cycle, and indicated a crucial role of progesterone. It was also found that 24 hour food and water intake varies in the different phases of the estrous cycle, with serotonin holding a critical role.

B. Environmental contaminants and behavior

The results of these studies showed that exposure to polycyclic aromatic hydrocarbons (most important environmental pollutants) drastically reduces the capacity of learning and memory, an action resembling that of progesterone and associated with significant changes in neurotransmitter levels in the CNS.

C. Maternal deprivation stress (MD) and neurobiological changes

These studies investigated the relationship between the stress of early in life phase maternal deprivation with the appearance in adulthood various psychopathological conditions, such as schizophrenia and depression. The results showed that maternal deprivation stress can cause lasting changes in behavioral, neurochemical and neurobiological indices including dopaminergic and serotonergic function in brain regions that play an important pathophysiological role in schizophrenia and depression.

D. Depression and drug metabolism

This study investigated the ability of the liver to metabolize drugs and other xenobiotics in conditions resembling the neurobiological substrate of depression. It was found in rats a differentiated liver ability to metabolize drugs, toxic substances and pre-carcinogens in conditions of depression.

E. Psychological stress and drug metabolism

This study investigated the mechanisms regulating the effect of stress on major drug metabolising enzyme systems, with emphasis on signaling pathways, associated with catecholamines. It was found that the stress is a key factor in the regulation of genes that encode the major cytochromes metabolizing drugs, toxic substances and carcinogens. The role of central and peripheral catecholamines is critical.

F. Adrenergic systems and cytochrome gene regulation

The aim is the detailed investigation of the role of alpha- and beta- adrenergic pathways in regulating cytochrome CYP3A, CYP2C, CYP2D, CYP2E1, CYP1A1, CYP1A2, Cyp2a5 and CYP2B1/2. The key role of the adrenergic systems in the regulation of the hepatic expression of the major cytochromes that metabolize drugs and other endogenous and exogenous substances was found.

G. Dopamine and cytochrome gene regulation

This study investigated the role of dopamine in regulating the above mentioned cytochromes. The findings suggest that drugs, which act as D₂- antagonists (the majority of antipsychotics) can drastically affect the efficiency and toxicity of a plethora of prescribed drugs, as well as the toxicity and carcinogenicity of a large number of toxic and carcinogenic substances.

H. Stress and lipid metabolism: regulatory role of PPARs

The mechanisms mediating the stress effects on lipid metabolism were investigated. It was found that restraint stress activates PPAR α , leading to a decrease in plasma lipid markers, such as the free fatty acids, triglycerides (TG) and total cholesterol. The activation of PPAR α by stress is mediated by glucocorticoids and the stimulation of alpha₁- and beta-adrenergic receptors by catecholamines. Interestingly, stress, alpha₁- and beta-adrenergic receptor agonists induced a large reduction in serum TGs, but this action is not mediated by PPAR α . This effect is due to activation of lipases and enzymes involved in the transport and secretion of TG.

I. Stress and synthesis of serum A amyloid proteins

We investigated the effect of stress in the composition of serum amyloid A protein (SAA), with emphasis on the role of the adrenergic system and cytokines. It was found that stress induces the synthesis of SAA1/2 and SAA3 in the liver and kidneys by increasing the secretion of cytokines from the immune cells and mainly of IL-1 β and IL-6. This study demonstrates that exposure to psychological stress or drugs, which act as adrenergic agonists, can significantly increase the synthesis of serum amyloid A proteins in the liver, which in turn can deposit in vital organs, with potentially dramatic consequences for their functionality.

J. Potential anticancer properties of antipsychotics

This study investigates the potential anticancer properties of antipsychotic drugs using in vitro and in vivo models of lung cancer. Preliminary data indicate that several

antipsychotics inhibit NSCLC cancer cell proliferation and induce apoptosis.

Ongoing Research Projects:

1) Investigation of the role of sex hormones in the regulation of drug metabolizing enzyme systems

In female wild type C57BL/6J and transgenic mice bearing the corresponding human genes, the role of steroid sex hormones in regulating cytochrome Cyp2e1, Cyp3a4 and Cyp2d was investigated. A variation in the expression of *Cyp2e1* and *Cyp2d* during the different phases of the estrus cycle was found, with higher levels of expression in estrus and lower levels in metestrus, equivalent to those detected in males. The role of progesterone is more determinant than that of estradiol.

2) Investigation of the effect of drugs derived from vegetable products in drug metabolism

In the Department of Pharmacology, of the Medical School-the University of Ioannina under the framework of the European Union European Regional Development Fund (ERDF), it is organized under the custody and my supervision a Unit of Excellence for the study of pharmacological and toxic effects of substances contained in plant products. In addition, an electronic Database is under construction, which includes information on the medicinal plants of Epirus and the Greek mainland.

3) Investigation of the mechanisms underlying the cardioprotective effect of oleuropein

The influence of oleuropein (major component of olives) on lipid metabolism with emphasis on the role of the nuclear receptor PPAR α is investigated. It was found that oleuropein activates PPAR α , resulting in lipid beta-oxidation. The drug also possesses anti-inflammatory properties. The effect of oleuropein on indices of murine myocardial function following ischemia-reperfusion was also studied.

4) Investigation of the effect of psychological stress on neuronal plasticity with emphasis on the role of PPAR α activation

It was found that activation of PPAR α with oleuropein or fibrates induces the expression of several important indices of neuronal plasticity, such as BDNF, NT- 4/5 and the CRF-R1 in the hippocampus and prefrontal cortex of mice.

5) Investigation of the potential anticancer effects of antipsychotic drugs in experimental models of lung cancer

Psychotic patients (males) display a lower cancer incidence compared to general population, although they are heavy smokers. Preliminary studies showed that antipsychotic drugs down-regulate *genes* encoding the major CYP isozymes that metabolise the majority of pre-carcinogens and carcinogens. This study investigates further the mechanisms that regulate the carcinogenesis, such as apoptosis, autophagy, angiogenesis and cell proliferation, among others.

Future Research Activities:

The goal is to:

1. complete the investigation of the mechanism of the cardioprotective effect of oleuropein: Investigation of a possible direct protective effect on the myocardium after ischemia-reperfusion.
2. investigate the effect of stress on neuronal plasticity in the hippocampus and the prefrontal cortex, with emphasis on the role of PPAR α and oleuropein.
3. investigate the effect of oleuropein and hydroxytyrosol on the regulation of cytochrome CYP1A1, CYP1A2, CYP3A4, CYP1B1, CYP2B1/2, CYP2C11, CYP2D1/2/4 and CYP2E1.
4. investigate the mechanisms of the lower incidence of cancer in schizophrenic patients with emphasis on the role of pharmacotherapy.
5. investigate the mechanisms through which the stress increases the synthesis of A and B serum amyloid proteins.
6. investigate the mechanisms of the protective effect of hypothermia on brain functions, focusing on its effect on neuronal plasticity.
7. investigate the potential protective effect of medicinal plant extracts on cognitive functions in patients with dementia/Alzheimer's disease and in animal models of Alzheimer's.

Collaborations:

My research activities from 1985 to date, led to the establishment of solid and very constructive scientific collaborations with renowned scientists in Greece and abroad, who work in prestigious Research and Academic Institutions, such as:

1. University of Kuopio, School of Pharmacy, Department of Pharmacology, Kuopio, Finland.
2. C.N.R.S. U.A. 637 AFF., I.N.S.E.R.M. Neurobiologie des Régulation, Collège de France, 11, Place Marcellin-Berthelot 75231 Paris, Cedex 05, France.
3. International Agency for Research on Cancer (IARC/WHO), 150 Cours Albert-Thomas, 69372, Cedex 08, Lyon, France.
4. Karolinska Institute, School of Medicine, Department of Physiology & Pharmacology, Stockholm, Sweden.
5. University of Queensland, National Research Centre for Environmental Toxicology (Entox), 39 Kessels Road, Coopers Plains QLD 4108, Australia.
6. University of Uppsala, Department of Biochemistry, Husargatan 3, Uppsala, Sweden.
7. NCI/NIH, Laboratory of Metabolism, Bldg 37, Bethesda, MD 20892, USA.
8. National and Kapodistrian University of Athens, School of Medicine, Department of Pharmacology and Department of Anatomy, Goudi, Athens, Greece.
9. National and Kapodistrian University of Athens, Faculty of Pharmacy, Department of Pharmaceutical Chemistry and Department of Pharmacognosy and Chemistry of Natural Products, Zographou University Campus, Athens, Greece.
10. ELPEN Pharmaceutical Co. Inc., 95 Marathonos Av, Pikermi-Attica, Greece.

11. University of Patras, School of Medicine, Department of Pharmacology, University Campus, Rio, Patra, Greece.
12. University of Thessaly, School of Medicine, Department of Pharmacology, Larissa, Greece.
13. HELP pharmaceuticals, Valaoritou 10, Metamorphosi Attica, Greece
14. Neuron Energy, Technological Park of Epirus, Ioannina, Greece

Research Funding:

1. Grant: University of Ioannina, 1990.
2. Grant: University of Kuopio, Dept of Pharmacology and Toxicology, School of Pharmacy, Kuopio, Finland, Aug-Nov 1990.
3. Grant: Ganni Foundation, 2008-2009.
4. Research Project in the framework of Heraklitos (EPEAEK II, co-funding with EU 70% Number:18, 2000). Title: «Depression: Immunologic and Metabolic profile-role of antidepressants (experimental approach». (Budget: 32.760^E), *Coordinator*.
5. Research Project in the framework of PENED 2003 (Number: 03EΔ957) «Role of psychological stress in hnRNP and DARPP-32 expression in CNS- investigation of their involvement in the neurobiological background of schizophrenia». (co-funding with EU 70%, Budget: 60.000^E), *Coordinator*.
6. Research Project “Drugcheck” in the framework of the eTEN Call 2006/1. Title: «Study of the drug interactions: Cooperation between Greece, France, Slovenia and the Netherlands with the NOSIS Business Solution and Consulting Company», *Member*.
7. Research Project: The role of oeleuropein in cardioprotection, Hellenic Cardiological Society, Budget: 20.000^E, 2011, *Member*.
8. Research Project co-financed by the European Union (European Regional Development Fund-ERDF) and Greek national funds through the Operational Program “THESSALY- MAINLAND GREECE AND EPIRUS-2007-2013” of the National Strategic Reference Framework (NSRF 2007-2013; Number: 346985) Title: «Establishment of a center of excellence for the evaluation of pharmacological actions and toxicity of substances derived from plant products». (Budget 150.000^E), *Coordinator*.
9. Creation of an interactive electronic database for medicinal plants- Preclinical and clinical investigation of the potential beneficial effect of herbs on Mild Cognitive Impairment and Alzheimer's disease. Research Project co-financed by the European Union (European Regional Development Fund-ERDF) and Greek national funds through the Operational Program Epirus 2014-2020. Code: HII1AB-00192. *Coordinator*.

Participation in Conferences:

1. **9th Hellenic Endocrinology Conference, Athens, Greece, 1981.**
Sfikaki A, N. Mpikas and M. Konstandi "Learning in relation to normal and low testosterone levels".
2. **10th National Conference of Hellenic Endocrinology Society, Athens, 1982.**
 - a Daifoti-Papadopoulou Z, Konstandi M. and Sfikaki A, " Whole brain dopamine, noradrenalin and learning of conditioned two-way avoidance behavior in intact and orchectomized rats".
 - b Sfikaki A., Malisianos X and Konstandi M. "Two-way active avoidance behavior in relation to the estrous cycle, metoclopramide and the hypothalamic-pituitary-adrenal axis".
3. **XIII International Congress of the International Society of Psychoneuroendocrinology, Tübingen, 1982.**
Sfikaki A., Bikas N., Konstandi M. and Pitulis S., "Adrenal androgens and the two way active avoidance" Neuroendocrinology Lett. 4(3):204.
4. **Balkan Pharmacological Days, Varna, Bulgaria, 1982.**
Sfikaki A., Konstandi M. and Bikas N. "Two way active avoidance after estrogens and androgens in ovariectomized rats" proceedings (140).
5. **13th International Summerschool on Brain Research, Amsterdam, The Netherlands, 1983.**
Sfikaki A, Bikas N and Konstandi M. "Sex differences in conditioned avoidance behavior after unilateral adrenalectomy".
6. **Collegium Internationale Neuro-Psychopharmacologicum, 14th CIPN Congress, Florence-Italy, 1984.**
Sfikaki A., Konstandi M., Spyraiki Ch. and Papadopoulou D. Z. "Ether stress released adrenocorticotropin on proestrus and diestrus of the estrus cycle and dopamine turnover in rats treated with cyproheptadine" proceedings P-143, 459.
7. **2^d Hellenic Pharmacy Conference, Athens, Greece, 1984.**
Konstandi M, Sfikakis-Dellia A and Koligianni A. "Androgen response to stress in two different phases of the estrous cycle following cyproheptadine treatment".
8. **12th Hellenic Endocrinology Conference, Athens, Greece, 1984.**
Sfikaki A, Konstandi M, Spiraki Ch and Tzivou E. "Elimination of the negative correlation between adrenal gland weight and corticotropin response to stress following cyproheptadine treatment."
9. **Inaugural Meeting of the European Behavioural Pharmacology Society and Satellite Workshop on Transduction Mechanisms of Drug Stimuli, Antwerp and Béerse-Belgium, 1986.**
Sfikaki A. and Konstandi M. "Conditioned avoidance response after cyproheptadine and its association to serum androgen in cycling female rats" Psychopharmacology, 89:107.
10. **2nd International Meeting of the European Behavioural Pharmacology Society, Athens-Greece, 1988.**
 - a Sfikaki A., Konstandi M., Spyraiki Ch. and Varonos D. "Lack of correspondence between the shuttle box avoidance acquisition and the ACTH response to ether stress in female rats" Psychopharmacology, 96:S52.
 - b Konstandi M., Sfikaki A., Koligianni A and Sfikaki M. "Acquisition of shuttle box avoidance task in cycling female rats inversely related to serum progesterone levels" Psychopharmacology, 96:S32.

11. **32th Scientific Conference of the Hellenic Biochemical and Biophysical Society, Ioannina, 1989.**
Konstandi M. and E. Kafetzopoulos "Effects of d-amphetamine and diazepam on conditioned response in a fixed ratio schedule".
12. **5th Hellenic Meeting of Neurosciences, Heraklion, Crete, Greece, 1989.**
 - a Antoniou K., Konstandi M. and Kafetzopoulos E. "The structure of behavioral response to dopamine agonists after ibotenic acid lesions of the dorsal or ventral striatum of the rat".
 - b Konitsiotis S., Konstandi M. and Kafetzopoulos E. "Further evidence that striatal efferents relate to different dopamine receptors".
13. **6th Hellenic Meeting of Neurosciences, Ioannina, Greece, 1990.**
 Konstandi M. and Kafetzopoulos E. "Effect of d-amp on the latent inhibition phenomenon in a conditioned emotional response."
14. **Summer Meeting of the British Pharmacological Society, Glasgow, 1991.**
 McDonald E., Laitinen K., Konstandi M. & Tuomisto L. "Tolerance develops to the neurochemical changes in rat brain after treatment for 10 days with the specific α 2-adrenoceptor antagonist, atipamezole."
15. **11th European Winter Conference on Brain Research, Crans Montana, Switzerland, 1991.**
Konstandi M., McDonald E., Marselos M. and Airaksinen M. "Subacute administration of the selective α 2-adrenoceptor antagonist, atipamezole, does not interfere with the estrus cycle of female rats" proceedings.
16. **Balkan Xenobiotic Metabolism and Toxicity Workshop, Novisad, Γιουγκοσλαβία, 1991.**
 Karageorgou M., Konstandi M. and Marselos M. "Sex differences in the induction of the cytosolic aldehyde dehydrogenase by the methylcholanthrene".
17. **Nordic Neuroscience Meeting, Stocholm-Sweden, 1991.**
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Awards in Conference Presentations:

1. Kotsovolou O, Overstreet DH, Marselos M, Lang MA and **Konstandi M**. "Metabolic profile of a genetic animal model of depression". The FEBS Journal, 272(1):126. Prize of the Hellenic Society of Pharmacology, 2005.
2. Daskalopoulos EP, Rentesi G, Lang MA, Marselos M, **Konstandi M**. "Hepatic Drug Metabolizing Efficacy Modification after Exposure to Stress". 5th Hellenic Congress of Pharmacology, Athens, Greece. Prize of the Hellenic Society of Basic and Clinical Pharmacology, 2008.
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Manuscripts under Preparation:

1. **Maria Konstandi**, Jie Cheng and Frank J. Gonzalez: Sex steroid hormones regulate constitutive expression of *CYP2D* in the liver of female mice.
2. Katsogridaki A, Malliou F, Skaltsounis L, Marselos M, Gonzalez FJ and **Konstandi M**. PPAR α activation improves neural plasticity: role of oleuropein.