

## ZERVOU Maria, Ph.D, M.Sc

Researcher B'  
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**URL:** <http://www.eie.gr/nhrf/institutes/iopc/cvs/cv-zervou-gr.pdf>

<http://www.eie.gr/nhrf/institutes/iopc/researchgroups/lma-group/lma-group-gr.html>

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### Education

**2002:** Ph.D. Chemistry, University of Patras

**1992:** M.Sc. Electronics and Radioelectronics, Physics Department, University of Athens

**1989:** B.Sc. Physics, University of Athens

### Appointments

**2013-present:** Senior Researcher, Molecular Analysis research group, Institute of Chemical Biology, (previous name: Institute of Biology, Medicinal Chemistry and Biotechnology-IBM CB), NHRF

**2006-2013:** Researcher C', Division of Organic & Pharmaceutical Chemistry, IBM CB, NHRF

**2003-2006:** Special Functional Scientist C', Institute of Organic & Pharmaceutical Chemistry, NHRF

**1992-2003:** Special Technical Scientist at the IOPC/NHRF

### Current Research Interests

- *In silico* approaches and bio-NMR for drug discovery purposes
- Metabolomics profiling (NMR, LC-MS) in biological and natural products extracts matrices

Within the research area of Chemical Biology current activities involve virtual screening, molecular docking, molecular dynamics and bio-NMR as a screening assay i.e. STD-NMR/15N HSQC towards hit identification and optimization. Major topics I have been involved include:

- innovative neuroprotective and neurogenerative synthetic micro-neurotrophins modulators of TrkA and p75<sup>NTR</sup> activity targeting Alzheimer disease
- novel, selective inhibitors of the mutated BRAF<sup>V600E</sup> protein implicated in cancer
- novel nonsteroidal selective glucocorticoid receptor agonists as anti-inflammatory agents
- new inhibitors of the aspartic proteases involved in diseases such as hypertension and AIDS
- new eco-friendly repellents from natural sources against *Anopheles gambiae* mosquito odorant binding proteins targeting malaria transmission

Within the research area of omics studies current activities involve untargeted studies in the following topics:

- metabolomics-based gut microbiota profiling to highlight the health impact of  $\beta$ -glucan-rich edible mushrooms

- metabolomics studies applied to intracellular matrices upon treatment with natural or synthetic antioxidants as an assay to monitor cell defense responses.
- authenticity markers of high added value natural products (i.e. grape derived products)
- high throughput fingerprinting of red *Laurencia* algal extracts targeting new natural products or screening for specific bioactive metabolites

Moreover, I have been involved in a number of studies towards structure elucidation of novel bioactive metabolites isolated from terrestrial or marine sources

**Foreign languages.** Fluent in English and French. Limited knowledge of Italian

## Currently funded research programs

**H2020-MSCA-ITN-2017- EuroNeurotrophin:** A European training network for the discovery of neurotrophins small molecule mimetics as potential therapeutic agents for neurodegeneration and neuroinflammation (2018-2021). Coordinator (NHRF)

*Role:* Member of the Research Team

**H2020-INFRADEV-2016-1. "INSTRUCT-Ultra:** Releasing the full potential of Instruct to expand and consolidate infrastructure services for integrated structural life science research". (2017-2020)

*Role:* NHRF team member

**DINNESMIN- RESEARCH-CREATE-INNOVATE, EPAnEK-NSRF 2014-2020.** "Pre-clinical development of innovative Neuroprotective & Neuroregenerative synthetic micro-neurotrophins for the treatment of Alzheimer disease". (2018-2021)

*Role:* Member of the Research Team

**KPIPIS II– Sthenos-β.** Institutional Program. NSRF 2014-2020. "Targeted therapeutic approaches against degenerative diseases-conditions with emphasis in cancer and aging. Hit-to-lead optimization". (2017-2019)

*Role:* Member of the Research Team/WP1 co-leader (Design of lead compounds against specific therapeutic targets implicated in cancer)

**INSPIRED:** A National Research Infrastructure on Integrated Structural Biology, Drug Screening efforts and Drug-target functional characterization. (2018-2020). Coordinator (NHRF).

*Role:* NHRF team member. NMR expert, WP5 co-leader (Structural characterization of pharmaceutically relevant targets through biomolecular NMR spectroscopy).

**State Scholarships Foundation (IKY).** "Combined methodology for the discovery of epigenetic inhibitors". Fellowship awarded to Dr. E. Kritsi in the context of the project "Reinforcement of Postdoctoral Researchers - 2nd Cycle" (MIS-5033021). (2020- 2021)

*Role:* Scientific Responsible

**AgroWasteForNutritiousMushrooms-** RESEARCH-CREATE-INNOVATE, EPAnEK-NSRF 2014-2020. "Valorization of agricultural by-products as new substrates for the production of *Pleurotus* mushrooms with high nutritional value – Development and clinical evaluation of an innovative polyvalent functional food ("mushroom snack") with enhanced content in bioactive compounds (vitamin D and antioxidants). (2018-21).

*Role:* Member of the Research Team

**OSTEOME** RESEARCH-CREATE-INNOVATE, EPAnEK-NSRF 2014-2020 (2<sup>nd</sup> cycle). Design and development of a dietary supplement for osteoporosis based on gut microbiome mechanisms. Efficacy and Tolerability assessment. (2020-22)

*Role:* Member of the Research Team

## Completed research programs

**KRIPIS- Sthenos** Institutional Program. (2013-2016) "Targeted therapeutic approaches against degenerative diseases-conditions with emphasis in cancer and aging".

*Role:* Member of the Research Team/WP1 Leader (Design of bioactive compounds against specific therapeutic targets)

**WINEOMICS**, "Metabolic, isotopic, Antioxidant and elemental profiling to characterize Cypriot wines of

specific geographical and varietal origin". Framework Programme for Research, Technological Development and Innovation of the Cypriot Research Promotion Foundation. (2011-2013)

*Role:* Principal Investigator NHRF

**EU-FP7-REGPOT**-2009-1. "Advancement of Research Capability for the Development of New Functional Compounds". (2010-2013)

*Role:* Member of the Research Team / WP3 co-leader (Acquisition and upgrade of research equipment)

**EU JRC / IRMM** (Institute for Reference Materials and Measurements. "Upgrade and improvement of *SoftCRM*, the s/w for the Certification of Reference Materials" (2004-2005)

*Role:* Principal Investigator NHRF

**OPERATIONAL PROGRAMME COMPETITIVENESS.**"Design and Synthesis of bioactive compounds" (2006-9)

*Role:* Participating researcher

**02 PRAXE 173** (2003-2005). Production of novel antihypertensive Molecules.

*Role:* Participating researcher

**2 Bilateral Scientific and Technological Collaboration between Greece-Slovenia** EPAN M.4.3.6.1

"Conformations of pharmaceutical molecules and study of their interactions with membranes". (2003-2005), (1999-2001)

*Role:* Participating researcher /Short term visiting fellow at the National Institute of Chemistry, NMR center, Ljubljana, Slovenia

**S&T Collaboration with University of Cyprus** for the standardization protocol of traditional Cypriot beverage Zivania. (2003-2005).

*Role:* Participating researcher

**EU-FP5 GROWTH.** "Development and Assessment of Methods for the Detection of Adulteration of Olive

Oil with Hazelnut oil". (2001-2004)

*Role:* Participating researcher

**EU SMT** "Development of new software for Certified Reference Materials through the wine and ethanols CRMs" (1999-2001).

*Role:* Participating researcher

**EU network VIRM** (G7RT-CT-2002-05104). The European Virtual Institute for Reference Materials. (2002-2006). NHRF: NCP

*Role:* NHRF team member.

**EU-FP5 AIR2** - Agro-Industrial Research. "A new integrated approach to the authentication of olive oil to improve its competitiveness on the world market". (1995-1998).

*Role:* Participating researcher

**EU network FIT** -Food analyses using Isotopic Techniques- SMT Programme (1996-1999).

*Role:* NHRF team member.

## Invited speaker

- 1. 10th International Symposium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources, CMTPI-2019 Ioannina, Greece, 23-27 June, 2019.** New Non-steroidal Selective Glucocorticoid Receptor Agonists
- 2. Workshop "Dilemmas in structural biology: selection & integration of methods", February 14-17 2016, NHRF, Athens, Greece.** Novel synthetic neurosteroidal agonists of Nerve Growth Factor (NGF) receptors: biomolecular NMR studies and *in silico* considerations
- 3. Pharmacology 2015, 15-17 December Queen Elizabeth II Conference Centre, London**  
Biophysical  
methods to study drug membrane interactions - Insights into the molecular basis of action of the AT1 antagonist losartan.
- 4. SEE-DRUG Conference, NMR applications in Life Sciences. Exploring peptides & proteins Conference & Cultural Center, University of Patras, 18-20 June, 2015.** Novel Synthetic Neurosteroidal Agonists of Nerve Growth Factor (NGF) receptors: Biomolecular NMR studies and *in silico* considerations.
- 5. The 32<sup>nd</sup> Cyprus - Noordwijkerhout - Camerino Symposium in Drug Research, Limassol, Cyprus May 18-22, 2014.** Insights into the molecular basis of action of the AT1 antagonist losartan using a combined  
NMR spectroscopy and computational approach.
- 6. 2nd SEE-DRUG Workshop: NMR basics & applications in Life Sciences, FP7-REGPOT-2011-1, Conference & Cultural Center, University of Patras 13-15 May, 2013.** NMR approaches probing molecular

interactions of ligands at the Odorant Binding Protein 1 of malaria-transmitting mosquito *Anopheles gambiae*.

7. **BuTrAFoS (Building Trust through Authentic Food and safety), Limassol Cyprus, 28-31 Oct, 2012.** NMR-

omics towards the authenticity of grape derived products.

8. **EastNMR Satellite meeting, 18<sup>th</sup> EuroQSAR, Rhodes Greece, September 19-24, 2010.**

Metabolic

monitoring of Greek white wines using HR NMR spectroscopy and multivariate statistical analysis.

## Workshops / meetings / summerschools organization

- *Computer-Assisted Drug Design, Synthesis and Isolation from Natural Sources of Small Molecule Neurotrophin Mimetics*. Summer School: main training event for the 14 Early Stage Researchers (ESRs) within H2020-MSCA-ITN-2017- EuroNeurotrophin, 5-6/12/2018, NHRF
- Women in Science Workshop, co-organized by Instruct-Eric / NHRF, Alcalá de Henares, Madrid, Spain, May 22nd 2019
- *Targeted drug discovery* Workshop, IBMCB/NHRF, 10-14 October 2016
- Drug Discovery Symposium on *Targeted therapeutic approaches against cancer and ageing*, IBMCB/ NHRF, 7 December 2015
- 8th International Symposium on *Computational Methods in Toxicology and Pharmacology Integrating Internet Resources*, Chios, Greece, 21-25/6/2015.
- Instruct-EL *Strategic pipeline planning: from sample preparation to 3D structure determination with bio SAXS & other biophysical techniques*", NHRF, Athens, 5–10/4 /2014
- 3rd REGPOT-ARCADE Workshop *Advanced Mass Spectrometric and NMR Methods*, NHRF, 28-30 May 2012
- 2nd REGPOT-ARCADE Workshop *Structure – & Computer – Aided Design Workshop: Bioactive Molecules & Materials*, NHRF, 7-11 November 2011
- Workshop on *Structure Based Drug Discovery*. IOPC / NHRF (June 2008)
- 2nd working meeting of the EU GROWTH FP5 project *Development and Assessment of Methods for the Detection of Adulteration of Olive Oil with Hazelnut oil*. (October, 2001)
- "Food analyses using Isotopic Techniques". Workshop within the frame of EU Network -FIT (Food Isotopic Techniques), NHRF (November 1996).

## Teaching and Training experience

- **2015 to date:** Lecturer in the Inter-institutional M.Sc. BIOENTREPRENEURSHIP Programme co-organized by the University of Thessaly and NHRF. Responsible for the Syllabus in the course "Health and Pharmaceuticals"
- **2016 to date:** Lecturer in the BIOINFORMATICS M.Sc. Programme organized by the Faculty of Biology, National and Kapodistrian University of Athens.
- **2019 to date:** Lecturer and Member of the Coordination committee of the Inter-institutional M.Sc. program "Oncology: from oncogenesis to therapy" co-organized by the University of Crete, Medical School and NHRF. Co-Responsible for the Syllabus in the course "Personalized Medicine"
- **2019 to date:** Lecturer in the "Applied Nutrition and Dietetics" M.Sc. Programme, course Metabolomics, organized by the Harokopio University of Athens
- **2010-to date:** Supervisor of the 2 Postdoctoral Researchers, 3 PhD theses, 14 M.Sc theses

Postdoctoral fellows:

2010-2013: Dr C. Potamitis, FP7 REGPOT ARCADE

2013-2016: Dr C. Potamitis, KPIPIS – Sthenos

2017-2018: Dr C. Potamitis, KPIPIS II– Sthenos β

2018-2019: Dr E. Kritsi, KPIPIS II– Sthenos β

2019-to date: Dr E. Kritsi, DINNESMIN, RESEARCH-CREATE-INNOVATE, EPAnEK-NSRF 2014-2020.

PhD theses:

**1.** *P. Christodoulou*, "Effect of fungicidal β-glucans from natural resources on the genomic and metabolomic fingerprint of gastro-intestinal microbiome". Department of Biochemistry & Biotechnology, University of Thessaly. Co-supervision, scientific responsible for the NMR metabolomics studies. (in progress)

**2.** *A. Kokkotou*, "Metabolomics Study of Rhodophytes of *Laurencia* species with the use of high-throughput holistic techniques such as HR-NMR and HR-LC-MS". School of Health Sciences, Department of Pharmacy, National & Kapodistrian University of Athens (awarded 2019).

Co-supervision, scientific responsible for the development of an integrated metabolomics platform for the high throughput fingerprinting of red *Laurencia* algal extracts (awarded 2019)

**3.** *Ch. Fotakis*, "Application of physicochemical and analytical methodologies to study the metabolic profiling of traditional alcoholic beverages". Department of Chemistry, National & Kapodistrian University of Athens (awarded 2013).

M.Sc. theses:

**1.** *E. Ifanti*, "In silico design of novel compounds against vascular inflammation and thrombosis". BIOINFORMATICS M.Sc. Programme, Faculty of Biology, National & Kapodistrian University of Athens (in progress)

**2.** *A. Vassilopoulou*, "Design, Development and Evaluation of Functional Products: a. with Probiotics, b. High Protein, c. with Antioxidant Activity". BIOENTREPRENEURSHIP Post-graduate Programme, Department of Biochemistry & Biotechnology, University of Thessaly / NHRF / in collaboration with Giotis SA (awarded 2021)

**3.** *S. Dounia*, "Selective inhibitors of the BRAFV600E oncoprotein through similarity search, *in silico* docking and *in vitro* assays". BIOINFORMATICS M.Sc. Programme, Faculty of Biology, National & Kapodistrian University of Athens (awarded 2021)

**4.** *Ch. Markatos*, "Natural Products as Epigenetic Modulators with implication in Cancer", Postgraduate Program in Oncology: From Oncogenesis to Therapy, Medical School, University of Crete/ Institute of Chemical Biology, National Hellenic Research Foundation (awarded 2021)

**5.** *M. I. Ragkousi*, "From a molecular fingerprint toward companion diagnostics using high throughput technologies", Postgraduate Program in Oncology: From Oncogenesis to Therapy, Medical School, University of Crete/ Institute of Chemical Biology, National Hellenic Research Foundation (awarded 2021)

**6.** *M. Georgoulaki*, "Novel food bioactive ingredients, applications in food technology and commercialization analysis". BIOENTREPRENEURSHIP Post-graduate Programme, Department of Biochemistry & Biotechnology, University of Thessaly / NHRF (awarded 2019)

**7.** *V. Papanikolaou*, "Digital Marketing in clinical trials (reducing the time and cost for a pharmaceutical company)". BIOENTREPRENEURSHIP Post-graduate Programme, Department of Biochemistry & Biotechnology, University of Thessaly / NHRF (awarded 2019)

- 8.** *N. Papadopoulos*, "Virgin olive oil for margarine production: Feasibility study for the olive oil production and marketing company El Renieris & Co S.A." BIOENTREPRENEURSHIP Post-graduate Programme, Department of Biochemistry & Biotechnology, University of Thessaly / NHRF (awarded 2018)
- 9.** *K. Xanthopoulos*, "Molecular modelling approaches towards the optimization of novel synthetic neurosteroids with agonistic activity at neurotrophin receptors". Faculty of Biology, National & Kapodistrian University of Athens. (awarded 2018)
- 10.** *N. Travlos*, "Virtual screening for the identification of novel nonsteroidal selective glucocorticoid receptor agonists". Faculty of Biology, National & Kapodistrian University of Athens (awarded 2018)
- 11.** *M. Evgeniou*, "In silico studies towards new selective inhibitors of the oncoprotein BRAFV600E". Faculty of Biology, National & Kapodistrian University of Athens (awarded 2018)
- 12.** *F. Lafazanidi*, "Virtual screening for the identification of new selective inhibitors of the oncoprotein BRAFV600E". Faculty of Biology, National & Kapodistrian University of Athens (awarded 2018)
- 13.** *P. Christodoulou*, "Antioxidant effects of novel synthetic compounds and wine extracts treated in a cell culture as probed by comet assay and NMR-based metabolomics" Department of Chemistry, National & Kapodistrian University of Athens (awarded 2016).
- 14.** *A. Kokkotou*, "Metabolic profile monitoring of Greek wines using HR NMR spectroscopy and multivariate statistical analysis". Department of Chemistry, National & Kapodistrian University of Athens (awarded 2010).

#### Diploma thesis:

- 1.** *E. Routsis*. "Sequence specific assignment of alpha and beta protons of Anopheles Gambiae mosquito odorant binding protein OBP1 by applying 3D NMR spectroscopy. NMR metabolomic fingerprinting of CaCO<sub>2</sub> cell extracts". Department of Chemistry, National & Kapodistrian University of Athens (2016)

#### Participation in the 3-member supervisory committee of the PhD theses

1. Annita Katopodi, Department of Chemical Sciences, School of Chemical Engineering, National & Technical University of Athens. "Design and synthesis of new coumarin analogues and nanotechnological approaches for their potential use in pharmaceutical applications" (in progress)
2. Panagiota Georganta, School of Health Sciences, Department of Pharmacy, National & Kapodistrian University of Athens (2011). "Isolation and identification of bioactive metabolites from the gorgonian coral *Pseudopterogorgia rigida*"
3. Stamatis Perdikaris, School of Health Sciences, Department of Pharmacy, National & Kapodistrian University of Athens (2015). "Isolation of secondary metabolites with antimicrobial activity from deep waters marine organisms".

#### Participation in the 7-member evaluation committee of the PhD theses

1. George Moros, Department of Biochemistry & Biotechnology, University of Thessaly (2020). "NMR based metabolomics towards novel biomarkers related to intrauterine growth restriction (IUGR)"
2. Maria Palassarou, Department of Chemistry, National & Kapodistrian University of Athens (2017). "Research on Chemical Compounds of Greek Liqueurs - Traditional Spirits through the use of Resin Adsorption Technology and Chromatographic, Spectroscopic Methods"

3. Eftychia Kritsi, Department of Chemical Sciences, School of Chemical Engineering, National & Technical University of Athens (2017). "Computational tools towards the search for new bioactive compounds against selected protein targets"
4. Aggeliki Politi, Department of Chemistry, National & Kapodistrian University of Athens (2009) "Design and NMR spectroscopic studies of AT1 antagonists and rennin inhibitors with antihypertensive activity"
5. Constantinos Potamitis, Chemistry Dept., National & Kapodistrian University of Athens (2009) "Use of physicochemical methods to study the conformational properties in the conformational analysis studies of peptide analogs, agonists and antagonists against experimental autoimmune encephalomyelitis and their interactions with lipid bilayers"

## Reviewer/Evaluator

1. *Scientific journals* as Scientific Reports, Phytochemical Analysis, Phytochemistry Letters, Food Research International, Marine Drugs, The Open Natural Products Journal, Food Chemistry, Journal of Molecular Liquids, Analytical Methods, Journal of Chemical Information and Modeling.
2. *EU Research proposals*: ERC Starting Grant
3. *Research proposals* submitted to calls for funding from the Greek General Secretariat of Research and Innovation, Hellenic Foundation for Research & Innovation (2<sup>nd</sup> call for Researchers and academic Staff) and from the Cypriot Research promotion Foundation.

## Committee membership

- Member of the Hellenic Crystallographic Association (Elected Member of the Board, 2020)
- Member of the Instruct –EL community
- Member of the Greek Lipid Forum

## Literature contribution

**PhD thesis** (2002) "Conformational studies of bioactive peptidomimetic compounds by NMR spectroscopy". University of Patras, Department of Chemistry, Division of Organic Chemistry, Biochemistry and Natural Products.

**National Patent** "New analytical methodology for the detection of Virgin olive Oil adulteration using <sup>13</sup>C NMR spectroscopy". (OBI, Num GR1002879B). T. Mavromoustakos, G. Bonas, M. Zervou, E. Theodoropoulou.

( <https://patents.google.com/patent/GR1002879B/en>). Legal status: IP right cessation

**S/w development:** Development of new software for Certified Reference Materials through the wine and ethanols CRMs". <http://www.eie.gr/iopc/softcrm/index.html>

**Synopsis:** **65** publications in peer review journals, **6** book chapters in international editions, **56** Participations in International Conferences and **41** participations in National Conferences.

## Publications in peer-review journals

1. K. Koumaki, G. Kontogianni, V. Kosmidou, F. Pahitsa, E. Kritsi, **M. Zervou**, A. Chatziioannou, V. L. Souliotis, O. Papadodima, A. Pintzas. BRAF paradox breakers PLX8394, PLX7904 are more



- effective against BRAFV600E CRC cells compared with the BRAF inhibitor PLX4720 and shown by detailed pathway analysis. *Biochimica et Biophysica Acta (BBA) - Molecular Basis of Disease* 2021 Vol. 1867, 166061 doi:10.1016/j.bbadis.2020.166061
2. A. Boulaka, P. Christodoulou, M. Vlassopoulou, G. Koutrotsios, G. Bekiaris, G.I. Zervakis, E. K. Mitsou, G.  
Saxami, A. Kyriacou, **M. Zervou**, P. Georgiadis, V. Pletsa. Geno- protective properties and metabolites of  $\beta$ -glucan-rich edible mushrooms following their in vitro fermentation by human fecal microbiota. *Molecules* 2020, 25, 3554; doi:10.3390/molecules25153554
3. S. Demisli, I. Theochari, P. Christodoulou, **M. Zervou**, A. Xenakis, V. Papadimitriou. *Structure, activity and dynamics of extra virgin olive oil-in-water nanoemulsions loaded with vitamin D3 and calcium citrate. Journal of Molecular Liquids, 2020 vol. 306, 112908, doi: 10.1016/j.molliq.2020.112908*
4. C. Potamitis, D. Siakouli, K. D. Papavasileiou, A. Boulaka, V. Ganou, M. Roussaki, T. Calogeropoulou, P. Zoumpoulakis, M. N. Alexis, **M. Zervou\***, D. J. Mitsiou. Discovery of New Non-steroidal Selective Glucocorticoid Receptor Agonists. *J Steroid Biochemistry and Molecular Biology* 2019 142-153; doi: 10.1016/j.jsbmb.2018.10.007
5. R. Kokkinofta, Ch. Fotakis, **M. Zervou**, P. Zoumpoulakis, C. Savvidou, K. Poulli, C. Louka, N. Economidou, E. Tzioni, K. Damianou, S. Loupasaki, P. Kefalas. Isotopic and Elemental Authenticity Markers: a Case Study on Cypriot Wines. *Food Analytical Methods* 2017, 10, 3902–3913; doi: 10.1007/s12161-017-0959-2
6. C. E. Drakou, K. E. Tsitsanou, C. Potamitis, D. Fessas, **M. Zervou**, S. E. Zographos. The crystal structure of the AgamOBP1•Icaridin complex reveals alternative binding modes and stereo-selective repellent recognition. *Cellular and Molecular Life Sciences* 2017 74, 319-338; doi: 10.1007/s00018-016-2335-6
7. I. Pediaditakis, A. Kourgiantaki, K. C. Prousis, C. Potamitis, K.P. Xanthopoulos, **M. Zervou**, T. Calogeropoulou, I. Charalampopoulos, A. Gravanis. BNN27, a 17-Spiroepoxy Steroid Derivative, Interacts With and Activates p75 Neurotrophin Receptor, Rescuing Cerebellar Granule Neurons from Apoptosis. *Frontiers in Pharmacology* 2016, 7, art. 512; doi: 10.3389/fphar.2016.00512
8. I. Pediaditakis, P. Efstathopoulos, K. C. Prousis, **M. Zervou**, J. C. Arévalo, V. I. Alexaki, V. Nikolettou, E. Karagianni, C. Potamitis, N. Tavernarakis, T. Chavakis, A. N. Margioris, M. Venihaki, T. Calogeropoulou, I. Charalampopoulos, A. Gravanis. Selective and differential interactions of BNN27, a novel C17-spiroepoxy steroid derivative, with TrkA receptors, regulating neuronal survival and differentiation. *Neuropharmacology* 2016, 111, 266-282; doi: 10.1016/j.neuropharm.2016.09.007
9. D. Tzeli, P. Kozielowicz, **M. Zervou**, C. Potamitis, K. Kokkotou, B. Rak, A. Petrou, E. Tsolaki, A. Gavalas, A. Geronikaki, I. D. Petsalakis, P. G. Tsoungas. 2, 2'-Dihydroxybenzophenones and Derivatives. Efficient Synthesis and Structure Endoscopy by DFT and NMR. Credentials as Potent Antiinflammatory Agents. *ChemistrySelect* 2016, 1, 2426 – 2438; doi: 10.1002/slct.201600396
10. C. Fotakis, **M. Zervou\***. NMR metabolic fingerprinting and chemometrics driven authentication of Greek grape marc spirits. *Food Chemistry* 2016, 196, 760–768; doi:10.1016/j.foodchem.2015.10.002
11. T. F. Kellici, D. Ntountaniotis, E. Kritsi, **M. Zervou**, P. Zoumpoulakis, C. Potamitis, S. Durdagi, R. Ekhteiari Salmas, G. Ergun, E. Gokdemir, M. Halabalaki, I. P. Gerothanassis, G. Liapakis, A. Tzakos, T. Mavromoustakos. Leveraging NMR and X-ray Data of the Free Ligands to Build Better

Drugs Targeting GPCRs: The Case of AT1R. *Current Medicinal Chemistry*, 2016, 23, 1, 36-59; doi: 10.2174/0929867323666151117122116

12. C. Gabriel, A. A. Vangelis, C. P. Raptopoulou, A. Terzis, V. Psycharis, **M. Zervou**, M. Bertmer, A. Salifoglou. Structural-spectrochemical correlations of variable dimensionality crystalline metal organic framework materials in hydrothermal reactivity patterns of binary-ternary systems of Pb(II) with (a)cyclic (poly)carboxylate and aromatic chelator ligands. *Crystal Growth and Design*, 2015, 15, 11, 5310–5326; doi: 10.1021/acs.cgd.5b00861

13. M. Mondal, N. Radeva, H. Köster, A. Park, C. Potamitis, **M. Zervou**, G. Klebe, A. K. H. Hirsch. Structure-Based Design of Inhibitors of the Aspartic Protease Endothiapepsin by Exploiting Dynamic Combinatorial Chemistry. *Angewandte Chemie Int. Ed.* 2014, 53, 3259–3263; doi: 10.1002/anie.201309682

14. K. Kokkotou, E. Ioannou, M. Nomikou, F. Pitterl, A. Vonaparti, E. Siapi, **M. Zervou\***, V. Roussis. An integrated approach using UHPLC–PDA–HRMS and 2D HSQC NMR for the metabolic profiling of the red alga *Laurencia*: Dereplication and tracing of natural products. *Phytochemistry* 2014, 108, 208–219; doi: 10.1016/j.phytochem.2014.10.007

15. M. Kladi, D. Ntountaniotis, **M. Zervou**, C. Vagias, E. Ioannou, V. Roussis. Glandulaurencianols A–C, brominated diterpenes from the red alga, *Laurencia glandulifera* and the sea hare, *Aplysia punctata*. *Tetrahedron Letters* 2014, 55, 2835–2837; doi: 10.1016/j.tetlet.2014.03.083

16. **M. Zervou\***, Z. Cournia, C. Potamitis, G. Patargias, S. Durdagi, S. Golic Grdadolnik, T. Mavromoustakos. Insights into the Molecular Basis of Action of the AT1 Antagonist Losartan Using a Combined NMR Spectroscopy and Computational Approach. *Biochimica et Biophysica Acta-Biomembranes* 2014, 1838, 1031–1046. doi: 10.1016/j.bbamem.2013.12.012

17. C. Fotakis, D. Christodouleas, K. Kokkotou, **M. Zervou\***, P. Zoumpoulakis, P. Moulos, M. Liouni, A. Calokerinos. NMR metabolite profiling of Greek grape marc spirits. *Food Chemistry* 2013, 138, 1837–1846; doi: 10.1016/j.foodchem.2012.11.128

18. K.A. Vallianatou, D.J. Frank, G. Antonopoulou, S. Georgakopoulos, E. Siapi, M. Zervou, I.D. Kostas. Rhodium-catalyzed asymmetric olefin hydrogenation by easily accessible aniline- and pyridine-derived chiral phosphites. *Tetrahedron Letters* 2013, 54, 5, 397–401; doi: 10.1016/j.tetlet.2012.11.023

19. C. Fotakis, K. Kokkotou, **M. Zervou\***, P. Zoumpoulakis. NMR metabolite fingerprinting in grape derived products: An overview. *Food Research International* 2013, 54, 1184–1194; doi: 10.1016/j.foodres.2013.03.032

20. D. Athanasiadou, A. Godelitsas, D. Sokaras, A.G. Karydas, E. Dotsika, C. Potamitis, **M. Zervou**, S. Xanthos, E. Chatzitheodoridis, H.C. Gooi, U. Becker. New insights into the chemical and isotopic composition of human-body biominerals. I: Cholesterol gallstones from England and Greece. *J. Trace Elements in Medicine and Biology* 2013, 27(2), 79–84; doi: 10.1016/j.jtemb.2012.08.004

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## Book chapters

1. **M. Zervou\***, C. Koukoulitsa, P. Zoumpoulakis. Screening for Bioactive Compounds of Plant Origin using NMR-based and in silico approaches. In *Plants in Traditional and Modern Medicine: Chemistry and activity*. Kokkalou E. (Ed.), Transworld Research Network; Keral, India, (2010). ISBN: 978-81-7895-432-5
2. T. Mavromoustakos, S. Golic Grdadolnik, **M. Zervou**, P. Zoumpoulakis, C. Potamitis, A. Politi, E. Mantzourani, J.A. Platts, C. Koukoulitsa, P. Minakakis, G. Kokotos, T. Tselios, J. Matsoukas, S. Durdagi, M. Papadopoulos, D. Papahadjis, Z.S. Spyrinti, G.A. Dalkas, G. Spyroulias. Putative Bioactive Conformers of Small Molecules: A Concerted Approach using NMR Spectroscopy and

Computational Chemistry. *In Medicinal Chemistry Research Progress*. Giulia P. Colombo and Sofia Ricci (Eds). Nova Publisher (2008). ISBN 978-1-60456-580-5

**3.** T. Mavromoustakos, **M. Zervou**, P. Zoumpoulakis. Design and Discovery of Novel Antihypertensive Drugs Through Conformation and Bioactivity Studies. *In Frontiers in Medicinal Chemistry - Online*, 2006, 3, 87-111. Allen B. Reitz / Atta-ur-Rahman (Eds). Betham Science Publishers. doi: 10.2174/978160805206610603010087

**4.** I. Kyrikou, **M. Zervou**, P. Petrakis, T. Mavromoustakos. An Effort to Develop an Analytical Method to detect Adulteration of Olive Oil by Hazelnut Oil. *In Magnetic Resonance in food Science. Latest Developments*. P.S. Belton, A.M. Gil, G.A. Webb and D. Rutledge (Eds). Special publication No. 286 of the Royal society of Chemistry (2003). Print ISBN: 978-0-85404-886-1. PDF eISBN: 978-1-84755-126-9. doi: 10.1039/9781847551269

**5.** P. Zoumpoulakis, **M. Zervou**, S.G. Grdadolnik, T. Mavromoustakos. Structure Elucidation And Conformational Properties of Irbesartan. *In Drug Discovery and Design: Medical Aspects. Biomedical and Health Research*, vol. 55. J. Matsoukas and T. Mavromoustakos (Eds). IOS Press (2002). ISSN: 0929-6743 ISBN:4274905225, 9784274905223

**6.** A. Kolokouris, **M. Zervou**, T. Mavromoustakos, P. Roumelioti, T. Tselios, J. Matsoukas, E. Humpfer: Conformational Analysis of Peptidic and Peptidomimetic AII Antagonists Using a Combination of NMR Spectroscopy and Theoretical Calculations. *In Bioactive Peptides in Drug Discovery and Design: Medical Aspects. Biomedical and Health Research*, vol. 22. J. Matsoukas and T. Mavromoustakos (Eds). IOS Press (1999).

## International conferences participation

### 1. **55th Congress of the European Societies of Toxicology, EUROTOX 2019, Sep. 8-11, Helsinki, Finland**

P. Georgiadis, P. Christodoulou, E. Lianou, A. Boulaka, E. Mitsou, M. Vlassopoulou, G. I. Zervakis, A. D.

Karagouni, A. Kyriacou, **M. Zervou**, V. Pletsas. *In vitro* fermentation of pleurotus ostreatus and ganoderma lucidum by human gut microbiota: cytotoxic, genotoxic and metabolomic analysis of the products

### 2. **Gordon Research Conference "Neurotrophic Mechanisms in Health and Disease", June 2-7, 2019**

**Salve Regina University, Newport RI, USA.** Gravanis A., Pediaditakis I, Efstathopoulos P, Kourgiantaki A, **Zervou M**, Calogeropoulou T, Charalampopoulos I. Microneurotrophins: synthetic micromolecular agonists of neurotrophin receptors with neuroprotective properties in animal models of neurodegenerative diseases.

### 3. **EFMC-ASMC 2019, International Symposium on Advances in Synthetic and Medicinal Chemistry, 1-5 September, 2019, Zappeion Conference & Exhibition Center, Athens, Greece**

O. Kirkilessi, G. Magoulas, E. Kritsi, **M. Zervou**, I. Pediaditakis, P. Efstathopoulos, A. Kourgiantaki, K. Prousis, I. Charalampopoulos, A. Gravanis, T. Calogeropoulou. Design, synthesis and evaluation of microneurotrophins, novel synthetic agonists of neurotrophin receptors.

### 4. **EFMC-ASMC 2019, International Symposium on Advances in Synthetic and Medicinal Chemistry, 1-5 September, 2019, Zappeion Conference & Exhibition Center, Athens, Greece**

G. E. Magoulas, O. Kirkilessi, E. Kritsi, **M. Zervou**, Pediaditakis I, Efstathopoulos P, Kourgiantaki A, K.C. Prousis, I. Charalampopoulos, A. Gravanis, T. Calogeropoulou. Synthetic Microneurotrophins as Novel Agonists of Neurotrophin Receptors.

5. **10th International Symposium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources, CMTPI-2019 Ioannina, Greece, 23-27 June, 2019.** E. Kritsi, C. Potamitis, D. Siakouli, A. Boulaka, A. C. Tenchiu, C. Nasaj, G. Panagiotou, V. Ganou, K. D. Papavasileiou, O. Kirkilissi, T. Calogeropoulou, M. N. Alexis, P. Zoumpoulakis, C. Arbez-Gindre, I.D. Kostas, D. J. Mitsiou and **M. Zervou (ORAL PRESENTATION)**. New Non-steroidal Selective Glucocorticoid Receptor Agonists.
6. **COST Action CA15135. "Multi-target paradigm for innovative ligand identification in the drug discovery process (MuTaLig)" 2<sup>nd</sup> Meeting Porto, Portugal, 22-24 September 2017.** M. Evgeniou, C. Potamitis, **M. Zervou**. *In silico* screening for the discovery of new inhibitors for the mutated protein BRAF-V600E
7. **COST Action CM1407. "Challenging organic syntheses inspired by nature - from natural products chemistry to drug discovery" 3<sup>rd</sup> Meeting Krakov, Poland, 2-3 March 2017.** E. Ioannou, M. Harizani, K. Kokkotou, **M. Zervou**, V. Roussis. The *Laurencia* paradox: an endless source of chemodiversity.
8. **EFMC-ISMIC 2016, XXIV EFMC International Symposium on Medicinal Chemistry, Manchester, UK, 2016.** K.C. Prousis, M. Grozi, **M. Zervou**, C. Potamitis, I. Pedititakis, I. Charalampopoulos, A. Gravanis, T. Calogeropoulou. 17-Spiro-Dehydroepiandrosterone Derivatives as Small Molecule Mimetics of Neurotrophins.
9. **8th International Symposium on Computational Methods in Toxicology and Pharmacology Integrating Internet Resources. CMTPI -2015. Chios island, Greece June 21-25, 2015.** C. Potamitis, M. Goulielmaki, A. Pintzas, P. Zoumpoulakis, **M. Zervou**. Virtual screening approaches targeting BRAFV600E oncoprotein Inhibitors.
10. **Anatolian Conference on Synthetic Organic Chemistry ACSOC, Antalya TURKEY March 16-19, 2015.** B.R. Steele, C. Arbez-Gindre, M. Konstantinidou, C. Potamitis, S. Georgakopoulos, G. Antonopoulou, G.A. Heropoulos, P. Zoumpoulakis, **M. Zervou**, M. Michascrettas. Synthesis of new polyhydroxydendrimers for drug encapsulation and delivery.
11. **15th Annual European Schrodinger User Meeting, The Westin Paris – Vendôme, Paris, France. September 23rd - 25th, 2015,** C. Potamitis, K. Papavasileiou, D. Siakouli, A. Boulaka, M. Papadopoulos, D.J. Mitsiou, M.N. Alexis, P. Zoumpoulakis, **M. Zervou**. Virtual screening approaches targeting glucocorticoid receptor.
12. **SEE-DRUG Conference, NMR applications in Life Sciences. Exploring peptides & proteins Conference & Cultural Center, University of Patras, 18–20 June, 2015.** P. Christodoulou, K. Kokkotou, M. Liouni, P. Georgiadis, **M. Zervou**. Antioxidant effects of wine extracts in a cell culture as probed by comet assay and NMR based metabolomics
13. **SEE-DRUG Conference, NMR applications in Life Sciences. Exploring peptides & proteins Conference & Cultural Center, University of Patras, 18–20 June, 2015.** D.Tzeli, P. Kozielowicz, C. Potamitis, K. Kokotou, **M. Zervou**, B. Rak, A. Gavalas, E.Tsolaki, A. Geronikaki, I. D. Petsalakis, P. G.Tsongas. 2,2'-Dihydroxybenzophenones and their Oxime and N-acylhydrazone Derivatives. Synthesis, Structure Profile and Evaluation as Model Antiinflammatory Drug Leads.
14. **247th National Spring Meeting of the American-Chemical-Society (ACS) Dallas, TX. 16-20 March 2014.** **Zervou, M**; Cournia, Z; Potamitis, C; Patargias, G; Durdagi, S; Grdadolnik, S; Mavromoustakos, T. Molecular basis of action of the AT1 antagonist losartan.
15. **1<sup>st</sup> International Congress: From Drug Discovery to Drug Delivery, Athens, Greece November 13-15, 2014.** C. Potamitis, M. Goulielmaki, A. Pintzas, P. Zoumpoulakis, **M. Zervou**. Structure-based virtual screening towards the discovery of potential BRAF<sup>V600E</sup> inhibitors.



16. ***Current Trends in Structural Biology & 7<sup>th</sup> International Conference of the Hellenic Crystallographic Association, FORTH Crete Greece 19-21 September, 2014.*** C. Potamitis, K.E. Tsitsanou, C. Drakou, E. Dimou, U. Zelenko, E. Ioannou, V. Roussis, S. Golic Grdadolnik, S.E. Zographos, **M. Zervou**. NMR mapping of ligands' molecular interactions at the Odorant Binding Protein 1 of malaria-transmitting mosquito *Anopheles gambiae*.
17. ***FEBS-EMBO Palais des Congrès, Paris, France 30/8- 4/9 2014.*** I. Charalampopoulos, I. Pediaditakis, P. Efstathopoulos, **M. Zervou**, J.C. Arevalo, V. Nikolettou, A. Kourgiantaki, T. Calogeropoulou, A. Gravanis. Molecular pharmacology of synthetic neurosteroidal agonists of Nerve Growth Factor (NGF) receptors: differential neurotrophin receptors signaling.
18. ***The 32<sup>nd</sup> Cyprus - Noordwijkerhout - Camerino Symposium in Drug Research, Limassol, Cyprus, May 18-22, 2014.*** M. Mondal, N. Radeva, H. Köster, A. Park, C. Potamitis, **M. Zervou**, G. Klebe, and A. K. H. Hirsch. Novel Inhibitors for the Aspartic Protease Endothiapepsin by Combining Structure-Based Design, Dynamic Combinatorial Chemistry and STD-NMR Spectroscopy.
19. ***CECAM-HQ-EPFL, Workshop: Coupling between protein, water, and lipid dynamics in complex biological systems: Theory and Experiments. Lausanne, Switzerland, September 24-27, 2013.*** G. Patargias, **M. Zervou**, Z. Cournia, C. Potamitis, S. Durdagi, S. Golic Grdadolnik, T. Mavromoustakos. The Molecular Basis of Action of the AT1 Antagonist Losartan.
20. ***COST Action CM0804 "Chemical Biology with Natural Products" Izmir, TURKEY Final Meeting, 6 - 8 May, 2013.*** K. Kokkotou, E. Ioannou, E. Siapi, **M. Zervou**, V. Roussis. Studies towards the Metabolomic Profiling of Red Algae of the Genus *Laurencia*.
21. ***EU-FP7-REGPOT-ARCADE, Final Meeting Athens May, 2013*** C. Potamitis, P. Zoumpoulakis, **M. Zervou** (ORAL PRESENTATION). Applications of Biomolecular NMR in Chemical Biology.
22. ***International Conference on Chemistry for Health, NHRF, Athens 9-14 Sept, 2012.*** Potamitis, C.; **Zervou, M.**; Zoumpoulakis, P.; Zographos, S.E.; Tsitsanou, K.E.; Drakou, C.; Iatrou, K.; Zelenko, U.; Golic Grdadolnik, S. NMR screening for putative repellents targeting Odorant Binding Protein (OBP1) of the primary vector for malaria, mosquito *Anopheles gambiae*.
23. ***BuTrAFoS (Building Trust through Authentic Food and safety), Limassol Cyprus, 28-31 Oct, 2012.*** C. Fotakis, **M. Zervou**, P. Zoumpoulakis. Biomarkers of indigenous Cypriot Wines.
24. ***BuTrAFoS (Building Trust through Authentic Food and safety), Limassol Cyprus, 28-31 Oct, 2012.*** L. Mihai Palade, S. Loupasaki, Ch. Fotakis, K. Kokkotou, **M. Zervou**, P. Kefalas. Phenolics and ESI-MS-Cases of diagnostic fragments-Application in wine phenolic fingerprinting.
25. ***3<sup>rd</sup> International ARCADE Workshop "Advanced Mass Spectrometric and NMR Methods", NHRF Athens 28-30th May, 2012*** C. Potamitis, **M. Zervou**, P. Zoumpoulakis, S.E. Zographos, K.E. Tsitsanou, C. Drakou, K. Iatrou, U. Zelenko, S. Golic Grdadolnik. NMR screening for putative repellents targeting Odorant Binding Protein (OBP1) of the primary vector for malaria, mosquito *Anopheles gambiae*.
26. ***3<sup>rd</sup> International ARCADE Workshop "Advanced Mass Spectrometric and NMR Methods", NHRF Athens 28-30th May, 2012*** K. Kokkotou, E. Ioannou, F. Pitterl, A. Vonaparti, E. Siapi, **M. Zervou**, V. Roussis. UHPLC-ESI-MS and HR NMR methodologies towards the metabolite profiling of *Laurencia* crude extracts
27. ***3<sup>rd</sup> International ARCADE Workshop "Advanced Mass Spectrometric and NMR Methods", NHRF Athens 28-30th May, 2012*** Fotakis Ch., Kokkotou K., **Zervou M.**, Zoumpoulakis P. Grape derived products under the scope of NMR-metabolomics.

28. **32nd European Peptide Society Symposium, Megaron, Athens, Greece, 2-7 Sept. 2012.** Zervou, M; Potamitis, C.; Zoumpoulakis, P; Fotakis, C; Papadimitriou, E; Cordopatis, P; Magafa, V. Pharmacophore model of Cysteine-based alpha 4 beta 1 Integrin Ligands based on Conformational Solution Studies.  
*J. Peptide Sci*, **2012**, *18*, *Suppl. S1*, *page S165*,
29. **32nd European Peptide Society Symposium, Megaron, Athens, Greece, 2-7 Sept. 2012.** Zervou, M; Paschalidou, K.; Fotaras, S; Constantinou-Kokotou, V; Kokotos, G. Studies on a Reverse-Turn Scaffold Containing a Thiourea Functionality.  
*J. Peptide Sci*, **2012**, *18*, *Suppl. S1*, *page S12*, DOI: 10.1002/psc.2449
30. **32nd European Peptide Society Symposium, Megaron, Athens, Greece, 2-7 Sept. 2012.** Potamitis, C.; Resvani, A.; Androutsou, M-E; Zervou, M; Plotas, P; Aggelis, G; Zoumpoulakis, P; Matsoukas, J. Conformational Similarities and Differences of Angiotensin II (AII): AII Acetate vs AII TFA Salt in Solution.  
*J. Peptide Sci*, **2012**, *18*, *Suppl. S1*, *page S161*,
31. **7<sup>th</sup> International Conference on Instrumental Methods of Analysis, Chania, Crete, Greece 18-22/09/2011.** Ch. Fotakis, D. Christodouleas, M. Liouni, A. Calokerinos, T. Masouras, P. Zoumpoulakis and M. Zervou. Metabolic and antioxidant signature of aged Greek grape marc distillates.
32. **7<sup>th</sup> International Conference on Instrumental Methods of Analysis, Chania, Crete, Greece 18-22/09/2011.** K. Kokkotou, F. Pitterl, E. Ioannou, E. Siapi, M. Zervou, V. Roussis. Metabolic profiling of *Laurencia* crude extracts by UHPLC-Orbitrap-MS and HR NMR.
33. **7<sup>th</sup> symposium In Vino Analytica, Graz, Austria, 21-23/07/2011** C. Fotakis, D. Christodouleas, K. Kokkotou, M. Zervou, P. Zoumpoulakis, M. Liouni, A. Calokerinos. NMR based metabolic profiling of Greek grape marc distillates. K. Kokkotou, M. Zervou, P. Zoumpoulakis, C. Fotakis, P. Moulos, A. Tsantili-Kakoulidou, M. Liouni. NMR based metabolic monitoring of Greek white wines.
34. **WAC Beaune, France 24-26/3/2011.** K. Kokkotou, M. Zervou, P. Zoumpoulakis, C. Fotakis, P. Moulos, A. Tsantili-Kakoulidou, M. Liouni. NMR based metabolic monitoring of Greek white wines.
35. **18<sup>th</sup> European Symposium on Quantitative Structure–Activity Relationships, Rhodes Greece, September 19-24, 2010.** Zervou M., Zoumpoulakis P., Potamitis C., Prousis K.C., Detsi A. In silico binding studies of novel quinolinone 3-carboxamides: an effort to elucidate their anti-inflammatory profile.
36. **EMU-School 2010, Oviedo, Spain, 27-30 June 2010.** Athanasiadou D., Godelitsas A., Sokaras D., Karydas A., Dotsika E., Potamitis K., Zervou M., Xanthos S., Chatzitheodoridis E., Gamaletsou M., Gooi H.C., and Becker U. New insights into the chemical and isotopic composition of cholesterol gallstones from the human body. Ion-partitioning in ambient temperature aqueous systems. From fundamentals to applications in climate proxies and environmental geochemistry.
37. **31<sup>st</sup> European Peptide Society Symposium, Copenhagen, Denmark, 5-9 Sept. 2010.** Daletos G. K., Lamprou M., Zoumpoulakis P., Zervou M., Assimomytis N. L., Geronikaki A., Papadimitriou E., Magafa V., Cordopatis P. Synthesis, evaluation and conformational solution studies of Cysteine-based  $\alpha_1\beta_1$  Integrin ligands. *J. Peptide Sci*, **2010**, *16*, *Issue S1*, *page S159*

38. **6th International Conference Instrumental Methods of Analysis, Athens, Greece, 4th - 8th October 2009.** C. Fotakis, K. Kokkotou, D. Christodouleas, A. Calokerinos, M. Liouni, P. Zoumpoulakis, **M. Zervou**. Metabolic Monitoring of Greek Beverages Using HR NMR Spectroscopy
39. **19th Annual V.M. Goldschmidt Conference Davos, Switzerland, June 21 – 26, 2009.** Kollias K., Godelitsas A., Astilleros J.M., Ladas S., Kennou S., Potamitis C., **Zervou M.**, Lagoyiannis A., Harissopulos S. Mavromoustakos T. Nanoscale processes during the interaction of aluminosilicate and carbonate mineral surfaces with acid mine drainage (AMD).  
*GEOCHIMICA ET COSMOCHIMICA ACTA (Suppl. S)*, 2009, 73, 13 p A677-A677
40. **4th International Conference on Oxidative Stress in Skin Medicine and Biology, Andros, Greece 11-14 Sept. 2008.** A. Detsi, C. A. Kontogiorgis, E. A. Pontiki, D. Hadjipavlou-Litina, **M. Zervou**, P. Zoumpoulakis. Design, Synthesis and Evaluation of the Antioxidant, Antiinflammatory and Lipoxygenase Inhibitory Activity of novel Nsubstituted-4-Hydroxy-2-Quinolinone Carboxamides.
41. **1st Euro-Mediterranean Conference on Marine Natural Products. Sharm El-Sheikh, Egypt 31/10-4/11 2008** E. Ioannou, A. F. Abdel-Razika, X. Alexi, **M. Zervou**, C. Vagias, M. N. Alexis, V. Roussis. New steroids with anticancer activity from the gorgonian Eunicella Cavolini.
42. **PSE Young Scientists' Meeting, Future Trends in Phytochemistry: Compounds - Enzymes - Genes", Bad Herrenalb, Germany, 26 - 29 March 2008.** E. Ioannou, A. Ismail, **M. Zervou**, C. Vagias, L. Ktari, V. Roussis. New Diterpenes from the Brown Alga *dilophus Fasciola*.
43. **7th Joint meeting. Natural Products with pharmaceutical, nutraceutical, cosmetic and agrochemical interest. Athens 3-8/ 08 / 2008.** Termentzi A, **Zervou M**, Kokkalou E. A novel complex phenolic constituent from medium matured *Sorbus domestica* (Rosaceae) fruits.  
*Planta Med* 2008; 74; PB79
44. **7th Joint meeting. Natural Products with pharmaceutical, nutraceutical, cosmetic and agrochemical interest. Athens 3-8/ 08 / 2008.** Plioukas M, Gabrieli C, **Zervou M** , Kokkalou E. Antioxidant properties and five new phenylpropanoid esters of apigenin from *Sideritis syriaca L.*  
*Planta Med* 2008; 74; PB15, DOI: 10.1055/s-0028-1084361
45. **Phytochemical Society of Europe, 50th Anniversary Conference Cambridge, UK, April 11-14, 2007.** A Termentzi, **M. Zervou**, P. Kefalas, E. Kokkalou. Phytochemical Analysis and Structure Elucidation of the Phenolic Constituents of Various Extracts and Fractions of *Sorbus domestica* Fruits.
46. **6th AFMC International Medicinal Chemistry Symposium, Istanbul, Turkey, July 8-11, 2007.** T. Mavromoustakos, **M. Zervou**, P. Zoumpoulakis, K. Potamitis, V. Katsiaras, A. Politi, E. Mantzourani, S. Durdagi, C. Koukoulitsa. Putative Bioactive Conformers of Small Molecules. A Concreted Approach Using NMR Spectroscopy and Computational Chemistry.  
*Drugs of the Future* 2007 Vol. 32, Suppl. A,
47. **5th Hellenic Forum on Bioactive Peptides. Patras, Greece 2007.** C. Potamitis, H. Reis, **M. Zervou**, M. Papadopoulos, T. Mavromoustakos. Conformational Analysis of AT1 Antagonist Valsartan using 2D NMR Spectroscopy and Computational Analysis. Determination of Thermodynamic Parameters through Dynamic NMR Spectroscopy and Semi-Empirical Calculations.  
**Paper:** *Proceedings of the 5th Hellenic Forum on Bioactive Peptides, p267-272*
48. **4th Hellenic Forum on Bioactive Peptides. Patras, Greece. April 22-24, 2004.** A. Kapou, **M. Zervou**, S.G. Grdadolnik, T. Mavromoustakos. 3D-QSAR Antihypertensive Models Based on 2D-NMR and Computational Analysis Driven Low Energy Conformers of Losartan.

*J. Peptide Sci.* **2004** (10 Sup) H54.

**Paper:** *Proceedings of the. 4th Hellenic Forum on Bioactive Peptides, p309-312*

49. **4th Hellenic Forum on Bioactive Peptides. Patras, Greece April 22-24, 2004** C. Potamitis, **M. Zervou**, I. Kyrikou, E. Siapi, P. Zoumpoulakis, C. Fotakis, D. Christodouleas, K. Viras, A. Kolocouris, S.G. Grdadolnik, T. Mavromoustakos. Conformational Analysis Using 2D NMR Spectroscopy Coupled with Computational Analysis of Valsartan and its Drug:Membrane Interactions.

*J. Peptide Sci.* **2004** (10 Sup) H55.

**Paper:** *Proceedings of the. 4th Hellenic Forum on Bioactive Peptides, p313-316*

50. **Peptide Revolution: Genomics, Proteomics & Therapeutics. 18th American Peptide Symposium, Boston 19-23 July 2003.** Mavromoustakos, T.; Roumelioti, P.; **Zervou, M.**; Zoumpoulakis, P.; Kyrikou, I.; Giatas, N.; Gatos, D.; Androutsou, M. Papanastasiou, I.; Zoga, A.; Minakakis, P. M.; Kokotos, G.; Vlahakos, D.; Iliodromitis, E.; Matsoukas, J. Design and synthesis of novel antihypertensive drugs.

51. **Progress in stiinta compusilor or organici si macromoleculari, 25-27 September, 2003, Iasi, Romania.** T. Mavromoustakos, P. Minakakis, G. Kokotos, **M. Zervou**, I. Kyrikou, A. Kapou, A. Zoga, P. Zoumpoulakis, S. Gega, I. Chailkefs, C. Potamitis, E. Siapi, A. Pitsas, D. Demetriou, E. Iliodromitis. The Use of NMR and Molecular Modeling to study the molecular basis of hypertesnsion.

52. **International Conference of Computational Methods in Sciences and Engineering ICCMSE 2003. Kastoria, Greece, September 2003** T. Mavromoustakos, P. Zoumpoulakis, **M. Zervou**, I. Kyrikou, A. Kapou, N. Benetis. The Use of Computational Analysis to Design Novel Drugs.

**Paper:** *Proceedings of ICCMSE 2003 by World Scientific, pp. 413-417. T.E. Simos (Ed).*

53. **3rd Central European conference on Reference Materials and Measurements, Rogaska Slatina, Slovenia, 2002.** G. Bonas, **M. Zervou**, A. Papaeoannou. "SoftCRM. A new software for the Certification on Reference Materials".

54. **The VIIth Symposium of Colloid and Surface Chemistry, Bucurest, Romania, 2002.** E. Siapi, I. Kyrikou, P. Zoumpoulakis, **M. Zervou**, D. Demetriou, A. Pitsas, Ch. Camoutsis, Eng. V. Trandafir, A. Buzor, G. Popescu, T. Mavromoustakos. The Use of Differential Scanning Calorimety to study the thermal effects of gentamycin on Synthetic Polymeric Collageneous Membranes.

55. **EENC 98, 14th European Experimental Conference. Bled, Slovenia, 1998.** T. Mavromoustakos, A.Kolokouris, **M.Zervou**, I.Matsoukas. The molecular basis of hypertension.

56. **The Third International Conference on Applications of Magnetic Resonance in Food Science, Nantes, 1996.** T. Mavromoustakos, G. Bonas, M.P. Day, **M. Zervou**, E. Theodoropoulou, M. Bensaia: A <sup>13</sup>C NMR Spectroscopy approach to the Adulteration of Olive Oil.

## National conferences participation

1. **18<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (HSCM-18), held on-line, February 25-27, 2021.** A Computational Approach for the Discovery of novel DNMT1 Epigenetic Inhibitors. E. Kritsi, P. Christodoulou, D. Lantzouraki, T. Tsiaka, P. Georgiadis, **M. Zervou**.

2. **18<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (HSCM-18), held on-line, February 25-27, 2021.** Design and Synthesis of Novel Mosquito Repellents through the Application of Dynamic Combinatorial Chemistry. E. Chazapi, E. Kritsi, C. Potamitis, P. Liggri, C. E. Drakou K.E. Tsitsanou, D.P. Papachristos, A. Michaelakis, S. Zographos, K.C. Prousis, **M. Zervou**, T. Calogeropoulou.

3. **18<sup>th</sup> Hellenic Symposium on Medicinal Chemistry (HSCM-18), held on-line, February 25-27, 2021.** Study of the anti-platelet/anti-thrombotic activity of 6-piperazinyl-purine analogues. T. Fotopoulou, S. Ansari, G. Paramel, M. Lindkvist, S. Ramström, D. Pournara, E. Ifanti, E. Kritsi, **M. Zervou**, M. Koufaki, K. H Fransén, M. Grenegård
4. **70<sup>th</sup> Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology. Eugenides Foundation, Athens 29 November-1 December 2019.** Development of New Selective Glucocorticoid Receptor Agonists: hit-to-lead optimization. D. Siakouli, E. Kritsi, A.C. Tenchiu, N. Travlos, G. Panagiotou, A. Boulaka, K. Nasaj, C. Potamitis, O. Kirkilissi, A. Tzani, T. Calogeropoulou, C. Arbez-Gindre, M. N. Alexis, I. D. Kostas, **M. Zervou**, D. J. Mitsiou
5. **70<sup>th</sup> Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology. Eugenides Foundation, Athens 29 November-1 December 2019.** A. Boulaka, M. Vlassopoulou, P. Christodoulou, G. I. Zervakis, A. Kyriacou, **M. Zervou**, P. Georgiadis, V. Pletsa. In vitro fermentation of edible Greek mushrooms of high  $\beta$ -glucan content by human gut microbiota: cytotoxic, genotoxic and metabolomic profiling of the products.
6. **70<sup>th</sup> Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology. Eugenides Foundation, Athens 29 November-1 December 2019.** K. Koumaki, Y. Batsi, V. Kosmidou, E. Kritsi, **M. Zervou**, G. Antonopoulou, I. D. Kostas, V. L. Souliotis, A. Pintzas. Novel benzothiazole derivatives as potential BRAF inhibitors in colorectal adenocarcinoma cell lines
7. **2<sup>nd</sup> International meeting of Hellenic Crystallographic Association (HeCrA) young researchers. Department of Biochemistry & Biotechnology, University of Thessaly, Larisa, Greece, 2018.** E. Michael, C. Potamitis, **M. Zervou**. In silico studies of the mutated BRAFV600E oncoprotein inhibitors
8. **68<sup>th</sup> Conference of Hellenic Society for Biochemistry and Molecular Biology. Nov 10-12, 2017, Athens, Greece.** P. Christodoulou, K. Kokkotou, M. Liouni, P. Georgiadis, **M. Zervou**. Antioxidant effects of wine extract in cell culture probed by comet assay and NMR-based metabolomics
9. **66<sup>th</sup> Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology. Eugenides Foundation, Athens 11-13 December 2015.** D. Siakouli, A. Boulaka, C. Potamitis, K. Papavasileiou, M. Roussaki, T. Calogeropoulou, M. G. Papadopoulos, P. Zoumpoulakis, **M. Zervou**, M. N. Alexis, D. J. Mitsiou. Dissociated Glucocorticoids: Development of novel compounds and evaluation of their activity.
10. **66<sup>th</sup> Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology. Eugenides Foundation, Athens 11-13 December 2015.** C. Potamitis, M. Goulielmaki, A. Pintzas, P. Zoumpoulakis, **M. Zervou**. Virtual screening towards the selective inhibition of BRAFV600E oncoprotein.
11. **66<sup>th</sup> Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology. Eugenides Foundation, Athens 11-13 December 2015.** P. Christodoulou, K. Kokkotou, M. Liouni, P. Georgiadis, **M. Zervou**. Enhancement of cell defence upon treatment with natural antioxidant matrices probed by comet assay and NMR-based metabolomics
12. **Symposium on Mass Spectrometry and Health, 18-19 November 2014, National and capodistriian University of Athens, Athens Greece** K. Kokkotou, E. Ioannou, E. Siapi, **M. Zervou**, V. Roussis. LC/MS-based metabolomic analysis of red algae of the genus *Laurencia*: screening for bioactive compounds and new natural products.

13. **2nd SEE-DRUG WORKSHOP: NMR BASICS & APPLICATIONS IN LIFESCIENCES, FP7-REGPOT-2011-1, SEE-DRUG Project & 14<sup>th</sup> Conference of Medicinal Chemistry, Conference & Cultural Center, University of Patras, 13<sup>th</sup>–15<sup>th</sup> May, 2013** V. Mertziani, D. Tsigirmani, C. Potamitis, P. Cordopatis, **M. Zervou**, V. Magafa. Design, synthesis and solution conformational studies of new analogues of  $\chi$ -Conopeptide MrIA.
14. **15<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Athens 25-27 May 2012.** **M. Zervou**, P. Zoumpoulakis, C. Potamitis, Ch. Fotakis, E. Papadimitriou, P. Cordopatis, V. Magafa. Novel Cysteine  $\alpha\beta 1$  Integrin Ligands: Correlation of in silico Pharmaceutically relevant properties with their in vivo profile.
15. **3rd Hellenic Conference of I.S.F.H.A -The Interdisciplinary Society of Food Hygiene Assurance, Thessaloniki 4-6 June 2010.** K. Kokkotou, C. Fotakis, **M. Zervou (ORAL)**, P. Zoumpoulakis, A. Tsantili-Kakoulidou, M. Liouni. Metabolic profile monitoring of Greek wines using HR NMR spectroscopy and multivariate statistical analysis.
16. **14<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Thessaloniki 23-25 April 2010.** A. Detsi, K. C. Prousis, C. A. Kontogiorgis, E. A. Pontiki, **M. Zervou**, P. Zoumpoulakis, C. Potamitis, D. Hadjipavlou-Litina. Privileged Heterocyclic Scaffolds with Antioxidant and Lipoxygenase Inhibitory Activity. The Case of 4-Hydroxy-2-quinolinone-3-carboxamides Synthesis, in vitro evaluation and *in silico* docking studies.
17. **14<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Thessaloniki 23-25 April 2010.** A. Panztou, N. Avlonitis, I. Charalambopoulos, **M. Zervou**, X. Alexi, I. Lazaridis, M.N.Alexis, A. Gravanis, T. Calogeropoulou. Design and Synthesis of 17-Spiro Neurosteroids.
18. **14<sup>th</sup> Hellenic Symposium on Medicinal Chemistry, Thessaloniki 23-25 April 2010.** P. Tsatalas, A. Termentzi, **M. Zervou**, E. Kokkalou. Phytochemical Analysis of *Cornus Mas* fruits in correlation to their antioxidant capacity.
19. **10th conference "Medicinal Chemistry: Drug discovery and Design", Patras, Greece, 18-20 March 2009.** C. Potamitis, T. Tselios, J. Matsoukas, **M. Zervou**, K. Viras, T. Mavromoustakos. Study of Myelin Basic Protein peptide analogues interactions with lipid bilayers using DSC, Raman and solid state <sup>13</sup>C and <sup>31</sup>P NMR spectroscopy.
20. **10th conference "Medicinal Chemistry: Drug discovery and Design", Patras, Greece, 18-20 March 2009.** C. Fotakis, D. Christodouleas, **M. Zervou**, N.P. Benetis, K. Viras, T. Mavromoustakos. Development of a CP-<sup>31</sup>P NMR broadband simulation methodology for studying the interactions of antihypertensive AT1 antagonist losartan with phospholipid bilayers.
21. **9th conference "Medicinal Chemistry: Drug discovery and Design", Patras, Greece, 26-28 March 2008.** C. Potamitis, T. Tselios, J. Matsoukas, **M. Zervou**, N. Benetis, K. Viras, T. Mavromoustakos. Interactions of a pair of synthetic peptide analogues of Myelin Basic Protein with lipid bilayers using DSC and high resolution solid state <sup>13</sup>C NMR.
22. **9th conference "Medicinal Chemistry: Drug discovery and Design", Patras, Greece, 26-28 March 2008.** A. Politi, **M. Zervou**, P. Zoumpoulakis, A. Zoga, P. Moutevelis-Minakakis, G. Kokotos, T. Mavromoustakos, E. K. Iliodromitis, D.Th. Kremastinos. Hypertension study in anaesthetized rabbits : A new protocol for AT1 antagonists screening.
23. **13th Hellenic Symposium on Medicinal Chemistry (HSMC-13), 14-15 March 2008** C. Potamitis, **M. Zervou**, J. M. Hayes, P. Zoumpoulakis, D. Argyropoulos, S. Golic Grdadolnik, T. Mavromoustakos. Antihypertensive Drug Valsartan: conformational analysis, thermodynamic properties and docking studies using NMR spectroscopy and in silico methods.

24. **13th Hellenic Symposium on Medicinal Chemistry (HSMC-13), 14-15 March 2008** A. Detsi, C. A. Kontogiorgis, D. Hadjipavlou-Litina, E.A. Pontiki, **M. Zervou**, P. Zoumpoulakis. Novel analogs of N-substituted-4-Hydroxy-2-Quinolinone as Lipoxygenase Inhibitors.
25. **8th Conference, Medicinal Chemistry: Drug Discovery and Design, Patras, Greece March 15-17, 2007.** C. Potamitis, **M. Zervou (Oral)**, S. Golic Grdadolnik, I. Kyrikou, D. Argyropoulos D., G. Vatougia, V. Katsiaras, S. Nikolaropoulos, P. Zoumpoulakis, T. Mavromoustakos. Conformational Analysis of the Antihypertensive Drug Valsartan using Dynamic NMR Spectroscopy. Comparative superimposition and docking studies with the prototype AT1 antagonit Losartan.
26. **5th Hellenic Forum on Bioactive Peptides. Patras, Greece, May 14-16, 2006. M. Zervou**, S.G. Grdadolnik, A. Politi, P. Zoumpoulakis, T. Mavromoustakos. Comparison of x-ray crystallographic conformers with those obtained using NMR spectroscopy in different environments. *5th Hellenic Forum on Bioactive Peptides. May 14-16, 2006 Patras, Greece.*
27. **5th Hellenic Forum on Bioactive Peptides. Patras, Greece, May 14-16, 2006.** C. Potamitis, H. Reis, **M. Zervou**, M. Papadopoulos and T. Mavromoustakos. Conformational Analysis of AT1 antagonist Valsartan using 2D NMR Spectroscopy and Computational Analysis. Determination of Thermodynamic parameters through Dynamic NMR spectroscopy and semi-empirical calculations. **Paper:** *5th Hellenic Forum on Bioactive Peptides.* P.A. Cordopatis, E. Manessi-Zoupa, G. Pairas (eds) pp. 267-272.
28. **5th Hellenic Forum on Bioactive Peptides. Patras, Greece, May 14-16, 2006.** A. Politi, P. Zoumpoulakis, **M. Zervou**, K. Georgikopoulou, G. Kokotos, P. Moutevelis Minakakis, T. Mavromoustakos. Rational Design of the potential molecule (5S)-1-(3-Hydroxybenzyl)-5-(1H-imidazol-1-ylmethyl)-2-pyrrolidinone (MMK8) for the treatment of Hypertension.
29. **Greece-Cyprus Chemistry Conference, Thessaloniki, Greece 2004.** G. Bonas, **M. Zervou**. The European Virtual Institute for Reference Materials (VIRM).
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