

Curriculum Vitae – Dr. Panagiotis Stathopoulos

Personal Data

First Name and Surname: Panagiotis Stathopoulos, **Middle Name:** Trifonas, **Date of birth:** 15-06-1976, **Birthplace:** Athens, **Address:** National and Kapodistrian University of Athens, Faculty of Pharmacy, Laboratory of Pharmacognosy and Natural Product Chemistry, Panepistimiopolis Zografou, GR-15771, Athens, **E-mail:** stathopan@pharm.uoa.gr

Educational Qualifications

2003-2008: Ph.D in Chemistry, Department of Chemistry, University of Ioannina,

2001-2003: M.Sc in Biomolecular Chemistry and Biochemistry, Department of Chemistry, University of Ioannina,

1999-2000: I successfully attended the program on winery education which, according to the Law 1697/87, Nr. 4, par. 3, was constituted by the General Assembly of the Department of Chemistry of the University of Ioannina and it fully corresponds to the regulations of the International Organization of Wine and Vineyards,

1995-2000: Bachelor in Chemistry, Department of Chemistry, University of Ioannina

Teaching/Laboratory Experience

2014-Today: Researcher and **Laboratory Teaching Staff** in the Section of Pharmacognosy and Natural Product Chemistry, **Faculty of Pharmacy**, National and Kapodistrian University of Athens

2013-2014: Researcher in Laboratory of Pharmacognosy and Natural Product Chemistry, Faculty of Pharmacy, National and Kapodistrian University of Athens,

2011-2012: Mass Spectrometry-trainer and teacher at the undergraduate students of Laboratories of Inorganic Chemistry I & II and Organic Chemistry I & II with title: '*Principles of Mass Spectrometry*', Department of Chemistry, University of Ioannina,

2010-2013: Scientific and technical collaborator, in a Mass Spectrometry Unit (Agilent 1100 LC/MSD Trap) of University of Ioannina,

2010: Scientific collaborator in Department of Animal Production, School of Agriculture Technology, Technological Educational Institute of Epirus,

2007-2010: Scientific and technical collaborator in Laboratory of Peptide Chemistry, Department of Chemistry, University of Ioannina,

2002-2005: Laboratory collaborator in Laboratories of Organic Chemistry, Biochemistry and Peptide Synthesis, Department of Chemistry, University of Ioannina and in Laboratory of Molecular Biology, Department of Biological Applications and Technologies, University of Ioannina.

Scientific Experience

Research Grants

I am actively involved in the preparation and submission of scientific proposals. Specifically, in the last years I have participated in more than **17 Projects** funded from Hellenic General Secretariat of Research and Technology (GSRT) and **1 European Research Project** Horizon 2020: H2020-MSCA-RISE-2016

Publications

1. Aspartyl methyl ester formation via aspartimide ring opening: a proposed modification of protocols used in Boc- and Fmoc- based solid – phase peptide synthesis. Sarantos Kostidis, **Panagiotis Stathopoulos**, Nectarios-Ioannis Chondrogiannis, Constadinos Sakarellos and Vassilios Tsikaris. *Tetrahedron Letters*, 44 (2003) 8673-8676.

2. α - and β - Aspartyl Peptide Esters Formation via Aspartimide Ring Opening. **Panagiotis Stathopoulos**, Serafim Papas, Sarantos Kostidis and Vassilios Tsikaris. *J. Peptide Science*, 11, (2005) 465-471.

3. C-terminal N-alkylated peptide amides resulting from the linker decomposition of the Rink amide resin. A new cleavage mixture prevents their formation. **Panagiotis Stathopoulos**, Serafim Papas and Vassilios Tsikaris. *J. Peptide Sci.* 12, (2006) 227-232.

4. Inhibition of platelet activation by peptide analogs of the β 3-intracellular domain of platelet integrin α IIb β 3 conjugated to the cell-penetrating peptide Tat(48-60).

- Andromaxi A. Dimitriou, **Panagiotis Stathopoulos**, John V. Mitsios, Maria Sakarellos-Daitsiotis, John Goudevenos, Vassilios Tsikaris and Alexandros D. Tselepis. *Platelets*, 20 (2009) 539-547.
5. Unexpected Synthesis of an Unsymmetrical μ -Oxido Divanadium(V) Compound through a Reductive Cleavage of a N-O Bond and Cleavage-Hydrolysis of a C-N Bond of an N,N-Disubstituted Bis-(hydroxylamino) Ligand. Vladimiro A. Nikolakis, **Panagiotis Stathopoulos**, Vassiliki Exarchou, John K. Gallos, Maciej Kubicki and Themistoklis A. Kabanos. *Inorg. Chem.*, 49 (2010) 52-61.
6. Side reactions in the SPPS of Cys-containing peptides **Panagiotis Stathopoulos**, Serafim Papas, Charalambos Pappas, Vassilios Mousis, Nisar Sayyad, Vassiliki Theodorou, Andreas G. Tzakos and Vassilios Tsikaris *Amino Acids* (2013) 44:1357–1363.
7. A rapid and efficient method for the synthesis of selectively S-Trt or S-Mmt protected Cys-containing peptides. **Panagiotis Stathopoulos**, Serafim Papas, Marianna Sakka, Andreas G. Tzakos, Vassilios Tsikaris *Amino Acids* (2014) 46(5):1367-76.
8. Molecular requirements involving the human platelet protease-activated receptor-4 mechanism of activation by peptide analogues of its tethered-ligand. Moschonas IC, Kellici TF, Mavromoustakos T, **Stathopoulos P**, Tsikaris V, Magafa V, Tzakos AG, Tselepis AD. *Platelets*. (2017) Mar 7:1-10. doi: 10.1080/09537104.2017.1282607.
9. Assessment of the antioxidant activity of an olive oil total polyphenolic fraction and hydroxytyrosol from a Greek *Olea europaea* variety in endothelial cells and myoblasts. Kouka P, Priftis A, Stagos D, Angelis A, **Stathopoulos P**, Xinos N, Skaltsounis AL, Mamoulakis C, Tsatsakis AM, Spandidos DA, Kouretas D. *Int J Mol Med*. (2017), 40(3):703-712.
10. Antioxidant effects of an olive oil total polyphenolic fraction from a Greek *Olea europaea* variety in different cell cultures. P. Kouka, G.-A. Chatzieffraimidi, G. Raftis, D. Stagos, A. Angelis, **P. Stathopoulos**, N. Xynos, A.-L. Skaltsounis, A.M. Tsatsakis, D. Kouretas. *Phytomedicine*, 2018, 47, 135-142
11. Evaluation of total phenolic fraction derived from extra virgin olive oil for its antileishmanial activity. O.S. Koutsoni, K. Karampetsou, I.D. Kyriazis, **P. Stathopoulos**, N. Aligiannis, M. Halabalaki, L.A. Skaltsounis, E. Dotsika. *Phytomedicine*, 2018, 47, 143-150.
12. Oleocanthalic and Oleaceinic acids: New compounds from Extra Virgin Olive Oil (EVOO). A. Angelis, L. Antoniadis, **P. Stathopoulos**, M. Halabalaki, A.-L. Skaltsounis. *Phytochemistry Letters*, 2018, 26, 190-194
13. The polyphenolic composition of extracts derived from different Greek extra virgin olive oils is correlated with their antioxidant potency. Kouka, P., Tsakiri, G., Tzortzi, D., Dimopoulou, S., Sarikaki, G., **Stathopoulos, P.**, Veskoukis, A.S., Halabalaki, M., Skaltsounis, A.-L., Kouretas, D. *Oxidative Medicine and Cellular Longevity* Open Access. Volume 2019, 2019, Article number 1870965
14. Comparison survey of EVOO polyphenols and exploration of healthy aging-promoting properties of oleocanthal and oleacein. Nikou, T., Liaki, V., **Stathopoulos, P.**, Sklirou, A.D., Tsakiri, E.N., Jakschitz, T., Bonn, G., Trougakos, I.P., Halabalaki, M., Skaltsounis, L.A. *Food and Chemical Toxicology*. 125, 2019, 403-412
15. Olive oil with high polyphenolic content induces both beneficial and harmful alterations on rat redox status depending on the tissue. Paraskevi Kouka, Fotios Tekos, Zoi Papoutsaki, **Panagiotis Stathopoulos**, Maria Halabalaki, Maria Tsantarliotou, Ioannis Zervos, Charitini Nepka, Jyrki Liesivuori, Valerii N. Rakitskii, Aristidis Tsatsakis, Aristidis S. Veskoukis, Demetrios Kouretas, *Toxicology Reports* 7 (2020) 421–432
16. The combined environmental stress on the leaves of *Olea europaea* L. and the relief mechanism through biosynthesis of certain secondary metabolites. Aikaterina L. Stefi, Efthymia Routsis, **Panagiotis Stathopoulos**, Alexios - Leandros Skaltsounis, Aikaterini Argyropoulou, Dido Vassilacopoulou and Nikolaos S. Christodoulakis. *Journal of Plant Growth Regulation* (2020) (*in press*).

Oral presentations in scientific conferences

- 4^o **Hellenic Forum on Bioactive Peptides**, 22-24 April 2004, University of Patra, Patra, Greece 'α- and β-Aspartyl Peptide Esters Formation via Aspartimide Ring Opening'.
- 6^o **National Conference metrology**, 13-14 May 2016, Athens War Museum, Athens, Greece, Development and application of analytical approaches for Extra Virgin Olive Oil (EVOO) biophenols determination. Mapping of Greek EVOOs
- 22^o **National Chemistry Conference**, 2-4 December 2016, Aristotile University of Thessaloniki, Thessaloniki, Mapping of Greek EVOOs. Determination of Bioactive Compounds in Olive Oil

-Lanzhou Institute of Chemical Physics, Chinese Academy of Sciences, July 25th 2018, Lanzhou, China Oral presentations to scientific groups (invited by Professor Di)
-Invited Speaker from the Institute of Chemical Industry of Forest Products (ICIFP), Chinese Academy of Forestry (CAF), 21-30 September 2019 Nanjing, China (invited by professor Chengzhang Wang)

Poster Presentation in Scientific Conferences

1. 'Evaluation of the GPIIb/IIIa Regions Participating in the Platelet Aggregation.' V. Tsikaris, M. Sakarellos-Daitsiotis, N. Biris, M. Abatzis, E. Tenente, **P. Stathopoulos**, A. Tambaki, J. Mitsios, D. Tsoukatos, A. Tselepis, M. Elisaf, K. Soteriadou, D. Sideris and C. Sakarellos. *Peptides 2002 (E. Benedetti and C. Pedone, Eds.), Edizioni Ziino, Napoli, Italy, 2002, pp. 636-637.*
2. 'Activated GPIIb/IIIa Receptor: Evaluation of the Regions Participating in Platelet Aggregation.' M. Sakarellos-Daitsiotis, N. Biris, M. Abatzis, E. Tenente, **P. Stathopoulos**, A. Tambaki, J. Mitsios, D. Tsoukatos, A. Tselepis, M. Elisaf, K. Soteriadou, D. Sideris, C. Sakarellos and V. Tsikaris. *3th Hellenic Forum on Bioactive Peptides, (P.A. Cordopatis, E. Manessi-Zoupa and G.N. Pairas Eds.), TYPORAMA-Tachytypo Ltd, Patras, Greece, 2003, pp.139-146.*
3. 'Inhibition of platelet activation and fibrinogen binding to $\alpha_{IIb}\beta_3$ using synthetic peptide-analogues derived from the β_3 subunit: A comparative study.' A.D. Tselepis, F.I. Rodi, J.V. Mitsios, **P. Stathopoulos**, M. Sakarellos-Daitsiotis, C. Sakarellos, L.K. Michalis, J.A. Goudevenos, M. Elisaf, D. Tsoukatos, V. Tsikaris, D.A. Sideris. *XIIIth International Symposium on Atherosclerosis, September 28–October 2, 2003, Kyoto, Japan. Atherosclerosis, Suppl. 4 (2), pp.247.*
4. ' α - and β -aspartyl peptide esters formation via aspartimide ring opening.' **P. Stathopoulos**, S. Papas, S. Kostidis and V. Tsikaris. In "*Peptides 2004*" (Flegel, M., Fridkin, M., Gilon, C., Slaninova, J., Eds.), 2004, pp.307-308.
5. 'Peptides derived from cytoplasmic region of the integrin platelet receptor as anti- aggregatory agents.' **P. Stathopoulos**, V. Koloka, F. Rodis, J. Mitsios, S. Vaxevanellis, E. Panou-Pomonis, M. Sakarellos-Daitsiotis, C. Sakarellos, D. Tsoukatos, A. Tselepis, and V. Tsikaris. In "*Peptides 2004*" (Flegel, M., Fridkin, M., Gilon, C., Slaninova, J., Eds.), 2004, pp. 762-763.
6. 'Mapping the fibrinogen binding sites of the platelet receptor using synthetic peptides derived from the β_3 subunit.' **P. Stathopoulos**, F. Rodis, E. Naydenova, D. Tsoukatos, M. Sakarellos-Daitsiotis, C. Sakarellos, A. Tselepis, and V. Tsikaris. In "*Peptides 2004*" (Flegel, M., Fridkin, M., Gilon, C., Slaninova, J., Eds.), 2004, pp. 770-771.
7. 'Mapping the binding sites of the GPIIIa subunit of the platelet receptor GPIIb/IIIa.' **P. Stathopoulos**, F. Rodis, E. Naydenova, D. Tsoukatos, M. Sakarellos-Daitsiotis, C. Sakarellos, A. Tselepis and V. Tsikaris. *4th Hellenic Forum on Bioactive Peptides, (P.A. Cordopatis, E. Manessi-Zoupa and G.N. Pairas Eds.), TYPORAMA-Tachytypo Ltd, Patras, Greece, 2005, pp.361-364.*
8. ' α - and β -aspartyl peptide esters formation via aspartimide ring opening.' **P. Stathopoulos**, S. Papas, S. Kostidis and V. Tsikaris. *4th Hellenic Forum on Bioactive Peptides, (P.A. Cordopatis, E. Manessi-Zoupa and G.N. Pairas Eds.), TYPORAMA-Tachytypo Ltd, Patras, Greece, 2005, pp.179-186.*
9. 'Peptides derived from cytoplasmic region of the $\alpha_{IIb}\beta_3$ subunits can inhibit platelet aggregation.' **P. Stathopoulos**, V. koloka, F. Rodis, J. Mitsios, S. Vaxevanellis, E. Panou-Pomonis, M. Sakarellos-Daitsiotis, C. Sakarellos and V. Tsikaris. *4th Hellenic Forum on Bioactive Peptides, (P.A. Cordopatis, E. Manessi-Zoupa and G.N. Pairas Eds.), TYPORAMA-Tachytypo Ltd, Patras, Greece, 2005, pp.369-372.*
10. 'Formation of C-terminal N-alkylated amide byproducts in fmoc-based solid phase peptide synthesis.' S. Papas, **P. Stathopoulos** and V. Tsikaris. *29th European Peptide Symposium, Gdansk, Poland. J. Peptide Sci. Suppl. 12, 2006, pp. 116.*
11. 'Peptide analogues derived from the cytoplasmic domain of $\alpha_{IIb}\beta_3$ integrin receptor inhibit platelet aggregation.' V. Koloka, **P. Stathopoulos**, E. Panou-Pomonis, S. Vaxevanellis, A. Dimitriou, L. Tsironis, D. Tsoukatos, A. Tselepis, M. Sakarellos-Daitsiotis, C. Sakarellos and V. Tsikaris. *29th European Peptide Symposium, Gdansk, Poland. J. Peptide Sci. Suppl. 12, 2006, pp. 148.*
12. 'C-terminal alkylated peptide amides in Fmoc-based solid phase peptide synthesis. A new cleavage mixture prevents the formation of alkylated peptides.' S. Papas, **P. Stathopoulos** and V. Tsikaris. *5th Hellenic Forum on Bioactive Peptides, Patras, Greece, 2007, p 50.*
13. 'Inhibition of platelet aggregation by peptide analogues derived from the cytoplasmic domain of the platelet integrin receptor $\alpha_{IIb}\beta_3$.' V. Koloka, **P. Stathopoulos**, S. Vaxevanellis, F. Rodis, J. Mitsios, E. Panou-

- Pomonis, C. Sakarellos, D. Tsoukatos, A. Tselepis, V. Tsikaris, and M. Sakarellos-Daitsiotis. *5th Hellenic Forum on Bioactive Peptides, Patras, Greece, 2007*, p 39.
14. 'Inhibition of platelet activation by peptide analogues of the intracellular domain of β_3 subunit of the platelet integrin $\alpha_{IIb}\beta_3$.' A.A. Dimitriou, **P. Stathopoulos**, B. Tsikaris, A.D. Tselepis. *European Atherosclerosis Society 76th Congress, Helsinki, Finland. Atherosclerosis. 2007. 8: p 14.*
15. 'Peptides derived from cytoplasmic region of the β_3 integrin can inhibit platelet aggregation.' **P. Stathopoulos**, A. Dimitriou, M. Sakarellos-Daitsiotis C. Sakarellos, D. Tsoukatos, A. Tselepis and V. Tsikaris. *6th Hellenic Forum on Bioactive Peptides, (P.A. Cordopatis, E. Manessi-Zoupa and G.N. Pairas Eds.), TYPORAMA-Tachytypo Ltd, Patras, Greece, 2009, (in press).*
16. 'Cargo delivery into human platelets using the Tat(48-60) cell-penetrating peptide.' V. Tsikaris, **P. Stathopoulos**, A. Dimitriou, V. Moussis, M. Sakarellos-Daitsiotis, D. Tsoukatos, A.D. Tselepis. *31th European Peptide Symposium, Copenhagen, Denmark J. Peptide Sci. 16 (S1) 2010, pp. 145.*
17. 'Unexpected side reactions in the SPPS of Cys-contained peptides.' **P. Stathopoulos**, E. Kyriakou, V. Mousis, A. Tzakos, C. Pappas, V. Tsikaris. *12th Conference Medical Chemistry: Drug Discovery and Design University of Patras, Patras, April 12-15, 2011. p. 103.*
18. 'The influence of HIV-1 Tat protein sequences on platelet activation.' **Panagiotis Stathopoulos**, Andromaxi A. Dimitriou, Eleni Malisiova, Vasilios G. Chantzichristos, Aikaterini Gatsiou, Alexandros D. Tselepis, Vasilios Tsikaris. *32th European Peptide Symposium, Athens, Greece. 2012, J. Peptide Sci. (in press).*
19. 'Unprecedented side reactions in the SPPS of Cys-containing peptides.' **Panagiotis Stathopoulos**, Serafim Pappas, Charalambos Pappas, Vasilios Mousis, Nisar Sayyad, Andreas Tzakos, Vasilios Tsikaris. *32th European Peptide Symposium, Athens, Greece. J. Peptide Sci. 2012, (in press).*
20. 'Fluorescence spectroscopy as a tool for studying protein-peptide interactions: evaluation of talin affinity for β_3 integrin derived peptides.' Athina Gkesouli, **Panagiotis Stathopoulos**, Aggeliki Psillou, Anastasia S. Politou and Vasilios Tsikaris. *32th European Peptide Symposium, Athens, Greece. 2012, J. Peptide Sci. (in press).*
21. 'Selective labeling of biomolecules and application to cell imaging.' Marianna Sakka, **Panagiotis Stathopoulos**, Theodore Lazarides, Athena Kyrkou, Nisar Sayyad, Carol Murphy, Vasilios Tsikaris, Andreas G. Tzakos. EUROMAR 2013 Magnetic Resonance Conference and Specialized Colloquium AMPERE. 'Advances in Solid State Broadband Magnetic Resonance, 30 June- 5 July 2013, Hersonissos, Crete, Greece.
22. 'New analytical methods for the quality control and authentication of Olive Oil.' Aikaterini Termentzi, **Panagiotis Stathopoulos**, Thomas Michel, Maria Lalioti, Evangelos Gikas, Maria Halabalaki, Leandros Skaltsounis. 62nd International Congress and Annual Meeting of the Society for Medicinal Plant and Natural Product Research, Portugal, August 31st –September 4th, 2014.
23. 'Biophenols-Based Mapping of Greek Extra Virgin Olive Oil (EVOO).' Theodwra Nikou, Matthias Witt, Maria Lalioti, **Panagiotis Stathopoulos**, Aiko Barsch, Leandros Skaltsounis, Maria Halabalaki. MEDMS III, Workshop, Athens, Greece, June 28 -July 2, 2015.
24. 'Metabolic profiling and quality control aspects of Olive Oil using an FT-ICR-MS direct infusion method.' T. Nikou, M. Lalioti, **P. Stathopoulos**, E. Gikas, M. Witt, A. Barsch, M. Halabalaki, A.-L. Skaltsounis. 7th International Symposium on Recent Advances in food analysis. Prague, Czech Republic, November 3-6, 2015.
25. 'Comparative analytical study of biophenols in edible olives.' Maria Lalioti, Dennis Abatis, **Panagiotis Stathopoulos**, Nektarios Aligiannis, Maria Halabalaki, Leandros Skaltsounis. 7th International Symposium on Recent Advances in food analysis, Prague, Czech Republic, November 3-6, 2015.
26. 'Development and application of analytical approaches for Extra Virgin Olive Oil (EVOO) Biophenols determination.' Mapping of Greek EVOOs. **Stathopoulos P**, Sarikaki G, Lalioti M, Mpeteinakis S, Triantopoulou A, Gikas E, Halabalaki M, Jakschitz T, Corradini D, Bonn G, Skaltsounis L. 10th International Symposium on Chromatography of Natural Products, Lublin, Poland, June 6th-9th, 2016.
27. 'Aspects of Metabolic profiling and quality control of olive oil using FT-ICR MS direct infusion method.' Theodwra Nikou, Matthias Witt, Maria Lalioti, **Panagiotis Stathopoulos**, Aiko Barsch, Maria Halabalaki, L. Skaltsounis. 12th European Fourier Transform Mass Spectrometry Conference. Matera, Italy, 5-8 April 2016.
28. 'Development and application of analytical approaches for Extra Virgin Olive Oil (EVOO) biophenols determination. Mapping of Greek EVOOs.' Sarikaki G, **Stathopoulos P**, Lalioti M, Mpeteinakis S,

Triantopoulou A, Gikas E, Halabalaki M, Jakschitz T, Corradini D, Bonn G, Skaltsounis A-L. Olive Bioactives: applications and prospects, Orleans France, 4-6 July 2016.

29. 'Monitoring of Extra Virgin Olive Oil (EVOO) biophenols composition during long-term storage – Qualitative and quantitative aspects.' A. Triantopoulou, **P. Stathopoulos**, E. Axiotis, M. Halabalaki, S. Mitakou, A.-L. Skaltsounis, 1st International Multidisciplinary Conference on Nutraceuticals and Functional Foods, Kalamata, Greece, July 7-9 2016.

30. Oleocanthalic, Oleaceinic and EDA acids: Three New Standard Ingredients of Extra Virgin Olive Oil. Apostolis Angelis, LEMONIA ANTONIADI, **Panagiotis Stathopoulos**, Maria Halabalaki, Léandros A. Skaltsounis. 6th International Conference on the Olive Tree and Olive Products OLIVEBIOTEQ'18, Seville, Spain, 15-19 October 2018

31. A new analytical method for the determination of biophenols in olive oil by HPLC-DAD. **Stathopoulos P**, Bata E, Rodi A, Halabalaki M, Skaltsounis A L. 6th International Conference on the Olive Tree and Olive Products OLIVEBIOTEQ'18, Seville, Spain, 15-19 October 2018

32. Production of an innovative dairy product using plant bioactive compounds. E-M Bata, **P. Stathopoulos**, A-L. Skaltsounis, C. Proestos. 30th International Symposium on the Chemistry of Natural Products, Athens, Greece, 25-29 November 2018

33. Determination of biophenols in Virgin Olive Oils by Liquid Chromatography supporting the Health Claim by European Food Safety Authority (EFSA). A. Stefanitsi, V. Sakkas, **P. Stathopoulos**, M. Halabalaki, L. Skaltsounis. 30th International Symposium on the Chemistry of Natural Products, Athens, Greece, 25-29 November 2018

34. An optimized analytical methodology for the determination of olive oil biophenols, based on IOC recommended method. Bata E., **Stathopoulos P.**, Rodi A., Halabalaki M., Skaltsounis A-L. 30th International Symposium on the Chemistry of Natural Products, Athens, Greece, 25-29 November 2018

35. A comparative study of HPLC-DAD analytical methodologies for the determination of olive oil biophenols referred to EFSA's health claim **Panagiotis Stathopoulos**, Eirini Bata, Athena Rodi, Maria Halabalaki, Alexios-Leandros Skaltsounis. Second Li River International Forum of Pharmaceutical Science (LRIFPS-2), Guilin, China, 26-28 September, 2019

Additional Information

Research topics

- Isolation of new compounds with pharmaceutical, agrochemical, nutraceutical and cosmetic interest from natural sources (mainly plants) originated from Mediterranean and global biodiversity, using VLC, MPLC, FCPC, HPLC chromatographic techniques. Identification and structure elucidation of natural products, applying state-of-the-art spectroscopic and spectrometric techniques: UV-Vis, IR, CID, GC-MS, LC-MS, HRMS & HRMS/MS. Chemical analysis of natural products and quantification of secondary metabolites by HPLC-DAD and LC-HRMS analytical methodologies. "Green" chemistry and large-scale extraction of high added value natural products.
- Development, validation and quality control of HPLC-DAD analytical methods for the determination bioactive compounds in natural products, food supplements, food products, drugs and other sources
- Design, synthesis, and evaluation of biological activity of peptide analogues with pharmaceutical interest. Development of new cell penetrating carriers for specific intracellular delivery of drugs.

Computing: Software for SciFinder database search, HPLC system operation and data processing (ChromQuest, Millennium, Clarity) as well as LC-MS system operation and data processing (XCalibur, MassLynx, Agilent Chemstation),

Membership: Hellenic Chemists' Association, Hellenic Mass Spectrometry Society

Awards and Fellowships: Scholar of the State Scholarship Foundation during 2001-2002,

Books: Chief Editor for the revised edition in Greek of the teaching books 'Organic Chemistry' by R. T. Morrison and R. N. Boyd, Volume A, B, C, and 'Study Guide for Organic Chemistry'.