<u>Serkos A. Haroutounian</u> <u>Professor of Chemistry, Agricultural University of Athens</u>

Received his B.Sc. degree in Chemistry from the University of Patras and pursued doctoral studies at the Agricultural University of Athens (AUA) and the University of Illinois (UI), under the guidance of Professors M. P. Georgiadis and J. C. Bailar Jr. During 1986-7 he moved at the UI to carry out postdoctoral research with Prof. Katzenellenbogen, where he specialized on the biomedical applications of organic synthesis. After serving the Greek Navy, he was elected as lecturer at the Chemistry Laboratory of the Department of Sciences of the AUA (1989). During 1992-1993 he returned at the UI as visiting professor. On 2002 he was promoted to professor of Chemistry and after a decade (2013) he moved at the Department of Nutritional Physiology and Feeding (Faculty of Animal Sciences and Aquaculture of the AUA). Since 2002 he also been appointed at the Hellenic Open University (Natural Sciences Studies) as Coordinator- Professor of Organic Chemistry



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<u>Research Interests:</u> Applications of Organic-Analytical Chemistry for the development of novel bioactive preparations for utilization as food additives, functional foods, biocides and medicines for humans-animals

Specifically, his research is focusing on:

- *a)* **NATURAL PRODUCTS ENVIRONMENT** (*i.* isolation-valorisation of bioactive molecules and extracts from plants of Greek flora, *ii.* Management & valorization of agricultural wastes-byproducts, *iii.* evaluation-mitigation of the climate change consequences)
- *b*) **FOODS** (*i.* development-production of novel food additives-supplements, *ii.* exploitation-certification of Greek traditional agricultural products, *iii.* development of novel functional foods), and
- c) BIOMEDICAL APPLICATIONS OF ORGANIC CHEMISTRY for the development of novel molecules with anti-estrogenic and anti-angiogenic activities.

<u>Awards-Honors:</u> His research group accomplished the first asymmetric total synthesis of natural product (+)-prosophylline (*Tetrahedron Letters* **1999**, 40, 6869).

He is member of the Academy of Natural Sciences of Armenia (from 2007)

His LIFE+ project **DIONYSOS** (management of wineries wastes) was awarded by the Eur. Commission as one of the five best environmental projects of EU for the year **2008** http://ec.europa.eu/environment/life/project/Projects/index.cfm?fuseaction=home.cre atePage&s_ref=LIFE03%20ENV/GR/000223

His research on the vinification wastes management was honored in the terms of international scientific competition "Energy Globe Awards, 2010".

His research group has published the first critical interpretation of Dioscorides code (1st century AC) at the *Journal of Ethnopharmacology* (2015, 175, 549-566).

<u>Scientific Activities:</u> He is the author of **130** scientific publications, consisting of 119 papers in international scientific journals (101 original research, 8 reviews and 9 conference papers), 8 books chapters, 2 patents and one thesis

His research has more than 1.700 (hetero-)citations in the literature

He has 91 presentations and numerous invited lectures in national and international scientific conferences, symposia and workshops

He has supervised the implementation of eleven doctoral and seventeen master theses. Currently, his research team consists of two postdocs, five Ph.D. students and two B.Sc. scientists

He is reviewer of more than 35 international scientific journals and editorial board member of the *Journal of Chemistry, American Journal of Agricultural Science and Technology* and *International Journal of Clinical Nutrition and Dietetics*.

<u>Teaching:</u> Undergraduate courses of Chemistry (Inorganic, Organic) at AUA (Dept. of Animal Sciences and Aquaculture) and Organic Chemistry at the Natural Sciences School of the Hellenic Open University. Graduate courses on Natural Products and Spectroscopy at AUA departments.

<u>Scientific Projects:</u> He has successfully completed the implementation (as Principal Investigator) of 18 research projects funded by EC and Greek government. This activity has resulted in the acquisition of a noticeable research infrastructure and instrumentation which operates as the following AUA facilities:

- **a.** <u>Laboratory scale</u>: UPLC/MS-MS, MPLC, HPLC, GC/MS, Microarray reader, UV-vis microplate scanner, UV-vis, Microwave Digestion-Extraction System (MARS), PCR, Hoods, Freeze dryer, Ultrasound extractors, Centrifuges, Rotary evaporators etc
- **b.** <u>Pilot scale</u>: Ultrasound extractor (capacity 25 Kg), Large scale rotary evaporator (capacity 25 L), Composting unit (two closed vessels and four open air windrows, each 10m³ capacity), Essential oil production units simple (150 Kg capacity) and microwaves operated (5 Kg capacity)

Currently, he is the scientist-in-charge of two financed by the EC research projects that are being implemented into AUA premises, concerning the:

- A. ENVIRONMENT (LIFE12ENV/GR/000466), entitled CONOPS (www.conops.gr): Development & demonstration of management plans against -the climate change enhanced-invasive mosquitoes in S. Europe) (2013-17), and
- **B.** CLIMATE CHANGE (LIFE14CCM/GR/000635), entitled CLIMATREE (www.lifeclimatree.eu): A novel approach for accounting & monitoring carbon sequestration of tree crops and their potential as carbon sink areas (2015-19)

He is reviewer of scientific projects for the EC, Greece, Cyprus, Poland, Italy, Belgium Armenia etc.

Administrative: On 2014 he was appointed as member of the Scientific Board of the Agronutritional committee of the National Committee of Research & Technology of Greece He is the Greek delegate at the EU network for the valorization of carotenoids COST-CA15136 (2016-20, EUROCAROTEN-European network to advance carotenoid research and applications in agro-food and health). He held similar positions -in the past- for the networks COST-CM602 (2007-11, ANGIOKEM-Inhibitors of angiogenesis: design, synthesis and biological exploitation) km COST-CM1106 (2012-16, STEMCHEM-Chemical approaches to target drug resistance in cancer stem cells)

For two years (3/2013-4/2015) he was appointed as chairman of the board of directors of the Hellenic Agricultural Organization DIMITRA, the national authority for

- A) inspections-security assurance of the agricultural products of Greece,
- B) supervision of production-imports of meat and dairy products in Greece,
- C) the agricultural research of the country (11 Institutes), and
- D) the agricultural education and training of Greece

He was the Greek delegate at the EC committee for the horizontal actions in 7th Research Framework (2005-7) and National expert at the EC committee for the SMEs research of (2008-10)

He has served as board member of the AUA Research Account (2008-13) and the Benaki Phytopathological company (2005-10). He was member of the advisory board of Benaki Phytopathological Institute (2006-14) and subst. member of NAGREF's (National Agricultural Research Foundation) scientific committee.

Other Activities: He has collaborated with cooperatives, prefectures and municipalities from Santorini, Tyrnavos, Cephalonia, Elefsina and Serres on issues concerning the agricultural development, green agriculture or addressing diverse environmental problems. These initiatives have provided insights for the singularities recognition of various local agricultural products with particular historical and economical interest, such as the fava and tomato of Santorini, Tsipouro of Tyrnavos and Vatikiotio onion. For these products, the necessary data-documents were produced-gathered for their certification as PDO (Protected Designation of Origin) products

Additionally, he has studied-evaluated the bioactive molecules content of numerous Greek wines and contributed to the development of procedures such as the home composting system of Elefsina municipality

Currently, he collaborates with

- *1. Union of Cooperatives of Thira (Santorini*) for the exploitation-promotion of the agricultural production of Santorini island,
- union of Wine Cooperatives of Greece for the development-promotion of Greek wines,
 un. Prefecture of Central Greece on issues concerning the quality assurance and certification of their agricultural production, the valorization-promotion of their PDO products and the implementation of the new rural development framework-program
 He is an elected member of the Central Council of the Armenian community of Greece and member of the Armenian National Committee of Greece. For many years he has

<u>Development Projects:</u> He has supervised the implementation of the following projects of the Greek Ministry of Foreign Affairs (HELLENIC AID), all connected with the development of rural sector of Armenia:

- a. Development of the food safety system of Armenia and organization-installation-operation of a pesticide residues detection laboratory,
- **b.** Foundation of a farmers cluster in Northern Armenia (Bagradashen), which was provided with cultivation, crops preservation, transport and marketing means,
- c. Creation-operation of a laboratory for the control of irrigation and drinking water resources of Armenia, and
- d. Creation-operation of an animal feed production plant in Ararat province.

served at the Directory Board of the Greek-Armenian schools.

Scientific Publications

Research Papers

- 1. Water Soluble *cis* Platinum (II) Complexes S.A. Haroutounian, M.P. Georgiadis, J.C. Bailar Jr. *Inorganica Chimica Acta* **1986**, 124, 137–139
- 2. The use of the Strecker reaction for the synthesis of sympathomimetic amine analogues and their *cis*-Pt (II) complexes S.A. Haroutounian, M.P. Georgiadis, A.K. Delitheos, J.C. Bailar Jr. *European Journal of Medicinal Chemistry* **1987**, 22, 325–329
- **3.** Synthesis and Biological Studies of Steroidal *cis* Platinum (II) Complexes M.P. Georgiadis, S.A. Haroutounian, K.P. Chondros *Inorganica Chimica Acta* **1987**, 138, 249–252
- **4.** Hydroxystilbazoles and Hydroxyazaphenanthrenes: Photocyclization and Fluorescence Studies
 S.A. Haroutounian and J.A. Katzenellenbogen
 Photochemistry and Photobiology **1988**, 47, 503–516
- 5. Products from Furans V. Synthesis of Oxygen Containing Isosteres of Sympathomimetic Amines via 6-Hydroxy-2H-pyran-3(6H)-ones and their *cis* Platinum (II) Complexes
 M.P. Georgiadis, S.A. Haroutounian, J.C. Bailar Jr. *Journal of Heterocyclic Chemistry* 1988, 25, 995–1002
- A facile and high yield synthesis of α-benzylamino nitriles by a modified Strecker reaction
 M.P. Georgiadis and S.A. Haroutounian
 Synthesis 1989, 616–618
- 7. Stereochemistry of the Bucherer-Bergs Reaction and a Modified Strecker Reaction on Tetrahydro-2H-pyran-3-ones S.A. Haroutounian, M.P. Georgiadis, M.G. Polissiou *Journal of Heterocyclic Chemistry* **1989**, *26*, 1283–1287
- **8.** Magnesium and Calcium content of drinking water, fruit juices, salt and saffron of Greece
 - P. Tarantilis, S.A. Haroutounian, M.G. Polissiou *Trace Elements in Medicine* **1990**, *7*, 59–60

9. A Convenient Synthesis of 5-Substituted 2-Pyrrolidinones via 2H-pyran-3(6H)-ones

M.P. Georgiadis, S.A. Haroutounian, C.D. Apostolopoulos *Synthesis* **1991**, 379–381

 Products from Furans XV: Synthesis of Novel Tyramine Derivatives via 6-Hydroxy-2H-Pyran-3(6H)-ones
 M.P. Georgiadis, C.D. Apostolopoulos, S.A. Haroutounian Journal of Heterocyclic Chemistry 1991, 28, 599–604

11. Products from Furans XVI: Novel Synthetic Routes to Sympathomimetic Amine Analogues via 6-Hydroxy-2H-Pyran-3(6H)-ones

M.P. Georgiadis, S.A. Haroutounian, E.A. Couladouros, C.D. Apostolopoulos, K.P. Chondros

Journal of Heterocyclic Chemistry 1991, 28, 697–703

12. A Convenient Synthesis of Oxaspiro[5.5]undecane Derivatives M.P. Georgiadis, A. Tsekouras, S.I. Kotretsou, S.A. Haroutounian, M.G. Polissiou *Synthesis* **1991**, 929–932

13. Aromatic Fluorination by Silver-Ion Promoted Decomposition of Aryl DiazoSulfides: Efficient Utilization of Substoichiometric Levels of Fluoride Ion S.A. Haroutounian, J.P. Dizio, J.A. Katzenellenbogen *Journal of Organic Chemistry* **1991**, 56, 4993–4996

14. (*RS*)-2-(p-Benzyloxyphenyl)-2-methyl-3,4,5,6-tetrahydro-2H-pyran-3-one Z. Ciunik, M.P. Georgiadis, S.A. Haroutounian *Acta Crystallographica* **1991**, *C47*, 2146–2148

15. Products from Furans XXI: Synthesis of Novel Oxygen Containing Heterocyclic Isosteres of Tyrosine and Tyramine M.P. Georgiadis and S.A. Haroutounian *Journal of Heterocyclic Chemistry* 1992, 29, 391–399

16. Selenium Dioxide Mediated Cleavage of 1,3-Dithiolanes: A Convenient Method of Dedithioacetalization S.A. Haroutounian Synthesis 1995, 39–40

17. 4-Hydroxystyryldiazines: Their Synthesis and Fluorescence Properties S.A. Haroutounian and J.A. Katzenellenbogen *Tetrahedron* **1995**, *51*, 1585–1598

18. Electron Impact Ionization Mass Spectra of 6-Carbamate-2H-pyran-3(6H)-one and 5H-pyran-[3,2-d]-oxazol-2,6-dione Derivatives E.A. Couladouros and S.A. Haroutounian *Journal of Heterocyclic Chemistry* **1995**, 32, 579–584

19. Derivatives of 4-Styrylpyridine: Synthesis, Estrogen Receptor Binding Affinity and Photochemical Properties

S.A. Haroutounian, A.W. Scribner, J.A. Katzenellenbogen *Steroids* **1995**, *60*, 636–645

20. Electron Impact Mass Spectrometry of (E)-Diaza-and Aza-stilbene Derivatives S.A. Haroutounian

European Mass Spectrometry 1995, 1, 395–398

21. A Convenient Synthesis of Functionalized 8- and 9- Aza-1-Oxaspiro[5.5]undecanes
C.D. Apostolopoulos and S.A. Haroutounian *Journal of Heterocyclic Chemistry* 1995, 32, 1843–1845

22. Reaction of 4'-Benzyloxy-2-(4-pyridinyl)acetophenone with Ethylmagnesiumchloride: Unusual C-Benzylation and *in situ* Reduction via β-Hydrogen Transfer S.A. Haroutounian and E.A. Couladouros *Liebigs Annalen* **1996**, 1139–1141

- **23.** Electron Impact Mass Spectrometry of Azinyl and Diazinyl Ethanol Derivatives C.D. Apostolopoulos, S.D. Koulocheri, E.A. Couladouros, S.A. Haroutounian *European Mass Spectrometry* **1996**, 2, 301–304
- **24.** Efficient Synthesis of Aminonaphthoquinones and Azidobenzohydroquinones: Mechanistic Considerations of the Reaction of Hydrazoic Acid with Quinones. An Overview.

E.A. Couladouros, Z.F. Plyta, S.A. Haroutounian, V.P. Papageorgiou *Journal of Organic Chemistry* **1997**, *62*, 6–10

25. 1-Aryl-2-pyridyl-3,4-dihydronapthalenes: Photophluorogenic Ligands for the Estrogen receptor

A.W. Scribner, S.A. Haroutounian, K.E. Carlson, J.A. Katzenellenbogen *Journal of Organic Chemistry* **1997**, *62*, 1043–1057

26. 1,4-Reductive Addition of Hydrazoic Acid and γ-Oxo-to α , β -unsaturated δ-Lactones and Lactams: A Convenient Route to α -Amino-γ-oxo α , β -unsaturated δ-Lactones and Lactams

S.D. Koulocheri, S.A. Haroutounian, C.D. Apostolopoulos, E.A. Couladouros, R. Chada

European Journal of Organic Chemistry 1999, 1449-1453

- 27. Transformation of D-Glucal to (2S)-Hydroxymethyl-dihydropyridones as Intermediates to Piperidine Alkaloids
 S.D. Koulocheri and S.A. Haroutounian
 Synthesis 1999, 1889–1892
- **28.** Asymmetric total synthesis of (-)-prosophylline S.D. Koulocheri and S.A. Haroutounian *Tetrahedron Letters* **1999**, *40*, 6869–6870

29. Stereoselective Michael Addition of Thiophenols, amino Acids and Hydrazoic Acid to (2S)-Hydroxymethyl-dihydropyridone as a Convenient route to Novel Azasugar Derivatives

S.D. Koulocheri, P. Magiatis, A-L. Skaltsounis, S.A. Haroutounian *Tetrahedron* **2000**, *56*, 6135–6141

30. Ultrasound promoted Synthesis of 2,3-bis-(4-Hydroxyphenyl)-indoles as Inherently Fluorescent Ligands for the Estrogen Receptor S.D. Koulocheri and S.A. Haroutounian *European Journal of Organic Chemistry* **2001**, 1723–1729

31. Volatile Secondary Metabolite Pattern of callus Cultures of Chamomilla Recutita P. Magiatis, A. Michaelakis, A-L. Skaltsounis, S.A. Haroutounian *Natural Products Letters* **2001**, *15*, 125–130

32. Synthesis and Biological Evaluation of Novel Daunorubicin-Estrogen Conjugates

K.M. Kasiotis, P. Magiatis, H. Pratsinis, A-L. Skaltsounis, V. Abadji, A. Charalambous, P. Moutsatsou, S.A. Haroutounian *Steroids* **2001**, *66*, 785–791

33. Determination of principal Phenolic Phytochemicals in varietal Red Greek Wines

A-V. Sakkiadi, M.N. Stavrakakis, S.A. Haroutounian *Food Science and Technology* **2001**, *34*, 410–413

34. Asymmetric Synthesis of γ -Keto- δ -lactam Derivatives: Application to the Synthesis of a

Conformationally Constrained Surrogate of Ala-Ser Dipeptide S. D. Koulocheri, P. Magiatis, S.A. Haroutounian *Journal of Organic Chemistry* **2001**, *66*, 7915–7918

35. A convenient route to alkaloid lipids: Application to the synthesis of *leptophyllin A* analog

S.D. Koulocheri, M.N. Pitsinos, S.A. Haroutounian *Synthesis* **2002**, 111–115

36. Synthesis and Antioxidant Activity of 3-Substituted Guaiazulene Derivatives H. Pratsinis and S.A. Haroutounian *Natural Product Letters*, **2002**, *16*, 201–205

37. Asymmetric synthesis of (2R, 3R)-3-hydroxypipecolic acid- δ -lactam derivatives S.D. Koulocheri and S.A. Haroutounian *Tetrahedron*, **2002**, *38*, 6665–6671

38. Chemical composition and *in vitro* antimicrobial activity of the essential oils of three Greek *Achillea species*

P. Magiatis, A-L. Skaltsounis, I. Chinou, S.A. Haroutounian *Z. Naturforschung C*, **2002**, 287–290

39. An Expedient Asymmetric Synthesis of Calystegine B₄ Analogues

S.D. Koulocheri, M.N. Pitsinos, S.A. Haroutounian *Synthesis* **2002**, 1707–1710

40. Methanolic Extract of *Verbascum Macrurum* as a source of Natural Preservatives against Oxidative Rancidity

N. Aligiannis, S. Mitaku, E. Tsitsa-Tsardis, I. Tsaknis, S. Lalas, S.A. Haroutounian

Journal of Agricultural and Food Chemistry **2003**, *51*, 7308–7312

41. Essential Oils of Satureja, Origanum and Thymus Species: Chemical Composition and Antibacterial Activities Against Five Foodborne Pathogens N. Chorianopoulos, E. Kalpoutzakis, N. Aligiannis, S. Mitaku, G-J. Nychas, S.A. Haroutounian

Journal of Agricultural and Food Chemistry 2004, 52, 8261-8267

42. 2-Pyridin-2-yl-1*H*-indole derivatives: synthesis, estrogen receptor binding affinity and photophysical properties K.M. Kasiotis and S.A. Haroutounian Bioorganic Chemistry 2006, 34, 1-14

43. High affinity 17α -substituted estradiol derivatives: Synthesis and evaluation of estrogen receptor agonist activity.

K.M. Kasiotis, Ch. Mendorou, S.A. Haroutounian, M.N. Alexis Steroids **2006**, 71, 249–255

44. A newly developed assay to study the minimum inhibitory concentration of Satureja

spinosa essential oil

N. Chorianopoulos, E. Evergatis, P. Skandamis, S.A. Haroutounian, G-J. Nychas Journal of Applied Microbiology 2006, 100, 778-786

45. Synthesis of Novel Conformationally Constraned Pyrazolo[4,3-c]quinoline Derivatives as Potential Ligands for the Estrogen Receptor K.M. Kasiotis, N. Fokialakis, S.A. Haroutounian *Synthesis* **2006**, 1791–1802

46. Characterization of the Essential Oil Volatiles of *Staureja thymbra* and *Satureja* parnassica: Influence of Harvesting Time and Antimicrobial Activity N. Chorianopoulos, E. Evergetis, A. Mallouchos, Kalpoutzakis, G-J. Nychas, S.A. Haroutounian

Journal of Agricultural and Food Chemistry 2006, 54, 3139-3145

47. Inhibition of ozone-induced SP-A oxidation by plant polyphenols D. Stagos, T.M. Umstead, D.S. Phelps, A-L. Skaltsounis, S.A. Haroutounian, J. Floros, D. Kouretas

Free Radical Research 2007, 41, 357-366

48. Essential Oils from Forty-Nine Plants of Greek Biodiversity: Correlation between Chemical Composition and Antibacterial Activities against Foodborne Pathogens

N.G. Chorianopoulos, E.T. Evergetis, N. Aligiannis, S. Mitakou, G-J. Nychas, S.A. Haroutounian

Natural Product Communications 2007, 2, 419-426

49. Synthesis of (R)-Dihydropyridones as Key Intermediates for the Efficient Access to Piperidine Alkaloids

E. Tzanetou, K.M. Kasiotis, P. Magiatis, S.A. Haroutounian *Molecules* **2007**, *12*, 735–744

50. Synthesis of Novel Nitrosubstituted Triaryl Pyrazole Derivatives as Potential Ligands for the Estrogen Receptor

F. Naoum, K.M. Kasiotis, P. Magiatis, S.A. Haroutounian *Molecules* **2007**, *12*, 1259–1273

51. A standard addition method to assay the concentration of biologically interesting polyphenols in grape berries by reversed-phase HPLC A-V. Sakkiadi, C.A. Georgiou,S.A. Haroutounian *Molecules* **2007**, *12*, 2259–2269

52. Disinfectant tests against monoculture and mixed-culture biofilms composed of technological, spoilage and pathogenic bacteria: bactericidal effect of essential oil and hydrosol of *Satureja thymbra* and comparison with standard acid-base sanitizers

N. G. Chorianopoulos, E.D. Giaouris, P. N. Skandamis, S. A. Haroutounian, G-J. Nychas

Journal of Applied Microbiology 2008, 104, 1586-1596

53. Headspace solid phase micro extraction gas chromatographic determination of fenthion in human serum

K.M. Kasiotis, H. Souki, A.N. Tsakirakis, H. Carageorgiou, S.A. Theotokatos, S.A. Haroutounian, K. Machera

International Journal of Molecular Sciences 2008, 9, 906–913

54. PIFA-mediated synthesis of novel pyrazolquinolin-4-ones as potential ligands for the estrogen receptor

M.S. Christodoulou, K.M. Kasiotis, N. Fokialakis, I. Tellitu, S.A. Haroutounian *Tetrahedron Letters* **2008**, 49, 7100–7102

55. Antilisterial Activities of Polyphenol-Rich Extracts of Grapes and Vinification Byproducts

M. Anastasiadi, N.G. Chorianopoulos, G-J. Nychas, S.A. Haroutounian *Journal of Agricultural and Food Chemistry* **2009**, *57*, 457–463

56. Chemical composition and larvicidal activity of essential oils from six Apiacae family taxa against West Nile virus vector *Culex pipiens*

E. Evergetis, A. Michaelakis, E. Kioulos, G. Koliopoulos, S.A. Haroutounian

- 57. Differential Estrogen Receptor Modulators: Assessment of Estrogen Receptor Subtype-Binding Selectivity and Transcription-regulating Properties of New Cycloalkyl Pyrazoles
 X. Alexi, K.M. Kasiotis, N. Fokialakis, G. Lambrinidis, A.K. Meligova, E. Mikros, S.A. Haroutounian, M.N. Alexis
 Journal of Streoid Biochemistry Chemical Biology 2009, 117(4-5), 159–167
- 58. ¹H NMR- Based Metabonomics for the Classification of Greek Wines According to Variety, Region and Vintage. Comparison with HPLC Data.
 M. Anastasiadi, A. Zira, P. Magiatis, S.A. Haroutounian, A-L. Skaltsounis, E. Mikros
 Journal of Agricultural and Food Chemistry 2009, 57, 11067–11074
- 59. Determination of Biologically Interesting Polyphenols in Grapes, Wines and Vinification Byproducts of Greek Origin: Assessment of their *in vitro* Antioxidant Acitvity
 M. Anastasiadi, H. Pratsinis, D. Kletsas, A-L. Skaltsounis, S.A. Haroutounian *Food Research International* 2010, 43, 805–813
- **60.** Novel Pyrazole Derivatives: Synthesis and Evaluation of Anti-angiogenic Activity M. S. Christodoulou, S. Liekens, K.M. Kasiotis, S.A. Haroutounian *Bioorganic Medicinal Chemistry* **2010**, *18*, 4338–4350
- **61.** Pesticides residues in milks and feedstuff of farm animals drawn from Greece E. Tsiplakou, C. J. Anagnostopoulos, K. Liapis, S.A Haroutounian, G. Zervas *Chemosphere* **2010**, *80*, 504–512
- **62.** Validation of the QuEChERS method for the determination of 25 priority pesticide residues in cereal based baby foods by gas chromatography with electron capture and nitrogen phosphorous C. J. Anagnostopoulos, P. Aplada Sarli, G.E. Miliadis, S.A Haroutounian *Hellenic Plant Protection Journal* **2010**, *3*, 71–80
- 63. Effect of Satureja thymbra essential oil on growth-no growth interfaces of Listeria monocytogenes Scott A and Salmonella Enteritidis PT4, at various temperatures, pH, and water activities
 I. S. Boziaris, N.G. Chorianopoulos, S. A. Haroutounian, G.-J. Nychas Journal of Food Protection 2011, 74, 45–54
- 64. Development and validation of a tertiary simulation model for predicting the growth of the food microorganisms under dynamic and static temperature conditions
 - A. Psomas, G-J. Nychas, S.A. Haroutounian, P. Skandamis *Computers and Electronics in Agriculture* **2011**, *76*,119–129

Tzanakouli, S.A. Haroutounian, D. Kouretas

65. Effects of grape extracts on the *in vitro* activity of enzymes involved in oxidative stress regulation
C. Spanou, A.S. Veskoukis, D. Stagos, K. Liadaki, M. Anastasiadi, M. Tsouka, E.

66. Effects of Greek legume plant extracts on xanthine oxidase, catalase and superoxide dismutase activities

C.I. Spanou, A.S. Veskoukis, D. Stagos, K. Liadaki, N. Aligiannis, A. Angelis, A. L. Skaltsounis, M. Anastasiadi, S.A. Haroutounian, D. Kouretas *Journal of Physiology and Biochemistry* **2012**, *68*, 37–45

67. An Efficient Synthetic Route to 1,6-Dihydropyridones E.N. Tzanetou, K.M. Kasiotis, S.A. Haroutounian *American Journal of Organic Chemistry* **2012**, 2, 35–38

68. Essential oils of endemic in Greece six *Juniperus* taxa: Chemical composition and larvicidal activity against the West Nile virus vector *Culex pipiens*

F. Vourlioti-Arapi, A. Michaelakis, E. Evergetis, G. Koliopoulos, S. A. Haroutounian

Paracitology Research, 2012, 110, 1829-1839

69. LabBase: development and validation of an innovative food microbial growth responses database

A. Psomas, G-J. Nychas, S.A. Haroutounian, P. Skandamis *Computers and Electronics in Agriculture* **2012**, *85*, 99–108

70. Grape stem extracts: Polyphenolic content and assessment of their *in vitro* antioxidant properties

M. Anastasiadi, H. Pratsinis, D. Kletsas, A-L. Skaltsounis, S.A. Haroutounian *Food Science and Technology* **2012**, *48*, 316–322

71. Validation of 2 Variations of the QuEChERS Method for the Determination of Multiclass Pesticide Residues in Cereal Based Infant Foods by Liquid Chromatography Tandem Mass Spectrometry

C. J. Anagnostopoulos, P. Aplada Sarli, K. Liapis, S.A Haroutounian, G. E. Miliadis,

Food Analytical Methods **2012**, 5, 664–683

72. Synthesis and in vitro biological evaluation of novel pyrazole derivatives as potential antitumor agents

M.S. Christodoulou, N. Fokialakis, S. Nam, R. Jove, A-L. Skaltsounis, S.A. Haroutounian

Medicinal Chemistry 2012, 8, 779-788

73. Novel Synthetic Pyrazoles: Evaluation of Antiangiogenic and Antiproliferative Activity

E. Tzanetou, S. Liekens, K.M. Kasiotis, S.A. Haroutounian *Archive der Pharmazie* **2012**, 345, 804–811

74. Chemical and Biological Study of Essential Oils of Two Populations of Algerian *Daucus setifolius* Desf.

H. Laouer, A. Bouheda, S.A. Haroutounian, E. Evergetis, M. Bouchekrita, N. Boulachaaba, S. Akkal

Pharmacognosie Communications, **2013**, 3, 7–11

75. Exploitation of Apiaceae family essential oils as potent biopesticides and rich source of phellandrenes

E. Evergetis, A. Michaelakis, S.A. Haroutounian *Industrial Crops and Products* **2013**, *41*, 365–370

- **76.** Simultaneous determination of different classes of plant growth regulator in high water content agricultural products by liquid chromatography tandem mass spectrometry and time of flight mass spectrometry C.J. Anagnostopoulos, K. Liapis, S.A. Haroutounian, E. Paspatis *Journal of Liquid Chromatography & Related Technologies* **2013**, *36*, 315–335
- 77. Assessment of polyphenolic content, antioxidant activity, protection against ROS-induced DNA damage and anticancer activity of *Vitis vinifera* stem extracts A. Apostolou, D. Stagos, E. Galitsiou, A. Spyrou, S. Haroutounian, N. Portesis, I. Trizoglou, A. Wallace Hayes, D. Kouretas *Food and Chemical Toxicology* 2013, 61, 60–68
- 78. Insecticidal efficacy of the silica gel with *Juniperus oxycedrus* L. ssp. oxycedrus essential oil against *Sitophilus oryzae* (L.) and *Tribolium confusum* Jacquelin du Val

C. G. Athanassiou, N. G. Kavallieratos, E. Evergetis, A-M. Katsoula, S. A. Haroutounian

Journal of Economic Entomology 2013, 106, 1902–1910

- **79.** Synthesis and biological evaluation of novel tamoxifen analogues M.S. Christodoulou, N. Fokialakis, D. Passarella, A. N. Garcia Argaez, L. Dalla Via, O. M. Gia, I. Pongratz, S. A. Haroutounian *Bioorganic Medicinal Chemistry* **2013**, 21, 4120–4131
- **80.** Development of an Easy Mutliresidue Method for Fat Soluble Pesticides in Animal products using Gas Chromatography Tandem Mass Spectrometry C.J. Anagnostopoulos, P. Aplada-Sarli, K. Liapis, S.A Haroutounian, G.E. Miliadis,

Food Analytical Methods 2014, 7, 205-216

- **81.** Exploitation of Apiaceae Family Plants as a Valuable Renewable Source of Essential Oils Containing Crops for the Production of Fine Chemicals E. Evergetis and S.A. Haroutounian *Industrial Crops and Products* **2014**, *54*, 70–77
- **82.** Oleuropein as a bioactive constituent added in milk and yogurt E. Zoidou, P. Magiatis, E. Meliou, M. Constantinou, S.A. Haroutounian, A-L. Skaltsounis

 Food Chemistry **2014**, 158, 319–324
- 83. Biochemical and biological assessment of the inhibitory potency of extracts from vinification byproducts of *Vitis vinifera* against glycogen phosphorylase A.L. Kantsadi, A. Apostolou, S. Theofanous, G. Stravodimos, E. Kyriakis, V.A. Gorgogietas, D.S.M. Chatzileontiadou, K. Pegiou, V.T. Skamnaki, D. Stagos, D. Kouretas, A.-M.G. Psarra, S.A. Haroutounian, D.D. Leonidas

84. Synthesis of Novel Isoxazoles: Their Antiproliferative Activities and QSAR Studies

E. Tzanetou, S. Liekens, K. M. Kasiotis, G. Melagraki, A. Afantitis, N. Fokialakis, S. A. Haroutounian

European Journal of Medicinal Chemistry 2014, 81, 139–149

85. Data fusion for food authentication; Combining rare earth elements and trace metal to discriminate PDO " Fava Santorinis" from other yellow split peas using chemometric tools

S.A. Drivelos, K. Higgins, J.H. Kalivas, S.A. Haroutounian, C.A. Georgiou, *Food Chemistry* **2014**, *165*, 316–322

86. Determination of mycotoxins in feedstuffs and ruminant's milk using an easy and simple LC-MS/MS multiresidue method

C. Anagnostopoulos, E. Tsiplakou, K. Liapis, S.A. Haroutounian, G. Zervas *Talanta* **2014**, *130*, 8–19

87. A Fast Entry to Furanoditerpenoid-Based Hedgehog Signaling Inhibitors: Identifying Essential Structural Features

M. Chatzopoulou, A. Antoniou, E. Pitsinos, M. Bantzi, S. Koulocheri, S. Haroutounian, A. Giannis

Organic Letters 2014, 16, 3344-3347

88. Quest for chemical spoilage indices: volatiles production during microbiological spoilage of sea bream fillets

F. F. Parlapani, A.Mallouchos, S.A. Haroutounian, I.S. Boziaris *International Journal of Food Microbiology* **2014**, *189*, 153–163

89. Inhibitory activity of grape stem extracts against breast, colon, renal and thyroid cancers cells growth

G. D. Geromichalos, D. Sahpazidou, D. Stagos, A. Apostolou, S. A. Haroutounian, G. Tzanakakis, A. Tsatsakis, W. Hayes, D. Kouretas *Toxicology Letters* **2014**, 230, 218–224

90. Pomegranate juice consumption increases GSH levels and reduces lipid and protein oxidation in human blood

C.M. Matthaiou, N. Goutzourelas, E. Sarafoglou, D. Stagos, S.D. Koulocheri, S. A. Haroutounian, D. Kouretas

Food and Chemical Toxicology 2014, 73, 1-6

91. Antiangiogenic potential of grape stem extract through inhibition of VEGF expression

D. Stagos, A. Apostolou, E. Poulios, E. Kermeliotou, A. Mpatzilioti, K. Kreatsouli, S. D. Koulocheri, S. A. Haroutounian, D. Kouretas *Journal of Physiology and Pharmacology* **2014**, *66*, 843–852

92. Exploitation of Apiaceae Family plants as valuable renewable source of essential oils containing crops for the production of fine chemicals, part II

E. Evergetis, S.D. Koulocheri, S.A. Haroutounian *Industrial Crops and Products* **2015**, *64*, 59–67

93. Succession of Pseudomonas biota and 'volatilome' associated to gutted sea bream spoilage at 2°C

F.F. Parlapani, G.I. Verdos, S.A. Haroutounian, I.S. Boziaris *Food Control* **2015**, *55*, 257–265

94. Effect of wine training system on the phenolic composition of red grapes (*Vitis Vinifera* L. Cv. Xinomavro)

M. Kyraleou, S. Kallithraka, S. Koundouras, K. Chira, S. Haroutounian, H. Spinthiropoulou, Y. Kotseridis

Journal of International Science Vigne Vin 2015, 49, 71-84

95. Microbiological spoilage and volatiles production of gutted European sea bass stored under air and commercial modified atmosphere package at 2°C F.F. Parlapani, S.A. Haroutounian, G-J. Nychas, I.S. Boziaris *Food Microbiology* 2015, *50*, 44–53

96. Novel Conformationally Constrained Pyrazole Derivatives as Potential Anti-Cancer Agents

K.M. Kasiotis, E.N. Tzanetou, D. Stagos, N. Fokialakis, E. Koutsotheodorou, D.Kouretas, S.A. Haroutounian

Zeitschrift für Naturforschung B **2015**, 70(9), 677–690

97. Polyphenolic composition of grape stem extracts affects antioxidant activity in endothelial and muscle cells

N. Goutzourelas, D. Stagos, Y. Spanidis, M. Liosi, A. Apostolou, S. Prifitis, S.A. Haroutounian, D.A. Spandidos, A.M. Tsatsakis, D. Kouretas *Molecular Medicine Reports* **2015**, *12*(4), 5846–5856

98. The Umbelliferae(Apiaceae) of Dioscorides annotated in codex Neapolitanus Graecus #1

E.Evergetis and S.A.Haroutounian

Journal of Ethnopharmacology 2015, 175, 549-566

99. REEs minimal harvest year variation facilitates robust geographical origin discrimination: The case of PDO Fava Santorinis

S.A. Drivelos, G.P. Danezis, S.A. Haroutounian, C.A. Georgiou *Food Chemistry* **2016**, 213, 238–245

100. Seasonal variation and bioactivity of the essential oils of two *Juniperus* species against *Aedes* (*Stegomyia*) *albopictus* (Skuse 1894)

E. Evergetis, A. Michaelakis, D.P. Papachristos, E. Badieritakis, V.N. Kapsaski-Kanelli, S.A. Haroutounian

Paracitology Research **2016**, 115(6), 2175–2183

101. Exploitation of Artemisia arborescens L. as a renewable source of chamazulene: Seasonal variation and distillation conditionality E.C. Michelakis, E. Evergetis, S. D. Koulocheri, S. A. Haroutounian Natural Product Communication 2016, in press

102. Essential oils from *Elaeoselinum asclepium*: chemical composition, antimicrobial and antioxidant properties M Bouchekrit, H Laouer, M Hajji, M Nasri, SA Haroutounian, S Akkal *Asian Pacific Journal of Tropical Biomedicine*, **2016**, *in press*

Review Articles

Synthetic Estrogens as Fluorescent Probes for the Estrogen Receptor
 A. Haroutounian
 Review of Clinical Pharmacology and Pharmacokinetics, International Edition 2001, 15, 177–181

- 2. Synthetic Studies on Natural Piperidine Alkaloids and their Derivatives S.D. Koulocheri and S.A. Haroutounian *Acta Phytotherapeutica* 2003, 13–20
- Essential oils of *Lamiaceae* family taxa as natural preservatives of food preparations
 N.G. Chorianopoulos, G.-J.E. Nychas, S.A. Haroutounian Food, 2007, 1, 202–215.
- **4.** Stereoselective Syntheses of 2,6-disubstituted Piperidin-3-ols (alkaloid lipids) S.D. Koulocheri, E.N. Pitsinos, S.A. Haroutounian *Current Organic Chemistry* **2008**, *12*, 1454–1467
- **5.** Tamoxifen: A Synthetic Overview K.M. Kasiotis and S.A. Haroutounian *Current Organic Chemistry* **2012**, *16*, 335–352
- 6. Dietary and synthetic stilbenes: Their anti-ageing, anti-angiogenic properties and pathways involved K.M. Kasiotis, H. Pratsinis, D. Kletsas, S.A. Haroutounian Food and Chemical Toxicology 2013, 61, 112–120
- 7. Recent Advances on Liquid Chromatographic and Mass Spectrometric Analysis of Selective Estrogen Receptor Modulators (SERMs) in Biological Fluids K.M. Kasiotis, E.N. Tzanetou,S.A. Haroutounian *Current Chromatography* **2014**, *1*, 41–51
- **8.** Pyrazoles as potential anti-angiogenesis agents: A contemporary overview K.M. Kasiotis, E.N. Tzanetou, S.A. Haroutounian

Chapters in Books-Special Editions

1. Potassium Cyanide

S. A. Haroutounian

Encyclopedia of Reagents for Organic Synthesis, 1st ed., J. Wiley, N. York **1995**, pp 4208–4213

2. Acetone Cyanohydrin

S. A. Haroutounian

Encyclopedia of Reagents for Organic Synthesis, 1st ed., J. Wiley, N. York **1995**, pp 28–30

3. Tetraethylammonium Cyanide

S. A. Haroutounian

Encyclopedia of Reagents for Organic Synthesis, 1st ed., J. Wiley, N. York **1995**, pp 4758–4760

4. Sodium Cyanide

T. E. Wilson and S. A. Haroutounian

Encyclopedia of Reagents for Organic Synthesis, 1st ed., J. Wiley, N. York 1995, pp 4537–4539

5. Essential oils as natural antibacterials in food preparations

N. G. Chorianopoulos, P. N. Skandamis, G-J. E Nychas, S. A. Haroutounian In "*Microbial Implication for Safe and Qualitative Food Products*", C. Psarianos and Y. Kourkoutas eds, Research Signpost, Kerala, **2008**, pp 87–103

6. Essential Oils of Umbelliferae (Apiaceae) Family Taxa as Emerging Potent Agents for Mosquito Control

E. Evergetis, A. Michaelakis, S.A. Haroutounian

In "Integrated Pest Management and Pest Control-Current and Future Tactics", Marcelo L. Larramendy and Sonia Soloneski eds, Intech publishers, **2012**, pp 613–38

7. Correlation between the Polyphenolic Content of Greek Wines and their Geographical Origin

A.N. Psomas, M. Anastasiadi, S. A. Haroutounian

In "Grapevines: Varieties, Cultivation and Management", P.V. Szabo and J.Shojania eds, Nova Publishers, **2012**, pp133–153

8. Grape polyphenols as potent inhibitors of angiogenesis for the chemoprevention and treatment of cancer

S.A. Haroutounian, A.S. Apostolou, C.M. Matthaiou

In "Polyphenols: Chemistry, Dietary Sources and Health Benefits", J. Sun, K.N.

Prasad et al. eds, Nova Publishers, 2013, pp 405-420

Conference Presentations Published in Scientific Journals

 Magnesium and Calcium Content of Drinking Water, Fruit Juices, Salt and Saffron of Greece

P. Tarantilis, S. A. Haroutounian, M. G. Polissiou

In "*Metal Ions in Biology and Medicine*", Ph. Collery, L.A. Poirier, M. Manfait and J.C. Ettienne eds.; John Libbey Eurotext: Paris **1990**, p. 177–179

2. Differential estrogen receptor modulators: assessment of estrogen receptor bibding selectivity and transcriptional modulation bias

X. Alexi, K.M. Kasiotis, N. Fokialakis, A.K. Meligova, S.A. Haroutounian, M.N. Alexis

FEBS Journal 2008, 275, 157

3. Use of essential oil treatments to control the *Listeria monocytogenes* growth in various food commodities

N.G. Chorianopoulos, P.N. Skandamis, G.-J.E. Nychas, S.A. Haroutounian *Planta Medica* **2008**, *74*, 1196

4. Disinfectant test in biofilms: natural against chemical sanitizers N.G. Chorianopoulos, E.D. Giaouris, P.N. Skandamis, G.-J.E. Nychas, S.A. Haroutounian

Planta Medica 2008, 74, 1205-1206

5. Determination of biologically interesting polyphenols from grapes, wines and vinification byproducts of Greek origin–assessment of their *in vitro* antioxidant activity

M. Anastasiadi, H. Pratsinis, D. Kletsas, A.-L. Skaltsounis, S.A. Haroutounian *Planta Medica* **2008**, *74*, 1176

6. Determination and quantitative analysis of the principal polyphenolic compounds present in stem extracts of native Greek islands grape varieties-assessment of their antioxidant activity *in Vitro*

M. Anastasiadi, H. Pratsinis, D. Kletsas, S.A. Thotokatos, S.A. Haroutounian *Planta Medica* **2008**, *74*, 1176–1177

7. Quantitation of polyphenolic content and determination of antilisterial activities of grapes and vinification byproducts

M. Anastasiadi, N.G. Chorianopoulos, S.A. Theotokatos, G.-J.E. Nychas, S.A. Haroutounian

Planta Medica 2008, 74, 1177

8. Changes during ripening in the content of the principal bioactive polyphenols in five Greek native *Vitis vinifera* cultivars

M. Anastasiadi, H. Pratsinis, D. Kletsas, A. Papras, A. Panagiotou, S.A. Haroutounian

Planta Medica 2008, 74, 1184-1185

9. Identification of volatile components of Greek distillates (Tsipouro)

K. Lelis, E. Meliou, P. Magiatis, A. Papras, A. Panagiotou, S.A. Haroutounian *Planta Medica* **2008**, *74*, 1186

Patents

- Cis Pt (II) Δ¹.3.5(10) oestratrien-3-ol-17-one, 3-methoxypregnan-20-one και 5α-androstan-17β-ol-3-one: Their synthesis and biological activities.
 M.P. Georgiadis, S.A. Haroutounian and K.P. Chondros
 Greek Organization of Industrial Properies (O.B.I.) Patent Number 87971/7-1-1988
- 2. Bioactive polyphenols recovery from byproducts of "Mandilaria" cultivars of *vitis viniferae* plant after the vinification procedure G. Kazantzoglou, E. Evergetis, P. Magiatis, A.L. Skaltsounis and S. A. Haroutounian *Greek Organization of Industrial Properies (O.B.I.)* Patent Number 2001q/8-9-2004

Thesis

Synthesis of Sympathomimetic Amine Analogues and their Complexation with Platinum (II)

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