

Theodore G. Sotiroudis

Emeritus Researcher

Institute of Biology, Medicinal Chemistry and Biotechnology (I.B.M.C.B.)

Tel: +30(01) 7273893

Fax: +30(01)7273758

E-mail: tsotir@eie.gr

Website: <http://www.eie.gr/nhrf/institutes/ibrb/programmes/enzymology-gr.html>

Curriculum Vitae-Current Research Interests

Education and qualifications

1970: Diploma in Chemistry, University of Athens

1977: PhD in Chemistry, University of Athens

Appointments

1977-2013: Researcher, National Hellenic Research Foundation

1986: Visiting Researcher, W.Alton Jones Cell Science Center Inc., Lake Placid, New York, USA

1990: Visiting Researcher, W.Alton Jones Cell Science Center Inc., Lake Placid, New York, USA

2003-2004: Acting Director, Institute of Biological Research and Biotechnology, National Hellenic Research Foundation

2013-present: Emeritus Research Director, Institute of Biology, Medicinal Chemistry and Biotechnology

Fellowships

1982: EMBO short term fellowship, University of Dundee, England.

1985: EMBO short term fellowship, University of Bochum, Germany.

Teaching Experience

1986-1987: Clarkson University, Potsdam New York, -W.Alton Jones Cell Science Center, Lake Placid NY, PhD Programme, 1986-1987

2003-present: University of Athens, Department of Biology, Postgraduate Diploma in "Clinical Chemistry-Molecular Diagnosis. Pathobiochemistry 2003-2009

Research Interests

During the last years, he has focused on three research targets of Industrial Biotechnology:

(a) The understanding of the effect of oxidative processes on the quality of virgin olive oil and other plant foods of Mediterranean Diet and the development of methodologies for the estimation of the oxidative status in food products, as well as the production of active biomolecules from plant material,

(b) The culture of microalgae (*Spirulina sp.* (*Arthrospira sp.*) and *Nannochloropsis*), aiming on the production of functional foods, nutraceuticals and cosmetics; He collaborates with the Greek Spirulina Company ALGAE A.C. (www.spirulina.gr) and he is a Scientific Expert and Technology Facilitator for IIMSAM (Intergovernmental Institution for the use of Micro-algae Spirulina Against Malnutrition) an Intergovernmental Observer to the United Nations Economic and Social Council (www.iimsam.org).

(c) The production of biodiesel from non-edible seed oils and microalgae.

Awards

He was honoured with the 2006 Archer Daniels Midland/ Protein and Co-products Division Best Paper Award in the chemistry/nutrition category of the American Oil Chemists' Society.

Funded Programmes

- Coordinator and Scientist in charge for the Programme ΕΠΕΤII-Action 2.4 R & D Networks, Data Bases, (1998-2000) "Enzymes in clinical diagnosis and therapy".
- Coordinator and Scientist in charge for the O.KA.NA. Programme (1999-2000) "Effect of ibogaine on the cAMP-dependent protein kinase of nucleus accumbens of rats addicted to morphine"
- Coordinator and Scientist in charge for the Programme ΕΠΕΤ II - ΠΕΝΕΔ 99ΕΔ33 (1999-2001) "Polyphenols and their polymers (tannins) in virgin olive oil

and olive mill waste waters. Antioxidant action and free radical mechanism. Biotechnological importance for health, food and environment ”.

- *Coordinator and Scientist in charge for the GSRT Joint Research and Technology Programme Greece-Spain, ΕΠΑν.Μ.4.3(006-γ) "Antioxidant and Biomodulation Activities of *Spirulina sp.* (*Arthrospira sp.*) Bioactive Components" (2004-2006)*
-

Participation in Joint Research Programmes

- Programme “*Cretan Collaboration*” of the Dir.1334/02 - Program ΕΠΕΤII, subprogram 1, ΕΚΒΑΝ-691, (1994-7): "Greek Virgin Olive Oil: Origin Production Technology & Quality".
- Programme ΕΠΕΤII-subprogram 1, ΥΠΕΡ-55 (1996-9) "Development of a new enzymatic immunoassay for the production of clinical laboratory kits".
- Programme ΕΠΕΤ II-ΠΕΝΕΔ-1273 (1996-1998) "Transfer of cellular message in lactic acid bacteria with phosphorylation mechanisms. Control of the proteolytic system"
- Programme ΕΠΕΤII-Subprogram 2, Action 2.1, ΠΑΒΕ-99ΒΕ5 (1999-2001) "Virgin olive oil: Characterization of the effect of pigments and tocopherols on the oxidative stability and development of a method for the estimation of the oxidative condition"
- Programme ΕΠΕΤII-Subprogram 1, Action 2.3, Nutrition Program 97ΔΙΑΤΡΟ-29 (1999-2001) "Study of the presence and bioavailability of phenolic antioxidants in foods of the Mediterranean diet"
- Programme «ΣΥΝΕΡΓΑΣΙΑ» of the Dir.1334/02 –ΕΛΑΙΟΥΡΓΙΚΙ –ΟΠΕΚΕΠΕ (2003-4) "Determination of the most significant and usual quality problems encountered in greek olive oils. Evaluation and therapeutic actions".
- ΟΠΕΚΕΠΕ - *Agr.Unions of Siteia, Peza, Mylopotmos, Mirambello* (2004-5) "Study of the parameters related to the quality of virgin olive oil; effect of the maturity degree on the natural antioxidant content.
- "Environmental Cancer, Nutrition and Individual Susceptibility" (ECNIS, EU FP6 Network of Excellence, (2005-2009) Program ΠΑΒΕΤ 2005: "Production of high added value products by application of lipases as biocatalysts"
- *Joint Research and Technology Programme ΕΠΑΝ Greece-France 2006-7.* "Biocatalysis of immobilized enzymes in mesoporous materials for the biotechnological production of high added value products"
- *Joint Research and Technology Programme ΕΠΑΝ Greece-Cyprus 2006-7.* "Quality and stability of Virgin Olive Oil. The role of endogenous enzymes and antioxidants-Biotechnological applications"
- FP7-REGPOT-2010-5 (2010-2013). "Reinforcement of the Faculty of Chemistry, University of Belgrade, towards becoming a Center of Excellence in the region of WB for Molecular Biotechnology and Food research"
- 2013-2015. General Secretariat of Research and Technology – KRIPIS Grant. Project acronym: "STHENOS". Coordinator: Dr. Alexandros Pintzas. Total budget: 1,500,000 €. Lab budget: 19,000 €.

Patents

Karapitta, C., Sotiroudis, T.G., Xenakis, A. (Inventors) (2003) Development of a new homogeneous immunoenzymic method for the production of a clinical laboratory test system (kit) for the quantification of thyroxine and triiodothyronine in human serum, utilizing polyiodothyronine conjugated with glycogen phosphorylase b. Hellenic Industrial Property Organisation, Patent 20000100255/1004119 (with participation of MEDICON HELLAS SA and NHRF).

Publications

1. Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1978) Phosphorylase b covalently bound to glycogen: properties of the complex. *Eur.J.Biochem.* 88, 573-581.
2. Ktenas, T.B., Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1978) Effect of phenothiazines on the activity of glycogen phosphorylase b. *FEBS Lett.* 88, 313-316.
3. Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1979) Effect of polycarboxylates on phosphorylase b. *Biochem. Biophys. Res. Commun.* 86, 674-682.
4. Oikonomakos, N.G., Sotiroudis, T.G. and Evangelopoulos, A.E. (1979) Interaction of phosphorylase b with eosin: influence of substrates and effectors on eosin-enzyme complexes. *Biochem.J.*, 181, 309-320.
5. Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1979) Effect of sulfated polysaccharides and sulfate anions on the AMP-dependent activity of phosphorylase b. *Biochem.Biophys.Res.Comm.*, 90, 234-239.
6. Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1979) An unidentified activator of phosphorylase b. *Trends Biochem.Sci.*, 4, N187.
7. Cazianis, C.T. , Sotiroudis, T.G. and Evangelopoulos, A.E. (1980) Spin-labelling of phosphorylase b using a paramagnetic 1-fluoro-2,4-dinitrobenzene derivative. *Biochim.Biophys.Acta*, 621, 117-129.
8. Kolisis, F.N., Sotiroudis, T.G. and Evangelopoulos, A.E. (1980) The protective role of pyruvate against heat inactivation of N-acetylneuramine lyase. *FEBS.Lett.*, 121, 280-282.
9. Ktenas, T.B., Oikonomakos, N.G., Sotiroudis, T.G., Nikolaropoulos, S.I. and Evangelopoulos, A.E. (1980) Effect of polymyxins on glycogen phosphorylase *Biochem. Biophys. Res. Commun.* 97, 415-422.
10. Sotiroudis, T.G, Oikonomakos, N.G. and Evangelopoulos, A.E. (1981) Effect of prostaglandins on phosphorylase b. *Biochim.Biophys.Acta*, 658, 270-279.
11. Ktenas, T.B., Oikonomakos, N.G., Sotiroudis, T.G. ,Nikolaropoulos, S.I. and Evangelopoulos, A.E. (1982) Interaction of aliphatic amines with glycogen phosphorylase. *J.Biochem.*, 92, 2029-2033.
12. Sotiroudis, T.G., Cazianis, C.T., Oikonomakos, N.G. and Evangelopoulos, A.E. (1983) Effect of sodium cholate on the catalytic and structural properties of phosphorylase b. *Eur.J.Biochem.* 131, 625-631.

13. Nikolaropoulos, S. and Sotiroudis, TG. (1985) Phosphorylase kinase from chicken gizzard. Partial purification and characterization. *Eur.J.Biochem.* 151, 467-473.
14. Georgoussi, Z. and Sotiroudis, T.G. (1985) Inhibition of sarcoplasmic reticulum Ca^{2+} -ATPase by 2-mercaptoethanol. *Biochem. Biophys. Res. Commun.*, 126, 1196-1200.
15. Ktenas, T.B., Sotiroudis, T.G., Nikolaropoulos, S. and Evangelopoulos, A.E. (1985) Interaction of phosphorylase kinase with polymyxins. *Biochem. Biophys. Res. Commun.*, 133, 891-896.
16. Kyriakidis, S.M., Sotiroudis, T.G. and Evangelopoulos, A.E. (1986) Interaction of flavonoids with rabbit muscle phosphorylase kinase. *Biochim.Biophys.Acta*, 871, 121-129.
17. Sotiroudis, T.G. (1986) Lanthanide ions and Cd^{2+} are able to substitute for Ca^{2+} in regulating phosphorylase kinase. *Biochem.Inter.*, 13, 59-64.
18. Kyriakidis, S.M., Sotiroudis, T.G. and Evangelopoulos, A.E. (1986) Stimulation of glycogen phosphorylase kinase by phospholipids. *Biochem.Inter.*, 13, 853-861.
19. Sotiroudis, T.G., Heilmeyer, L.M.G., Jr. and Crabb, J.W. (1987) Purification of the alpha and beta subunits of phosphorylase kinase for structural studies. *Fed.Proc.*, 46, 2161.
20. Kyriakidis, S.M., Sotiroudis, T.G. and Evangelopoulos, A.E. (1988) Ca^{2+} and Mg^{2+} -dependent association of phosphorylase kinase with human erythrocyte membranes. *Biochim.Biophys.Acta*, 972, 347-352.
21. Zaman, N., Varsanyi, M., Heilmeyer, L.M.G., Jr., Sotiroudis, T.G, Johnson, C.M. and Crabb, J.W. (1989) Reaction of fluorescein isothiocyanate with an ATP binding site on the phosphorylase kinase α -subunit. *Eur.J.Biochem.* 182, 577-584.
22. Baltas, L.G., Zevgolis, V.G., Kyriakidis, S.M., Sotiroudis, T.G. and Evangelopoulos, A.E. (1989) Modulation of phosphorylase kinase activity by sphingolipids. *Biochem. Inter.* 19, 99-106.
23. Ktenas, T.B., Sotiroudis, T.G. and Evangelopoulos, A.E. (1989) Effects of polymyxin B on the sarcoplasmic reticulum membrane. *Biosci. Rep.* 9, 573-578.
24. Zevgolis, V.G., Sotiroudis, T.G. and Evangelopoulos, A.E. (1990) The interference of EDTA in searching for heat-stable small Mr inhibitors of protein kinases. *Eur. J. Biochem.* 188, 203-204.
25. Crabb, J.W., Harris, W.R., Johnson, C.M., Sotiroudis, T.G., Kuhn, C.C. and Heilmeyer, L.M.G., Jr. (1990) Electrophoretic purification of the alpha and beta subunits of phosphorylase kinase and evidence in support of the deduced amino acid sequences. *Electrophoresis*, 11, 133-140.
26. Sotiroudis, T.G. and Xenakis, A. (1990) PEST sequences in the subunits of phosphorylase kinase. *Biochem. Inter.* 21, 941-947.
27. Sotiroudis, T.G. and Geladopoulos, T.P. (1990) A low-molecular weight acid phosphatase present in crystalline preparations of rabbit skeletal muscle glycogen phosphorylase b. *FEBS Lett.* 271, 76-78.
28. Geladopoulos, T.P., Sotiroudis, T.G. and Evangelopoulos, A.E. (1991) A sensitive colorimetric assay for protein phosphatase activity. In: *Cellular Regulation by Protein Phosphorylation* (Heilmeyer, L.M.G., Jr. ed) H56, pp. 85-88, Springer-Verlag, Berlin.

29. Zevgolis, V.G., Sotiroidis, T.G. and Evangelopoulos, A.E. (1991) Phosphorylase kinase from bovine stomach smooth muscle: A Ca²⁺-dependent protein kinase associated with an actin-like molecule, *Biochim. Biophys. Acta* 1091, 222-230.
30. Geladopoulos, T.P., Sotiroidis, T.G. and Evangelopoulos, A.E. (1991) A malachite green colorimetric assay for protein phosphatase activity. *Anal. Biochem.* 192, 112-116.
31. Sotiroidis, T.G. and Geladopoulos, T.P. (1992) A domain of the α -subunit of rabbit phosphorylase kinase shows homologies with regions of rabbit α -tropomyosin, human EGF receptor, and the α chain of bovine S-100 protein. *Biosci.Rep.*, 12, 313-317.
32. Leonidas, D.D., Oikonomakos, N.G., Papageorgiou, A.C. and Sotiroidis, T.G. (1992) Kinetic properties of tetrameric glycogen phosphorylase b in solution and in the crystalline state. *Protein Sci.*, 1, 1123-1132.
33. Kyriakidis, S.M., Sakellaris, G. and Sotiroidis, T.G. (1993) Is protein phosphorylation a control mechanism for the degradation of caseins by lactic acid bacteria? The detection of an extracellular acid phosphatase activity. *Lett. Appl. Microbiol.* 16, 295-298.
34. Geladopoulos, T.P. and Sotiroidis, T.G. (1994) Interaction of aluminum ions with phosvitin. *J.Inorg. Biochem.* 54, 247-256.
35. Sotiroidis, T.G., Geladopoulos, T.P. and Sekeris, C.E. (1994) Aluminum neurotoxicity at the molecular level. A hypothesis. *Rev. Clin. Pharmacol. Pharmacokin.* 8, 21-34 .
36. Geladopoulos, T.P., Sotiroidis, T.G. and Evangelopoulos, A.E. (1996) Partial purification and characterization of two phosvitin phosphatases from rat brain. *Inter. J. Biochem. Cell Biol.* 28, 97-106.
37. Maridakis, G.A. and Sotiroidis, T.G. (1996)The association of phosphorylase kinase activity with membranes of rat liver smooth endoplasmic reticulum. *Mol. Cell.Biochem.* 154, 153-163.
38. Psarra, A.-M.,G. and Sotiroidis, T.G. (1996) Subcellular localization of phosphorylase kinase activity in rat brain. The association of the enzyme with mitochondria. *Inter. J. Biochem. Cell Biol.* 28, 29-42.
39. Maridakis, G.A. and Sotiroidis, T.G. (1996) A catalytic assay for the detection of sub-nanomolar glycogen phosphorylase concentrations. *Anal. Biochem.* 240, 304-306.
40. Georgalaki, M.D., Sotiroidis, T.G. and Xenakis, A. (1998) The presence of oxidizing enzyme activities in virgin olive oil. *J. Amer. Oil. Chem. Soc*, 75, 155-159.
41. Georgalaki, M.D., Bachmann, A., Sotiroidis, T.G, Xenakis, A., Porzel, A. and Feussner, I. (1998) Characterization of a 13-lipoxygenase from virgin olive oil and oil bodies of olive endosperms. *Fett/Lipid*, 100, 554-560.
42. Psarra, A.-M.G, Pfeiffer, B., Giannakopoulou, M., Sotiroidis, T.G., Stylianopoulou, F., and Hamprecht, B. (1998) Immunocytochemical localization of glycogen phosphorylase kinase in rat brain sections and in glial and neuronal primary cultures. *J. Neurocytol.* 27, 779-790.
43. Karapitta, D.D., Xenakis, A., Papadimitriou, A. and Sotiroidis,T.G. (2001) A new homogeneous enzyme immunoassay for thyroxine using glycogen phosphphorylase b- thyroxine conjugates, *Clin. Chim. Acta* ,308, 99-106.
44. Karapitta, D.D, Sotiroidis,T.G, Papadimitriou,.A and, Xenakis, A. (2001) A homogeneous enzyme immunoassay for triiodothyronine in serum, *Clin. Chem.* 47, 569-57.

45. Skoutas D., Haralabopoulos, D., Avramiotis, S., Sotiroudis, T.G. and Xenakis, A. (2001) Virgin olive oil: Free radical production studied with spin trapping EPR spectroscopy *J. Amer. Oil. Chem. Soc.* 78, 1121-1125.
46. Sotiroudis, T.G., Kyrtopoulos, S.A. Xenakis, A. and Sotiroudis, G.T. (2003) Potential cancer chemopreventive activities of minor components of olive oil. *Ital.J.Food.Sci.* 15, 169-185.
47. Tzika, E., Papadimitriou, V. Sotiroudis, T.G. and Xenakis, A. (2004) Chemical and enzymatic oxidation of oleuropein: an EPR study. *Chem.Phys.Lipids.* 130, 61.
48. Mastorakis, M., Sotiroudis, T.G, Xenakis, A. and Miniadis-Meimaroglou, S. (2004) "Spectrophotometric analysis of enzymic and non-enzymic oxidation of oleuropein" *Chem.Phys.Lipids.* 130, 58.
49. Papadimitriou, V., Maridakis, G.A., Sotiroudis, T.G., Xenakis, A. (2005) Antioxidant activity of polar extracts from olive oil and olive mill wastewaters: an EPR and photometric study. *Eur.J.Lipid Sci.Technol.* 107, 513-520.
50. Papadimitriou, V., Sotiroudis, T.G., and Xenakis, A. (2005) Olive oil microemulsions as a biomimetic medium for enzymatic studies:oxidation of oleuropein. *J.Amer.Oil Chem.Soc.* 82, 335-340.
51. Sotiroudis, T.G., Sotiroudis, G.T., Varkas, N. and Xenakis, A. (2005) The role of endogenous amphiphiles on the stability of virgin olive oil-in-water emulsions. *J.Amer.Oil Chem.Soc.* 82, 415-420.
52. Papadimitriou,V., Sotiroudis, T.G., Xenakis, A., Sofikiti, N., Stavyiannoudaki, V., and Chaniotakis, N.A. (2006) Oxidative stability and radical scavenging activity of extra virgin olive oils: An electron paramagnetic resonance spectroscopy study. *Anal.Chim.Acta* 573-574, 453-458
53. Papadimitriou, V., Sotiroudis, T.G., Xenakis, A. (2007) Olive oil microemulsions: enzymatic activities and structural characteristics, *Langmuir*, 23, 2071-2077.
54. Tzika, E.D., Papadimitriou, V., Sotiroudis, T.G. and Xenakis, A. (2008) Antioxidant properties of fruits and vegetables shots and juices: An Electron Paramagnetic Resonance study. *Food Biophysics* 3, 48-53.
55. Papadimitriou, V., Pispas, S., Syriou, S., Pournara, A., Zoumbanioti, M., Sotiroudis, T.G. and Xenakis, A. (2008) Biocompatible microemulsions based on limonene:Formulation, structure and applications. *Langmuir* 24, 3380-3386.
56. Tzika, E.D., Papadimitriou, V., Sotiroudis, T.G. and Xenakis, A. (2008) Oxidation of oleuropein: Electron Paramagnetic Resonance and spectrophotometric studies. *Eur.J.Lipid Sci. Technol.* 110, 149-157 .
57. Sotiroudis, T.G. and Kyrtopoulos, S.A. (2008) Anticarcinogenic compounds of olive oil and related biomarkers. *Eur.J.Nutr.* 47(Suppl 2) 69-72.
58. Tzika, E.D., Sotiroudis, T.G., Papadimitriou, V. and Xenakis. (2009) Partial purification and characterization of peroxidase from olives (*Olea europaea* cv.Koroneiki) *Eur.Food Res.Technol.* 228, 487-495.
59. Sotiroudis, G., Melliou, E., Sotiroudis, T.G. and Chinou, I. (2010) Chemical analysis, antioxidant and antimicrobial activity of three greek cucumber (*Cucumis sativus*) cultivars. *J.Food Biochem.*34, 61-78.
60. Sotiroudis, V.T., Sotiroudis, T.G. and Kolisis, F.N. (2010) The potential of biodiesel production from fatty acid methyl esters of some European/ Mediterranean and Cosmopolitan halophyte seed oils. *Journal of ASTM International*, 7 (3) 1-9
61. Xenakis, A., Papadimitriou, V., and Sotiroudis, T.G. (2010) Colloidal structures in natural oils. *Curr.Opin.Colloid Interface Sci.* 15, 55-60.

62. Tzika, E., Christoforou, M., Pispas, S., Zervou, M., Papadimitriou, V., Sotiroudis, T.G., Leontidis, E. and Xenakis, A. (2011) Influence of nanoreactor environment and substrate location on the activity of horseradish peroxidase in olive oil-based w/o microemulsions. *Langmuir*, 27, 2692-2700.
63. Papadimitriou, V., Tzika, E. D., Pispas, S., Sotiroudis, T. G. and Xenakis, A., (2011) Microemulsions based on virgin olive oil: a model biomimetic system for studying native oxidative enzymatic activities. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 382, 232-237.
64. Parages, M.L., Rico, R.M., Abdala-Díaz, R.T., Chabrigón, M., Sotiroudis, T.G. and Jiménez, C. (2012) Acidic polysaccharides of *Arthrospira* (*Spirulina*) platensis induce the synthesis of TNF- α in RAW macrophages, *J.Appl.Phycol.* 24, 1537-1546.
65. Kyriazi, A., Papadimitriou, V., Sotiroudis, T.G. and Xenakis, A. (2013) Development and characterization of a digestion model based on olive oil microemulsions. *Eur.J.Lip.Sci.Technol.* 115, 601-611.
66. Papadimitriou, V., Dulle, M., Wachter, W., Sotiroudis, T.G., Glatter, A. and Xenakis, A. (2013) [Structure and Dynamics of Veiled Virgin Olive Oil: Influence of Production Conditions and Relation to its Antioxidant Capacity](#) *Food Biophysics*, 8, 112-121.
67. Sotiroudis, T.G. and Sotiroudis G.T. (2013) Health aspects of *Spirulina* (*Arthrospira*) microalga food supplement . *J.Serb.Chem.Soc.* 78, 395-405.

Publications in Proceedings of International Conferences

1. Oikonomakos, N.G., Sotiroudis, T.G. and Evangelopoulos, A.E. (1977) Probing of protein microenvironment by fluorescein derivatives: a study with glycogen phosphorylase b. In : *Bioenergetics of Membranes* (Packer, L., Papageorgiou, G.C. and Trest, A., eds) vol. pp. 27-37, Elsevier/North Holland Biomedical Press, Amsterdam.
2. Oikonomakos, N.G., Sotiroudis, T.G. and Evangelopoulos, A.E. (1980) Probing of enzyme microenvironment by fluorescein derivatives. In: *Enzyme Regulation and Mechanism of Action* (Milder, P. and Ries, B., eds), vol. 60, pp.103-112, Pergamon Press, Oxford.
3. Oikonomakos, N.G., Sotiroudis, T.G., Nikolaropoulos, S.I., Melpidou, A.E. and Evangelopoulos, A.E. (1982) Homotropic interactions of phosphorylase with ligands as studied by spectroscopic techniques. In: *Cell Function and Differentiation, Part C* (Acounoglou, G., Evangelopoulos, A.E., Georgatsos, J., Palaiologos, G., Trakatellis A. and Tsiganos, C.P., eds), FEBS, Vol. 66, pp. 37-46, Alan R.Liss, Inc., New York.
4. Sotiroudis, T.G. and Nikolaropoulos, S. (1984) Selective labelling of phosphorylase kinase with fluorescein isothiocyanate. *FEBS Lett.*, 176, 421-425.
 Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1984) Irreversible dissociation of pyridoxal 5-phosphate from glycogen phosphorylase

- by sulfated polysaccharides. In: *Chemical and Biological Aspects of Vitamin B₆ Catalysis, Part A* (Evangelopoulos, A.E. ed.) pp.181-193, Alan R. Liss, Inc., New York.
5. Cazianis, C.T., Sotiroudis, T.G. and Evangelopoulos, A.E. (1985) Microenvironmental properties and conformational changes in glycogen phosphorylase. Denaturation profiles of surface and buried spin-labelled sites. In: *Proceedings of the 16th FEBS Meeting* (Ovchinnikov, Y.A., ed.), pp. 71-78, VNU Science Press BV, Utrecht.
 6. Sotiroudis, T.G., Nikolaropoulos, S. and Evangelopoulos, A.E. (1987) Glycogen metabolism in smooth muscle .In: *Signal Transduction and Protein Phosphorylation* (Heilmeyer,L.M.G.,Jr., ed.) vol. A135, pp. 243-257, Plenum Publ.Corp., New York.
 7. Papageorgiou, A.C., Nikolaropoulos, S., Sotiroudis, T.G., Oikonomakos, N.G. and Evangelopoulos, A.E. (1987) Purification and properties of smooth muscle phosphorylase from bovine stomach. In: *Vitamin B₆ Catalysis* (Korpela, T. and Christen, P., eds) pp.295-298, Birkhauser Verlag, Switzerland.
 8. Sotiroudis, T.G. and Evangelopoulos, A.E. (1989) Protein kinases, protein phosphatases and the regulation of glycogen metabolism. In: *Receptors, Membrane Transport and Signal Transduction* (Evangelopoulos , A.E. et al eds) vol. H29, pp. 38-54, Springer-Verlag, Berlin.
 9. Sotiroudis, T.G., Kyriakidis, S.M., Baltas, L.G., Ktenas, T.B., Zevgolis, V.G. and Evangelopoulos, A.E. (1989) Phosphorylase kinase and protein kinase C: Functional similarities. In: *Receptors, Membrane Transport and Signal Transduction* (Evangelopoulos, A.E. et al eds) vol. H29, pp. 55-66, Springer-Verlag, Berlin.
 10. Sotiroudis, T.G., Kyriakidis, S.M., Baltas, L.G, Zevgolis, V.G. and Evangelopoulos, A.E. (1989) Ca²⁺-calmodulin dependent protein kinases and protein kinase C. Functional similarities, In: *Evolutionary Tinkering in Gene Expression* (Grunger-Manago, M. et al, eds) pp. 59-69, Plenum Publ, Corp., London.
 11. Zevgolis, V.G., Sotiroudis, TG. and Evangelopoulos, A,E. (1990) Phosphorylase kinase from bovine stomach smooth muscle. A Ca²⁺-dependent protein kinase associated with an actin-like molecule. In: *Calcium Transport and Intracellular Calcium Homeostasis* (Pansu, D. and Bronner, F., eds) H48, pp. 321-329, Springer-Verlag, Berlin.
 12. Sotiroudis, T.G., Zevgolis, V.G., Baltas, L.G. and Kyriakidis, S.M. (1990) Control of glycogen metabolism and phosphorylase kinase: A model system for studying signal transduction mechanisms mediated by protein phosphorylation and Ca²⁺.

- In: *Signal Perception and Transduction in Higher Plants* (Ranjeva, R. and Boudet, A.M. eds) H47, pp.201-212 , Springer-Verlag, Berlin.
13. Geladopoulos, T.P., Sotiroudis, T.G. and Evangelopoulos, A.E. (1991) A sensitive colorimetric assay for protein phosphatase activity. In: *Cellular Regulation by Protein Phosphorylation* (Heilmeyer, L.M.G., Jr. ed) H56, pp. 85-88, Springer-Verlag, Berlin.
 14. Sotiroudis, T.G., Zevgolis, V.G. and Evangelopoulos, A.E. (1991) Control of cellular activity by protein phosphorylation-dephosphorylation: Phosphorylase kinase from bovine stomach smooth muscle. In : *Biological Signal Transduction* (Ross, E.M. and Wirtz, K.W.A. eds) H52, pp.309-320, Springer-Verlag, Berlin.
 15. Sotiroudis, T.G., Evangelopoulos, A.E., Maridakis, G.A. and Psarra, A.-M.,G. (1995) Phosphorylase kinase. A protein kinase for all seasons. In : *Signalling Mechanisms-from Transcription Factors to oxidative Stress*. (Packer, L and Wirtz, K. eds) H92. pp. 139-156, Springer-Verlag, Berlin .
 16. Avramiotis, S., Georgalaki, M.D., Cazianis, C.T., Sotiroudis, T.G. and Xenakis, A. (1997) Free radicals in virgin olive oil: A spin trapping EPR study. In: *Proceedings of the 19th Nordic Lipid Symposium*, Ronneby, Sweden, June 1997, pp. 61-64.
 17. Georgalaki, M.D., Bachmann, A., Sotiroudis, T.G, Xenakis, A. and Feussner, I. (1998) An active linoleate 13-lipoxygenase is found in virgin olive oil. In: "Advances in Plant Lipid Research" (Sanchez, J., Cerda-Olmedo, E and Martinez-Force eds) pp.696-698, Universidad de Sevilla, Secretariado de Publicaciones.