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Ph.D. / Research Director

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Education

1987: Ph.D., University of Iowa, Division of Organic Chemistry, USA,

Supervisor: Prof. D. F. Wiemer

1983: B.Sc, in Chemistry, University of Athens, Greece

Appointments

2/2017 to date: Member of the General Assembly of the Hellenic Foundation for Research and Technology "ELIDEK"

2016 to date: Deputy Director of the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation, Athens, Greece

2007 to date: Research Director at the Institute of Biology, Medicinal Chemistry and Biotechnology, National Hellenic Research Foundation, Athens, Greece

2002-2007: Senior Researcher at the Institute of Organic and Pharmaceutical Chemistry of the National Hellenic Research Foundation, Athens

1991-2002: Researcher at the Institute of Organic and Pharmaceutical Chemistry of the National Hellenic Research Foundation, Athens

1990-1991: Researcher at the R&D Department of "Viochrom" Dye Industry, Athens, Greece

1987-1989: Postdoctoral Research Associate at The Scripps Research Institute, San Diego, U.S.A.

Fellowships

1983-1985: Teaching assistantship University of Iowa, U.S.A.

1986 -1987: Research assistantship University of Iowa, U.S.A.

Current Research Interests

The current research interests are focused on the design and synthesis of biologically active molecules. In particular:

- a) Design and synthesis of novel neuroprotective and neuroregenerative neurosteroid analogues mimicking neurotrophin activity
 - b) Design and synthesis of antiprotozoal ether phospholipids
 - c) Design and synthesis of heterocyclic compounds with multifunctional pharmacological profile:
 - Possessing neuroprotective activity
 - Tyrosinase modulators
 - d) Design and synthesis of BRAF^{V600E} inhibitors for the development of agents against colorectal cancer.
 - e) Design and synthesis of proteasome activators against aging.
 - f) Design and synthesis of fluorescent bioactive compounds and probes for mechanistic studies and imaging.
- A parallel research activity involves the development of synthetic methodology using conventional techniques and microwave or ultrasound irradiation.

Foreign Languages

English (excellent, Proficiency of Cambridge University); French (excellent, Sorbonne II); Spanish (working knowledge).

Professional Affiliations

Member, Greek Chemical Society; Member, American Chemical Society

Teaching Experience

1983-1985: Teaching assistant, University of Iowa, Chemistry Department, U.S.A.

1995-to date: Supervision of 7 M.Sc. students, 6 Ph.D. students and 16 Postdoctoral Fellows and 6 diploma students.

1998: Instructor in training seminar on "Modern Chemistry and its Applications" chemistry teachers in secondary education in Greece.

2/2000: Invited lecturer at the post graduate program of the Mediterranean Agricultural Institute of Chania

2002: External evaluator of the European Ph.D. of Jordi Piro I Segarra" of University of Barcelona, Faculty of Pharmacy, Dept. of Pharmacol. and Med. Chem.

Participation In Scientific Committees

1998-2000: Participation in the team of evaluators for Current Drugs LTD, London.

1998-2004: National representative of the Management Committee of COST Chemistry, Action D13 "New Molecules Towards Human Health Care".

1999- to date: Member of the expert evaluators panel for EU FP6 programmes (*Marie Curie Individual Fellowships, Marie Curie Training Sites, Development Host*

Fellowships and Research Training Networks), FP7 People programme and Horizon2020 Marie Skłodowska-Curie programme.

2004-2007: National representative of the Management Committee of COST Medicine, Action B22 "Drug development for parasitic diseases".

2005-2010: National representative of the Management Committee of COST Chemistry, Action D34 "Molecular Targeting and Drug Design in Neurological and Bacterial Diseases".

2006–to date: Member of NatSynDrugs (www.natsyndrugs.org)

2008-2012: Vice-Chair and National representative of the Management Committee of COST Chemistry, Action CM0801 "New drugs for neglected diseases"

2013-to-date: National representative of the Management Committee of COST Chemistry, Action CM1307 "Targeted chemotherapy towards diseases caused by endoparasites"

1993-2012: Member of the Organizing Committee of 8 Greek and 5 International Symposia

2001: Organizer of the COST D13 Mid-Term Evaluation Symposium

2006: Organizer of the COST B22 3rd Annual Congress on Drug Design and Development for parasitic diseases.

2012: Organiser of the COST CM0801 4th Annual Meeting on New Drug for Neglected Diseases

2014 to date: Member of the Scientific Council of the Institute of Biology, Medicinal Chemistry and Biotechnology of the National Hellenic Research Foundation.

2017: Member of the expert evaluators chemistry panel of FCT Portugal

Supervision Postdoctoral Fellows:

1998- 1999:	Dr Anastasia Detsi
1999- 2000:	Dr George Stamatiou
2001-2002:	Dr Eleni Lekka
2006-2007:	Dr Joseph Hannah
2007-2008:	Dr Maria Kladi
2007-2009:	Dr Amelie Blanrue
2007-2008:	Dr Frank Weisbrock
2008:	Dr Nicolaos Avlonitis
2008:	Dr Phil Milnes
2009:	Dr Victoria Nahmias
2009-2011:	Dr Costas Baskakis

2009-2010	Dr Panagiotis Kaloudis
2009:	Mihalis Tsakos, M.Sc.
2015-2016:	Dr Stefanos Kikionis
2015-2016:	Dr Leto-Aikaterini Tzivelleka
2015-2016:	Dr Nicolaos Assimomytis
2014-2015:	Dr Pantelis Afroudakis
2009-to date	Dr Kyriakos C. Prousis
2014-to date:	Dr Marina Roussaki
2015-to date:	Dr Theano Fotopoulou
2016-to date:	Dr George Magoulas

Supervision of Ph.D. Theses

- Charikleia Souli, "GABA_A Interacting Neurosteroid Derivatives" (Awarded 6/1999)
- Nicolaos Avlonitis, "Design and Synthesis of Neuroactive Steroids" (Awarded 11/ 2006)
- Eftychia Koini, "Neuroprotective Benzoxazine Derivatives" (Awarded 11/2008)
- Kalliopi Georgikopoulou, "Bioactive Ether Phospholipids" (Awarded 10/2008).
- Athanasia Pantzou, "Design and Synthesis of CNS acting Steroid Derivatives" (Awarded 10/2011)
- Ioannis Christopoulos, "Synthesis of natural product analogues possessing inflammatory activity", Ongoing
- Evnathia Hazapi "Synthesis of heterocyclic antiparasitic compounds", Ongoing

Supervision of Master of Science Theses:

Charikleia Souli, "Neurosteroid Derivatives Possessing Anticonvulsant and anxiolytic activity" (Awarded 12/1996)

Nicolaos Avlonitis, "Synthesis of Novel Antileishmanial Ether Phospholipid Derivatives" (Awarded 12/ 2001)

Eftychia Koini, "Design and Synthesis of 1,4-benzoxazine and 4-aminobenzopyran derivatives with activity against reperfusion arrhythmias" (Awarded 4/2005)

Panos Aggelou, Design and Synthesis of New cycloalkylidene-substituted antileishmanial ether phospholipids" (Awarded 11/2004).

Lefkothea Kalopetridou, "Design and Synthesis of Novel Heterocyclic Compounds with potential inhibitory activity against trypanothione synthetase" (Awarded 2/2011).

Ioannis Christopoulos, "Design and Synthesis of Novel Benzoxazine/Acylhydrazone Hybrid Compounds possessing antimicrobial activity", (Awarded 12/2013).

Olga Kirkilesi, "Design and Synthesis of Steroidal Neurotrophin Mimetics" Ongoing

Eva Chazapi, "Design and Synthesis of Bio-inspired proteasome activators"

Supervision Diploma Theses

Michalis Pavlou, "Design and Synthesis of Hydroxytyrosol Derivatives as Tyrosinase Inhibitors" (Awarded 6/2013)

Christina Kyrkou, "Synthesis of hydroxytyrosol analogues as inhibitors of tyrosinase and enzymatic browning"

Dimitra Hatzioannou, "Synthesis of Heterocyclic Tyrosinase Inhibitors"- Ongoing

Supervisor of Gyorgi Szaloki in the context of EU-EST project "Eurodesy" (10/2006 – 4/2008)

Funding

➤ **National**

- National Drug Organisation (1991-94) "Design and Synthesis of alkyllysophospholipids"
- KESY (1993-95) "Synthesis and biological activity of new tamoxifen analogs"
- YPER (1995-98) "New anxiolytic and anticonvulsant neurosteroids" *Coordinator*
- PENED 2000 GSRT (2000-01) "Development of new liposomal immunoassays "Bilateral Collaboration of Greece-Czech Republic "Synthesis and biological evaluation of new melatonin analogues" *PI NHRF*
- Bilateral Collaboration of Greece-Italy "Comparative study of benthic organisms from Greece and Italy for the determination and exploitation of their chemical constituents" *Coordinator*
- Excellence in the Research Institutes supervised by the Greek General Secretariat for Research and Technology EPAN 3.3.1. (2002-2005). "Novel strategies against neurodegeneration."
- Bilateral Collaboration of Greece-Hungary (2002-2005) "Neuroactive steroids and ionotropic neurotransmitter receptors." *Coordinator*
- GSRT programme Location and use of research results by the creation of new enterprises (Spin-off, 2003-05) "New ether phospholipids as ultrasound contrast agents" *Coordinator*
- PENED 2001 GSRT (2002-2006). "Investigation of the mechanisms of action of neuroprotective neurosteroids. Development of new compounds with high neuroprotective and low estrogenic or androgenic activity." *PI NHRF*
- Operational Programme for Competitiveness, GSRT YB/39 (2004-2008). "Therapeutic Interventions Against Protozoan Infections." *Coordinator*
- Excellence in the Research Institutes supervised by the Greek General Secretariat for Research and Technology EPAN 3.3.1. (2006-2009). "Design and synthesis of bioactive and functional materials"
- Kouponia Kainotomias for SMEs (2011-2012). *PI NHRF*
- Research Funding Program KRIPIS: Project STHENOS: "Targeted therapeutic

approaches against ageing and degenerative diseases, cancer in particular" (2013-2015).

- Latsis Foundation Grant: "Design and synthesis of new NIR dyes and their application in surface modification of exfoliated graphene "NIRGraph" (2014-2015).
Coordinator
- Support of Research Infrastructures (EPAnEK 2014-2020). OPENSREEN-GR: An Open-Access Research Infrastructure of Chemical Biology and Target-Based Screening Technologies for Human and Animal Health Agriculture and the Environment "(2018-2020). *PI NHRF*
- Support of Research Infrastructures (EPAnEK 2014-2020). "BioImaging-GR: A Greek Infrastructure for Visualising and Monitoring Fundamental Biological Processes"(2018-2020). *PI NHRF*
- "RESEARCH - CREATE - INNOVATE" (EPAnEK 2014-2020). "Preclinical development of innovative neuroprotective and neuroregenerative synthetic microneurotrophins for the therapy of Alzheimer's disease" (2018-2020). *PI NHRF*

➤ **European**

- COST D13/0019/01 (2001-2004) "Novel molecules, forms and strategies for treatment of Leishmanial infections" *Coordinator*
- FP6. Marie Curie Transfer of Knowledge Programme - MTKD-CT-2004-014399 (2005-2009) "Solid-phase phospholipid and dendrimer synthesis" (SOPHOLIDES)
Coordinator
- FP6. Marie Curie Host fellowships for Early Stage Research Training (EST) (2006-2009). EURODESYS: A European Research Training Site for the Design and Synthesis of Novel Neuroprotective and Hypoglycaemic Agents through a Multi-disciplinary approach.
- FP7-2009-REGPOT-1 (2010-2013) "Advancement of Research Capability for the Development of New Functional Compounds (ARCADE).
Deputy coordinator.
- FP7-HEALTH-2013-INNOVATION-1 (2014-2017) "New Medicines for Trypanosomatidic Infections" *P.I. NHRF*
- H2020-MSCA-ITN-2017 (2018-2021). A European training network for the discovery of neurotrophin small molecule mimetics as candidate therapeutic agents for neurodegeneration and neuroinflammation. *Coordinator*

➤ **International**

Professional Service Agreements with Univ. Connecticut, USA.

PSA No 2328 (1998-1999) "Anticancer ether lipids" Deputy Coordinator

PSA No 3324 (2001-02) "Biologically active ether phospholipids" Coordinator

PSA No 3680 (2002-03) "Novel Antioxidants" Deputy Coordinator.

PSA No 4505 (2004-05) "Novel antioxidants and bioactive ether phospholipids"
 Deputy Coordinator.

➤ **Funding from contract research with industry**

- Research collaboration with ELPEN SA. (1999-2001) "Molecular probes for adrenergic receptors"
- Research collaboration with Medexis SA (2005-2006) "Total synthesis of ribenol and derivatives thereof"
- Research collaboration with Medexis SA (2006-2008) "Synthesis and Study of steroid-protein conjugates.
- Research collaboration with Medexis SA (2008-2010) "Synthesis and Study of Na⁺, K⁺-ATPase inhibitors"

Publications

Ph.D. Thesis

Calogeropoulou T. (July 1987) "New chemistry of vinyl phosphates. A novel 1,3-migration of phosphorus from oxygen to carbon."
 Ph.D. Thesis, University of Iowa.

Chapter In Book

Theodora Calogeropoulou, Darryl C. Rideout.
 Synergism and antagonism through direct covalent bond formation between agents.
 Chapter 14 in Chemotherapeutic Synergism and Antagonism. (Ed. T.-C. Chou and Darryl C. Rideout, Academic Press **1990**).

Publications In Peer Reviewed Journals

1. Hammond, G.B.; Calogeropoulou, T.; Wiemer, D.F. The 1,3 migration of phosphorus from oxygen to carbon: A new synthesis of β -keto phosphonates from enol phosphates. Tet. Lett. **1986**, 27, 4265.
2. Calogeropoulou, T.; Hammond, G.B.; Wiemer, D.F. Synthesis of β -keto phosphonates from vinyl phosphates via a 1,3-phosphorus migration. J. Org. Chem. **1987**, 52, 4185.
3. Calogeropoulou, T.; Wiemer, D.F. Cycloaddition reactions of phosphate dienes. J. Org. Chem. **1988**, 53, 2295.
4. Rideout, D.C.; Calogeropoulou, T.; Jaworski, J.S.; Dagnino Jr., R.; McCarthy, M. Phosphonium salts exhibiting selective anticarcinoma activity *in vitro*. Anti-Cancer Drug Design **1989**, 4, 265-280.
5. Rideout, D.C.; Calogeropoulou, T.; Jaworski, J.S.; Dagnino Jr., R.; McCarthy, M. Synergism through direct covalent bonding between agents: A strategy for rational design of chemotherapeutic combinations. Biopolymers **1990**, 29, 247-262.
6. Gloer, K.B.; Calogeropoulou, T.; Jackson, J.A.; Wiemer, D.F. Regiochemistry of the rearrangement of cyclohexenyl and cyclohexadienyl phosphates to β -keto phosphonates. J. Org. Chem **1990**, 55, 2842-2846.
7. Quinn, D.M.; Sutton, L.D.; Staout, J.S.; Calogeropoulou, T.; Wiemer, D.F.

Phospholipase A1 Activity and Catalytic Mechanism of Pancreatic Cholesterol Esterase. Phosphorus, Sulfur, and Silicon **1990**, 51/52, 43-46.

8. Rotenberg, S. A.; Calogeropoulou, T.; Jaworski, J.S.; Weinstein, I.B.; Rideout, D. A self-assembling protein kinase C inhibitor. Proc. Natl. Acad. Sci. USA **1991**, 88, 2490.

9. Rideout, D.; Schinazi, R.; Pauza, D.C.; Lovelace, K.; Chiang, L.-C.; Calogeropoulou, T.; McCarthy, M.; Elder, J. Derivatives of 4-Amino-3,6-Disulfonato-1,8-Naphthalimide Inhibit Reverse Transcriptase and Suppress Human and Feline Immunodeficiency Virus Expression in Cultured Cells. J. Cellular Biochem. **1993**, 51, 446.

10. Patel, J.; Rideout, D.; McCarthy, M. R.; Calogeropoulou, T.; Wadwa, K. S.; Oseroff, A.R. Antineoplastic Activity, Synergism, and Antagonism of Triarylalkylphosphonium Salts and their Combinations. Anticancer Research **1994**, 14, 21.

11. Mavromoustakos T., Theodoropoulou E., Koufaki M., Yang D.P. Lin S., Zervou M. Calogeropoulou T., Makriyannis A. "Conformational analysis of 1-thiohexadecyl-2-O-methyl-*rac*-glycero-3-phosphocholine." Epitheor Klin. Farmakol. Farmakokinet. Int. Ed. **1993**, 11, 178 .

12. Mavromoustakos T., Theodoropoulou E., Polychroniou V., Dimitriou A., Koufaki M., Calogeropoulou T. "Study of drug membrane interactions using a combination of differential scanning calorimetry and ³¹P-NMR spectroscopy." Epitheor Klin. Farmakol. Farmakokinet. Int. Ed. **1995**, 13, 81.

13. Calogeropoulou T., Koufaki M., Tsotinis A., Balzarini J., De Clercq E., Makriyannis A. "Synthesis and anti-HIV evaluation of alkyl and alkoxyethyl phosphodiester AZT derivatives" Antiv. Chem. Chemother. **1995**, 6, 43.

14. Koufaki M., Polychroniou V., Calogeropoulou T., Tsotinis A., Drees M., Fiebig H.H., LeClerc S., Hendriks H.R., Makriyannis. "Alkyl and Alkoxyethyl Antineoplastic Phospholipids" J. Med. Chem. **1996**, 39, 2609.

15. Tsotinis A., Calogeropoulou T., Koufaki M., Souli Ch., Balzarini J., De Clercq E., Makriyannis A. "Synthesis and Antiretroviral Evaluation of New Alkoxy and Aryloxy Phosphate Derivatives of AZT" J. Med. Chem. **1996**, 39, 3418.

16. Koufaki, M.; Calogeropoulou, T.; Mavromoustakos, T.; Theodoropoulou, E.; Tsotinis. A.; Makriyannis, A. "Synthesis of 2H-Labelled Alkoxyethyl Phosphodiester AZT Derivatives for Solid-State 2H-NMR Studies" J. Het. Chem. **1996**, 33, 619.

17. Varvaresou, A.; Tsotinis, A.; Siatra-Papastaikoudi, Th.; Calogeropoulou, T. "New Pyrazole-annulated azathioxanthenes as potential intercalators: synthesis and structure elucidation." J. Het. Chem. **1996**, 33, 831.

18. Tsotinis, A. Varvaresou, T. Calogeropoulou, Th. Siatra-Papastaikoudi and A. Tyligada "Synthesis and antimicrobial evaluation of indole containing derivatives of 1,3,4-thiadiazole, 1,2,4-triazole and their open-chain counterparts." Arzneim.-Forsch./Drug Res., **1997**, 47 (I), 307

19. Faust, R.; Garratt, P.J.; Jones, R.; Yeh, L.-K.; Tsotinis, A.; Panoussopoulou, M.; Calogeropoulou, T. Teh, M.-T.; Sugden, D. "Mapping the melatonin receptor. 6. Melatonin agonists and antagonists derived from 6H-isoindolo[2,1-a]indoles, 5,6-dihydroindolo[2,1-a]isoquinolines and 6,7-dihydro-5H-benzo[c]azepino[1,2-a]indoles." J. Med. Chem. **2000**, 43(6), 1050-1061.

20. Varvaresou A, Kriton I, Filippatos E., Souli C., Calogeropoulou T., Ioannidou I., Kourounakis A., Pannecouque C., Witvrouw M., Padalko E., Neyts J., De Clercq E., Tsotinis A. "Synthesis, Antiretroviral and Antioxidant Evaluation of a Series of New Benzo[*b*]furan Derivatives." Arzneim.-Forsch./Drug Res. **2001**, 51(I), 156.

21. Carbonelle D., Jacquot C., Lanco X., Le Dez G., Tomasoni C., Briand G., Tsotinis A., Calogeropoulou T., Roussakis C. "Up-regulation of a novel mRNA

(NY-CO-1) involved in the (1-(2-alkoxy-5-carboxyl)- α - β -unsaturated ketone (VT1)-induced proliferation arrest of a Non-Small Cell lung carcinoma cell line (NSCLC-N6)" International J. Cancer **2001**, *92* (3), 388-397.

22. Mavromoustakos, T.; Calogeropoulou, T.; Koufaki, M.; Kolocouris, A.; Demetzos, K.; Meng, Z.; Makriyannis, A.; Balzarini, J.; De Clercq, E. "Ether phospholipid-AZT conjugates possessing anti-HIV and anti-tumor cell activity. Synthesis, conformational analysis and study of their thermal effects on membrane bilayers" J. Med. Chem. **2001**, *44*(11), 1702-1709.

23. Koufaki, M.; Calogeropoulou, T.; Detsi, A.; Roditis, A.; Kourounakis, A.; Papazafiri, P.; Tsiakitzis, K.; Gaitanaki, C.; Beis, I.; Kourounakis P. "Novel potent inhibitors of lipid peroxidation with protective effects against reperfusion arrhythmias." J. Med. Chem. **2001**, *44*, 4300-4303.

24. Detsi A., Koufaki M., Calogeropoulou T.* "Synthesis of (*Z*)-4-hydroxytamoxifen and (*Z*)-2-(4-[1-(*p*-hydroxyphenyl)-2-phenyl]-1-butenyl)phenoxyacetic acid." J. Org. Chem. **2002**, *67*, 4608-4611.

25. Avlonitis, N.; Lekka, E.; Detsi, A.; Koufaki, M.; Calogeropoulou, T. ;* Skoulica, E.; Siapi, E.; Kyrikou, I.; Mavromoustakos, T.; Tsotinis, A.; Golic Grdadolnik, S.; Makriyannis, A. "Antileishmanial Ring-Substituted Ether Phospholipids" J. Med. Chem. **2003**, *46*, 755-767.

26. Koufaki, M.; Calogeropoulou, T.; Rekka, E.; Chryselis, M.; Papazafiri, P.; Gaitanaki, C.; Makriyannis, A. "Bifunctional Agents for Reperfusion Arrhythmias. Novel Hybrid Vitamin E/Class I Antiarrhythmics." Bioorg. Med. Chem. **2003**, *11*, 5209-5219.

27. Calogeropoulou T.,* Detsi A., Lekkas E, Koufaki M. " Strategies in the design of prodrugs of anti-HIV agents" in " Therapeutic strategies against HIV infection" Curr. Top. Med. Chem., **2003**, *3* (13), 1467.

28. Koufaki, M.; Detsi, A.; Theodorou, E.; Kiziridi, C.; Calogeropoulou, T.; Vassilopoulos, A.; Kourounakis, A.; Rekka, E.; Kourounakis, P.; Gaitanaki, C.; Papazafiri, P. "Synthesis of Chroman Analogues of Lipoic Acid and Evaluation of their Activity against Reperfusion Arrhythmias." Bioorg. Med. Chem. **2004**, *12*, 4835.

29. Papazafiri, P; Avlonitis, N.; Angelou, P.; Calogeropoulou, T. ;* Koufaki, M.; Scoulica, E.; Fragiadaki, I. "Structure-activity relationships of antineoplastic ring-substituted ether phospholipid derivatives" Cancer Chemother. Pharmacol. **2005**, *56*, 261-270.

30. Souli, C.; Avlonitis, N.; Calogeropoulou, T. ;* Tsotinis, A.; Maksay, G.; Bíró, T.; Politi, A.; Mavromoustakos, T.; Makriyannis, A.; Reis, H.; Papadopoulos, M. "Novel 17 β -substituted conformationally constrained neurosteroids that modulate GABA_A receptors" J. Med. Chem. **2005**, *48*(16), 5203-14.

31. Detsi, A. ; Roussis, V. Tsotinis, A. ; Roussakis, C.; Calogeropoulou, T.*
 A Concise Approach to Benzoic Acid Derivatives Bearing an α , β -Unsaturated Ketone Substituent: Synthesis of Methyl Tabogonate.
SYNLETT **2005** (20), 3131-3135.

32. Charalampopoulos, I.; Alexaki, V.-I.; Lazaridis, I.; Dermitzaki, E.; Avlonitis, N.; Tsatsanis, C.; Calogeropoulou, T.; Margioris, A. N.; Castanas, E.; Gravanis, A. G protein-associated, specific membrane binding sites mediate the neuroprotective effect of Dehydroepiandrosterone. FASEB J. **2006** (20), 577-579.

33. Tsotinis, A.; Vlachou, M.; Papahatjis, D.P.; Calogeropoulou, T., Nikas, S.P.; Garratt, P.J.; Piccio, V.; Vonhoff, S.; Davidson, K.; The, M.T.; Sugden, D.

"Mapping the melatonin receptor. 7. Subtype selective ligands based on beta-substituted N-acyl-5-methoxytryptamines and beta-substituted N-acyl-5-methoxy-1-methyltryptamines." J. Med. Chem. **2006**, *49*(12), 3509-19.

- 34.** Kapou, A.; Benetis, N.P.; Avlonitis, N.; Calogeropoulou, T.; Koufaki, M.; Scoulica, E.; Nikolaropoulos, S.S.; Mavromoustakos, T. "3D-Quantitative Structure-Activity Relationships of New Synthetic Antileishmanial Ring-Substituted Ether Phospholipids" *Bioorg. Med. Chem.* **2007**, *15*(3), 1252-65.
- 35.** Xilouri, M.; Avlonitis, N.; Calogeropoulou, T.; Papazafiri, P. "Neuroprotective effects of steroid analogues on P19-N neurons." *Neurochem. Int.* **2007**, *50*(4), 660-70.
- 36.** Karanikolopoulos, N.; Pitsikalis, M.; Hadjichristidis, N.; Georgikopoulou, K.; Calogeropoulou, T.; Dunlap, J.R. "pH-Responsive Aggregates from Double Hydrophilic Block Copolymers Carrying Zwitterionic Groups. Encapsulation of Antiparasitic Compounds for the Treatment of Leishmaniasis." *Langmuir* **2007**, *23*(8), 4214-24.
- 37.** Maksay, G.; Fodor, L.; Bíró, T.; Avlonitis, N.; Calogeropoulou, T. "A 17 β derivative of allopregnanolone is a neurosteroid antagonist of a cerebellar subpopulation of GABA_A receptors with nanomolar affinity." *Brit. J. Pharmacol.* **2007**, *151*(7), 1078-86.
- 38.** Calogeropoulou, T.*; Angelou, P.; Detsi, A.; Fragiadaki, I.; Scoulica, E. "Design and synthesis of potent antileishmanial cycloalkylidene-substituted ether phospholipid derivatives" *J. Med. Chem.* **2008**, *51*, 897-908.
- 39.** Wiesbrock, F.; Patteux, C.; Olszewski, T.K.; Blanrue, A.; Heropoulos, G.A.; Steele, B.R.; Micha-Screttas, M.; Calogeropoulou, T.* "Solution-Phase Synthesis and Scale-Up of 1st Generation Tetraester-Dendritic Branches Involving Microwave Irradiation and/or Ultrasound" *Eur. J. Org. Chem.* **2008**, 4344-4349.
- 40.** Koini, E.N.; Papazafiri, P.; Vassilopoulos, A.; Koufaki, M.; Horváth, Z.; Koncz, I.; Virág, L.; Papp, G.J.; Varró, A.; Calogeropoulou, T.* "5,7,8-Trimethylbenzopyran and 5,7,8-Trimethyl-1,4-benzoxazine aminoamide derivatives as novel antiarrhythmics against ischemia-reperfusion injury." *J. Med. Chem.* **2009**, *52*, 2328.
- 41.** Calogeropoulou T.*, Avlonitis N., Minas V., Alexi X., Pantzou A., Charalampopoulos I., Zervou M., Vergou V., Katsanou E. S., Lazaridis I., Alexis M., Gravanis A. "Novel DHEA Derivatives with Anti-Apoptotic Neuroprotective activity." *J. Med. Chem.*, **2009** *52* (21), 6569–6587.
- 42.** Papanastasiou I., Prousis, K.C, Georgikopoulou, K., Pavlidis, T., Scoulica, E., Kolocouris, N., Calogeropoulou, T.* "Design and synthesis of new adamantyl-substituted antileishmanial ether phospholipids" *Bioorg. Med. Chem. Lett.* **2010** *20* (18), 5484-5487.
- 43.** Koini, E. N.; Avlonitis, N.; Calogeropoulou, T.* "Simple and Efficient Method for the Halogenation of Oxygenated Aromatic Compounds" *SYNLETT* **2011** (11), 1537.
- 44.** Filippou, P. S.; Koini, E. N.; Calogeropoulou, T.; Kalliakmani, P.; Panagiotidis, C. A.; D. A. Kyriakidis "Regulation of the Escherichia coli AtoSC two component system by synthetic biologically active 5;7;8-trimethyl-1;4-benzoxazine analogues" *Bioorg. Med. Chem.* **2011**, *19*, 5061-5070
- 45.** Lazaridis, I., Charalampopoulos, I., Alexaki, V.-I., Avlonitis, N., Pediaditakis, I., Efstathopoulos, P., Calogeropoulou, T., Castanas, E., Gravanis A. "Neurosteroid Dehydroepiandrosterone Interacts with Nerve Growth Factor (NGF) Receptors, Preventing Neuronal Apoptosis." *PloS Biology* **2011**, *9*(4): e1001051.
- 46.** Koukouli, F., Paspaltsis, I., Salta, E., Xanthopoulos, K., Koini, E. N., Calogeropoulou, T., Sklaviadis, T. "Inhibition of PrP^{Sc} formation in scrapie infected N2a cells by 5,7,8-trimethyl-3,4-dihydro-2H-1,4-benzoxazine derivatives" *Prion* **2012**, *6*, 470-476.
- 47.** Gravanis, A., Calogeropoulou, T., Panoutsakopoulou, V., Thermos, K., Neophytou, C., Charalampopoulos, I. "Microneurotrophins: Neurosteroids bind to

NGF receptors, inducing pro- survival signaling in neuronal cells," Science Signalling **2012**, *5* (246), art. no. pt8.

48. Koini, E. N., Avlonitis, N., Martins-Duarte, E. S., de Souza, W., Vommaro, R. C., Calogeropoulou, T.* "Divergent synthesis of 2,6-diaryl-substituted 5,7,8-trimethyl-1,4-benzoxazines via microwave-promoted palladium-catalysed Suzuki-Miyaura cross coupling and biological evaluation" Tetrahedron **2012**, *68*, 10302-10309.

49. Godinho, J., Georgikopoulou, K., Calogeropoulou, T., de Souza, W., Rodrigues, J. "A novel phosphocholine dinitroaniline hybrid molecule exhibits biological activity in vitro against *Leishmania amazonensis*." Experimental Parasitology **2013**, *135*, 153-165.

50. Vila, T. V. M., Ishida, K., de Souza, W., Prousis, K., Calogeropoulou, T., Rozental, S. "Effect of alkylphospholipids on *Candida albicans* biofilm formation and maturation" J. Antimicrob. Chemother. **2013**, *68*, 113-125.

51. Prousis, K. C., Tzani, A., Avlonitis, N., Calogeropoulou, T., Detsi, A. "Reactivity of 2-methyl-4H-3,1-benzoxazin-4-ones and 2-methyl-4H-pyrido[2,3-d][1,3]oxazin-4-one under Microwave Irradiation Conditions" J. Het. Chem. **2013**, *50*, 1313-1321.

52. Prousis, K. C., Avlonitis, N., Heropoulos, G.A.; Calogeropoulou, T., "FeCl₃-catalysed ultrasonic-assisted, solvent-free synthesis of 4-substituted coumarins. A useful complement to the Pechmann reaction". Ultrason. Sonochem. **2014**, *21*, 937-942.

53. Dimas, K.; Papadopoulou, N.; Baskakis, C.; Prousis, K.C.; Tsakos M.; Akahtani, S.; Honisch, S.; Lang, F.; Calogeropoulou, T.; Alevizopoulos, K.; Stournaras, C. "Steroidal Cardiac Na⁺/K⁺ (+) ATPase Inhibitors Exhibit Strong Anti-Cancer Potential in vitro and in Prostate and Lung Cancer Xenografts in vivo." Anticancer Agents Med. Chem. **2014**, *14*, 762-770.

54. Honisch, S.; Alkahtani, S.; Kounenidakis, M.; Liu, G.; Alarifi, S.; Al-Yahya, H.; Dimas, K.; Alkahtane, A.A.; Prousis, K.C.; Al-Dahmash, B.; Calogeropoulou, T.; Alevizopoulos, K.; Lang, F.; Stournaras, C. "A Steroidal Na⁺/K⁺ ATPase Inhibitor Triggers Pro-apoptotic Signaling and Induces Apoptosis in Prostate and Lung Tumor Cells" Anticancer Agents Med. Chem. **2014**, *14*, 1161-1168.

55. Alevizopoulos, K.; Calogeropoulou, T.; Lang, F.; Stournaras, C. "Na⁺/K⁺ ATPase Inhibitors in Cancer" Curr. Drug Targets **2014**, *15*, 988-1000.

56. Szalóki, G.; Pantzou, A.; Prousis, K.C.; Mavrofrydi, O.; Papazafiri, P.; Calogeropoulou, T. "Design and synthesis of 21-alkynylaryl pregnenolone derivatives and evaluation of their anticancer activity" Bioorg. Med. Chem. **2014**, *22*, 6980-6988.

57. Ramaswamy, S.; Haj Sleiman, M.; Masuyer, G.; Arbez-Gindre, C.; Michascrettas, M.; Calogeropoulou, T.; Steele, B.; Acharya, K. R. "Structural basis of multivalent galactose-based dendrimer recognition by human galectin-7" FEBS J. **2015**, *282*, 372-387.

58. Sleiman, M.J., Csonka, R., Arbez-Gindrea, C., Heropoulos, G. A., Calogeropoulou, T., Signorelli, M., Schiraldi, A., Steele, B.R., Fessas, D., Michascrettas, M. "Binding and stabilisation effects of glycodendritic compounds with peanut agglutinin" Int. J. Biol. Macromol. **2015**, *80*, 692-701.

59. Alevizopoulos, K., Dimas, K., Papadopoulou, N., Schmidt, E.-M., Tsapara, A., Alkahtani, S., Honisch, S., Prousis, K.C., Alarifi, S., Calogeropoulou, T., Lang, F., Stournaras, C. "Functional characterization and anti-cancer action of the clinical phase II cardiac Na⁺/K⁺ ATPase inhibitor istaroxime: in vitro and in vivo properties and cross talk with the membrane androgen receptor" Oncotarget **2016**, *7*, 24415-24428.

- 60.** Benítez, D., Medeiros, A., Fiestas, L., Panozzo-Zenere, E.A., Maiwald, F., Prousis, K.C., Roussaki, M., Calogeropoulou, T., Detsi, A., Jaeger, T., Šarlauskas, J., Peterlin Mašič, L., Kunick, C., Labadie, G.R., Flohé, L., Comini, M.A. "Identification of Novel Chemical Scaffolds Inhibiting Trypanothione Synthetase from Pathogenic Trypanosomatids" *PLoS Negl Trop Dis* **2016**, 10(4):e0004617.
- 61.** Borba-Santos, L.M., Ishida, K., Calogeropoulou, T., de Souza, W., Rozental, S. "Adamantylidene-substituted alkylphosphocholine TCAN26 is more active against *Sporothrix schenckii* than miltefosine" *Mem. Inst. Oswaldo Cruz* **2016**, 111(8) Rio de Janeiro Aug. 2016 Epub July 11, 2016.
- 62.** Pediaditakis, I., Efstathopoulos, P., Prousis, K.C., Zervou, M., Arevalo, J-C., Karagianni, E., Potamitis, C., Tavernarakis, N., Chavakis, T., Margioris, A.N., Venihaki, M., Calogeropoulou, T., Charalampopoulos, I., Gravanis, A. "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.
- 63.** Iosif Pediaditakis, Kourgiantaki, A., Prousis, K.C., Potamitis, C., Xanthopoulos, K.P., Zervou, M., Calogeropoulou, T., Charalampopoulos, I., Gravanis, A. "BNN27, a 17-spiroepoxy steroid derivative, interacts with and activates p75 neurotrophin receptor, rescuing Cerebellar Granule Neurons from apoptosis." *Front Pharmacol.* **2016**, DOI: 10.3389/fphar.2016.00512.
- 64.** Stagno, M.J., Zacharopoulou, N., Bochem, J., Tsapara, A., Pelzl, L., Al-Maghout, T., Kallergi, G., Alkahtani, S., Alevizopoulos, K., Dimas, K., Calogeropoulou, T., Warmann, S.W., Lang, F., Schmid, E., Stournaras, C. "Istaroxime Inhibits Motility and Down-Regulates Orai1 Expression, SOCE and FAK Phosphorylation in Prostate Cancer Cells" *Cell Physiol Biochem* **2017**, 42, 1366-1376
- 65.** Fragiadaki, I., Katogiritis, A., Calogeropoulou, T., Brückner, H., Scoulica "Synergistic combination of alkylphosphocholines with peptaibols in targeting *Leishmania infantum* in vitro" *Int J Parasitol Drugs Drug Resist* **2018**, doi. 10.1016/j.ijpddr.2018.03.005
- 66.** Sant'Anna V., Railbolt M., Oliveira-Menezes A., Calogeropoulou T., Pinheiro J., de Souza W. "Ultrastructural study of effects of alkylphospholipid analogs against nematodes" *Exp. Parasitol.* **2018**, 187, 49-58.

PATENTS

- 1.** GR-1003103 "1-(2-Alkoxy-5-carboxyphenyl)- α,β -unsaturated ketones. Their preparation and application in therapeutics."
 Inventors: A. Tsotinis, T. Calogeropoulou, C. Roussakis, V. Roussis
- 2.** US 8,097,752 (issued 17-1-2012) "Antiprotozoal ring-substituted phospholipids"
 Inventors: T. Calogeropoulou, M. Koufaki, N. Avlonitis, A. Makriyannis
- 3.** GR20050100100 (2/3/05) «Ultrasound contrast agents containing anticancer ether phospholipids" Inventors: Theodora Calogeropoulou, Maria Koufaki
- 4.** GR 1003725 "Bifunctional agents possessing antioxidant and antiarrhythmic activity" Applicants and Inventors: Maria Koufaki, Theodora Calogeropoulou, Alexandros Makriyannis
- 5.** WO 0204438, US2004259763, CA2415523, EP1301504 , DE60106922T "Bifunctional agents possessing antioxidant and antiarrhythmic activity"
 Applicant: UNI-PHARMA S.A.
 Inventors: Maria Koufaki, Theodora Calogeropoulou, Alexandros Makriyannis
- 6.** GR 1003861 "GABA_A MODULATING NEUROSTEROIDS"
 Inventors: T. Calogeropoulou, C. Souli, A. Tsotinis, A. Makriyannis

- 7.** US2005176976, US7064116, WO02053577, GR-1003861, AU2002217353
GABA_A MODULATING NEUROSTEROIDS
Inventors: T. Calogeropoulou, C. Souli, A. Tsotinis, A. Makriyannis
- 8.** GR20080100530 "1,4-Benzoxazine Derivatives"
Inventors: Calogeropoulou, T.; Koini, E.; Alexis, M.N.; Avlonitis, N.; Alexi, X.
- 9.** WO2008155534, GB20070011948, CA2691071, AU2008265046, US2010234335, KR20100040292, EP2158209, CN101784558, EA201070027
"Neurosteroid compounds"
Inventors: Gravanis A., Calogeropoulou T., Charalampopoulos I., Avlonitis N., Castanas E., Margioris A., Tsatsanis C., Minas V., Alexaki V.-I., Alexis M., Remboutsika E., Vergou B., Neophytou C. Applicant: Bionature EA Ltd, Cyprus
- 10.** US20100369568 "Compounds and methods for treating neoplasia"
Inventors: Alevizopoulos K.; Calogeropoulou T.; Stournaras C.
- 11.** WO2011030116, SG179049, CA2773600 "Use of steroid compounds for inflammatory and autoimmune disorders"
Inventors: : Panoutsakopoulou V.; Angelakopoulou M.; Calogeropoulou T. ; Gravanis A.; Lazaridis I.; Neophytou C.. Applicant: Bionature EA Ltd, Nicosia, Cyprus

Presentations

100 Presentations in International Symposia and 30 Presentations in National Symposia