Zafiroula -Iro Georgoussi

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PERSONAL DATA

Citizenship: Greek.

Family Status: One daughter.

EDUCATION

1979:	University of Patras, Patra, Greece, BSc in Biology.
1980:	Diploma, Queen Elizabeth College, London, UK.
1981-1985:	National Hellenic Research Foundation, Centre of Biological Sciences, Athens, Greece (Supervisor: Dr T. Sotiroudis).
1982-1985:	Physiological Chemistry, University of Ruhr, Bochum, Germany (Supervisor: Prof. L.M.G. Heilmeyer).
1986:	Ph.D, Department of Biology, University of Athens, (Thesis research carried out at the University of Ruhr).

POSTDOCTORAL TRAINING

Mar.'86-Sept.'86:	Post-doctoral Fellow, Ruhr University Bochum, Germany (Supervisor: Prof. L. Heilmeyer).
Oct.'86 - Oct.'89:	Post-doctoral Fellow, Howard Huge Medical Institute, Vanderbilt University School of Medicine, Nashville, Tennessee, USA, (Supervisor: Prof. J.H.Exton).
Oct.'89 - Sept.'94:	Research Associate of the National Centre for Scientific Research "Demokritos", Institute of Biology, Athens, Greece (Supervisor: Prof. C. Zioudrou).
Apr.'92 - Sept.'92:	Research Associate, Molecular Pharmacology Group, University of Glasgow, Scotland (Supervisor: Prof. G. Milligan).
Nov.'94 - Apr.'95:	Research Associate, Cellular Signaling and Molecular Pharmacology Group, University of Glasgow, Scotland (Supervisor: Prof. G. Milligan).

POSITIONS HELD

1995: Research Scientist, National Centre for Scientific Research "Demokritos", Institute of Biology, Athens, Greece.

1999: Principal Research Investigator, Head of Laboratory of Cellular Signaling and Molecular Pharmacology, Institute of Biology, NCSR "Demokritos".

2011: Research Director, Head of Laboratory of Cellular Signaling and Molecular Pharmacology, Institute of Biosciences and Applications, NCSR "Demokritos".

RESEARCH VISITS AND SABBATICALS

- Molecular Pharmacology Group, Division of Biochemistry and Molecular Biology, University of Glasgow, Glasgow Scotland, UK. (Nov1994-Apr.1995), (Prof. G. Milligan).
- Sabbatical, Department of Pharmacology, Vanderbilt University, School of Medicine, Nashville (Mar. - Oct. 2002), (Prof. H. Hamm).
- Department of Pharmacology, Apr.-May 2003 and Aug.-Sept.2014, (Prof. H. Hamm).
- National Institute on Drug Abuse (NIDA) Baltimore, MD, (July-Aug. 2011), (Dr T. Shippenberg).

SCHOLARSHIPS/FELLOWSHIPS

1981-1985 Graduate Scholarship, National Hellenic Research Foundation, Institute of Biological Sciences, Athens, Greece.

1982-1985 Graduate Scholarship, University of Ruhr, Department of Physiological Chemistry, Medical School, Bochum, Germany.

1992 Royal Society Fellowship.

1994-1985 EMBO short Term Fellowship.

AWARDS/DISTINCTIONS

- Lipkowski A.W., Kleczkowska P., Kosson P., Klinowiecka A., **Georgoussi Z.** and Tourwe D., Gold Metal of the International Invention Show (IWIS), on *"Chimeric opioid-neurotensin ligands as new prospective analgesics in chronic pain"* , Warsaw, Poland, (2008).
- Lipkowski A.W., Kleczkowska P., Kosson P., Klinowiecka A. **Georgoussi Z.** and Tourwe D. The IFIA Scientific Gold Metal of the International Federation of Inventors' Association to on "*Chimeric opioid-neurotensin ligands as new prospective analgesics in chronic pain*", Warsaw, Poland (2008).
- Iatrou K., Swevers L. and **Georgoussi Z.** Second Hellenic Inventors' Award of the Industrial Property Organization, Science and Technology Festival (Zappeion Conference and Exhibition Centre) on "*Genetically modified*

lepidopteran cell lines expressing high levels of functional mammalian opioid receptors as Highthroughput screening systems for the identification of opioid receptor agonists and antagonists", Athens, (2008).

- **Georgoussi Z.** Special Distinction from the Polish Government on Scientific goals of *"Normolife"* aiming to alleviate pain. Polish Embassy in Brussels, (2009).

RESEARCH INTERESTS

- Receptor Biology: G protein-coupled receptors
- Modulation of Effectors by GTP-binding and RGS Proteins
- Molecular Mechanisms of Signal Transduction
- Modulation of Transcription Factors and Effectors
- Neurobiology and Mechanisms of Addiction and Pain Perception
- Identification of Novel Pharmacological Targets and Compounds using Functional Genomics and Proteomics

RESEARCH FUNDING

Period	**Funding Agency**	**Type of Grant**	**Topic**	**Coordinator**	**Total Funding (€)**	**Own Funding** (€)
1994-1997	EU	Human Capital and Mobility	European Network on Biological Signal Transduction modulated by G proteins	D. Strosberg	330,000	33,000
1998-2001	GSRT	YPER (with ELPEN Pharmaceutical Company)	Opioid analogs for development of novel analgesics	Z. Georgoussi	73,000	73,000
1998-2002	GSRT	EPETII (with ELPEN Pharmaceutical Company)	Novel opioid receptor analogs and targets to combat pain	Z. Georgoussi	55,759	55,759
1998-2002	GSRT	EPETII	Analysis and in vivo screening of G-protein coupled receptors-Radiotherapy	S. Chiotellis	821,717	67,028
1999-2002	NCSR "D"	DemoErevna	Mapping the sites of interaction of opioid receptors with G proteins	Z. Georgoussi	11,734	11,734
2000-2001	GSRT	EPETII (with VIORYL Company)	High-throughput screening for mimetics and antagonists of insect hormones and other insect physiological regulators in plant extracts	K. Iatrou	154,000	20,000
2003-2005	GSRT	ENTER (with ELPEN Pharmaceutic	Crosstalk between the neurotensin-1 and opioid receptors: Implications in the	Z. Georgoussi	73,340	73,340

		al Company)	development of antipsychotic drugs			
2004-2006	GSRT	Bilateral Polish-Greece	The role of Regulators of G protein Signaling (RGS) in opioid receptor function	Z. Georgoussi	14,906	14,906
2004-2005	GSRT	PRAXE (phase A)	Methods for overexpression and production of recombinant proteins from cloned genes and development of high-throughput screening technologies for new pharmacological effectors in plant extracts	K. Iatrou	40,000	10,000
2007-2010	EU	FP6-Health (STREP)	NORMOLIFE: Development of new therapeutic substances and strategies for treatment of pain in patients with advanced stages of cancer	A. Lipkowski	2,182,325	545,331
2008-2012	EU	FP7-Health	ENAROMaTIC: European Network for Advanced Research on Olfaction for Malaria Transmitting Insect Control	K. Iatrou,	2,500,000	30,000
2011-2013	GSRT	Greek-Hungarian bilateral cooperation	Self-Assembled ZnO Nanostructures for Engineered Neuronal Networks	E. Makarona	12,500	3500
2013-2016	EU	COST-Action	GLISTEN: GPCR Ligand Interactions, Structures and Transmembrane Signaling	P. Kolb	56,000,000	as per need for scientific exchanges
2014-2015	GSRT	Excellence II	Neurite Outgrowth: Alternative G protein coupled Opioid receptor Signaling	Z. Georgoussi	142,400	142,400

PUBLIC AWARENESS/PRESS RELEASES

- Georgoussi Z. (2000), 'Demochronika' 3: page 17.
- Georgoussi Z. (2007), Innovation Research and Technology, National Documentation Center, "Smart Drugs Alleviating Pain" (TRL: 3-4), Issue 58, page 9.
- Georgoussi Z. (2007), Press release, NCSR «Demokritos» Presidents's Webpage «Smart Drugs for Alleviating Pain», 4th February, 2007.

- Georgoussi Z. (2007), «Aggelioforos" Daily Paper 12th May 2007 "Smart Analgesics".
- EU Parliament Magazine 281, Parliament journal focussing on World Cancer Day, "Normolife ", Feb. 2009, page 28. http://europabioreports.euproject.eu/index.php/kb_391/io_758/io.html.
- Georgoussi Z. (2012, 2013), Researchers' Nights 2012 and 2013, "How to combat Pain and Drug Addiction", National Hellenic Research Foundation, Athens.
- Georgoussi Z. (2014, 2015), Researchers' Nights 2014, 2015 "Pain Alleviation and Drug Addiction: Two sides of the same coin", NCSR "Demokritos".

PATENTS/TECHNOLOGY TRANSFER

- Georgoussi, Z. (2004). Patent: "Genetically modified lepidopteran cell lines expressing high levels of functional mammalian opioid receptors as high throughput screening systems for the identification of opioid receptor agonists and antagonists". Greek Patent Office No. 20040100397/30-9-2004 (with K. Iatrou and L. Swevers).
- Georgoussi, Z. (2011). Co-applicant for establishment of a spin-off company (GENEXPA ΕΠΕ) with K. Iatrou and L. Swevers.
- Georgoussi, Z. (2013). 100 Promising Technologies, «Novel strategies to combat pain - "Smart Drugs" for cancer-related pain therapies», page 7, NCSR "Demokritos", April 2013.
- Georgoussi, Z. (2011) Member of the laboratory for the provision of specialized scientific and technological services and products entitled: "Biotechnological Products and Services" (coordinated by K. Iatrou).

PUBLICATIONS IN PEER REVIEWED JOURNALS AND BOOKS

1. **Georgoussi Z**. and Sotiroudis T.G. (1985) Inhibition of sarcoplasmic reticulum Ca^{2+}ATPase by 2-mercaptoethanol. Biochem. Biophys. Res. Commun. 126: 983-989.
2. **Georgoussi Z**., and Heilmeyer L.M.G. (1985) Phosphatidylinositol kinase, a key enzyme of phosphatidylinositol metabolism: its role as an intracellular second messenger system, In: Recent Advances in Biological Membrane Studies (L. Packer ed.), Plenum Press. p. Vol. **91**.
3. Heilmeyer L.M.G., Assy H.M., Behle G., **Georgoussi Z**., Schaffer M. Theilezcek R., and Varsanyi M. (1985) Phosphatidylinositol-4-phosphate in sarcoplasmic reticulum: formation, degradation and possible function. . 2: 215-239.
4. **Georgoussi Z,** Hessova Z, Crabb J.W, Theilezcek R., Varsanyi M. and Heilmeyer (1985) Journal of Muscle Research and Cell Motility. Phosphorylase kinase–a multifunctional Ca^{2+}-Calmodulin regulated-lipid kinase Vol. 6 Issue: 1 Pages: 94-95.

5. **Georgoussi Z**., and Heilmeyer L.M.G. (1986) Evidence that phosphorylase kinase exhibits phosphatidylinositol kinase activity. Biochemistry 25: 3867-3874.
6. **Georgoussi Z**., Evangelopoulos A. and Heilmeyer L.M.G. (1986) Labeling of sarcoplasmic reticulum peptides in relation to phosphatidylinositol-kinase with ^{32}Pand fluorescein 5-isothiocyanate. Biochem. Pharmacol 35: 4571-4573 **.**
7. **Georgoussi Z**., Taylor S.J., Bocckino S.B. and Exton J.H.(1990) Purification of the hepatic vasopressin receptor using a novel affinity column. Biochim. Biophys. Acta, 1055: 69-74**.**
8. **Georgoussi Z**., Taylor S.J., Bocckino S.B. and Exton J.H. (1991) Hepatic vasopressin receptor: a key receptor of phosphoinoinositide metabolism, Biological Signal Transduction, Springer Verlag (K. Wirtz and E. Ross, eds.) Vol. H 52: 73-84.
9. **Georgoussi Z**., and Zioudrou C. (1993) Effect of a specific δ-opioid antagonist on the functional coupling between opioid receptors and G-proteins. Biochem. Pharmacol. 45: 2405-2410.
10. **Georgoussi Z**., Carr G. and Milligan G. (1993) Measurements of in situ interactions or rat brain opioid receptors with the guanine nucleotide binding protein Go. Mol. Pharmacol. 44: 62-69.
11. **Georgoussi Z**., Milligan G. and Zioudrou C. (1994) Immunoprecipitation of opioid receptor-Go-protein complexes. Regulatory Peptides 54: 105-106. **Georgoussi Z**., Milligan G. and Zioudrou C. (1995) Identification of stable opioid receptor-Goα protein complexes using GTP binding selective antisera. In: "Signalling Mechanisms from Transcription Factors to Oxidative Stress". NATO ASI series Springer Verlag (eds. K. Wirtz and L. Packer), H92: 87-98.
12. **Georgoussi Z**., Milligan G. and Zioudrou C. (1995) Immunoprecipitation of opioid receptor-GTP-binding protein complexes using selective GTP-binding protein antisera. Biochem. J. 306: 71-75.
13. **Georgoussi Z**., Mullaney, I., Wise, A., Carr, G., and Milligan G. (1995) Functional interactions of pertussis toxin-sensitive G proteins with the transfected μ- opioid receptor in Rat- 1 fibroblasts. Analgesia, 1: 438-441.
14. Merkouris M., Dragatsis, I., Megaritis, G., Konidakis, G., Zioudrou, C., Milligan G., and **Georgoussi Z**. (1996) Identification of the critical domains of the δ-opioid receptor involved in G protein coupling using site specific synthetic peptides. Mol. Pharmacol. 50: 985-993.
15. **Georgoussi Z**., Hatzilaris E., Wise, A. and Milligan, G. (1997) Interaction of the Rat μ-opioid receptor and a chimeric μ-opioid receptor expressed in COS-7 cells with multiple G proteins. NATO ASI series Springer Verlag (eds L.M.G. Heilmeyer) 102: 227-230.
16. **Georgoussi Z**., Merkouris, M., Mullaney, I., Megaritis, G., Carr, G., Zioudrou, C. and Milligan, G. (1997) Selective interactions of the μ-opioid receptors with pertussis toxin-sensitive G proteins: Involvement of the third intracellular

loop and the C-terminal tail in coupling. Biochem.Biophys. Acta 1359: 263-274.

17. Merkouris M., Mullaney, I., **Georgoussi, Z**., and Milligan, G. Regulation of spontaneous activity of the δ-opioid receptor: Studies of inverse agonism in intact cells (1997) J. Neurochem. 69: 2115-2122 .
18. Megaritis G. Merkouris, M. and **Georgoussi, Z**. (2000) Functional domains of the δ- and μ-opioid receptors responsible for adenylyl cyclase inhibition Receptors and Channels 7**(3)**: 199-212.
19. Morou E., Prombona A., and **Georgoussi Z**. (2001) Expression of the third intracellular loop of the δ- opioid receptor in G protein signaling. NATO ASI series Springer Verlag (eds L.M.G. Heilmeyer) A318: 114-122.
20. Vassilaki T. **Georgoussi Z.** and Thermou K. (2003) Somatostatin receptors (sst2) are coupled to Go and modulate GTPase activity in the rabbit retina. J. Neurochem. 84:625-631.
21. Swevers L., Farrell, P.J., Kravariti, L., Xenou-Kokoletsi, M., Sdralia, K., Lioupis, A., Morou, E., Balatsos, N., Douris, V. **Georgoussi, Z.,** Mazomenos, V., and Iatrou, K. (2003) Transformed insect cells as screening tools for the discovery of new bioactive compounds. Comm. Agr. Appl. Biol. Sci. 68, 333-341.
22. Mazarakou G**.** and **Georgoussi Z.** (2005) STAT5A interacts with and is phosphorylated upon activation of the μ-opioid receptor J. Neurochem.93, 918-931.
23. Swevers L., Morou E., Balatsos N., Iatrou K. and **Georgoussi Z.** (2005) Functional expression of the mouse δ-opioid receptor in insect cells: development of a cell-based high throughput screening system for detection of opioid receptor ligand mimetics. Cell Mol. Life Sciences. 62, 919-930.
24. Morou, E and **Georgoussi Z.** (2005) Expression of the third intracellular loop of the delta opioid receptor inhibits signalling by opioid receptors and other GPCRs. J. Pharmacol. Exp. Ther.315, 1368-1379.
25. **Georgoussi Z.,** Leontiadis,L., Mazarakou G., Merkouris M., Karren H. and Hamm H. (2006) Selective interactions between G protein subunits and RGS4 with the C-terminal domains of the of the μ-and δ-opioid receptors regulate opioid receptor signalling Cellular Signaling 18 (6), 771-782.
26. Douris V. Swevers, L., Labropoulou V., Andronopoulou E, **Georgoussi Z.** and Iatrou K. (2006) Stably transformed insect cell lines: tools for expression of secreted and membrane-anchored proteins and high throughput screening platforms for drug and insecticide discovery. Advances in Virus Research 68: 113-156.
27. **Georgoussi Z.** (2008) In **"**Molecular aspects of G protein-coupled receptors: Interacting proteins and function" on "Novel interactive partners regulating opioid receptor signalling beyond the G protein paradigm" (Invited review) Nova Science publishers (eds F. Ciruela and R. Lujan) Chapter 6, 169-206.

28. **Georgoussi Z.** Leontiadis, L. J. Georganta, E.M., Papakonstantinou, M. Fourla, D-D Sarris, M., Agalou A. (2008) "Chimeric peptides corresponding to intracellular regions of opioid receptors as "baits" for screening novel receptor-interacting partners". 6th Hellenic Forum on Bioactive peptides (ed. P. A. Kordopatis), 83-88.
29. Leontiadis L J., Papakonstandinou M.P. **Georgoussi Z.** (2009) Regulator of G protein signalling 4 confers selectivity to specific G proteins to of the μ-and δ-opioid receptor signalling. Cellular Signaling 21 1218-1228.
30. Pasquinucci L., Prezzavento O., Marrazzo A., Amata E., Ronsisvalle S., Tosco P., **Georgoussi Z**., Fourla D-D, Aricò G. and Ronsisvalle G. (2010) Benzomorphan-based opioid ligands with mixed μ agonist/δ antagonist activity, J. Biorg. Med. Chem. doi:10.1016, 18: 4975-4982.
31. Georganta E-M. Agalou A., **Georgoussi Z.** (2010) Multi-component signaling complexes of the δ-opioid receptor with STAT5B and G proteins. Neuropharmacology 59, 139-148.
32. Tsitoura P. Andronopoulou, E. Tsikou, D. Agalou, A. Papakonstantinou, M-P Kotzia, G.A. Labropoulou, V. Swevers, L. **Georgoussi, Z.** and Iatrou K. (2010) Expression and Membrane Topology of Anopheles gambiae Odorant Receptors in Lepidopteran Insect Cells. PLoS ONE, 5(11): e15428.
33. Vandormael B, Fourla D, Gramowski A, Weiss D, **Georgoussi Z**. and Tourwé D. (2011) Design and Synthesis of Dmt1-[dermorphin] tetrapeptide as μ/δ opioid receptor agonists. J. Med.Chem. 54, 7848-59
34. Pasquinucci L., Parenti, C., Turnaturi, R., Aricò, G., Marrazzo A., Prezzavento O., Ronsisvalle S., **Georgoussi Z.,** Fourla D-D., Scoto G-M., and Ronsisvalle G. (2012) The benzomorphan-based LP1 ligand is a suitable MOR/DOR agonist for chronic pain treatment Life Sciences, 90: 66-70.
35. **Georgoussi Z.,** Georganta, E-M., Milligan, G. (2012). The other side of opioid receptor signalling: Regulation by protein-protein interaction. Curr. Drug Targets, 13, 80-102.
36. Fourla D-D., Papakonstantinou M.P., Vrana, S**. Georgoussi, Z.** Selective interactions of the C-termini of the δ- and μ-opioid receptor signaling. (2012) Cell. Signal. Dec;24(12):2315-28.
37. Kritharidou A., **Georgoussi Z.,** Tsamis C., and Makarona E. (2013) Zinc oxide nanostructures as low-cost templates for neuronal circuit. Proc. SPIE 8765, Bio-MEMS and Medical Micro devices, 87650G doi:10.1117/12.2017620 (EMT103).
38. Georganta E.M. Tsoutsi, L., Gaitanou M. and **Georgoussi Z.** (2013) δ-opioid receptor activation leads to neurite outgrowth and neuronal differentiation via a STAT5B-G*α*i/o pathway. J. Neurochem. doi: 10.1111/jnc.12386. [Epub ahead of print] 127 (3), 329-341.
39. Papakonstantinou M. P., Karoussiotis C., **Georgoussi Z.** (2015) RGS2 and RGS4 proteins: New modulators of the κ-opioid receptor signaling. Cell Signal. 27(1): 104-114.

PROCEEDINGS IN INTERNATIONAL CONFERENCES (2005-today)

1. G. Mazarakou and Z. Georgoussi (2005). STAT5A phosphorylation: A novel regulatory signaling pathway mediated by the mu-opioid receptor. *FEBS Journal*, Vol. 272 (Suppl. 1) p. 309-310.
2. Georgoussi Z, Swevers L., Douris V., Stefanou D, Morou E. Balatsos N. and Iatrou K. (2005) A modular expression system derived from insect and baculovirus regulatory elements as the basis for the development of versatile cell-based HTS platforms for lead discovery for known targets: the insect ecdysteroid and mammalian opioid receptor HTS paradigms. Screening Europe 2005, February 13-15, Geneva, Switzerland.
3. Leontiadis L., Hamm H. and Georgoussi Z. (2006) The C-terminal domain of the mu-opioid receptor is an anchor domain for direct RGS4 protein binding regulating opioid receptor signalling, Keystone Symposia on Heptahelical receptor signalling, Colorado, USA.
4. L.J. Leontiadis, H.E. Hamm and Z. Georgoussi (2006). The carboxyl-terminal tail of the mu opioid receptor - docking site for RGS4 protein binding. *FEBS Journal*, Vol. 273 (Suppl. 1) pp. 101-102.
5. Georgoussi Z. (2007) Novel Signaling pathways mediated by the opioid receptors. 19th Polish Peptide Symposium p. 28. (Invited speaker).
6. L. Leontiadis, M.-P. Papakonstantinou, Z. Georgoussi (2007). Mapping the site of interaction of RGS4 with μ- and δ-opioid receptors. *Proceedings of the 29th scientific conference of the Hellenic Society of Biosciences,* p. 216-217.
7. E-M. Georganta and Z. Georgoussi. (2007) Functional complexes between δ-opioid receptor, Gβγ and STAT5B are implicated in STAT5B phosphorylation. INRC Annual Meeting p 38, International Narcotic Research Conference, 8-13 July, Berlin, Germany.
8. L. J.Leontiadis, M.-P. Papakonstantinou, Z.(2007) Georgoussi. RGS4 interacts directly with μ- and δ-opioid receptors to regulate their signaling. INRC Annual Meeting p 38, International Narcotic Research Conference, 8-13 July, Berlin, Germany.
9. L.J. Leontiadis and Z. Georgoussi (2008). RGS4: A novel interacting protein essential for μ- and δ- opioid receptor signaling. *FEBS Journal*, Vol. 275 (Suppl. 1), p. 338.
10. E-M. Georgαντα, A. Agalou, Z. Georgoussi (2008). STAT5B forms tight complexes with the δ-opioid receptor and Gβγ subunits. *FEBS Journal*, Vol. 275 (Suppl. 1), p. 324.
11. L.J. Leontiadis, M-P. Papakonstantinou, M. Sarris and Z. Georgoussi (2008). RGS4 protein interacts with μ- and δ- opioid receptors to modulate their internalization fate. *"From Cells to Behavior"*, p. 111.

12. E-M. Georganta, A. Agalou and Z. Georgoussi (2008). Stimulation of the δ-opioid receptor triggers novel signaling pathways leading to transcriptional activation. *"From Cells to Behaviour"*, p 41.
13. E-M. Georganta, A. Agalou and Z. Georgoussi. (2008) Interaction of the δ-opioid receptor with STAT5B and Gβγ subunits reveals novel signaling pathways. European Opioid Conference – European Neuropeptide Club Joint Meeting (p 26), 8-11 April, Ferrara, Italy.
14. L. Pasquinucci, R. Turnaturi, C. Parenti, G. Aricò, G. M. Scoto, Z. Georgoussi, D.-D. Fourla and G. Ronsisvalle. (2010) New benzomorphan-based lp1 ligand as suitable mixed mop/dop receptors agonist for chronic pain treatment in: Molecular Targets for novel pain therapeutics, *From Basic Research to Clinical Translation,* 22-24 September, Calabria, Italy.
15. L. Schultz, O. H.-U. Schroeder, K. Jugelt, A. W. Lipkowski, A. Misicka-Kesik, Z. Georgoussi, D. Tourwe, D. G. Weiss, A. Gramwoski. (2010) *New multi-target opioid peptides in drug development of cancer pain.* 40th Annual Meeting, of the Society of Neuroscience 13-17 November , San Diego, CA, USA.
16. M.-P. Papakonstantinou , L.J. Leontiadis, M. Sarris, F. Nikolos and Z. Georgoussi. (2011) RGS2 and RGS4 proteins act as novel modulators of kappa and delta opioid receptors signaling. European Opioid Conference, 13-15 April , Krakow, Poland.
17. E-M. Georganta, and Z. Georgoussi. (2011) δ-opioid receptor-induced neurite outgrowth is mediated by G proteins and the STAT5B transcription factor European Opioid Conference, 13-15 April, Krakow, Poland.
18. Lorella Pasquinucci, Rita Turnaturi, Carmela Parenti, Giuseppina Aricò, Giovanna Maria Scoto, Zafiroula Georgoussi, Danai-Dionysia Fourla and Giuseppe Ronsisvalle (2011) Medicinal chemisty, Catania 28-30 June, Italy
19. Georgoussi Z. (2011) "The other side of opioid receptor signaling: regulation by protein-protein interaction" 23d Biennial Meeting of the ISN-ESN International Society for Neurochemistry, August 28- September 2, 2011 Athens, Greece (invited speaker).
20. Z. Georgoussi, M.-P. Papakostandinou, D.-D. Fourla, S.-M. Vrana, A. Agalou (2012) Spinophilin associates with the C-terminal tail of δ- and μ-opioid receptors to differentially modify their signalling, 8th FENS 2012, 14-18 July, Barcelona.
21. M.P. Papakonstandinou, D.D. Fourla, S.M. Vrana, L.J. Leontiadis & Z. Georgoussi. (2012) Chimeric peptides corresponding to intracellular regions of opioid receptors as "baits" for screening novel receptor-interacting partners, 32nd European Peptide Symposium, 2nd to 7th September, Athens.
22. Papakonstantinou M., Leontiadis L., Vrana, S.M., Tsoutsi L. and Georgoussi Z. (2012) Regulator of G protein signaling (RGS) proteins-opioid receptor interactions: drug targets modulating opioid receptor signaling. International Conference on Chemistry for Health 9 – 14 September 2012, National Hellenic Research Foundation, Athens (Oral Presentation).

23. E. Makarona, A. Kritharidou, C. Tsamis and Z. Georgoussi (2012) "Zinc Oxide Nanostructured Substrates as Alternative Low-cost Templates for the Development of Cell-based Circuits" Eurosensors XXVI, Krakow, Poland
24. Kritharidou, Z. Georgoussi, C. Tsamis and E. Makarona (2013) "*Zinc Oxide Nanostructures as Low-cost Templates for Neuronal Circuits*" SPIE Microtechnologies 2013 – Bio-MEMS and Medical Microdevices (EMT103), 24-26 April, Innsbruck, Grenoble, France.
25. P. Tsitoura, A. Lioupis, L. Swevers, Z. Georgoussi_and K. Iatrou (2013) *A functional expression platform for neuronal gpcrs and ligand gated channels suitable for high throughput screening discovery of novel bioactive compounds*, World Biotechnology Congress 2013, 3rd- 6th June 2013. Boston, MA, USA.
26. E.-M. Georganta, L. Tsoutsi, M.Gaitanou and Z. Georgoussi (2013) *δ-opioid receptor activation leads to neurite outgrowth and neuronal differentiation via a STAT5B-Gai/o pathway*. European Opioid Conference, 12-13 April, Guilford, Britain.
27. M.P. Papakonstantinou and Z. Georgoussi (2013) *Kappa opioid receptor signalling is differentially regulated by RGS2 and RGS4 proteins* European Opioid Conference, 12-13 April, Guilford, Surrey, UK.
28. Georgoussi (2014), *"Opioid Receptor Signaling Mechanisms: Beyond the G protein Paradigm"* GLISTEN-Meeting, L301, page 11, October 2-4, 2014 Budapest Hungary (invited speaker).
29. Z. Georgoussi (2014), *"New mechanisms of GPCR function: regulation by protein-protein interaction"* The 12th International symposium on "Molecular basis of Pathology and Therapy in Neurological Disorders, Nov. 20-21, Warsaw, Poland (invited speaker).
30. A. Kritharidou, T. Kyrasta, Z. Georgoussi, C. Tsamis and E. Makarona (2014)"*ZnO-nanostructure Modified Templates for Cell-based Optical Sensors"*, EUROPOT(R)ODE 2014, XII Conference on Optical Chemical Sensors and Biosensors, April 14-17, Athens, Greece (poster).
31. B. Peter, A. Kritharidou, Z. Georgoussi, J. Volk, C. Tsamis, R. Horvath and E. Makarona, (2014) *"ZnO-based Hierarchical Templates for Cellular Cultures*" Annual Conference of the Hungarian Society for Microscopy 2014, May Lake Balaton, Hungary (oral presentation).
32. A. Kritharidou, B. Peter, T. Kyrasta, R. Horvath, C. Tsamis, Z. Georgoussi and E. Makarona, *"Cost-efficient Templates of ZnO-based Nanostructures for Cellular Networks"* 40th International Conference on Micro- and Nano-Engineering, MNE2014, September 22-26, 2014, Lausanne, Switzerland.
33. M.P. Papakostantinou and Z. Georgoussi (2014) «*RGS4 and RGS2 proteins: new modulators of opioid receptor signalling*», 45th Meeting of the International Narcotic Research Conference, 13-18 July 2014 , Montreal, Quebec, Canada.
34. Z. Georgoussi, (2014) GPCR Lipid/Protein Interactions, in «*Opioid receptor signaling mechanisms: beyond the G protein paradigm*», Biological and Chemical Research Center, Warsaw, Hungary, October, (invited speaker).

35. Z. Georgoussi, (2014) 12th International Symposium on the Molecular basis of Pathology and Therapy in Neurological Disorders in "*New mechanisms of GPCR function: regulation by protein-preotein interaction*", Warsaw, Hungary.
36. Georgoussi Z (2015). European Society for Neurochemistry, Symposium 3: "Molecular Mechanisms of Regulation in the Nervous System": Biochemistry of GPCR system in CNS". Title talk "*The other side of opioid receptor signaling: regulation by protein-protein interactions*", June, Tartu, Estonia.
37. P. Pallaki, E. Papadimitriou, D. Thomaidou, Z. Georgoussi (2015) "*Regulator of G protein signaling 4, a key protein of neural stem cell differentiation and proliferation*" FENS Featured Regional Meeting, Thessaloniki, Greece.
38. S. Koutloglou & Z. Georgoussi (2015) "*δ-Opioid receptor activation regulates spinophilin function*", FENS Featured Regional Meeting, Thessaloniki, Greece.
39. P. Pallaki, E.M. Georganta, I. Serafimidis, A. Agalou, M.P. Papakonstantinou, A. Symeonof, A. Tserga, V. Papanikolaou, S. Koutloglou, M. Gaitanou and Z. Georgoussi. (2016) A novel regulatory role of RGS4 in neuronal outgrowth and differentiation mediated by opioids, Symposium on "Cutting Edge Consepts in Molecular Pharmacology", Berlin 3-5, Germany.