CURRICULUM VITAE

George Liapakis

PERSONAL DATA:

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ACADEMIC TRAINING:

1986	Diploma Aristotelion University of Thessaloniki School of Pharmacy Thessaloniki, Greece
1989-1994	Ph.D. Laboratory of Pharmacology Department of Basic Sciences School of Medicine University of Crete Voutes, Heraklion 71003 Crete, Greece

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TRAINEESHIP:

1994-1997	Postdoctoral Research Fellow University of Pennsylvania School of Medicine Laboratory of Pharmacology Philadelphia

1997- 1998	Postdoctoral Research Fellow Center for Molecular Recognition Columbia University New York

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ACADEMIC APPOINTMENTS:

1998- 2000	Associate Research Scientist Center for Molecular Recognition Columbia University New York, USA
2000 -2004	Assistant Professor Laboratory of Pharmacology Department of Basic Sciences School of Medicine University of Crete Voutes, Heraklion 71003 Crete, Greece
2004 -2013	Permanent Assistant Professor Laboratory of Pharmacology Department of Basic Sciences School of Medicine University of Crete Voutes, Heraklion 71003 Crete, Greece
2013 -2019	Associate Professor Laboratory of Pharmacology Department of Basic Sciences School of Medicine University of Crete Voutes, Heraklion 71003 Crete, Greece
2019 -present	Professor Laboratory of Pharmacology Department of Basic Sciences School of Medicine University of Crete Voutes, Heraklion 71003 Crete, Greece
2000	Visiting Professor Center for Molecular Recognition Columbia University New York, USA
2001	Visiting Professor Center for Molecular Recognition

Columbia University
New York, USA

2012-2013 Adjunct Professor
Dept. of Physiology and Biophysics
Virginia Commonwealth University
Richmond, VA, USA

HONORS

1993 Hellenic Society for Neurosciences travel award to participate in the 13th European Winter Conference on Brain Research (France).

2004 Hellenic Society of Pharmacology first award for the research study entitled "CRF_1 structural domains critical for Gs-protein activation: evidence for distinct receptor active conformations associated with CRH and urocortin binding."

2011 First Award. Hellenic Society for Neurosciences travel award to my PhD student Dr. Gkountelias to participate in the 23rd International Society of Neurochemistry, Athens, Greece, in 2011.

2017 First Award. 1st PanHellenic meeting of "Biology- Medicine Systems and Stress" first award for the research study entitled Elucidation of the mode of interaction of non-peptide CRF antagonists with the CRF_1 receptor, aiming to develop novel CRF antagonists with antidepressant and anxiolytic properties.

2017 Travel award to my PhD student S. Sakellaris to participate in 68th Congress of the Hellenic Society of Biochemistry and Molecular Biology, Athens, 10-12 November 2017.

2023 First Award. 50th Panhellenic Congress of Endocrinology, Metabolism & Diabetes Mellitus, award A. Farmakioti, for the research study entitled "Development of new GnRH analogs linked to mitoxantrone which have cytotoxic activity", May 04 - 06, 2023, Thessaloniki, Central Macedonia, Greece

2023 First Award. 21st National Congress of the Greek Society of Clinical Chemistry award for the research study entitled "Novel, GnRH analogs, con3 and con7 exercise antineoplastic activity in endometrial cancer cells.", October 12-14, 2023, Athens, Greece

FELLOWSHIPS-GRANTS

1. Hellenic Society for the Neuroscience travel fellowship for participation in the13th European Winter Conference On Brain Research (France), 1993.
2. ERASMUS fellowship, 1994

3. Research Program Grant, Peptor Ltd, Israel 2000, Pharmacological studies on somatostatin receptors, 10000$ (PI)
4. Research Program Grant, Peptor Ltd, Israel, 2001-2002, Pharmacological studies on somatostatin receptors.25000$ (PI)
5. NARSAD Young Investigation award, USA, 2004-2006, Elucidation of the Structure and Function of Corticotropin Releasing Factor Receptor type 1 60000$ (PI)
6. Ministry of Health, 2006-2008, Elucidation of the Structure and Function of Corticotropin Releasing Factor Receptor type 1, in order to put the bases for the design of analogs specific for the diagnosis and treatment of tumors expressing this receptor. 15000 € (PI)
7. PENED/GGET, 2006-2009, Determination of the role of amino acids in the second extracellular loop and the fifth membrane-spanning domain of the Corticotropin Releasing Factor Receptor type 1 in receptor function. 60000 € (PI)
8. EPHAR 2010 lecture grant to support the 6th National Conference in Pharmacology, Heraklion Crete, Greece.1000 €
9. ELKE grant, 2010-2012. Determination of CRF_1/peptide interactions: Advancing the design of new CRF_1-selelctive anxiolytic and antidepressant drugs. 15000 € (PI)
10. COOPERATION-2009, 2011-2015 (Code:09ΣΥΝ-21-60). Evaluation of Immunodominant Myelin Peptides/Mimetics Conjugated with Mannan towards Clinical Phase I-II Studies: A Potential Therapeutic Vaccine Drug in the Treatment of Multiple Sclerosis (MS) 3000000 € (Co-PI)
11. Irakleitos II, 2010-2013. Inflammation-induced analgesia: Role of stress neuropeptides. 45000 € (Co-PI)
12. ELKE grant, 2015-2017. Molecular mechanisms of the activation of CRF receptors and its antagonism by anxiolytic-antidepressant CRF analogues. 10000 € (PI)
13. ELKE grant, 2017-2018. Elucidation of the structural determinants of ligand selectivity between CRF1 and CRF2 receptors. 15000 € (PI)
14. Regional Development Fund, Region of Crete, 2019-2020. Determination of the role of the second extracellular loop and the upper parts of the transmembrane domains of the type 1 receptor for CRF on its function 7000 € (PI).
15. ELKE grant, 2020-2022. Structural-functional analysis of CRF1 receptor and development of novel CRF antagonists. 10000 € (PI)
16. Operational Programme Competitiveness, Entrepreneurship and Innovation (EPAnEK). (Code: Τ2ΕΔΚ-02056) Development of targeted hormone-dependent cancer therapy (2020-2024). 906.510,69 € (Co-PI)

REVIEWER/EDITOR

Heraklitos grant reviewer, Greece
Welcome Trust grant reviewer, UK

Reviewer-Editor in journals:
Associate Editor, Frontiers in Endocrinology, Molecular and Structural Endocrinology

Biochemistry (USA)
Analytical Biochemistry (USA)
Analytical Biochemistry: Methods in the Biological Sciences (Elsevier)
Medicinal Chemistry (Bentham Science)
Molecular Pharmacology
Cell Signaling
British J Pharmacology
Current Molecular Pharmacology

Cellular Physiology and Biochemistry
Studies in Natural Products Chemistry
Letters in Drug Design & Discovery
Arabian Journal of Chemistry
Nature Chemical Biology
Pharmacological Research
Frontiers in Digital Health

EDITORIALS

1. Guest Editor of the thematic issue entitled “Corticotropin Releasing Factor (CRF) and its Receptors: From Structure to Function in Health and Disease” in the “Current Molecular Pharmacology” (Bentham Science Publishers) Volume 10, Number 4 (2017)

2. Guest Editor of the thematic issue entitled “Corticotropin Releasing Factor (CRF) and its Receptors: From Structure to Function in Health and Disease” in the “Current Molecular Pharmacology” (Bentham Science Publishers) Volume 11, Number 1 (2018)

PUBLICATIONS SITED IN PUB MED

https://pubmed.ncbi.nlm.nih.gov/?term=liapakis+g.

The analogue PTR-3173 of the publication with DOI: 10.1210/endo.142.1.7880 is now named DG3173 or Somatoprim (Plockinger et al. Eur. J. Endocrinol. (2012) 166 223–234) and showed positive results on hormone secretion in clinical trials

The study of the publication with DOI: 10.1124/mol.65.5.1181 has been selected for special mention by the Nobel laureate Dr. B. Kobilka in his publication “Kobilka B. (2004) Agonist binding: a multistep process. Mol Pharmacol., 65(5):1060-2”.

PUBLICATIONS NON-SITED IN PUB MED

1. Gelain A., Rizzi L., Legnani L., Pacini A., Spyridaki K., Karageorgos V., Liapakis G. and Villa S. (2015). Novel peptidomimetics related to gonadotropin-releasing hormone (GnRH). Med. Chem. Commun., 6**:** 1656-65.

2. Kellici T.F., Ntountaniotis D., Liapakis G., Tzakos A.G., Mavromoustakos T. (2019). The dynamic properties of angiotensin II type 1 receptor inverse agonists in solution and in the receptor site. Arabian Journal of Chemistry, 12: 5062-5078

OTHER PUBLICATIONS SITED IN THE WEB OF SCIENCE

THOMSON REUTERS™ Google Scholar

1. Liapakis G., and Thermos K. (1993). Solubilization and biochemical-characterization of somatostatin receptors from rabbit retina. Neuropsychopharmacology, 9 (2): Suppl. S: S142.

2. Liapakis G., Shi L., Xu R., Guarnieri F., Ballesteros J.A., Javitch J.A. (2001). Mutations of $Cys285^{6.47}$ of the beta2 adrenergic receptor modulate the PRO-KINK in TM6 and produce constitutive activity. REVIEW OF CLINICAL PHARMACOLOGY AND PHARMACOKINETICS-INTERNATIONAL EDITION. 16 (1): 85

3. Mavros V., Chen J., Lazarou S., Liapakis G., Grammatopoulos D.K. (2004). CRH-R1alpha structural domains critical for Gs-protein activation: Evidence for distinct receptor active conformations associated with CRH and urocortin binding. REVIEW OF CLINICAL PHARMACOLOGY AND PHARMACOKINETICS-INTERNATIONAL EDITION. 18 (1) :142-143

4. Manessi-Zoupa E.M.Z., Exarchakou R., Magafa V., Assimomytis N., Liapakis G., Venihaki M., Varvounis G., Cordopatis P. (2010). Synthesis and Biological Evaluation of New Linear and Cyclic Analogues of Neurotensin. J. Pept. Sci., 16 Suppl. 1: 159.

5. Lamari N., Pappa E., Zompra A., Spyranti Z., Diamantopoulou Z., Katsoris P., Liapakis G., Spyroulias G., Cordopatis P. (2010). Synthesis, Antiproliferative Activity Prostate Cancer Cells, Enzymatic Stability and Conformational Studies of new Gnrh analogues. J. Pept. Sci., 16 Suppl. 1: 157.

6. Rassouli O., Liapakis G., Lazaridis I., Sakellaris G., Gkountelias K., Gravanis A., Margioris A.N., Karalis K.P., Venihaki M. (2011). A novel role of endogenous Corticotropin-releasing hormone (Crh) on cutaneous wound healing. Eur. J. Clin. Invest., 41, Suppl 1: 77.

7. Agelis G. , Resvani A., Durdagi S., Tumova T., Slaninov J., Giannopoulos P., Spyridaki K., Liapakis G.,Vlahakos D., Mavromoustakos T., Matsoukas J. (2012). A Concise Synthesis, Docking Studies and Biological Evaluation of N-substituted 5-Butylimidazole Analogues as Potent Angiotensin II Receptor Blockers. J. Pept. Sci., 18 Suppl. 1: S116

8. Agelis G. , Resvani A., Koukoulitsa C., Afantitis A., Melagraki G., Siafaka A., Gkini E., Tumova T., Spyridaki K., Kalavrizioti D., Androutsou M-E., Slaninova J., Liapakis G., Vlahakos D., Mavromoustakos T. Matsoukas J. (2012). Rational Design, Efficient Synthesis, Biological Evaluation of New N,N '-bis-substituted Butylimidazole Analogs as Potent Angiotensin Receptor Blockers. J. Pept. Sci., 18 Suppl. 1: S123

9. Katsila T., Balafas E., Liapakis G., Limonta P., Marelli M. M., Gkountelias K., Tselios T., Kostomitsopoulos N., Matsoukas J., Tamvakopoulos C. (2012). A stable gonadotropin releasing hormone analogue for the treatment of endocrine disorders and prostate cancer. J. Pept. Sci., 18 Suppl. 1:S135-S136.

10. Laimou D., Katsila T., Matsoukas J., Schally A., Gkountelias K., Liapakis G., Tamvakopoulos C., Tselios T. (2012). Enhanced stability and biological properties of

rationally designed cyclic analogues of Luteinizing Hormone - Releasing Hormone. J. Pept. Sci., 18 Suppl. 1: S140.

11. Spyridaki K., Gkountelias K., Tselios T., Magafa V., Exarchakou R., Papadokostaki M., Mavromoustakos T., Liapakis G. (2012). Structure-function analysis of the second extracellular loop of type 1 receptor for the corticotropin releasing factor. J. Pept. Sci., 18 Suppl. 1: S90.

12. Potamitis C., Zoumpoulakis P., Exarchakou R., Mertziani V., Spyridaki A., Liapakis G., Cordopatis P., Magafa V. (2012). Synthesis and Conformational analysis of linear, dimeric and cyclic analogues of the C-terminal hexapeptide of Neurotensin. J. Pept. Sci., 18 Suppl. 1: S91.

13. Resvani A., Nikolis C., Liapakis G., Vlahakos D., Koukoulitsa C., Ntountaniotis D., Mavromoustakos T., Matsoukas J., Agelisa G. (2012). Facile and Efficient Syntheses of Structurally Modified E-urocanic Acid Analogs as Potent Angiotensin II Receptor Blockers. J. Pept. Sci., 18 Suppl. 1: S120.

14. Kuppast B.K., Szymanski P.T., Liapakis G. and; Fahmy, H. (2012). Thiazolo[4,5-d]pyrimidines and 5-(alkylthio)-4-(arylamino)pyrimidine derivatives as corticotropin releasing factor receptor 1 (CRFR1) antagonists . ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, 243 Meeting Abstract: 370-MEDI

15. Kuppast B.K., Szymanski P.T., Liapakis G. and Fahmy, H. (2012). Substitued 5-(alkylthio)-4-(arylamino)pyrimidine derivatives as corticotropin releasing factor receptor 1 (CRFR1) antagonists. ABSTRACTS OF PAPERS OF THE AMERICAN CHEMICAL SOCIETY, 244 Meeting Abstract: 370

16. Mavromoustakos T., Koukoulitsa C., Tzoupis X., Papadopoulos M., Leonis G., Ntountaniotis D., Aggelis G., Tselios T., Matsoukas J., Liapakis G., Vrontaki E., Hadjikakou S.K., Golic Grdadolnik S., Simcic M., Mali G., Glaubitz C., Baldus J., Durdagi S. (2012). Applications of NMR Spectroscopy in the Organic and Medicinal Chemistry. 12th Eurasia Conference on Chemical Sciences. EuAsC2S-12/S5-OP14.

17. Resvani A., Agelis G., Koukoulitsa C., Afantitis A., Melagraki G., Siafaka A., Gkini E., Tumova T., Spyridaki K., Kalavrizioti D., Androutsou M.-E., Slaninova J., Liapakis G., Vlahakos D., Mavromoustakos T., Matsoukas., J. (2012). Rational design, efficient synthesis and biological evaluation of new N,N’ -symmetrically bis-substituted butylimidazole analogs as potent Angiotensin II receptor blockers. Proceedings of the 32nd European Peptide Symposium: 376

18. Mavromoustakos T., Tsoupis C., Koukoulitsa A.,Kellici T. Leonis G., Liapakis G. and Logothetis D. (2012). New multi-targeted drugs against multifactorial diseases. Medical News, 50: 48-54

19. Venihaki M, Margioris A., Mavromoustakos T and Liapakis G. (2012). The corticotropin-releasing factor and its receptors Medical News, 46: 40-45

20. Liapakis G., Venihaki M, Margioris A. And Mavromoustakos T (2012). Hypertension. The modern scourge of human health (2012). Medical News, 45: 46-51

21. Hatcher, C.N., Liapakis G. and Logothetis DE (2013). Characterizing the Effect of A(2A)R-D2R Heteromeric Complex Formation on Homomeric A(2A)R and D2R Signaling. BIOPHYS. J., 104 (2), Suppl1: 115A-115A

22. Baki L., Eltit J.M., Fribourg M., Younkin J., Park G., Vysotskaya Z., Sealfon S.C., Liapakis G., Gonzalez-Maeso J. and Logothetis DE (2013). Functional Crosstalk between mGluR2 and 5-HT2A Depends on their Expression Ratios BIOPHYS. J., 104 (2), Suppl1: 116A-116A

23. Heins J.R., Lambrechts E., Bender W.J., Fahmy H., Spyridaki K., Kuppast B., Liapakis G., Mort J.R., Remund K.E., Bradley B. (2013). Prescription drug monitoring programs. SD Med 66: 191-193

24. Dermitzaki E., Liapakis G., Androulidaki A., Tsatsanis C., Margioris A. (2013). Corticotrophin releasing factor affects the immune phenotype of adipocytes via CRF1 and CRF2 receptors. BioScientifica, 32.

25. Liapakis G. (2014). Fighting microbes. Regarding Chemistry, 13: 10-14

MONOGRAPHIES

1. Liapakis G. Detection of the somatostatinergic receptors in the retina: solubilization and biochemical characterization of the receptor (1994). PhD thesis

2. Liapakis G. (2014). Fighting microbes. Regarding Chemistry, 13: 10-14

3. Liapakis G. (2014). Obtaining structural and functional information for GPCRs using the substituted-cysteine accessibility method (SCAM). Curr Pharm Biotechnol., 15(10):980-6.

4. Liapakis G. (2017). Editorial: Corticotropin Releasing Factor (CRF) and its Receptors: From Structure to Function in Health and Disease (Part I). Curr Mol Pharmacol., 10(4):257-258.

5. Liapakis G. (2018). Editorial: Corticotropin Releasing Factor (CRF) and its Receptors: From Structure to Function in Health and Disease (Part II). Curr Mol Pharmacol., 11(1):2-3.

6. Liapakis G. (2023). Development of drugs. Journal of the School of Medicine of the University of Crete, May 2023: 20-25

CHAPTERS AND EDITORIALS

1. Hoeger C.A., Koerber S., Liapakis G., Reisine T. and Rivier J.E.. Betide based strategy for the design of GnRH and receptor selective somatostatin analogs. In Peptides: Chemistry, Structure and Biology. Pravin T.P. Kaumaya and Robert S. Hodges (eds), pp 635-636. Mayflower Scientific Ltd., 1996.

2. Liapakis G. and Reisine T. (1996). Molecular Biology of Peptide Receptors. In Advances in Life Sciences. Birkhauser Verlag, Basel. B. Krisch and R. Mentlein (eds) , pp 121-134.

3. Simpson, M.M., Liapakis G., Javitch, J.A. Probing the Structure of Binding Sites by the Substituted-Cysteine Accessibility Method. In Signal Transduction: A Practical Approach, pp19-33, ed. G. Milligan, Oxford University Press (1999).

4. Singh G. Liapakis G. and Reisine T. Somatostatin receptor subtypes and regulation of GH secretion. In Human Growth Hormone. Research and Clinical Practice, pp 109-117, ed. Roy G. S. and Michael O. T., Humana Press, Inc. (2000).

5. Gkountelias K., and Liapakis G. The mode of binding of the 40-amino acid peptide, sauvagine, to its receptor. 6th Hellenic Forum on Bioactive Peptides, in press. (2009)

6. Gkountelias K., Tselios T., Venihaki M., Papadokostaki M., and Liapakis G. Identification of structural determinants of peptide binding to type 1 corticotropin releasing factor receptor. 6th Hellenic Forum on Bioactive Peptides, in press (2009)

7. Liapakis G and Javitch J. Substituted cysteine accessibility method (SCAM). In G Protein-Coupled Receptors, pp 229-250, ed**.** Poyner, D. R. and Wheatley M., John Wiley & Sons Ltd, (2010)

8. Lamari F.N, Pappa E.V., Spyranti Z., Zompra A.A., Diamantopoulou Z., Katsoris P., Liapakis G., Spyroulias G.A., and Cordopatis P. Synthesis, Antiproliferative Activity on Prostate Cancer Cells, Enzymatic Stability and Conformational Studies of New GnRH Analogues., In Proceedings of the 31st European Peptide Symposium, European Peptide Society, 2010, pp 436-437, ed. Lebl M., Meldal M., Jensen K.J. and Hoeg-Jensen T.

9. Exarchakou R., Magafa V., Manessi-Zoupa E., Assimomytis N. L., Georgiadou M., Venihaki M., Varvounis G., Liapakis G. and Cordopatis P. Synthesis and Biological Evaluation of new Linear and Cyclic Analogues of Neurotensin, In Proceedings of the 31st European Peptide Symposium, European Peptide Society, pp 446-447, ed. Lebl M., Meldal M., Jensen K.J. and Hoeg-Jensen T. (2010).

10. Guest Editor of the thematic issue entitled “Corticotropin Releasing Factor (CRF) and its Receptors: From Structure to Function in Health and Disease” in the “Current Molecular Pharmacology” (Bentham Science Publishers) Volume 10, Numbers 1 and 2 (2017)

11. Guest Editor of the thematic issue entitled “Corticotropin Releasing Factor (CRF) and its Receptors: From Structure to Function in Health and Disease” in the “Current Molecular Pharmacology” (Bentham Science Publishers) Volume 11, Number 1 (2018)

12. Ntountaniotis D., Kellici T.F., Gkeka P., Cournia Z., Galdadas I., Mali G., Becker-Baldus J., Glaubitz C., Kriechbaum M., Rappolt M., Liapakis G., and Mavromoustakos T. Drug-Membrane Interactions in the Renin Angiotensin System. In Thermodynamics and Biophysics of Biomedical Nanosystems. C. Demetzos and N. Pippa (eds.), Springer Nature Singapore Pte Ltd. (2019).