

**BIOGRAPHICAL SKETCH**

NAME <b>TSATSANIS, Christos</b>	POSITION TITLE <b>Professor</b>
------------------------------------	------------------------------------

**ORCID: 0000-0003-1214-4151****EDUCATION/TRAINING**

INSTITUTION AND LOCATION	DEGREE	YEAR(s)	FIELD OF STUDY
University of Athens Biology Dept., Athens, Greece	BSc	1987-1991	Biology
University of Glasgow, Scotland and U. of Crete, Greece	PhD	1991-1995	Molecular Oncology
Fox Chase Cancer Center, Philadelphia, PA, USA	Post Doc Fellow	1995-1998	Immunology
Thomas Jefferson University, Philadelphia, PA, USA	Post Doc Fellow	1998-1999	Immunology

**PROFESSIONAL DEGREES AND CERTIFICATIONS**

1991 BSc in Biology, University of Athens  
 1995 PhD, University of Crete Medical School  
 2007 – present European Specialist in Laboratory Medicine (Reg No: 2021/07), European Communities Confederation of Clinical Chemistry and Laboratory Medicine Register Commission

**RESEARCH AND PROFESSIONAL EXPERIENCE**

1991-1995 Graduate Student at the University of Glasgow, UK and Medical School, University of Crete, Greece  
 1995-1998 Postdoctoral Associate, Dept. of Medical Oncology, Fox Chase Cancer Center, Philadelphia, PA, USA  
 1998-1999 Postdoctoral Fellow, Dept. of Microbiology and Immunology, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA, USA  
 1999-2000 Military Service, Supervisor at the Laboratory of Clinical Biochemistry and Microbiology, Rhodes Military Hospital, Rhodes, Greece  
 2001-present Faculty Member (**2001-2005 Lecturer; 2005-2011 Assistant Professor; 2011-2016 Associate Professor; 2016-present Professor**), Clinical Chemistry Laboratory, Dept. of Laboratory Medicine, Medical School, University of Crete, Heraklion, Crete, Greece  
 3/2001-5/2001 Visiting Scientist, Dept. of Life Sciences, Lawrence Berkeley National Laboratories, University of California, Berkeley, CA, USA  
 3/2002-5/2002 Visiting Scientist, Kimmel Cancer Center, Thomas Jefferson University, Philadelphia, PA, USA  
 1/2004-5/2004 Visiting Scientist, TUFTS-New England Medical Center, Boston, MA, USA  
 7/2008-6/2009 Visiting Assistant Professor, TUFTS-New England Medical Center, Boston, MA, USA  
 2001-2014 Staff member, Clinical Chemistry-Biochemistry Laboratory, University General Hospital of Heraklion, Heraklion, Crete, Greece  
 2014 – present Director, Clinical Chemistry-Biochemistry Laboratory, University General Hospital of Heraklion, Heraklion, Crete, Greece  
 3/2014 -08/2018 Vice Dean, Medical School University of Crete, Heraklion, Greece  
 8/2016- present Visiting Professor, Lund University, Sweden

**ADMINISTRATIVE DUTIES**

2001-2003 Member of the Research Committee, School of Medicine, University of Crete  
 2001-2002 Member of the Senate of the University of Crete as representative of the School of Medicine  
 2003-2014 Member of the Academic Affairs committee, School of Medicine, University of Crete  
 2003-2014 Member of the Undergraduate studies committee, School of Medicine, University of Crete  
 2003-2009 Member of the Laboratory Animal Care committee, School of Medicine, University of Crete  
 2009-2014 Head of the Laboratory Animal Care committee, School of Medicine, University of Crete  
 2014- present Member of the Research Committee of the University of Crete as representative of the Medical School  
 2014-2018 Associate Editor, Journal of Immunology  
 2017-Present Vice President of the Research Committee of the University of Crete

**SUPERVISION OF PhD THESIS**

**Anna Christoforidou, MD (2003-2007)** The role of Tpl2, Pim1 και Gfi1 in hematologic neoplasias. Awarded: 2007. Current Position: Attending, Hematology Dept, University Hospital of Thrace, Alexandroupolis, Greece.  
**Ariadne Androulidaki, BSc, (2003-2007)** The role of neuropeptides of CRF family in inflammation. Current Position: Postdoctoral EMBO Fellow, University of Cologne, Germany  
**Vassiliki Zacharioudaki, BSc, MSc (2005-2009)** Adiponectin as a modulator of inflammatory responses Awarded: 2009. Current Position: Postdoctoral Fellow, Vrije University, Brussels, Belgium.  
**Christina Doxaki, BSc, MD (2009-2015)** Regulation of miRNA expression during inflammation and their role in endotoxin tolerance.  
**Eleni Vergadi, MD, MSc** Contribution and regulation of M1/M2 macrophages in lung inflammation

**(2010-2015)****Eleftheria Ieronymaki, BSc, MSc (2012-2019)** The role of Insulin in macrophage polarization and metabolism**Konstantina Lyroni BSc, MSc (2012-2018)** The impact of adipokines on inflammatory pathologies**SUPERVISION OF POSTDOCTORAL FELLOWS**

- Ariadne Androulidaki, PhD, 2007-2009** Supported by AICR. Current Position: Postdoctoral EMBO Fellow, University of Cologne, Germany
- Alicia Arranz de Miguel, PhD 2008-2011** Supported by US-DOD and a fellowship from the Spanish secretariat of Research. Current Position: Marie Curie Fellow, Dept of Immunology, University of Zurich, Switzerland.
- Yeny Martinez de la Torre, PhD, 2010-2012** Marie Curie Fellow, supported by FP7 TACIT; Current Position: Postdoctoral Fellow, University of Barcelona, Spain
- Ismini Alexaki 2011** Supported by FP7 TACIT; Current Position: Researcher, Dresden University, Germany
- C. Deligianni, PhD (2012-2014)** Supported by FP7-REGPOT, Current Position: Postdoctoral Fellow, Mt. Sinai Medical School, NY, US
- Eleni Vergadi, MD, PhD (2016-present)** IKY Fellow, University of Crete
- Eleftheria Ieronymaki, PhD (2019-present)** Supported by The Hellenic Secretariat for Research

**RESEARCH FUNDING AS PRINCIPAL INVESTIGATOR**

1. PENED 2001- Hellenic Secretariat of Research and Technology (September 2002-April 2006): Development of a CRHR2 antagonist for studies on regulation of the stress-immune system axis (€ 44,000)
2. Association for International Cancer Research (UK) (April 2003 - March 2006): Immunomodulation by tumor derived neuropeptides (€ 110,000)
3. Hellenic Ministry of Education Grant EPEAEKII-Pythagoras (May 2005 – April 2007). Involvement of CRF peptides in the proliferation and motility of endothelial and breast cancer cells. (€ 60,000)
4. PENED 2005- Hellenic Secretariat of Research and Technology (January 2006-December 2008): The role of CRH in inflammation and angiogenesis (€ 152,000)
5. Association for International Cancer Research (UK) (April 2007 - March 2010): Immunomodulation by tumor derived neuropeptides; the role of CRF (€ 131,000)
6. US-Department of Defense Breast Cancer Research Program, Concept Award (September 2007- September 2008): The impact of stress on tumor growth; the role of peripheral CRF (\$97,000)
7. Novosom AG (Germany) (2007-2011): The role of CD40 in inflammatory diseases (€ 40,000)
8. EU, FP7- IAPP (EU-FP7) (2009-2013): Targeted Amphoteric Carriers for Immune Therapy (TACIT) (€200,000-partner budget)
9. Molecular Diagnostics (2009-present): Diagnostic services through the Univ. of Crete Research Account (€15000)
10. Association for International Cancer Research (UK) (June 2011 – May 2014): Immunomodulation against cancer; the role of Akt kinases (€ 150,000)
11. Hellenic Ministry of Education Grant THALIS (Jan2012-Sept 2015). FATVESSEL; (€90,000-partner budget)
12. Hellenic Ministry of Education Grant EXCELLENCE (June 2012 – Sept 2015) IMMUNOMETABOLISM (€178,000)
13. Hellenic Ministry of Education Grant EDBM34-Research Teams (2017-2019) IMMUNAKT (€50500)
14. Hellenic Ministry of Research Grant on Infrastructures (2017-2020) CMBR (€105,000)
15. Hellenic Ministry of Research Grant Ερευνω-Καινοτομω (2018-2021) MedSUSHI (€199,998)
16. Hellenic Ministry of Research Grant Ερευνω-Καινοτομω (2018-2021) iFUNFoods (€124,000)
17. EU H2020 program (2018-2022) AQUABIOPROFIT (€224,000)
18. Hellenic Foundation for Research Innovation (ΕΛΙΑΔΕΚ) (Awarded to the Postdoctoral Fellow Dr. Eleni Vergadi) NeoPhagES (€180,000)

**SELECTED PUBLICATIONS (out of 98, h-index:33)**

1. C. Tsatsanis, C. Patriotis, S.E. Bear and P. N. Tsihchlis. The Tpl-2 protooncogene activates NFAT and induces IL-2 expression in T-cells.1998 *Proc.Natl.Acad.Sci. USA* 95:3827-3832
2. C. D. Dumitru, J.D. Ceci, C. Tsatsanis, D. Kontoyiannis, K. Stamatakis, J-H Lin, C. Patriotis, G. Kollias, N.A. Jenkins, N.G. Copeland and P.N. Tsihchlis. TNF- $\alpha$  induction by LPS is regulated posttranscriptionally via a Tpl-2/ERK-dependent pathway. 2000 *Cell* 103:1071-1083.

3. Tsatsanis C, Vaporidi K, Zacharioudaki V, Androulidaki A, Sykulev Y, Margioris AN, Tsihchlis PN. Tpl2 and ERK transduce anti-proliferative T cell receptor signals and inhibit transformation of chronically-stimulated T cells. 2008 *Proc. Natl. Ac. Sci. USA*, 105:2987-2992
4. Zacharioudaki V, Androulidaki A, Arranz A, Margioris AN and Tsatsanis C. Adiponectin promotes endotoxin tolerance in macrophages by inducing IRAK-M. *J. Immunol.* 2009 182(10):6444-51
5. Androulidaki A, Iliopoulos D, Arranz A, Doxaki C, Schworer S, Zacharioudaki V, Margioris AN, Tsihchlis PN, Tsatsanis C. The kinase Akt1 controls macrophage response to lipopolysaccharide by regulating microRNAs. *Immunity.* 2009 Aug 21;31(2):220-31
6. Arranz A., Doxaki C., Vergadi E., Martinez Y., Vaporidi K., Vanihaki M., Lagoudaki E., Stathopoulos E., Margioris A., Tsihchlis PN and Tsatsanis C. Akt1 and Akt2 differentially contribute to macrophage polarization. *Proc. Natl. Acad. Sci. USA*, 2012 109(24):9517-22
7. Serebrennikova, O.B., Tsatsanis, C., Mao, C., Gounaris, E., Ren, W., Siracusa, L.D., Eliopoulos, A.G., Khazaie, K., and Tsihchlis, P.N. Tpl2 ablation promotes intestinal inflammation and tumorigenesis in Apcmin mice by inhibiting IL-10 secretion and regulatory T-cell generation. *Proc Natl Acad Sci U S A*, 2012, 109, E1082-1091.
8. I. Karakasilioti, I. Kamileri, T. Kosteas, E. Vergadi, A. Rasile-Robinson S.Siakouli, C. Tsatsanis, L. Niedernhofer and G. A. Garinis. DNA damage triggers a chronic auto-inflammatory response leading to fat depletion in NER progeria. *Cell Metab.* 2013, 18(3):403-15
9. E. Vergadi, K Vaporidi, E Theodorakis, C Doxaki, E Lagoudaki, E Ieronymaki, V I. Alexaki, M Helms, E Kondili, B Soennichsen, E N. Stathopoulos, A N. Margioris; D Georgopoulos and C Tsatsanis Akt2 deficiency protects from acute lung injury via alternative macrophage activation and miR-146a induction *J. Immunol.* 2014;192(1):394-406
10. Doxaki C, Kampranis SC, Eliopoulos AG, Spilianakis C and C. Tsatsanis. Coordinated Regulation of miR-155 and miR-146a Genes during Induction of Endotoxin Tolerance in Macrophages. *J Immunol.* 2015 Dec 15;195(12):5750-61
11. Al-Qahtani AA, Lyroni K, Aznaourova M, Tseliou M, Al-Anazi MR, Al-Ahdal MN, Alkahtani S, Sourvinos G, Tsatsanis C. Middle east respiratory syndrome corona virus spike glycoprotein suppresses macrophage responses via DPP4-mediated induction of IRAK-M and PPAR $\gamma$ . *Oncotarget.* 2017 Feb 7;8(6):9053-9066
12. Vergadi E, Ieronymaki E, Lyroni K, Vaporidi K, Tsatsanis C. Akt Signaling Pathway in Macrophage Activation and M1/M2 Polarization. *J Immunol.* 2017 Feb 1;198(3):1006-1014.
13. Lyroni K, Patsalos A, Daskalaki MG, Doxaki C, Soennichsen B, Helms M, Liapis I, Zacharioudaki V, Kampranis SC, Tsatsanis C. Epigenetic and Transcriptional Regulation of IRAK-M Expression in Macrophages. *J Immunol.* 2017 Feb 1;198(3):1297-1307.
14. Daskalaki MG, Tsatsanis C, Kampranis SC. Histone methylation and acetylation in macrophages as a mechanism for regulation of inflammatory responses. *J Cell Physiol.* 2018 Sep;233(9):6495-6507.
15. Silva MC, Davoli-Ferreira M, Medina TS, Sesti-Costa R, Silva GK, Lopes CD, Cardozo LE, Gava FN, Lyroni K, Dias FC, Frade AF, Baron M, Nakaya HI, Figueiredo F, Alves-Filho JC, Cunha FQ, Tsatsanis C, Chevillard C, Cunha-Neto E, Hirsch E, Silva JS, Cunha TM. Canonical PI3K $\gamma$  signaling in myeloid cells restricts Trypanosoma cruzi infection and dampens chagasic myocarditis. *Nat Commun.* 2018 Apr 17;9(1):1513.
16. Bobjer J, Katrinaki M, Dermitzaki E, Margioris AN, Giwercman A, Tsatsanis C. Serum chemerin levels are negatively associated with male fertility and reproductive hormones. *Hum Reprod.* 2018 Oct 10. doi: 10.1093/humrep/dey310.
17. Alexaki VI, Fodelianaki G, Neuwirth A, Mund C, Kourgiantaki A, Ieronimaki E, Lyroni K, Troullinaki M, Fujii C, Kanczkowski W, Ziogas A, Peitzsch M, Grossklaus S, Sönnichsen B, Gravanis A, Bornstein SR, Charalampopoulos I, Tsatsanis C, Chavakis T. DHEA inhibits acute microglia-mediated inflammation through activation of the TrkA-Akt1/2-CREB-Jmjd3 pathway. *Mol Psychiatry.* 2018 Jun;23(6):1410-1420
18. Vergadi E, Vaporidi K, Tsatsanis C. Regulation of Endotoxin Tolerance and Compensatory Anti-inflammatory Response Syndrome by Non-coding RNAs. *Front Immunol.* 2018 Nov 20;9:2705.
19. Daskalaki MG, Vyrla D, Harizani M, Doxaki C, Eliopoulos AG, Roussis V, Ioannou E, Tsatsanis C, Kampranis SC. Neorogioltriol and Related Diterpenes from the Red Alga Laurencia Inhibit Inflammatory Bowel Disease in Mice by Suppressing M1 and Promoting M2-Like Macrophage Responses. *Mar Drugs.* 2019 Feb 2;17(2). pii: E97
20. Ieronymaki E, Theodorakis EM, Lyroni K, Vergadi E, Lagoudaki E, Al-Qahtani A, Aznaourova M, Neofotistou-Themeli E, Eliopoulos AG, Vaporidi K, Tsatsanis C. Insulin Resistance in Macrophages Alters Their Metabolism and Promotes an M2-Like Phenotype. *J Immunol.* 2019 Mar 15; 202(6):1786-1797.
21. Ieronymaki E, Daskalaki MG, Lyroni K, Tsatsanis C. Insulin Signaling and Insulin Resistance Facilitate Trained Immunity in Macrophages Through Metabolic and Epigenetic Changes. *Front Immunol.* 2019 Jun 12;10:1330.