

Curriculum Vitae

Prof. Georgios Tzimagiorgis,
BSc, PhD, MD

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Thessaloniki, Greece

Curriculum Vitae

Name: **Georgios Tzimagiorgis**

Place of Birth: **Elassona Larisa, Greece**

Date of Birth: **6/5/1960**

Nationality: **Greek**

Marital Status: **Married, three kids**

Current position: **Professor of Medical School, Aristotle University**

Address: Laboratory of Biological Chemistry,
Medical School, Aristotle University of Thessaloniki,
541 24 Thessaloniki, Greece
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e-mail: tzimagio@auth.gr

EDUCATION

1980-1985: B. Sc. in Biology, Department of Biology, School of Sciences, Aristotle University of Thessaloniki, Thessaloniki, Greece

Aug. 1986-Jun. 1992: PhD in Molecular Biology, Department of Biology, School of Sciences, University of Crete, Greece

Dec. 2004–Jul. 2012: Medical Doctor Degree, Medical School, Aristotle University of Thessaloniki, Greece

RESEARCH AND PROFESSIONAL EXPERIENCE

Sept. 1986 – June 1992: Graduate student, Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology (ITE)/ Department of Biology, University of Crete, Greece.

July (3-13) 1989: Practical Course: Computer Applications in Molecular Biology, ICGB, Trieste, Italy

May (9-16) 1991: FEBS Advanced Practical Course: Applications of DNA methods for the diagnosis of Human Diseases, Patra, Greece

July 1992-May 1995: Postdoctoral Research Fellow, Max-Planck Institute for Neurobiology, Martinsried, Department of Neurochemistry, F. R. of Germany (Prof. Dr. H. Thoenen).

June 1995-Feb. 1997: Senior Research Scientist, Max-Planck Institute for Neurobiology, Martinsried, Department of Neurochemistry, F. R. of Germany (Prof. Dr. H. Thoenen).

Nov. 1996 - March 1977: Visiting Scientist, Institute Ecole Normale Superieure, Laboratory of Epithelial Differentiation, Paris, France (Dr. Yann Barrandon)

Dec. 1998 - April 2003: Senior Researcher, Laboratory of Biological Chemistry, Department of Biological Sciences and Preventive Medicine, Medical School, Aristotle University of Thessaloniki. Research Programm: Investigation of novel genes involved in lung cancer (Prof. A. Dimitriadou)

2003: Lecturer in Biological Chemistry, Laboratory of Biological Chemistry, Department of Biological Sciences and Preventive Medicine, Medical School, Aristotle University of Thessaloniki (264/8.12.2002, 23-04-2003).

2008: Assistant Professor in Biological Chemistry, Laboratory of Biological Chemistry, Department of Biological Sciences and Preventive Medicine, Medical School, Aristotle University of Thessaloniki (49655/4.6.2008, 03-07-2008).

2013: Assistant Professor in Biological Chemistry (permanent position), Laboratory of Biological Chemistry, Department of Biological Sciences and Preventive Medicine, Medical School, Aristotle University of Thessaloniki (36749/25.7.2012).

2014: Associate Professor in Biological Chemistry (permanent position), Laboratory of Biological Chemistry, Department of Biological Sciences and Preventive Medicine, Medical School, Aristotle University of Thessaloniki (12.05.2014)

2019: Full Professor in Biological Chemistry (permanent position), Laboratory of Biological Chemistry, Department of Biological Sciences and Preventive Medicine, Medical School, Aristotle University of Thessaloniki (1536/27.12.2018)

EDUCATIONAL SEMINARS

1988-1989: A series of postgraduate seminars, entitled "**Introduction to the Operating System VMS**" by Haralambos Savakis, Professor of Molecular and Cellular Biology, Medical Department, University of Crete and Head of the Biocomputational Unit of IMBB.

1990-1991: A series of postgraduate seminars, entitled "**Use of Computer systems in the analysis of molecular biology data**" by Haralambos Savakis, Professor of Molecular and Cellular Biology, Medical Department, University of Crete and Head of the Biocomputational Unit of IMBB.

2003-2004: During the first semester of the academic year 2003-2004, I attended the six-month introductory program ‘**Training of Trainers**’. The program included 58 hours presentations and discussions and 14 hours of work, exercises and self-learning. The program is valued with eight (8) Graduate Credits.

TEACHING EXPERIENCE

I. UNDERGRADUATE COURSES

Jan.-May 1990: Teaching assistant in the course **BIOLOGY II** (Tutorial), Department of Medicine, Division of Basic Science, Faculty of Health Sciences, University of Crete (Course Instructor, Prof. Ch. Savakis)

Jan.-April 1990: Teaching assistant in the course **BIOCHEMISTRY** (3rd semester) (Lab) Department of Biology, Faculty of Sciences, Division of Molecular Genetics, University of Crete (Course Instructor, Prof. E. Stratakis).

Jan. - April 1991: Teaching assistant in the course **HUMAN GENETICS** (5th semester) (Lab), Department of Biology, Faculty of Sciences, Division of Molecular Genetics, University of Crete (Course Instructor, Prof. N. Moschonas)

Jan.-Dec. 1999: Teaching staff, with fixed-term contract, in the undergraduate faculty program "PSE Medicine Biochemistry", Department of Medicine, Faculty of Health Sciences, University of Thessaly. Course instructor (tutor), responsible for the course "**BASIC BIOCHEMISTRY**".

1999-2000: Participation in the teaching of the course **MOLECULAR BIOLOGY (Gene Expression and Protein Synthesis)** in the undergraduate faculty program "PSE Medicine Biochemistry", Department of Medicine, Faculty of Health Sciences, University of Thessaly. This course was a part of the Teaching Module "Gene Expression and Development"

2000-2001: Teaching staff, with fixed-term contract (Presidential Decree 407/1980) in the Department of Biochemistry and Biotechnology, University of Thessaly. Course instructor (tutor), responsible the course "**BIOCHEMISTRY I**".

2001-2002: Teaching staff, with fixed-term contract (Presidential Decree 407/1980) in the Department of Biochemistry and Biotechnology, University of Thessaly. Course instructor (tutor), responsible the course "**BIOCHEMISTRY I**". (**Renewal of the contract**)

2002-2003: Teaching staff, with fixed-term contract (Presidential Decree 407/1980) in the Department of Biochemistry and Biotechnology, University of Thessaly. Course instructor (tutor), responsible the course "**BIOCHEMISTRY I**" and "**BIOCHEMISTRY II**"

2003-present, Faculty member, Medical School, Aristotle University of Thessaloniki, Sector of Biological Sciences and Preventive Medicine, Laboratory of Biological Chemistry. Participation in the teaching and the laboratory exercises of the courses "**Introduction to Biological Chemistry**", "**Biological Chemistry I**"

and "**Biological Chemistry II**" for the students of Medical and Dentistry School, Aristotle University of Thessaloniki.

II. POSTGRADUATE COURSES

2003-2012: Participation in the **Postgraduate Program of the Medical School "MEDICAL RESEARCH METHODOLOGY"** in the following courses:

- a) MOLECULAR BIOLOGY ELEMENTS AND APPLICATIONS IN MEDICINE" (Tutor)
- b) MOLECULAR TECHNOLOGY (Instructor/Coordinator/Tutor)
- c) "HISTOPATHOLOGICAL BASIS OF DISEASES" (Tutor)
- d) "GENE EXPRESSION AND REGULATION" (Instructor/Tutor)
- e) "MOLECULAR BASIS OF CANCER" (Tutor)

2009-2012: Participation in the **Postgraduate Program of the Medical School "MEDICAL RESEARCH METHODOLOGY"** in the following course:

- a) "SPECIAL PHARMACOLOGY" (Tutor)

2012-2021: Participation in the **Postgraduate Program of the Medical School "MEDICAL RESEARCH METHODOLOGY"** in the following courses:

- a) METHODS OF BASIC SCIENCES IN MEDICAL RESEARCH I (Tutor)
- b) METHODS OF BASIC SCIENCES IN MEDICAL RESEARCH II (Coordinator, Tutor)

2008-2012: Participation in the **Postgraduate Program of the Medical School "MEDICAL INFORMATICS "**

- a) "SYSTEMIC PHYSIOLOGY" (Tutor)

2009-present: Participation in the **Graduate Program of the Dentistry School, Aristotle University, in the following course module:**

- a) " STOMATOLOGY" (**Topic: Molecular Biology Techniques**) (Tutor)

2014-2015: Participation in the University Lifelong learning programm for updating knowledge of university alumni for the action entitled "Updating knowledge of university alumni in modern applications in biosciences"

a) Member of the coordinator committee

b) Coordinator/Tutor in the course «MODERN METHODOLOGIES AND TECHNOLOGIES IN MEDICINE AND BIOLOGY» 50 h– 2 ECTS)

1. Principles and applications of nucleic acid analysis: Isolation - Quantification - Electrophoresis - Sequencing (9 h)

2. Gene detection with modern molecular biology methods - PCR analysis-Real Time PCR -MSP – DNA microarrays (9 h)

γ) Tutor in the course "**MULTIFACTORIAL DISEASES - EPIGENETICS - INFECTIOUS AGENTS**" (50 h – 2 ECTS)

1. Differential regulation of gene expression (2 h)

2015-2020: Participation in the postgraduate program «MEDICAL RESEARCH METHODOLOGY»

α) Tutor in the program course "Basic Sciences Methodology (C3):

- 1. Gene expression and epigenetics analysis - RNA expression analysis: Methods and Applications**
- 2. Genetics of ALS-Transgenic mice methodology**

2020-present: Postgraduate program Precision Medicine - Translational Research and Therapeutics (Coordinator, tutor)

LAB BOOKS/LAB NOTES

2003-2021: Contribution in the writing of the laboratory exercises booklet for the courses "**Introduction to Biological Chemistry**", "**Biological Chemistry I**" and "**Biological Chemistry II**", Laboratory of Biological Chemistry, Medical School, Aristotle University of Thessaloniki

PATENTS

1995: D. Maria Berzaghi, Eero Castren, A. Jukka Hartikka, A. Richard Hughes, W. B. Dan Lindholm, Hans Thoenen, **Georgios Tzimagiorgis**.

Methods of promoting the survival and differentiation of subclasses of cholinergic and serotonergic neurons using fibroblast growth factor-5.

Max-Planck-Gesellschaft Zur Foerderung Der Wissenschaft

Number of Publication: WO1995015176 A1.

Date of Publication: 8 June 1995

FELLOWSHIPS

Sept. 1986 – June 1992: Fellowship of Education and Specialization, Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology (ITE)/ Department of Biology, University of Crete, Greece.

July 1992 - May 1993: Postdoctoral Research Fellowship, Max-Planck Institute for Neurobiology, Department of Neurochemistry, F.R. of Germany

June 1993 – May 1995: International Research Fellow, International Human Frontier Science Program Organization, Strasbourg, France. Elucidation of the biological role of FGF-5 in neuronal survival using transgenic mice methodology

AWARDS/HONOURS

Nov. 1996 - March 1977. Visiting Scientist, Institute Ecole Normale Superieure, Laboratory of Epithelial Differentiation, Paris, France (Dr. Yann Barrandon) (Participant in Neuronal Migration Network)

2002. Award for the best laboratory work at 6th Panhellenic Conference of Cytology, Thessaloniki, Thessaloniki 21-24 November 2002.

Hypermethylation of *p16* promoter in bronchial washings and lung carcinomas. E. Georgiou, R. Valeri, **G. Tzimagiorgis**, N. Barbetakis, J. Anzel, Ch. Tsilikas, Ch. Destouni, A. Dimitriadou and S. Kouidou.

2006. Award for the best laboratory work at 7th Panhellenic Conference of Cytology, Volos 21-24 December 2006.

Detection of methylation in the promoter region of *p16* gene in sputum from smokers disease-free

Georgiou, R. Valeri, J. Anzel, **G. Tzimagiorgis**, Ch. Destouni, A. and S. Kouidou.

2008. Mpodosakis Award. 33rd FEBS Congress and 11th IUBMB Conference, Athens, Megaron - The Athens Concert Hall Conferences, 28 June-3 July 2008.

Frequent presence of incomplete, but not full length HPV-16 E7 ORFs in lung carcinomas: memories of viral infection.

D. Krikelis, **G. Tzimagiorgis**, E. Georgiou, C. Destouni, T. Agorastos, C. Haitoglou and S. Kouidou.

2009. Honorary Distinction for Poster Presentation at 29th Panhellenic Dental Conference, Ioannina, Greece, 13-15 November 2009

Detection and typing of HPV in cancerous, dysplastic, non-dysplastic and normal oral mucosa with polymerase chain reaction method (PCR).

E. Mplioumi, D. Chatzidimitriou, Th. Katopodi, C. Pazartzi, **G. Tzimagiorgis**, Z. Scouras, E. Diza- Mataftsi and D. Antoniadis

2011. Award for the best laboratory work at 6th Scientific Conference of Medical School, Aristotle University of Thessaloniki, Thessaloniki, 7-9 April 2011

Correlation of fl/d3 polymorphism of growth hormone receptor with the first and second year response to recombinant human growth hormone therapy in prepubertal Greek children with idiopathic isolated Growth Hormone Deficiency (IGHD).

G. Vassiliou, I. Rousso, G. Katzos, N. Vavatsi-Christaki and **G. Tzimagiorgis** (2011).

01/04/2018. CHOREMIO PRIZE. Young Researcher Award to **G. Tzimagiorgis**:

Increased levels of osteoprotegerin as a harbinger of atherosclerotic risk in adolescents with obesity and insulin resistance. 48th Symposium of Pediatrics (Society of Northern Greece) 31 / 03-01 / 04/2018, Thessaloniki Concert Hall

27/05/2018. CHOREMIO PRIZE. Awarded to I. Kyrgios, A. Frangou, E. Kotanidou, K.

Mouzaki, S. Ephraimidou, **G. Tzimagiorgis** and A. Galli-Tsinopoulou. For their participation in the work on: FIRST RECORDING OF REDUCED METHYLATION OF THE GENE A-SUBUNIT OF THE INTERLEUKINE RECEPTOR (IL2RA) PROMOTER IN CHILDREN

07/03/2020. Award for the best scientific work of postgraduate students. Awarded to: I.

Tsomidis, E. Diamantopoulos, M. Papaioannou and **G. Tzimagiorgis** for the scientific work entitled: DABRAFENIB, THE INHIBITOR OF BRAF V600E MUTATION DOES NOT INHIBITS THE METHYLATION PHENOTYPE IN THE RKO CELL LINE. 9th SCIENTIFIC CONFERENCE OF THE MEDICAL SCHOOL, KEDEA AUTH, THESSALONIKI, 05/03/2020

RESEARCH GRANTS

1. **Senior research scientist in research grants in the Laboratory of Molecular Biology and Genetics, Institute of Molecular Biology and Biotechnology (IMBB), Foundation of Research and Technology (ITE), Herakleion, Crete, Greece**

a. Glutamate Dehydrogenase in neurological disorders, NIH RO1 project NS-16871 (1990-1995) (180.000\$). (National Institute of Health, NIH, USA) (**Senior research scientist**)

β. **Improvement of the genetic map of human chromosome 10, EUROGEM, ECDXII Grant GENO-CT91-001 (1991-1993) 85.000 ECU. (European Community) (Senior research scientist)**

γ. Structural and Functional Characterization of the expression of mouse Glutamate dehydrogenase genes (1989-1992) 3.000.000 DR. (Research Committee, University of Crete) (**Senior graduate scientist**)

2. **Research Grant: Elucidation of the biological role of FGF-5 in neuronal survival using transgenic mice methodology (1993-1995) 30.000 ECU. (International Human Frontier Science Program Organization, Strasbourg, France) (Research Fellow)**

3. General Secretariat for Research and Development (GSRT). Integration of PhD Researchers from Abroad in Greece's R&T System - "ENTER" Programme": **Identification of novel genes differentially regulated in lung carcinomas as potential new cancer markers. (1999-2001) 97EA-124, 32000000 δρχ) (Principal investigator)**

4. General Secretariat for Research and Development (GSRT), Ministry of Development. Reinforcement Programme of Human Research Manpower - "PENED" 99. **Telomerase activity in oral cavity squamous cell carcinomas; Development of methods and experimental models to study inhibitors of carcinogenesis (2000/2001) PENED99-588, Principal Investigator Prof. S. Kouidou (Principal Research Scientist)**

5. General Secretariat for Research and Development (GSRT), Ministry of Development. PYTHAGORAS I-Funding of research groups in the University **"Molecular analysis of certain genetic and epigenetic markers in non-small cell lung carcinomas and elucidation of their importance in early lung cancer prognosis in sputum from smoking cessation clinics" (2004-2006) 50.000€ (Principal investigator)**

6. General Secretariat of Research and Development (GSRT), Ministry of Development. PYTHAGORAS II-Funding of research groups in the University. **"Elucidation of neuronal survival mechanisms in different pathological conditions (trauma, axonal section and ischemia-hypoxia in cell culture and rats" (2005-2006) 90.000€ (Principal investigator)**

7. General Secretariat of Research and Development (GSRT), Ministry of Development, for the National Action "Innovation Coupons for MME" for the project '**Analysis of DNA methylation in cancer diagnostics**' (2012, 8000€) (**Principal investigator**)

8. Research Committee, Aristotle University of Thessaloniki, for the Programm 'Structuring Research in Aristotle University of Thessaloniki, 2012 (4000€) (**Principal investigator**)

9. Participation in the University Lifelong learning programm for updating knowledge of university alumni for the action entitled "**Updating knowledge of university alumni in modern applications in Biosciences**", Coordinator: Prof. Minas Yiangou

10. **European Programm HEALS (Health and Environment-wide Associations based on Large population Surveys) Coordinator: Prof. A. Sarigiannis**
<http://www.heals-eu.eu/index.php/portfolio/georgios-tzimagiorgis/>

11. **Funding from the Hellenic Society of Cardiology for the research project «Determination of the miR-146a expression levels in patients with hypertrophic cardiomyopathy».** (2017-2018) 5.000€ (Programm ID: 95659 Prof. G. Tzimagiorgis)

MEMBER OF SCIENTIFIC SOCIETIES

Member of the Hellenic Society of Biochemistry and Molecular Biology (HSBMB).

Member of the Hellenic Society of Biological Sciences (HSBS).

Member of the Hellenic Association of Bioscientists (HSB)

Member of the Hellenic Society of Pharmacology (HSP).

MEMBER OF UNIVERSITY/MEDICAL SCHOOL COMMITTEES

Member of the '**Research Committee**' of Aristotle University of Thessaloniki

Member of the **General Assembly of the VEPI Department** of the Medical School (2003-present)

Member of the "**General Assembly of the Medical School**" as an elected representative of the VEPI Department of the Medical School (2013-2014, 2019-2020)

Member of the "**Doctoral Dissertation Committee**" of the Medical School, AUTH (2012-2019, 2020-2021)

Member of the Reform Committee of the Curriculum of the MPSI "Medical Research Methodology" by decision of the CMS meeting 2 / 9-12-2011.

Member of the "**Qualifying Examination Committee**" of the Medical School, AUTH (2010-present)

Member of the "**Interdepartmental Cooperation Committee**" of the Medical School, AUTH (2012-2014)

Member of the Committee for the '**Research Medical Institute**' (15-12-2006)

Member of the Committee for the '**Institute of Biomedical and Biomolecular Research**' (IBBR)» (17-01-2008, 4-12-2009, 24-11-2010)

MEMBER OF ORGANIZING SCIENTIFIC / CONFERENCE COMMITTEES

Member of the scientific organizing committee of the 65th Panhellenic Conference of the Hellenic Society of Biochemistry and Molecular Biology, Thessaloniki 28-30 / 11/2014

MEMBER OF ADVISORY DOCTORAL, DIPLOMA AND THESIS COMMITTEES

A. Supervisor/Member of Thesis Supervising Committee

E. Karamoschou, Ch. Karageorgopoulos (S), K. Asimakopoulos (S.), D. Tziogas (S), E. Papadopoulou (S), Ch. Apostolidou (S), Chr. Metoikidou (S.), M. Taousani (S)

B. Supervisor / member of dissertations supervising committee

G. Vassiliou, P. Touplikioti, A. Kyventidi, S. Papadopoulos, E. Stamoula, C. Karageorgopoulos, E. Papadopoulou, D. Delios, F. Ziouti, Xanthi Politou (S), Evripides Diamantopoulos (S), E. Liaretidou.

G. Supervisor / member of Doctoral theses supervising committee

G. Vassiliou, E. Michailidou, K. Frangou, M. Karabataki, A. Kyventidi, Christos Karageorgopoulos (S), M. Frangos, K. Mouzaki, I. Kyrgio, K. Dombri, G. Sidiras, P. Nikola , P. Karalazou (S), D. Ntelios (S), A. Lazopoulos (S)

D. Member of the examining doctoral thesis committee

Georgiou Elizabeth, Gavriilides George, Sekerli Helen, Krikelis Dimitrios, Ioannou Andrea, Kazila Polyzou, Blioumi Eleonora, Vassiliou Georgia, Charalambous Elpida, Tzellos Thrasybulus, Tzeveleki Joanna, Touplikioti Panagiota, Spanogiannis Dimitrios, Frangos Marios, Karampataki Maria, Frangou Catherine, Kyventidis Anastasios, Panagiotis Nikolakopoulos, Kalliopi Dombri, Dimitrios Ntelios (S), Maria Argyraki, Paraskevi Karalazou (S), Kyrgios Ioannis, Mouzaki Konstantina, Papatthemeli Despoina.

BOOK EDITOR

2009. Contribution in the greek translation of the English book entitled **iGenetics: A Mendelian Approach**, 1st edition, Pearson Publishers Inc.) «**iGenetics: Μια Μεντελική Προσέγγιση**» (1^η edition) edited by Peter J. Russel (**iGenetics: A Mendelian Approach**, 1st edition, Pearson Publishers Inc.) Ακαδημαϊκές Εκδόσεις Ι. Μπάσδρα και ΣΙΑ Ο.Ε.

2014. Translation editing from the English to the Greek language of the book “**Mark's Basic Medical Biochemistry**” by MICHAEL A. LIEBERMAN and ALLAN MARKS. The greek title is “**Βασική Ιατρική Βιοχημεία του Marks: Μια Κλινική Προσέγγιση**”, Publisher PARISIANOU SA. 4th edition

REVIEWER/EVALUATOR OF PROPOSALS TO HELLENIC AND EUROPEAN ORGANIZATIONS

Ministry of Education and Religions (2005), General Secretariat for Research and Technology (2005), Evaluation of Research Proposals EDBM34 (2017), H2020 Call FET OPEN RIA 2016-2017 call (2017), Hellenic Foundation of Research and Technology Calls -Postdoctoral Researchers -PhD Candidates - Support of Faculty Members and Researchers (2018,2019,2020)

REVIEWER IN SCIENTIFIC JOURNALS

International Journal of Cancer, Brain Research, Journal of Separation Science, Hippokratia J. (Section Editor in Biochemistry and Molecular Biology), PlosOne, Aristotle University Journal, Genome

RESEARCH INTERESTS

Gene expression and regulation
Differential gene expression analysis with -omics methodologies
Genetic (mutations, SNPs) and epigenetic analysis (DNA methylation, miRNA, lncRNA, histone modifications) in cancer (lung cancer, breast cancer, lymphomas) and in various diseases (diabetes, autoimmune diseases etc.)
Elucidation of the biological role of p53 isoforms in cell lines models and solid tumors
Characterization of new genetic and epigenetic markers (early cancer diagnosis, predisposition to disease)
Elucidation of molecular cancer mechanisms using -omics methodologies
Elucidation of molecular cancer pathways using CRISPR-Cas9 technologies

PUBLICATIONS, H-INDEX, CITATIONS

Number of publications in peer review journals: 52
h-index (Google Scholar: 16, Web of Science: 15, Scopus: 14)
Citations (Google Scholar: 1322, Web of Science: 889, Scopus: 864)
IF: 145,001