

CURRICULUM VITAE

Name: Angeliki Magklara

Current positions:

- Professor of Clinical Chemistry, Department of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece.
- Head of the Biochemistry (Clinical Chemistry) Laboratory at the University General Hospital of Ioannina.
- Affiliated Researcher and Group Leader at the Biomedical Research Institute-Foundation for Research and Technology, Hellas.

1. EDUCATION-DEGREES

<i>June 2003:</i>	PhD in Clinical Biochemistry Department of Laboratory Medicine and Pathobiology, Faculty of Medicine, University of Toronto, Toronto, Canada.
<i>October 1997:</i>	Master of Science in Clinical Chemistry-Clinical Biochemistry Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece.
<i>November 1994:</i>	Bachelor of Science in Biology Department of Biology, National and Kapodistrian University of Athens, Athens, Greece.

2. PREVIOUS ACADEMIC POSITIONS HELD

02/2021-06/2025: *Associate Professor of Clinical Chemistry*, Department of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece.

10/2018-04/2019: *Visiting Scholar*, Whitehead Institute for Biomedical Research, Massachusetts Institute of Technology (Laboratory of Dr. R. Weinberg), Cambridge, MA, USA

10/2015- 2/2021: *Assistant Professor of Clinical Chemistry*, Department of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece.

12/2013-10/2015: *Lecturer in Clinical Chemistry*, Department of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece.

09/2012-03/2016: *Associate Researcher* with the Institute of Molecular Biology and Biotechnology, Department of Biomedical Research, Ioannina, Greece.

01/2008- 08/2012: *Associate Research Scientist* at the Anatomy Department, University of California in San Francisco (UCSF), San Francisco, USA.

04/2003- 12/2007: *Post-doctoral visiting fellow*, Laboratory of Receptor Biology and Gene Expression, National Cancer Institute (NCI/NIH) Bethesda, MD, USA.

3. RESEARCH GRANTS

Project Title	Funding source	Period	Role of the PI
Investigation of the Epigenome of Breast Cancer Stem Cells	IKY Scholarships for PhD students.	06.2022-09.2023	Supervisor
Understanding pathways of healthy ageing (in health and disease) through integration of high resolution omics data (pathAGE). (MIS 5047228)	Hellenic Ministry of Development and Investments (ESPA 2014-2020)	2020-2023	Participant
Development of new infrastructure that builds “aptitude” in biomedical research (BIOMED-20) (MIS 5047236)	Hellenic Ministry of Development and Investments (ESPA 2014-2020)	2020-2023	Participant
Investigation of the gene networks regulated by histone demethylase LSD1 in breast CSCs.	ELKE (Research Committee of University of Ioannina)	03/2020-09/2020	Supervisor
Optical analytical platform for large-scale heterogeneous biodata (T2EAK-00407)	Research-Create-Innovate 2 nd round (ESPA 2014-2020)	2020-2023	Participant-Scientific Responsible for the Univ. of Ioannina
Development of probiotic-enriched food products incorporated in prebiotic matrices (MIS 5049149)	Bilateral and Multilateral R&T Greece-China Co-operation (ESPA 2014-2020)	10.2019-09.2022	Participant-Scientific Responsible for FORTH-IMBB

Holistic Approach along the production cycle of Stevia Rebaudiana plant cultivated in Greece, via combined application of innovative methods of Precision Agriculture and bitter aftertaste removal techniques (MIS 5031858)	Research-Create-Innovate 1 st round (ESPA 2014-2020)	08.2018-07.2021	Participant-Scientific Responsible for FORTH-IMBB
Study of epigenetic mechanisms in breast cancer stem cells	SNF (ARCHERS) - FORTH fellowships for PhD candidates	01.2019-12.2019	Supervisor
The role of epigenetic mechanisms of regulation of gene expression in breast cancer heterogeneity - Prospects for targeted therapies (MIS 5004375)	Supporting researchers with an emphasis on young researchers (EDBM34) (ESPA 2014-2020)	11.2018-02.2020	Scientific Responsible
Advanced Research Activities in Biomedical Technology-Epirus (MIS 5002469)	Operational Programme Competitiveness, Entrepreneurship and Innovation 2014-2020	10.2017-09.2020	Participant
Isolation and characterization of breast cancer stem cells	IKY Scholarships for PhD students.	05.2017-12.2018	Supervisor
Study of LSD1 in mammary cancer stem cells	SNF (ARCHERS) - FORTH fellowships for post-doctoral fellows	06.2017-05.2018	Supervisor
Deciphering the role of histone demethylase LSD1 in the epigenetic dynamics of breast Cancer Stem Cells	Fondation Sante Biomedical Research Grants.	03.2017-02.2019	Scientific Responsible
The role of histone demethylase LSD1 in breast cancer	Bodossaki Foundation grants for Biomedical Sciences	2015-2016	Scientific Responsible
The Epigenome of Breast Cancer Stem Cells (PCIG10-GA-2011-303519)	Marie Curie Re-Integration Grants.	2012-2016	Principal Investigator

4. FELLOWSHIPS and AWARDS

- **2018** [Fulbright scholarship](#) for visiting scholars (Whitehead Institute-MIT)
- **2011** The paper "*An epigenetic signature for monoallelic olfactory receptor expression*" – **Magklara A et al.** published in *Cell* (May 2011) was:
 - Selected for the cover of [Cell](#) (13 Μαΐου 2011).
 - Reported in the [Research Highlights](#) in the journal *Nature Reviews Genetics*.
 - Selected as "[must read](#)" in Faculty1000.
- **1999-2001** University of Toronto Open Doctoral Fellowship, Canada
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- **1998** Fellowship from the Greek-Canadian association for graduate studies in Canada

5. RESEARCH WORK- RESEARCH INTERESTS

- Isolation and Characterization of breast cancer stem cells.
- Identification, characterization, and evaluation of epigenetic factors as potential pharmaceutical targets in breast cancer stem cells.
- Study of breast tumor heterogeneity as a mechanism of drug-resistance.
- Development of *in vitro* models to study chemoresistance in breast cancer.
- Evaluation of bioactive natural compounds in breast cancer.
- Liquid biopsies in cancer: Development, evaluation and application of highly sensitive assays for the analysis of circulating tumor DNA.

6. SELECTED PUBLICATIONS (in the last 5 years)

1. Foutadakis S, Kordias D, Vatsellas G and **Magklara A**. Identification of New Chemoresistance-Associated Genes in Triple-Negative Breast Cancer by Single-Cell Transcriptomic Analysis. *Int. J. Mol. Sci.* 2024, 25(13), 6853.
2. Ypsilantis K, Sifnaiou E, Garypidou A, Kordias D, **Magklara A**, Garoufis A. Ruthenium-Cyclopentadienyl-Cycloparaphenylene Complexes: Sizable Multicharged Cations Exhibiting High DNA-Binding Affinity and Remarkable Cytotoxicity. *Molecules*. 2024;29(2):514.
3. Vlataki K, Antonouli S, Kalyvioti C, Lampri E, Kamina S, Mauri D, Harissis HV, **Magklara A**. Circulating Tumor DNA in the Management of Early-Stage Breast Cancer. *Cells*. 2023 Jun 7;12(12):1573.
4. Papadaki S. and **Magklara A**. Regulation of metabolic plasticity in cancer stem cells and implications in cancer therapy. *Cancers (Basel)*. 2022 ;14(23):5912.

5. Kordias D, Kostara CE, Papadaki S, Verigos J, Bairaktari E, **Magklara A**. Omics Analysis of Chemoresistant Triple Negative Breast Cancer Cells Reveals Novel Metabolic Vulnerabilities. *Cells* 2022;11(17):2719. doi: 10.3390/cells11172719.
6. Kastrisiou M, Zarkavelis G, Kougioumtzi A, Sakaloglou P, Kostoulas C, Georgiou I, Batistatou A, Pentheroudakis G, **Magklara A**. Development and Validation of a Targeted 'Liquid' NGS Panel for Treatment Customization in Patients with Metastatic Colorectal Cancer. *Diagnostics (Basel)*. 2021;11(12):2375. doi: 10.3390/diagnostics11122375.
7. Verigos J, Kordias D, Papadaki S, **Magklara A**. Transcriptional Profiling of Tumorspheres Reveals TRPM4 as a Novel Stemness Regulator in Breast Cancer. *Biomedicines*. 2021;9(10):1368. doi: 10.3390/biomedicines9101368.
8. Verigos J, Karakaidos P, Kordias D, Papoudou-Bai A, Evangelou Z, Harissis HV, Klinakis A, **Magklara A**. The Histone Demethylase LSD1/KDM1A Mediates Chemoresistance in Breast Cancer via Regulation of a Stem Cell Program. *Cancers (Basel)*. 2019;11(10).
9. Karakaidos P, Verigos J, **Magklara A**. LSD1/KDM1A, a Gate-Keeper of Cancer Stemness and a Promising Therapeutic Target. *Cancers (Basel)*; 11(12), 2019.
10. Kastrisiou M, Zarkavelis G, Pentheroudakis G, **Magklara A**. Clinical Application of Next-Generation Sequencing as A Liquid Biopsy Technique in Advanced Colorectal Cancer: A Trick or A Treat? *Cancers (Basel)*. 2019 Oct 16;11(10).

7. TEACHING

A. Undergraduate Courses

2014- present: Participation in the teaching of the following courses at the Department of Medicine of the University of Ioannina:

- a) Medical Chemistry (1st semester); **Co-ordinator since 2020.**
- b) Clinical Chemistry (6th semester): **Co-ordinator since 2025.**

B. Postgraduate Courses

2015- present: Participation in the teaching of the course "Classic and emerging biomarkers in chronic diseases " of the Interdepartmental Postgraduate Program "Medical Chemistry" of the Departments of Chemistry, Medicine and Biological Applications and Technology, University of Ioannina. **Co-ordinator since 2021.**

2015- present: Participation in the teaching of the postgraduate course "Molecular Oncology" of the Postgraduate Program " Molecular Cellular Biology and Biotechnology" of the Department of Medicine of the University of Ioannina: 2 lecture hours. Co-ordinator since 2023.

2016-present: Participation in the teaching of the postgraduate course "Clinical Chemistry" of the Master's program "Basic Biomedical Sciences" of the Department of Medicine of the University of Ioannina. **Co-ordinator since 2025.**

8. ORGANIZATION- ADMINISTRATIVE DUTIES

➤ University of Ioannina

- Member of committees-assemblies

- 2022- present: Representative of the Clinical and Basic Functional Sciences Sector at the General Assembly of the Department of Medicine of the University of Ioannina.
- 2022- present: Member of the copying and plagiarism committee of the Department of Medicine of the University of Ioannina.
- 2021- present: Representative of the Department of Medicine in the Special Interdepartmental Committee of the IPPS Medical Chemistry of the University of Ioannina.
- 2021- present: Member of the organizing committee of the ranking exams of the Department of Medicine of the University of Ioannina.
- 2019-2020 and 2021-2022: Member of the three-member Committee for the approval of Doctoral Theses of the Clinical and Basic Functional Sciences Sector of the Department of Medicine of the University of Ioannina.
- 2017- present: Member of the Scientific Committee of the Flow Cytometry Unit of the Laboratory Network of the University of Ioannina.

➤ Biomedical Research Institute - ITE

- 2016- present: Scientific responsible for the cell culture area. Organization of training seminar.
- 2012- present: Organization and guidance of a research team consisting of undergraduate and postgraduate students and postdoctoral researchers.
- 2012-present: Writing, submission and managing research projects.

➤ University General Hospital of Ioannina

- 2022-2023 : Member of the scientific education committee of the Hospital.
- 2017- : Organization and scientific responsible of the Liquid Biopsy Unit in the Biochemical Laboratory.
- 2015-2017: Scientific responsible for performing the apolipoprotein tests.

➤ Editor in scientific journals

- Guest academic editor

- Special issue "Epigenetic Dysregulation in Cancer: from Mechanism to Therapy" of Cancers magazine.
- Special issue "Metabolic Reprogramming of Cancer Stem Cells (CSCs) and the Role of Tumor Microenvironment—Mechanisms and Therapeutic Opportunities" of Cancers magazine.

- Editorial Board Member

- Cancers
- Frontiers in Molecular Biosciences.

➤ **Reviewer/Certifier of Research Programs of National and European Organizations**

- French National Cancer Center
- Estonian Research Council
- Hellenic Research and Technology Foundation (ELIDEK)
- State Scholarship Foundation (IKY)
- General Secretariat of Research and Technology
- European Health and Digital Executive Agency
- European Innovation Council