

CURRICULUM VITAE

Name: Angeliki Magklara

Current positions:

- Assistant Professor of Clinical Chemistry, Department of Medicine, School of Health Sciences, University of Ioannina, Ioannina, Greece.
- Scientific responsible for the Unit of Liquid Biopsies (Biochemistry Laboratory- Section of Molecular Diagnostics) at the University Hospital of Ioannina.
- Affiliated Researcher with the Department of Biomedical Research, Institute of Molecular Biology and Biotechnology-Foundation for Research and Technology, Hellas.
- Visiting Scientist, Whitehead Institute, MIT, Cambridge, USA (till April 2019)

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I. EDUCATION-DEGREES

June 2003:

PhD in Clinical Biochemistry

Department of Laboratory Medicine and Pathobiology, Faculty of Medicine, University of Toronto, Toronto, Canada.

October 1997:

Master of Science in Clinical Chemistry-Clinical Biochemistry

Department of Chemistry, National and Kapodistrian University of Athens, Athens, Greece.

November 1994:

Bachelor of Science in Biology

Department of Biology, National and Kapodistrian University of Athens, Athens, Greece.

II. PREVIOUS POSITIONS HELD

- December 2013-September 2015*: **Lecturer of Clinical Chemistry.**
School of Medicine, University of Ioannina, Ioannina, Greece.
- September 2012- till today* :**Affiliated researcher with IMBB- FORTH (Biomedical Research Dept.)**
- January 2008- August 2012* : **Post-doctoral research associate.**
Department of Anatomy, University of California in San Francisco, San Francisco, CA, USA (Laboratory of Dr. Stavros Lomvardas).
- April 2003- December 2007* : **Post-doctoral fellow.**
Laboratory of Receptor Biology and Gene Expression, NCI/NIH, Bethesda, MD, USA (research advisor: Dr. Catharine L. Smith).
- September 1998-April 2003* : **PhD candidate.**
Department of Laboratory Medicine and Pathobiology, University of Toronto, Toronto, Canada (research advisor: Dr. E. P. Diamandis)

III. OTHER RESEARCH TRAINING

- Five-day training on BEAMing Digital PCR. June 26-30, 2017, Sysmex training center, Barcelona, Spain.
- Three-day workshop organized by the Epigenome project on the use of bioinformatics on the processing of epigenetics data. September 10-12, 2009, Baylor College of Medicine, Houston Texas USA.
- Five-day workshop organized by the Foundation for Advanced Education in Sciences (FAES-NIH) on "Stem Cells" (lectures and lab work). October 15-19, 2007, Bethesda, MD, USA.
- Various seminars organized by the National Center for Biotechnology Information (NCBI/NIH) on the use of bioinformatics tools developed by NCBI (2003-2007, NIH campus, Bethesda Maryland, USA).
- Three-week course (lectures and lab work) on "Eukaryotic Gene Expression" organized by the Cold Spring Harbor Laboratory, NY USA (27 July-16 August 2004).
- One month training on protein microarrays at the Genomics Institute of the Novartis Research Foundation, La Jolla CA, USA (November-December 2002).
- Three-day workshop on cDNA microarrays at the Microarray Center of Ontario Cancer Institute, Toronto, Canada, 2000.

IV. CURRENT RESEARCH INTERESTS

- Study of epigenetic mechanisms in breast cancer stem cells.
 - **The role of the histone demethylase LSD1:** Using *in vitro* and *in vivo* tools, we are studying the role of LSD1 in the biology of CSCs and we are examining its potential as a druggable target.
- Clinical studies using liquid biopsies in patients with metastatic colorectal or lung cancer.

V.FUNDING-AWARDS

- **Fulbright Scholarship for Visiting Scientists** (October 2018-April 2019)
- **Supporting researchers with an emphasis on young researchers (EDBM34)** (11/2018-01/2020)
- **Ερευνώ–Δημιουργώ–Καινοτομώ (Παρέμβαση II)** (09/2018-08/2021)
- **Stavros Niarchos Foundation- ARCHERS-SNF-TBE** (Advancing Young Researchers' Human Capital in Cutting Edge Technologies) - Post-doctoral Scholarship to Dr. Panos Karakaidos (August 2017- August 2018).
- **IKY-** PhD scholarship to J. Verigos (May 2017-December 2018)
- **KREPIS-** Research activities in Biomedicine (2017-2019)
- **Fondation Sante** - Research Grants in Biomedical Sciences (2017-2019)
- **Bodossakis Foundation-** Research Grants in Biomedicine (2015- 2016 and 2018-2019)
- **Marie Curie Actions:** FP7 Marie Curie Career Integration Grant PCIG10-GA-2011-303519 (2012-2016)

VI. PUBLICATIONS

1. Original research papers

1. Le Gros MA, Clowney EJ, **Magklara A**, Yen A, Markenscoff-Papadimitriou E, Colquitt B, Myllys M, Kellis M, Lomvardas S, Larabell CA. Soft X-Ray Tomography Reveals Gradual Chromatin Compaction and Reorganization during Neurogenesis In Vivo. *Cell Rep.* 2016 Nov 15;17(8):2125-2136.

2. Lyons DB, **Magklara A**, Goh T, Sampath S, Schaefer A, Schotta G, Lomvardas S. Heterochromatin-Mediated Gene Silencing Facilitates the Diversification of Olfactory Neurons. *Cell Rep*.2014;9:1-9.
3. Kougioumtzi A, Tsaparas P, **Magklara A**. Deep sequencing reveals new aspects of progesterone receptor signaling in breast cancer cells. *PLoS One*. 2014 Jun 4;9(6):e98404.
4. Johnson MA, Tsai L, Roy DS, Valenzuela DH, Mosley C, **Magklara A**, Lomvardas S, Liberles SD, Barnea G. Neurons expressing trace amine-associated receptors project to discrete glomeruli and constitute an olfactory subsystem. *Proc Natl Acad Sci U S A*. 2012 Aug 14;109(33):13410-5.
5. Clowney EJ, **Magklara A**, Colquitt BM, Pathak N, Lane RP, Lomvardas S. High-throughput mapping of the promoters of the mouse olfactory receptor genes reveals a new type of mammalian promoter and provides insight into olfactory receptor gene regulation. *Genome Res*. 2011 Aug;21(8):1249-59
6. **Magklara A**, Yen A, Colquitt BM, Clowney EJ, Allen W, Markenscoff-Papadimitriou E, Evans ZA, Kheradpour P, Mountoufaris G, Carey C, Barnea G, Kellis M, Lomvardas S. An epigenetic signature for monoallelic olfactory receptor expression. *Cell*. 2011 May 13;145(4):555-70.
7. Lee SC, **Magklara A**, Smith CL. HDAC activity is required for efficient core promoter function at the mouse mammary tumor virus promoter. *J Biomed Biotechnol*. 2011;2011:416905
8. **Magklara A**, Smith CL. A composite intronic element directs dynamic binding of the progesterone receptor and GATA-2. *Mol Endocrinol*. 2009;23:61-73.
9. Michael IP, Sotiropoulou G, Pampalakis G, **Magklara A**, Ghosh M, Wasney G, Diamandis EP. Biochemical and enzymatic characterization of human kallikrein 5 (hK5), a novel serine protease potentially involved in cancer progression. *J Biol Chem*. 2005;280:14628-35.
10. Sauter ER, Lininger J, **Magklara A**, Hewett JE, Diamandis EP. Association of kallikrein expression in nipple aspirate fluid with breast cancer risk. *Int J Cancer*. 2004;108:588-91.
11. Kapadia C, Yousef GM, Mellati AA, **Magklara A**, Wasney GA, Diamandis EP. Complex formation between human kallikrein 13 and serum protease inhibitors. *Clin Chim Acta* 2004;339:157-67.
12. **Magklara A**, Mellati AA, Wasney GA, Little SP, Sotiropoulou G, Becker GW, Diamandis EP. Characterization of the enzymatic activity of human kallikrein 6: Autoactivation, substrate specificity, and regulation by inhibitors. *Biochem Biophys Res Commun*. 2003;307:948-55.
13. Yousef GM, Scorilas A, **Magklara A**, Memari N, Ponzzone R, Sismondi P, Abd Ellatif M, and Diamandis EP. The androgen regulated gene human kallikrein 15 (KLK15) is an independent and favorable prognostic marker for breast cancer. *Br J Cancer* 2002;87:1294-300.
14. Sauter ER, Welch T, **Magklara A**, Klein G, Diamandis EP. Ethnic variation in kallikrein expression in nipple aspirate fluid. *Int J Cancer*. 2002 ;100:678-82.

15. **Magklara A**, Brown TJ and Diamandis EP. Characterization of androgen receptor and nuclear receptor co-regulator expression in human breast cancer cell lines exhibiting differential regulation of kallikreins 2 and 3. *Int J Cancer*.2002;100: 507-14.
16. **Magklara A**, Scorilas A, Katsaros D, Massobrio M, Yousef GM, Fracchioli S, Danese S, Diamandis EP. The human KLK8 (neuropsin/ovasin) gene: Identification of two novel slice variants and its prognostic value in ovarian cancer. *Clin Cancer Res*. 2001;7:806-11.
17. Scorilas A, **Magklara A**, Hoffman BR, Bromberg RM, Bjartell A and Diamandis EP. Highly sensitive array analysis using time resolved fluorescence and a novel streptavidin-based reagent. *Analytical Sciences* 2001;17(suppl):i547-i551.
18. Yousef GM, **Magklara A** and Diamandis EP. Cloning of a new member of the human kallikrein gene family, KLK14, which is down-regulated in different malignancies *Cancer Res*. 2001;61:3425-31.
19. Obiezu CV, Scorilas A, **Magklara A**, Thornton MH, Wang CY, Stanczyk FZ, Diamandis EP. Prostate-specific antigen and human glandular kallikrein 2 are markedly elevated in urine of patients with polycystic ovary syndrome. *J Clin Endocrinol Metab* 2001;86:1558-61.
20. Yousef GM, **Magklara A** and Diamandis EP. KLK12 is a novel serine protease and a new member of the human kallikrein gene family- Differential expression in breast cancer. *Genomics*, 2000;69:331-41.
21. Yousef GM, Scorilas A, **Magklara A**, Soosaipillai A, Diamandis EP. The PRSS6 gene, encoding for the stratum corneum chymotryptic enzyme is a new member of the human kallikrein gene family-genomic characterization, mapping, tissue expression and hormonal regulation. *Gene*, 2000;254:119-128.
22. **Magklara A**, Scorilas A, Stephan C, Kristiansen GO, Hauptmann S, Jung K and Diamandis EP. Decreased concentrations of prostate specific antigen (PSA) and human glandular kallikrein 2 (hK2) in malignant vs non-malignant prostatic tissue. *Urology*, 2000;56:527-32.
23. **Magklara A**, Cheung CC, Asa SL, Diamandis EP. Expression of prostate-specific antigen and human glandular kallikrein 2 in the thyroid gland. *Clinica Chimica Acta*, 2000;300:171-80.
24. Obiezu CV, Giltay EJ, **Magklara A**, Scorilas A, Gooren L, Yu H, Diamandis EP. Dramatic suppression of plasma and urinary prostate specific antigen and human glandular kallikrein by antiandrogens in male-to-female transsexuals. *J Urol* 2000;163:802-5.
25. Obiezu CV, Giltay EJ, **Magklara A**, Scorilas A, Gooren L, Yu H, Howarth DJC and Diamandis EP. Serum and urinary prostate specific antigen and urinary human glandular kallikrein concentration are significantly elevated after testosterone administration in female to male transsexuals. *Clinical Chemistry* 2000;46:859-862.
26. Zand Rosenberg RS, Grass L, **Magklara A**, Jenkins DJA and Diamandis EP. Is ICI 182-780 an anti-progestin in addition to being an anti-estrogen? *Breast Cancer Res Treat* 2000;60:1-8.

27. **Magklara A**, Grass L, Diamandis EP. Differential steroid hormone regulation of human glandular kallikrein (hK2) and prostate specific antigen (PSA) in breast cancer cell lines. *Breast Cancer Res Treat* 2000;59:263-70.
28. Nam RK, Diamandis EP, Toi A, Trachtenberg J, **Magklara A**, Scorilas A, Papanastasiou PA, Jewett MAS and Narod SA. Serum human glandular kallikrein (hK2) protease levels predict the presence of prostate cancer among men with elevated prostate specific-antigen. *Journal of Clinical Oncology* 2000;18:1036-42.
29. Black MH, **Magklara A**, Obiezu CV, Levesque MA, Sutherland DJA, Tindall DJ, Young CYF, Sauter ER, Diamandis EP. Expression of a prostate associated protein, human glandular kallikrein (hK2) in breast tumors and in normal breast secretions. *Br J Cancer* 2000;82:361-7.
30. **Magklara A**, Scorilas A, Catalona WJ, Diamandis EP. The combination of human glandular kallikrein (hK2) and free PSA enhances the discrimination between prostate cancer and benign prostatic hyperplasia in patients with moderately elevated total PSA levels. *Clinical Chemistry* 1999;45:1960-6.
31. **Magklara A**, Scorilas A, López-Otín C, Diamandis EP. Human glandular kallikrein (hK2) in breast milk, amniotic fluid and breast cyst fluid. *Clinical Chemistry*, 1999;45:1774-80.
32. Black MH, **Magklara A**, Obiezu CV, Melegos DN, Diamandis EP. Development of an ultrasensitive immunoassay for human glandular kallikrein (hK2) with no cross reactivity from prostate specific antigen (PSA). *Clinical Chemistry* 1999;45:790-9.

2. Reviews

1. Verigos J and **Magklara A**: Revealing the Complexity of Breast Cancer by Next Generation Sequencing. *Cancers (Basel)* 2015;7(4):2183-200.
2. **Magklara A** and Lomvardas S: Stochastic gene expression in mammals: Lessons from Olfaction. *Trends in Cell Biology* 2013 Sep;23(9):449-56.
3. Yousef GM, Obiezu CV, Luo LY, **Magklara A**, Borgoño CA, Kishi K, Memari N, Michael IP, Sidiropoulos M, Kurlender L, Economopoulou K, Kapadia C, Komatsu N, Petraki C, Elliott M, Scorilas A, Katsaros D, Levesque MA, Diamandis EP. Human Tissue Kallikreins: From Gene Structure to Function and Clinical Applications. *Adv Clin Chem* 2005;39:11-79.
4. Diamandis EP, Yousef GM, Luo LY, **Magklara A** and Obiezu CV. The new human kallikrein gene family-implications in carcinogenesis. *Trend Endocrinol Metab* 2000;11:54-60.

3. Book chapters

1. **Angeliki Magklara** and Stavros Lomvardas: Epigenetics and Human Disease. "Gene Regulatory Sequences and Human Disease", editor Nadav Ahituv, Springer New York 2012.

VII. REFEREE IN SCIENTIFIC JOURNALS

- BMC Cancer
- Tumor biology
- PlosOne
- Molecular and Cellular Endocrinology
- European Journal of Pharmacology