NAME **Dr. Ioanna Maroulakou**	POSITION TITLE Professor of Genetics

EDUCATION/TRAINING

INSTITUTION AND LOCATION	DEGREE *(if applicable)*	YEAR(s)	FIELD OF STUDY
University of Athens, Athens Greece	B.S.	1984	Biology
University of Athens, Athens Greece	Ph.D.	1990	Biology
National Cancer Institute, NIH, USA	Postdoc	1991-1996	Molecular Oncology

Positions and Honors

1984-1990 Graduate Student, Laboratory of Biology, School of Health Sciences, University of Athens, Athens, Greece
1988 Guest Investigator Fellowship, Laboratory of Cell Biology, Rockefeller University, New York, USA
1991-1996 Post-doctoral Fellow, Laboratory of Molecular Oncology, National Cancer Institute, USA
1996-2003 Assistant Professor, Dept. of Medicine, Medical University of South Carolina, Charleston, USA
2003-2009 Assistant Professor, Dept. of Medicine, Tuft University School of Medicine, Boston, USA
2003-2009 Investigator, Molecular Oncology Research Institute, Tufts-NEMC, Boston, USA
2009 Associate Professor, Dept. of Pharmacology and Toxicology, Cancer Institute, University of Mississippi Medical Center, Jackson, USA
2010 - today Professor of Genetics, Dept. of Molecular Biology and Genetics, Democritus University of Thrace, Greece

Professional Memberships

Member, American Association for Cancer Research
Member, American Association for the Advancement of Science
Member, *European Association* for *Cancer Research*
Member, Hellenic Society of Biochemistry and Molecular Biology
Member, Hellenic Association of Medical Geneticists

Other Experience and Professional Activities

2010- today Head of Cancer Genetics and Acquired Genetic diseases Laboratory
2013- today Director of the MscProgramme “Translational Research in Biomedicine”

Honors and Awards

9/86-9/90 National Graduate Fellowship, University of Athens, Greece
9/87 Grant from European Training Programme (ETP) in Italy
6/88-12/88 Guest Investigator Fellowship, Laboratory of Cell Biology, Rockefeller University, USA
6/91-6/93 Fogarty Fellowship, Laboratory of Molecular Oncology, National Cancer Institute, NIH, USA
6/93-5/96 Renewal of Fogarty Fellowship, Laboratory of Molecular Oncology, National Cancer Institute, NIH, USA

Selected Peer-reviewed Publications

Georgatos SD, **Maroulakou** I, Blobel G. Lamin A, lamin B, and lamin B receptor analogues in yeast. J Cell Biol. 1989 Jun;108(6):2069-82.

Maroulakou IG, Stylianopoulou F. The effects of adrenalectomy and thermal stress on glutamic acid decarboxylase activity in different regions of the rat brain. Neurochem Res. 1991 Dec;16(12):1265-8.

Maroulakou IG, Kitraki E, Stylianopoulou F. Stress affects the activated form of the corticosteroid-receptor complex in the rat brain. J Neuroendocrinol. 1992 Feb;4(1):15-9

Maroulakou, I. G., Papas, T. S., and Green, J. E.: Differential expression of ets-1 and ets-2 proto oncogenes during murine embryogenesis. Oncogene 9: 1551-1565, 1994.

Maroulakou, I. G., Anver, M., Garrett, L., and Green, J. E.: Prostate and breast cancer in transgenic mice carrying a rat C3(1) SV40 TAG fusion gene. Proc. Natl. Acad. Sci. USA 91: 11236-11240, 1994.

Maroulakou, I. G, Pokholok, D. K., Cuprash, D. V., Alimzhanov, M. B., Kozlov, S. V., Novobrantseva, T. I., Turetskaya, R. L., Green, J. E., and Nedospasov, S. A.: Cloning and in situ transcriptional analysis of the murine lymphotoxin-b (Ltb) gene. Proc. Natl. Acad. Sci. USA 92: 674-678, 1995. (Note: In this paper Maroulakou and Pokholok are equal first authors)

Byeon MK, Westerman MA, **Maroulakou** IG, Henderson KW, Suster S, Zhang XK, Papas TS, Vesely J, Willingham MC, Green JE, Schweinfest CW. The down-regulated in adenoma (DRA) gene encodes an intestine-specific membrane glycoprotein. Oncogene. 1996 Jan 18;12(2):387-96.

Chen S-L, **Maroulakou IG**, Green JE, Romano-Spica V, Modi W, Lautenberger J, Bhat NK. Isolation and characterization of a novel gene expressed in multiple cancers. Oncogene. 1996;12:741-751

Kenney, N. J., Smith, G. H., **Maroulakou, I.,** Johnson, G., Gullick, W. J., Green, J. E., Muller, W. J., Merlino, G. H., Callahan, R., Salomon, D. S., and Dickson, R. B.: Detection of amphiregulin and Cripto-1 in mammary tumors from transgenic mice. Molecular Carcinogenesis 15: 44-56, 1996.

Shibata, M.-A., **Maroulakou, I. G.,** Jorcyk, C. L., Gold, L. G., Ward, J. M., and Green, J. E.: p-53 independent apoptosis during mammary tumor progression in C3(1)/SV40 large T antigen transgenic mice: Suppression of apoptosis during the transition from preneoplasia to carcinoma. Cancer Research 56(13): 2998-3003, 1996.

Jorcyk, C. L., Garrett, L. J., **Maroulakou, I. G.,** Watson, D. K., and Green J. E.: Multiple regulatory regions control the expression of the Ets-1 proto-oncogene in the developing mouse. Cellular and Molecular Biology 43: 211-225, 1997.

Maroulakou, I., Shibata, M.-A., Jorcyk, C. L., Chen, X. X. and Green, J. E.: Reduced p53 dosage associated with mammary tumor metastases in C3(1)TAG transgenic mice. Molecular Carcinogenesis 20: 168-174, 1997.

Yoshidome, K., Shibata, M. A., **Maroulakou, I. G**., Liu, M. L., Jorcyk, C. L., Gold, L. G., Welch, V. N. and Green, J. E.: Genetic alterations in the development of mammary and prostate cancer in the C3(1)/Tag transgenic mouse model. Int. J. Oncol. 12(2): 449-453, 1998.

Jorcyk CL, Liu ML, Shibata MA, **Maroulakou** IG, Komschlies KL, McPhaul MJ, Resau JH, Green JE. Development and characterization of a mouse prostate adenocarcinoma cell line: ductal formation determined by extracellular matrix. Prostate. 1998 Jan 1;34(1):10-22.

Maroulakou, I. G., Shibata, M.-A., Anver, M. R.,., Roberts, A., Tsarfaty, I., Resau, J., Ward, J. M. and Green, J. E.: Heterotopic endochondral ossification associated with mixed tumor formation in C3(1)/Tag transgenic mice is associated with elevated TGF-betal a BMP-2 expression. Oncogene 18(39): 5435-5447, 1999.

Maroulakou IG, Bowe DB. Expression and function of Ets transcription factors in mammalian development: a regulatory network. Oncogene. 2000 Dec 18;19(55):6432-42.

Bowe, D. B., Kenney, N. J., Adereth Y.and **Maroulakou, I. G**.: Suppression of her2/neu mammary tumor growth in Cyclin D1-deficient mice is compensated for by cyclin E. Oncogene, 21:291-298, 2002 (corresponding author).

Highlighted in The New England Journal of Medicine, section Clinical Implications of Basic Research, entitled "The Reciprocal Dance between Cancer and Development" by Lewis A. Chodosh. 2002.Vol.347 (2):134-136.

Tomczak MF, Gadjeva M, Wang YY, Brown K, **Maroulakou I,** Tsichlis PN, Erdman SE, Fox JG, Horwitz BH. Defective activation of ERK in macrophages lacking the p50/p105 subunit of NF-kappaB is responsible for elevated expression of IL-12 p40 observed after challenge with Helicobacter hepaticus. J Immunol. 2006 Jan 15;176(2):1244-51.

Maroulakou IG, Oemler W, Naber SP, Tsichlis PN. Akt1 ablation inhibits, whereas Akt2 ablation accelerates, the development of mammary adenocarcinomas in Mouse Mammary Tumor Virus (MMTV)-ErbB2/Neu and Polyoma Middle T mice. Cancer Res 2007; 67(1): 167-77. (Corresponding Author).

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Maroulakou IG, Oemler W, Naber SP, Tsichlis PN. Distinct roles of the three Akt isoforms in lactogenic differentiation and involution. J Cell Physiol. 2008 Nov;217(2):468-77. (Corresponding Author)

Wright, G., **Maroulakou, I.,** Vijayalakshmi, S., Eldridge, J., Tsichlis, P., and Muise-Helmericks,R.C. VEGF Stimulation of Mitochondrial Biogenesis: Requirement of Akt3 kinase. FASEB J.2008 Sep 22(9):3264-75

Iliopoulos D, Polytarchou C, Hatziapostolou M, Kottakis F, **Maroulakou IG,** Struhl K, Tsichlis PN. MicroRNAs differentially regulated by Akt isoforms control EMT and stem cell renewal in cancer cells. Science Signal. 2009 Oct 13;2(92):ra62.

Polytarchou C., Iliopoulos D., Hatziapostolou M., Kottakis F, **Maroulakou,I.,** Kevin Struhl K., and Tsichlis P. Akt2 functions as a master regulator of all Akt isoforms and promotes resistance to hypoxia by regulating the induction of miR-21 upon oxygen deprivation. Cancer Research. 2011 Jul 1;71(13):4720-31.

Hebron E, Hope C, Kim J, Jensen JL, Flanagan C, Bhatia N, **Maroulakou I,** Mitsiades C, Miyamoto S, Callander N, Hematti P, Asimakopoulos F. MAP3K8 kinase regulates myeloma growth by cell-autonomous and non-autonomous mechanisms involving myeloma-associated monocytes/macrophages. Br J Haematol. 2013 Mar;160(6):779-84.

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Dovrolis N, Kolios G, Spyrou G, **Maroulakou I**. Laying in silico pipelines for drug repositioning: a paradigm in ensemble analysis for neurodegenerative diseases. Drug Discov Today. 2017 May;22(5):805-813.