

CURRICULUM VITAE

Name	Position Title	Birth date (<i>month/day/year</i>)
Paraskevi Kitsiou	Senior Reseacher	04/17/1962

EDUCATION

Institution and Location	Degree	Year Conferred	Field of Study
Aristotelio University, Faculty of Biology, Thessaloniki, Greece	B.Sc.	1984	Biology
National Kapodistrian University of Athens, Faculty of Biology, Athens, Greece	Ph.D.	1991	Biology

COMMUNICATION

Address	Telephone	Fax	e-mail
Institute of Biosciences & Applications, N.C.S.R. "Demokritos", Terma Patriarchou Grigoriou & Neapoleos, 15310 Agia Paraskevi, Attiki, Greece	+30-2106503615	+30-2106511767	pkit@bio.demokritos.gr

RESEARCH AND PROFESSIONAL EXPERIENCE

2012-present: Senior Researcher, Institute of Biosciences & Applications (I.B.A.), N.C.S.R. "Demokritos". Research area: Cellular signaling in Diabetes Mellitus: Nephrin signaling in pancreatic β -cells: Cross talk between nephrin signaling and insulin survival signaling.

2005-2012: Associate Researcher, Institute of Biosciences & Applications (I.B.A.), N.C.S.R. "Demokritos". Research area: Cellular signaling in Diabetes Mellitus: a) Effects of glucotoxicity on pancreatic β -cell insulin survival signaling and b) Nephrin signaling in pancreatic β -cells: Cross talk between nephrin signaling and insulin survival signaling.

1997-2004: Assistant Researcher, Institute of Biology, N.C.S.R. "Demokritos". Research area : Matrix pathobiology and integrin mediated signaling/ Pathogenic mechanisms of Diabetes and its complications.

1991-1997: Assistant Researcher, Institute of Biology, N.C.S.R. "Demokritos". Research area: a) Regulation of gene expression in eukaryotes b) "Construction and the use of eucaryotic cell lines, for the assessment of radiation induced alterations leading into new defined phenotypes" c) "Radiation induced processes in mammalian cells: principles of response modification and involvement in carcinogenesis"

RESEARCH PROFILE

Dr. Paraskevi Kitsiou received her B.Sc. Specialization in Biology from Aristotelio University, Faculty of Biology, Thessaloniki-Greece, in 1984. She started her scientific carrier as a Ph.D. student at the Institute of Biology, N.C.S.R. "Demokritos", in the research program "Regulation of gene expression in eukaryotes". In particular her interests were focused on the regulation of CD2 gene expression in activated human T lymphocytes during the cycle. During this period she obtained her Ph.D. in Biology from the National Kapodistrian University of Athens, Faculty of Biology, Athens-Greece (1991). Subsequently, she worked as a post-doctoral fellow and assistant researcher (1991-1997) at the Institute of Biology, N.C.S.R. "Demokritos", in European research programs a) "Construction and the use of eucaryotic cell lines, for the assessment of radiation induced alterations leading into new defined phenotypes" and b) "Radiation induced processes in mammalian cells: principles of response modification and involvement in carcinogenesis"

In 1997, she joined, as an Assistant Researcher, the Laboratory of "Matrix Pathobiology" at the Institute of Biology, N.C.S.R. "Demokritos". Her scientific interests were focused on integrin mediated signaling in diseases involving the matrix, such as Diabetes Mellitus and Alzheimer.

In 2005, she became an Associate researcher in the Laboratory of "Pathobiology of Cell and Extracellular Matrix" at the Institute of Biosciences & Applications, N.C.S.R. "Demokritos". Her scientific interests were focused on cellular signaling in pathological conditions such as Diabetes mellitus. She studied the effects of glucotoxicity on pancreatic β -cell insulin survival signaling and b) "Nephrin signaling in pancreatic β -cells: Cross talk between nephrin signaling and insulin survival signaling.

From 2012-present, she is a Senior Researcher in the Laboratory of "Pathobiology of Cell and Extracellular Matrix" at the Institute of Biosciences & Applications, N.C.S.R. "Demokritos". Her scientific interests were focused on cellular signaling in pathological conditions such as Diabetes mellitus.

Her work related to cellular signaling provided evidence that α glucotoxicity induced endogenous IL-1 β expression in pancreatic β -cells, which in turn increased β -cell apoptosis by inhibiting, at least

in part, IRS-2/Akt-mediated signalling through SOCS-1 upregulation. Moreover, her recent study revealed that nephrin is involved in pancreatic β -cell survival signaling and demonstrated that high glucose concentration induced changes in nephrin signaling that could lead to pancreatic β -cell apoptosis in pathological conditions such as type 2 Diabetes. She plans to confirm her findings *in vivo*, in a diabetic mouse model with type 2 diabetes (db/db, lepr/lepr). Analysis of survival signaling pathways that affected by glucose is essential for the development of novel and effective strategies directed at preventing pancreatic β -cell apoptosis/loss in type 2 diabetes.

Also, she is currently involved in the research projects: a) Common pathogenetic mechanisms and pathways of the matrix-related diseases of Diabetes and Alzheimer resulting in apoptotic cell death and b) Pancreatic beta cells functionality and regeneration: The role of liraglutide c) Biological activities of innovative nanoparticles for diagnostic and therapeutic use.

PUBLICATIONS

Panagiotis D Venieratos, Garyfalia I Drossopoulou, Effie C Tsilibary and **Paraskevi V Kitsiou**. High glucose induces suppression of insulin signalling and apoptosis via upregulation of endogenous IL-1 β and SOCS-1 in mouse pancreatic beta-cells. (2010) *Cell. Signal.* 22:791-800

N. Lagopati **P.V. Kitsiou**, A.I. Kontos, P. Venieratos, E. Kotsopoulou A.G. Kontos, D.D. Dionysiou, S. Pispas, E.C. Tsilibary, P. Falaras. Photo-induced treatment of breast epithelial cancer cells using nanostructured titanium dioxide solution. (2010) *J. Photochem. Photobiol. A: Chemistry* 214:215-223

Athanasia S. Aggeli, **Paraskevi V. Kitsiou**, Athina K. Tzinia, Ariel Boutaud, Billy G. Hudson, and Effie C. Tsilibary Selective binding of integrins from different renal cell types to NC1 domain of α 3 and α 1 chains of collagen IV. (2009) *J. Nephrol.* 22:130-136

Moutzouris A. Dimitrios, **Paraskevi V. Kitsiou**, Argiris A. Talamagas, Garyfallia I. Drossopoulou Theodore I. Kassimatis and Nikolaos K. Katsilambros. Chronic exposure of human glomerular epithelial cells to high glucose concentration results in modulation of high-affinity glucose transporters expression. (2007) *Renal Failure* 29:353-358

Constantinos G. Economou, **Paraskevi V. Kitsiou**, Athina K. Tzinia, Evridiki Panagopoulou, Evangelos Marinos, David B. Kershaw, Effie C. Tsilibary. Enhanced podocalyxin expression alters the structure of podocyte basal surface (2004). *J. Cell Sci* 117: 3281-3294

Paraskevi V. Kitsiou, Athina K. Tzinia, William G. Stetler-Stevenson, Alfred F. Michael, Wei-Wei Fan, Bing Zhou, and Effie C. Tsilibary. Glucose-induced changes in integrins and matrix-related functions in cultured human glomerular epithelial cells (2003) *Am. J. Physiol. Renal Physiol.* 284: F671-F679

Athina K. Tzinia, **Paraskevi V. Kitsiou**, Argiris A. Talamagas, Angelique Georgopoulos and Effie C. Tsilibary. Effects of collagen IV on neuroblastoma cell matrix-related functions (2002). *Exp. Cell Res.* 274: 169-177.

Panagiotis M. Karamessinis, Athina K. Tzinia, **Paraskevi V. Kitsiou**, William G. Stetler-Stevenson, Alfred F. Michael, Wei-Wei Fan, Bing Zhou, Lukas H. Margaritis, and Effie C. Tsilibary. Proximal Tubular Epithelial Cell Integrins respond to high glucose by altered cell-matrix interactions and differentially regulate matrixin expression. (2002) *Lab. Invest.* 82 (8): 1081-93.

C. Sambani H. Thomou and **P. Kitsiou**. Stimulatory effect of low dose of X-irradiation on the expression of human T lymphocytes CD2 surface antigen. (1996) *Int. J. Rad. Biol.*, 70(6): 711-717.

P. Kitsiou, Sambani, C. and Thomou.; H. Effects of low doses of X-rays on the expression of human cell surface CD2 antigen in CD²⁺ CHO cells. (1993) *Int. J. Radiat. Biol.* 64: 621-626.

H. Tmomou, C. Sambani, **P. Kitsiou**, G. Spanakos and G. Politis. Human chromosome 19 confers the CD2/ E Rosette receptor phenotype to interspecific cell hybrids. (1991) *Anticancer Res.* 11: 1571-1580

H. Thomou, C. Sambani, **P. Kitsiou** and G. Politis. Formation of multilayer rosettes in phytohemagglutinin-stimulated lymphocytes: correlation with chromatin condensation conformation in premature chromosome condensation. (1988) *Cytotechnology* 1: 243-249