

PERSONAL INFORMATION	
SURNAME	KOUKLIS
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CURRENT POSITION(S)	
2022	Assistant Professor, Biology Department, Medical School, University of Ioannina, Ioannina, Greece
2010-2022	Collaborating Faculty Member/Biomedical Research Institute (BRI) – FORTH

1. Education

1985	Diploma in Pharmacy, University of Athens
1991	PhD in Max- Planck Institute for Cell Biology, Ladenburg/ University of Heidelberg , Germany

2. Positions and Employment

2003-	Assistant Professor in the Department of Biology, Medical School – University of Ioannina – Greece
1998	Research Assistant Professor in the Department of Pharmacology, University of Illinois - Chicago, IL, USA
1995	Instructor, Department of Molecular Genetics and Cell Biology, University of Chicago, Chicago IL, USA
1992	Research Associate in the Howard Hughes Medical Institute, Prof. Elaine Fuchs Group, University of Chicago, Chicago IL, USA,
1990	Post-doctoral fellow, Cell Biology Program of European Molecular Biology Laboratory (EMBL)

3. RESEARCH FUNDING

<i>Project Title</i>	<i>Funding source</i>	<i>Period</i>	<i>Role</i>
Characterization of differentiation properties of a novel multipotent population of cardiovascular progenitor cells and study of its role in myocardial regeneration in animal. Budget: 24.000 €	'State Scholarships Foundation (IKY)-Fellowships of Excellence for Post-doctoral Research in Greece-SIEMENS' Programme'	2015-2017	PI
“ <u>Reinforcement of the Research and Innovation Infrastructure</u> ”. Budget for the team: 35000 €	BIOMED20. Operational Programme "Competitiveness, Entrepreneurship and Innovation" (NSRF 2014-2020)	2021-2023	
Culture conditions towards mature cardiac myocytes and endothelial cells after stem cells differentiation in vitro. Budget for the team 35000€	KRIPIS –IMBB/FORTH	2017-2019	
Mechanisms controlling Induced	Synergasia – (NoisePlus) ESPA	2013-	

Pluripotency: From Transcriptional Noise to Stem Cell Therapies. Budget for the team 45.000 €	Ministry of Development – Science and Technology	2015	
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5. Scientific Interests

Cadherins comprise a family of transmembrane molecules involved in cell-cell adhesion and signal transduction. Their functional significance is demonstrated in key biological processes like organogenesis, tissue homeostasis, migration, and cancer. The endothelial-specific VE (Vascular Endothelial)-cadherin is expressed in endothelium and is involved in angiogenesis, signaling and endothelial barrier regulation. We found that, during ESCs differentiation VE-cadherin-mediated AJs constitute a major adhesive structure in cardiovascular progenitors.

Current Aims: To investigate the functional significance of VE-cadherin expression in cardiac differentiation.

5A. PUBLICATIONS, SELECTED

VE-cadherin is expressed transiently in early Isl1+ cardiovascular progenitor cells and participates in cardiac differentiation. Maltabe V, Melidoni A, Beis D, Kokkinopoulos I and Kouklis P revised manuscript in preparation for Stem Cell Reports (2022)

Vascular Endothelial (VE)-Cadherin-mediated Adherens Junctions involvement in cardiovascular progenitor cells specification. Maltabe V., and Kouklis P. International Journal of Developmental Biology, 2022, DOI: 10.1387/ijdb.210167pk

Challenges in stem cell-based approaches for myocardial regeneration after myocardial infarction. Maltabe V., Kolettis T., and Kouklis P. Stem Cells: From Hype To Hope 17, 2020, ISBN 978-3-11-064243-8

Isolation of an ES-derived cardiovascular multipotent cell population based on VE-cadherin promoter activity. Maltabe V., Barka E., Kontonika, M., Florou D., Kouvara-Pritsouli M., Roumpi M., Agathopoulos S., Kolletis T., and Kouklis P. Stem Cells International, 2016 doi: 10.1155/2016/8305624

Vascular endothelial cadherin downregulation as a feature of endothelial transdifferentiation in monocrotaline- induced pulmonary hypertension Nikitopoulou I., Orfanos S, Kotanidou A, Maltabe V., Manitsopoulos N., Karras P., Kouklis P., Armaganidis A., and NA. Maniatis. (2016) DOI: 10.1152/ajplung.00156.2014

6. TEACHING

Undergraduate Courses

2003 – 2022:

Biology I (Lectures 12 hours, Laboratory 12 hours)

Biology II (Lectures 8 hours, Laboratory 24 hours).

Department of Medicine, University of Ioannina

2008-2022: Introduction to Stem Cell Biology, Elective course (26 hours).

Department of Medicine, University of Ioannina

2012-2022: Introduction to Stem Cell Biology, elective course (26 hours)

Department of Biological Applications of the University of Ioannina

Postgraduate courses

1999: Lecturer in the course Molecular Pathology-Pathology– Path 503 -University of Illinois – Medical School (lectures 2 hours)

2000, 2002: Lecturer in the course Pharmacology and Vascular Biology -Pharmacology PCOL530 -University of Illinois – Medical School (lectures 2 hours)

2005-2017 Lecturer in the "Cell Biology" course of the Interdepartmental Postgraduate Program “Biotechnology” (lectures 8 hours)

2011 Organizer of the "Cell Biology" course of the Interdepartmental Master's Program (M.Sc.) Biotechnology (lectures 8 hours)

2011 – 2017 Lecturer in the course "Genetically Modified Organisms" of the Interdepartmental Master's Program “Biotechnology” (lectures 4 hours)

2015-2022 Organizer of the "Stem Cells and Gene Therapy" course of the Master's program "Basic Biomedical Sciences" (BBE). Department of Medicine, School of Health Sciences, University of Ioannina (lectures 16 hours)

2015 – 2022 Lecturer in the course "Molecular Basis of Diseases" of the Master's program "Basic Biomedical Sciences" (BBE) of the Department of Medicine, School of Health Sciences, University of Ioannina (lectures 2 hours).

2015-2022 Instructor in the basic course "Biology - Biological Chemistry" of the Master's program "Basic Biomedical Sciences" (BBE) of the Department of Medicine, School of Health Sciences, University of Ioannina (lectures 6 hours).

2015-2022 Lecturer in the course "Cellular and Molecular Biology" of the Interdepartmental Master's Program "Medicinal Chemistry" of the Departments of the Faculty of Medicine, Chemistry and Biological Applications/Technologies, University of Ioannina (lectures 2 hours).

2018-2019 Lecturer in the course "Topics in Molecular and Cellular Biology" of the Interinstitutional Interdepartmental Graduate Program Molecular-Cellular Biology and Biotechnology, University of Ioannina (lectures 4 hours)

2019 Organizer of the course "Biology of Stem Cells & Applications in Regenerative Medicine" of the Interinstitutional Interdepartmental Graduate Program Molecular-Cellular Biology and Biotechnology, University of Ioannina (lectures 8 hours)

2015-2022 Organizer in the course "Cell and Gene Therapy" of the Master's program "Basic Biomedical Sciences" of the Department of Medicine, School of Health Sciences, University of Ioannina (lectures 2 hours).

MEMBERSHIPS & REVIEWING ACTIVITIES

2022 - Frontiers in Cell and Developmental Biology, Review Editor

2016-2020 Member Scientific Committee Greek Drugs Organization (EOF) – Biologicals and Blood Products Section