ANTONIS KOURTIDIS, Ph.D.

Address Department of Regenerative Medicine and Cell Biology

Medical University of South Carolina Basic Science Building, Room 650

173 Ashley Avenue

Charleston, SC 29425, USA

Phones Office: 843-

Lab: 843-Fax: 843-

E-mail kourtidi@musc.edu

Webpages http://regmed.musc.edu/Faculty/KourtidisA.htm

https://www.linkedin.com/in/antoniskourtidis http://loop.frontiersin.org/people/266751/overview

ORCID 0000-0002-8128-6391; http://orcid.org/0000-0002-8128-6391

EDUCATION

1994-1998 BS in Biology, School of Biology, Aristotle University of Thessaloniki, Greece,

grade 8.54/10 - Excellent (top 3%).

1999-2001 Post-Graduate studies, Applied Genetics and Biotechnology, School of Biology,

Aristotle University of Thessaloniki, Thessaloniki, Greece.

1999-2004 PhD Thesis in Genetics, Molecular Biology and Evolution, School of Biology,

Aristotle University of Thessaloniki, Thessaloniki, Greece

APPOINTMENTS - EMPLOYMENT

2004-2009 Postdoctoral fellow, Molecular Biology of Cancer, GenNYSis Center for

Excellence in Cancer Genomics, State University of New York at Albany, Albany,

NY, USA

2009-2011 Senior Research Fellow, Cellular and Molecular Biology of Cancer, Department

of Cancer Biology, Mayo Clinic Cancer Center, Jacksonville, FL, USA

2011-2016 Research Associate, Cellular and Molecular Biology of Cancer, Department of

Cancer Biology, Mayo Clinic Cancer Center, Jacksonville, FL, USA

2014-2016 Instructor of Cancer Biology, Mayo Clinic College of Medicine, Jacksonville, FL,

USA

2016-present Assistant Professor, Department of Regenerative Medicine and Cell Biology,

Medical University of South Carolina, Charleston, SC, USA

2016-present Abney Scholar, Hollings Cancer Center, Medical University of South Carolina,

Charleston, SC, USA

HONORS-AWARDS

1997-1998	Tzivoglou Foundation Award for undergraduate studies (Institutional, 1/year).
	Aristotle University of Thessaloniki, Thessaloniki, Greece
2000 2002	Podossaki Foundation Followship for DhD studios (National 2/year) Aristotle

2000-2002 Bodossaki Foundation Fellowship for PhD studies (National, 2/year). Aristotle University of Thessaloniki, Thessaloniki, Greece

2014-2016 Jay and Deanie Stein Career Development Award for Cancer Research, Mayo Clinic (04/01/14 - 07/31/16, \$100,000). Reversal of Ecad/p120-induced

tumorigenicity of Inflammatory Breast Cancer cells via miRNA-mediated

reprogramming.

Role: PI

PUBLICATIONS

A. Original Research Articles

- **Example 2005** Kourtidis A and Scouras ZG. Analysis and characterization of the transcriptional unit of a new *Mytilus galloprovincialis* (Mollusca, Bivalvia) *hsp70* gene. **DNA Sequence** 16:36-43.
- **Yes** 2006 Kourtidis A. Drosopoulou E, Nikolaidis N, Hatzi VI, Chintiroglou CC, Scouras ZG. Identification of several cytoplasmic HSP70 genes from the Mediterranean mussel (*Mytilus galloprovincialis*) and their long-term evolution in Mollusca and Metazoa. *Journal of Molecular Evolution* 62:446-459.
- **2006** Kourtidis A, Drosopoulou E, Pantzartzi CN, Chintiroglou CC, Scouras ZG. Three new satellite sequences and a mobile element found inside HSP70 introns of the Mediterranean mussel (*Mytilus galloprovincialis*). **Genome** 49:1451-1458
- **2007** Evans SC, <u>Kourtidis A</u>, Markham TS, Miller J, Conklin DS, Torres A. microRNA target detection and analysis for genes related to breast cancer using MDLcompress. *EURASIP Journal on Bioinformatics and Systems Biology* 43670.
- **2008** Lastro ML, <u>Kourtidis A</u>, Farley K, Conklin DS. xCT expression reduces the early cell cycle requirement for calcium. *Cellular Signaling* 20:390-399.
- **2008** Ranganathan AC, Ojha S, <u>Kourtidis A</u>, Conklin DS, Aguirre-Ghiso JA. Dual function of PERK in tumor cell growth arrest and survival. *Cancer Research* 68:3260-3268.
- **2008** O'Connell CB, Lončarek J, Hergert P, <u>Kourtidis A</u>, Conklin DS, Khodjakov A. The spindle assembly checkpoint monitors attachment and not tension during Mitosis with an Unreplicated Genome (MUG). *Journal of Cell Biology* 183:29-36.
- 2009 Pantzartzi CN, <u>Kourtidis A</u>, Drosopoulou E, Yiangou M, Scouras ZG. Isolation and characterization of two cytoplasmic *hsp90* genes from *Mytilus galloprovincialis* (Mollusca: Bivalvia) that contain a complex promoter with a p53 binding site. *Gene* 431:47-54.
- **2009** <u>Kourtidis A</u>, Srinivasaiah R, Carkner RD, Brosnan MJ, Conklin DS. Peroxisome proliferator-activated receptor-γ protects ERBB2-positive breast cancer cells from palmitate toxicity. *Breast Cancer Research* 11:R16
- 2009 Adam AP, George A, Schewe D, Bragado P, Iglesias BV, Ranganathan A, <u>Kourtidis A</u>, Conklin DS, Aguirre-Ghiso JA. Computational identification of a p38^{SAPK} regulated

- transcription factor network required for tumor cell quiescence. *Cancer Research* 69:5664-72.
- **2010** Kourtidis A, Jain R, Carkner RD, Eifert C, Brosnan MJ, Conklin DS. An RNAi screen identifies metabolic regulators *NR1D1* and *PBP* as novel survival factors for breast cancer cells with the *ERBB2* signature. *Cancer Research*, 70:1783-92
- 2012 Ngok SP, Geyer R, Liu M, <u>Kourtidis A</u>, Agrawal S, Wu C, Seerapu HR, Lewis-Tuffin LJ, Moodie K, Huveldt D, Marx R, Baraban J, Storz P, Horowitz A, Anastasiadis PZ. VEGF and Angiopoietin-1 exert opposing effects on cell junctions by regulating the Rho GEF Syx. *Journal of Cell Biology*, 199(7): 1103-15.
- 2013 Ngok SP, Geyer R, <u>Kourtidis A</u>, Storz P, Anastasiadis PZ. Phosphorylation-mediated 14-3-3 binding regulates the function of the RhoGEF Syx. *Journal of Biological Chemistry*, 288(9):6640-50.
- 2013 Ngok SP, Geyer R, Kourtidis A, Feathers RW, Mitin N, Der C, Anastasiadis PZ. TEM4 is a junctional RhoGEF required for cell-cell adhesion, monolayer integrity, and barrier function. Journal of Cell Science, 126 (Pt 15): 3271-7.
- **2013** Eifert C, Wang X, Kokabee L, <u>Kourtidis A</u>, Jain R, Gerdes MJ, Conklin DS. A novel isoform of the B cell tyrosine kinase BTK protects breast cancer cells from apoptosis. *Genes Chromosomes Cancer*, 52(10):961-75.
- 2013 Daechsel JC, Ngok SP, Lewis-Tuffin LJ, <u>Kourtidis A</u>, Johnston L, Feathers RW, Anastasiadis PZ. The RhoGEF Syx regulates the balance of Dia and ROCK activities to promote polarized cancer cell migration. *Molecular and Cellular Biology*, 33(24):4909-18
- 2014 Xu D, Vamsee-krishna C, <u>Kourtidis A</u>, Conklin DS, Shi H. In search of novel drug target sites on estrogen receptors using RNA aptamers. *Nucleic Acid Therapeutics*, 24(3):226-38.
- **2015** Kourtidis A, Huveldt D, Yanagisawa M, Copland JA, Anastasiadis PZ. Pro-tumorigenic phosphorylation of p120 catenin in renal and breast cancer. *PLOS ONE*, 10(6):e0129964.
- 2015 Kourtidis A, Ngok SP, Pulimeno P, Feathers RW, Carpio L, Baker T, Carr JM, Yan IK, Borges S, Perez EA, Storz P, Copland JA, Patel T, Thompson EA, Citi S, Anastasiadis PZ. Distinct E-cadherin-based complexes regulate cell behaviour through miRNA processing or Src and p120-catenin activity. Nature Cell Biology, 17(9):1145-57.
 - (**Top read:** ~30,000 views to date; **Faculty of 1000:** Two Recommendations 4 stars, to date; **Nature Medicine:** News in Brief, October 2015, 21, 1112–13; Highlighted in <u>BBC</u> news and other news outlets)
- **2016** Kourtidis A and Anastasiadis PZ. PLEKHA7 defines an apical junctional complex with cytoskeletal associations and miRNA-mediated growth implications. *Cell Cycle* 2016 15: 498-505
- **2016** Fiorotto R, Villani A, <u>Kourtidis A</u>, Scirpo R, Amenduni M, Cadamuro M, Spirli C,. Anastasiadis PZ, Strazzabosco M. CFTR controls biliary epithelial inflammation and permeability by regulating Src tyrosine kinase activity. Submitted to *Hepatology*.
- **2016** <u>Kourtidis A</u>, Necela B, Carr J, Thompson EA, Anastasiadis PZ. Association of the zonula adherens with RISC. Submitted to *Nature Cell Biology*.
- **2016** <u>Kourtidis A</u>, Olsen L, Benitez J, Carr J, Thompson EA, Anastasiadis PZ. PLEKHA7 reverses inflammatory breast cancer growth via miRNAs. In preparation for *Breast Cancer Research*.

B. Reviews, Book Chapters, Editorials

2007 <u>Kourtidis A</u>, Eifert C, Conklin DS. RNAi Applications in Target Validation. *Ernst Schering Research Foundation Workshop*. 61:1-21

- 2007 Eifert C, <u>Kourtidis A</u>, Conklin DS. RNA interference libraries in dissecting molecular pathways of the human cell. *RNAi*. BIOS Advanced Methods Press, Editor: Martin Latterich. pp 47-63
- 2011 Baumann J, Karch C, <u>Kourtidis A</u>, Conklin DS. Electronics of HER2/neu Positive Breast Cancer Cells. *Breast Cancer Cells/Book 5*. InTech, Editor: Brunhilde Felding-Habermann. pp 17-36
- **Yes Yes Yes**
- **2016** Kourtidis A and Anastasiadis PZ. Bringing together cell-to-cell adhesion and miRNA biology in cancer research. Future Oncology 2016 12: 1211-1214

C. Media Publications

2015 Kourtidis A. The new RNA world in research and cancer therapy: no dogmas attached. **DoveMed**, September 23, 2015. http://www.dovemed.com/dovemed-blog/new-rna-world-research-and-cancer-therapy-no-dogmas-attached/

CONFERENCE ABSTRACTS

- **1998** Kourtidis A, Nikolaidis N, Chintiroglou C, and Scouras ZG. Analysis of the mtDNA in populations of the Sphaeromatidae family (Crustacea, Isopoda). *Proceedings of the 20th Hellenic Society for Biological Sciences (HSBS)*, pp 144.
- 2001 Chintiroglou C, Skoufas G, Arsenoudi P, <u>Kourtidis A</u> and Scouras ZG. Structure of the natural populations of *Mytilus galloprovincialis* Lmk. in Thermaikos gulf. *Proceedings of the 36th Commission Internationale pour l'Exploration Scientifique de la Méditerranée (CIESM)*, pp 254.
- **Year Molecular** Molecular studies on Mytilus galloprovincialis populations in Thermaikos gulf. Proceedings of the 9th International Congress on the Zoogeography and Ecology of Greece and Adjacent Regions (ICZEGAR), pp 80.
- **Example 2002** Kourtidis A, Hatzis V, Drosopoulou E, Nikolaidis N, Chintiroglou C, and Scouras ZG. Isolation and characterization of an hsp70 sequence from Mytilus galloprovincialis. Proceedings of the 24th HSBS, pp 146.
- **2003** <u>Kourtidis A</u>, Pantzartzi C, Drosopoulou E, Chintiroglou C, and Scouras ZG. Application of microsatellite primers in populations of the bivalve *Mytilus galloprovincialis* of Thermaikos gulf. *Proceedings of the 25th HSBS*, pp 167.

2003 <u>Kourtidis A</u>, Pantzartzi C, Drosopoulou E, Chintiroglou C, and Scouras ZG. A study on the populations of the bivalve Mytilus galloprovincialis from Thermaikos gulf using molecular markers. *Abstract in the Society of Hellenic Ecologists (SHE) Congress*.

- **2003** Drosopoulou E, Karamanlidis A, Vittas S, <u>Kourtidis A</u>, and Scouras ZG. Preliminary results on the study of the brown bear population in Grevena area using molecular markers. *Abstract in SHE Congress*.
- **Example 2004** Kourtidis A, Hatzis V, Drosopoulou E, and Scouras ZG. Isolation and mapping of hsp70 secuences from Mytilus galloprovincialis. Proceedings of the 25th HSBS, pp 169.
- **2005** <u>Kourtidis A</u>, Curley M, and Conklin DS. Functional genomic analysis of breast cancer cell tumorigenicity. *Proceedings of the 4th Era of Hope DOD Breast Cancer Research Program Meeting. pp 47*.
- **2005** <u>Kourtidis A</u> and Conklin DS. An RNAi screen on Genes Overexpressed in Breast Cancer. SUNY at Albany, Department of Biomedical Sciences Annual Retreat, October 11.
- **2006** Evans SC, Markham TS, Torres A, <u>Kourtidis A</u>, and Conklin DS. An Improved Minimum Description Length Learning Algorithm for Nucleotide Sequence Analysis. *Proceedings of the Fortieth Asilomar Conference on Signals, Systems and Computers. pp 1843-1850.*
- 2007 Adam AP, George A, Iglesias BV, Ranganathan AC, <u>Kourtidis A</u>, Conklin DS, and Aguirre-Ghiso JA. Induction of tumor cell quiescence by p38^{SAPK} requires positive regulation of p53 and Dec2/BLHBH3. *Cold Spring Harbor Phosphorylation, Signaling and Disease Meeting*.
- **Example 2007 Kourtidis A**, Carkner RD, DiRusso CM Brosnan MJ, and Conklin DS. 2007. An RNAi screen identifies lipid metabolism as a survival pathway for breast cancer cells with the ERBB2 amplicon. SUNY at Albany, Department of Biomedical Sciences Annual Retreat, October 9.
- **2008** <u>Kourtidis A</u>, Carkner RD, Brosnan MJ, and Conklin DS. An RNAi screen identifies enhanced triglyceride storage as a survival factor for breast cancer cells with the *ERBB2* amplicon. *Proceedings of the 99th Annual Meeting of the American Association for Cancer Research (AACR)*, abstract #938.
- **2008** Pantzartzi CN, <u>Kourtidis A</u>, Drosopoulou E, Yiangou M, and Scouras ZG. Evolution of a gene duplication of the cytolasmic HSP90 genes. *Proceedings of the 30th HSBS*, pp 436.
- **Year Methods** 2008 **Kourtidis A**, Carkner RD, Eifert C, Brosnan MJ, and Conklin DS. 2008. An RNAi screen identifies lipid metabolism as a survival pathway for breast cancer cells with the ERBB2 amplicon. SUNY at Albany, Department of Biomedical Sciences Annual Retreat, October 7.
- **Year Mark** 2008 <u>Kourtidis A</u>, Carkner RD, Eifert C, Brosnan MJ, and Conklin DS. An RNAi screen identifies regulators of lipid metabolism as survival factors for breast cancer cells with the *ERBB2* amplicon. *Capital Region Cancer Research group (CRCR) Bioconnex conference on Cancer Genomics, Rensselaer Polytechnic Institute, November 7.*
- **2010** Kourtidis A, Huveldt D, and Anastasiadis PZ. Distinct p120-cadherin complexes regulate either Rac1 activation and cell migration, or junction maturation and epithelial cell compaction. Nature Conferences The Miami 2010 Winter Symposium: Targeting Cancer Invasion and Metastasis, February 21-24.
- **2010** Xu D, <u>Kourtidis A</u>, Conklin DS, Shi H. Creating RNA aptamers to modulate functions of human estrogen receptor alpha. *RNA & oligonucleotide therapeutics, Cold Spring Harbor Laboratory Meetings, pp. 9.*

2010 Kourtidis A, Huveldt D, and Anastasiadis PZ. Distinct p120-cadherin complexes regulate either Rac1 activation and cell migration, or junction maturation and epithelial cell compaction. Gordon Research Conference: Signaling by Adhesion Receptors, July 11-16.

- **2011** Kourtidis A, Carpio L, and Anastasiadis PZ. Distinct p120-cadherin complexes promote either epithelial junction maturation or cell motility and tumor progression. Gordon Research Conference: Cell Contact and Adhesion, June 19-24.
- **2011** Ngok SP, Geyer R, <u>Kourtidis A</u>, Huveld D, Agrawal S, Marx R, Baraban J, Storz P, Horowitz A, and Anastasiadis PZ. VEGF and Angiopoietin-1 exert opposing effects on cell junctions by regulating the RhoGEF Syx. *Gordon Research Conference: Cell Contact and Adhesion, June 19-24*.
- 2013 Baumann JM, <u>Kourtidis A</u>, Conklin DS. The lipogenic phenotype of HER2/neu-positive breast cancer cells. *Proceedings of the 104th Annual Meeting of the American Association for Cancer Research (AACR), abstract #1894*
- **Yes Yes Yes**
- **2015** Kourtidis A, Carr JM, Yan IK, Patel T, Thompson EA, and Anastasiadis PZ. Association of the RNAi machinery with the zonula adherens regulates growth-related signaling. Gordon Research Conference: Cell Contact and Adhesion, June 28-July 3.
- **2015** Kourtidis A, Carr JM, Yan IK, Patel T, Thompson EA, and Anastasiadis PZ. Association of the RNAi machinery with the zonula adherens regulates growth-related signaling. *American Society for Cell Biology (ASCB) Annual Meeting, December 12-16.*

SEMINAR TALKS

- "Isolation, molecular and phylogenetic analysis of genes of the HSP70 family in the bivalve mollusc *Mytilus galloprovincialis*". GenNYSis Center for Excellence in Cancer Genomics, SUNY at Albany, Albany, NY, September 29
- "Isolation, molecular characterization and phylogenetic analysis of genes of the HSP70 family in the bivalve mollusc Mytilus galloprovincialis, Lmk. 1819". PhD Thesis Seminar. School of Biology, Aristotle University of Thessaloniki, Thessaloniki, Greece, December 2.
- "Genes on the ERBB2 amplicon are important for breast cancer cell homeostasis and survival". David Axelrod Institute, Wadsworth Center, Albany, NY, October 9.
- "An RNAi screen identifies regulators of fat metabolism as survival factors for breast cancer cells with the ERBB2 amplicon." GenNYSis Center for Excellence in Cancer Genomics, SUNY at Albany, Albany, NY, June 20
- 2009 "An RNAi screen identifies regulators of fat metabolism as survival factors for breast cancer cells with the ERBB2 signature." Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, April 21
- 2010 "Distinct p120-catenin complexes regulate either junction maturation and epithelial cell compaction or cell motility and migration". Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, September 21

2011 "A brief history of cell metabolism and polarity". Department of Biological Sciences, University of Cyprus, Nicosia, Cyprus, February 25

- 2012 "The double life of p120: who's to blame?" Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, February 7
- 2012 "How minimal disruptions in normal epithelial architecture can induce tumorigenesis".
 University of Florida College of Medicine Grand Rounds, University of Florida Shands Hospital, Jacksonville, Florida, December 5
- 2013 "The Adherens Junction protein PLEKHA7 suppresses pro-tumorigenic signals in epithelial cells". Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, April 16
- **2014** "PLEKHA7: can a protein with an unpopular name become popular in cancer research?" Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, April 1
- 2015 "There is some interference at the junctions". Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, April 14
- 2015 "Cell-cell junctions regulate cell behavior via miRNAs" University of North Florida, Department of Biology seminar series, Jacksonville, Florida, November 6
- 2015 "Association of the RNAi machinery with the zonula adherens regulates growth-related signaling". Microsymposium talk, *American Society for Cell Biology (ASCB) Annual Meeting*, San Diego, California, December 15
- 2016 "There is some interference at the junctions". Department of Regenerative Medicine and Cell Biology, Medical University of South Carolina, Charleston, South Carolina, January 4
- 2016 "A Novel Association of the RNAi Machinery with the Adherens Junctions". Department of Molecular, Cellular and Developmental Biology, University of California Santa Barbara, Santa Barbara, California, January 13
- 2016 "RISCy business at the junctions". Mayo Clinic Cancer Center, Griffin Cancer Research Building, Jacksonville, Florida, March 30

ORIGINAL GENBANK SUBMISSIONS

- **2003** Kourtidis A and Scouras ZG. Mytilus galloprovincialis hsp70-1 gene for heat shock protein 70. Accession #: AJ585375
- **2004** Kourtidis A and Scouras ZG. Mytilus galloprovincialis hsp70-2 gene for heat shock protein 70. Accession #: AJ783711
- **2004** <u>Kourtidis A</u> and Scouras ZG. *Mytilus galloprovincialis hsp70-3* gene for heat shock protein 70. Accession #: AJ783712
- **2004** Kourtidis A and Scouras ZG. Mytilus galloprovincialis hsp70-4 gene for heat shock protein 70. Accession #: AJ783713
- **2004** <u>Kourtidis A</u> and Scouras ZG. *Mytilus galloprovincialis hsc71* gene for heat shock cognate 71, exons 1-6. Accession #: AJ783714
- **2004** Kourtidis A and Scouras ZG. Mytilus galloprovincialis partial hsc70 gene for heat shock cognate 70, exons 4-5. Accession #: AJ783715

PATENTS

Conklin DS, and <u>Kourtidis A</u>. Regulators of Fat Metabolism as Anti-Cancer Targets. US Patent Application # 20100267803. Filed 2009.

Conklin DS, Eiffert C, and <u>Kourtidis A</u>. Bruton's Tyrosine Kinase as Anti-Cancer Drug Target. US Patent # 8,513,212.

PROFESSIONAL MEMERSHIPS

2006-2009 Capital Region Cancer Research (CRCR) group, Albany, NY

2009-2016 Mayo Clinic Research Fellow Association (MRFA)

2010-present Mayo Clinic Allumni Association

2009-present Hellenic Bioscientific Association in the USA (HBA-USA)

2015-present American Society for Cell Biology (ASCB)

JOURNAL PEER-REVIEWER

Nature Methods

Journal of Cell Biology

Journal of Cell Science

Oncogene

Breast Cancer Research

International Journal of Cancer

BMC Biology

Current Medicinal Chemistry

Medical Science Monitor

MENTORING-TEACHING

A. Mentoring of Students and Trainees

Undergraduate students:

- Rodoniki Athanasiadou (2000-2001)
- Elena Bousiaki (2001-2002)
- Olympia Papadaki (2001-2002)
- Ioanna Chiotoglou (2002-2003)
- Aggeliki Tserga (2002-2003)
- Elise Kochoumian (2005)
- Adey Teshome (2005)
- Rich Yerry (2005-2006)
- Benjamin Yeung (2008)

- Lomeli Carpio (2010)
- Kathryn Dasburg (2011)
- Lauren Olsen (2013)

Graduate students:

- Vasiliki Hatzi (2001-2002)
- Aglaia Topoglidi (2001-2002)
- Chrysoula N. Pantzartzi (2003-2004)
- Daiying Xu (2008-2009)
- Jesus Benitez (2013)
- Alicia Fleming (2014)

* Research Technicians:

- Matthew Curley (2004-2005)
- Rekha Srinivasaiah (2007-2008)

B. Teaching

2000-2001

Assistant in courses in "Anthropology", School of Biology, Aristotle University of Thessaloniki, Greece.

Hours/semester: 12

Syllabus: Morphometrics of human skulls and skeletons; age determination; sex determination; human skeleton evolution

2000-2002

Assistant in courses in "Genetics", School of Biology, Aristotle University of Thessaloniki, Greece.

Hours/semester: 18

Syllabus: Drosophila crossings (F1, F2); "Hardy-Weinberg" equilibrium; inheritance of dominant-recessive and autosomal-sexual genes; inheritance of linked genes; Karyotype preparation; chromosomal abnormalities; total genomic DNA isolation and purification from Drosophila specimens or human blood cells; agarose gel electrophoresis.

2000-2004

Assistant in "**Special Topics in Genetics**", School of Biology, Aristotle University of Thessaloniki, Greece.

Hours/semester: 18

Syllabus: Total Genomic library construction and screening; mitochondrial DNA (mtDNA) isolation and purification; restriction enzyme mapping of genomic library fragments and of mtDNA (RFLPs); PCR amplification of target genes; Bioinformatic alalysis of gene structure; Bioinformatic analysis of gene evolution - phylogenetic tree construction.

2000-2003

Teaching Genetics, Molecular Biology, Cellular Biology, and Evolution to High School students, Thessaloniki, Greece