

Özden Yalçın-Özuysal

Contact information

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Education

January 2005 – August 2009 **Ph.D. in Life Sciences**
Faculty of Biology and Medicine
University of Lausanne
Lausanne, Switzerland
Thesis: Role of Notch signaling in mammary gland development and breast cancer
Advisor: Prof. Cathrin Brisken

September 2002- September 2004 **M.Sc. in Molecular Biology and Genetics**
Bilkent University, Ankara, Turkey
Thesis: Expression of Notch signaling pathway receptors and ligands in human breast cancer cell lines and human breast tumors
Advisor: Prof. Mehmet Öztürk
GPA: 4.00/4.00

September 1998 – June 2002 **B.S. in Molecular Biology and Genetics**
Bilkent University, Ankara, Turkey
Senior Project: Expression patterns of TA-p73 and DN-p73 in breast cancer cell lines, tumor and normal tissues
Advisor: Prof. Işık Yuluğ
GPA: 3.39/4.00

Research/Work Experience

April 2010 - present **Assistant Professor**
Izmir Institute of Technology
Molecular Biology and Genetics Department
Izmir / Turkey

August 2009 – April 2010 **Post-Doctoral Research Fellow**
ISREC / EPFL
(Swiss Institute for Experimental Cancer Research / Ecole Polytechnique Fédérale de Lausanne),
Lausanne, Switzerland
Lab of Prof. Cathrin Brisken

September 2002 – September 2004 **Bilkent University, Dept. of Molecular Biology and Genetics, Ankara, Turkey**
Research assistant
Title: Genes involved in cancer cell immortalization and senescence
Advisor: Prof. Mehmet Öztürk

- July 2001 – September 2001 **Bilkent University, Dept. of Molecular Biology and Genetics, Ankara, Turkey**
Summer research project
Title: Expression patterns of TA-p73 and DN-p73 in breast cancer cell lines, tumor and normal tissues
Advisor: Prof. Işık Yuluğ
- June 2001 **Rockefeller University, Laboratory of Molecular and Cellular Neuroscience, New York, USA**
Summer research project
Title: Alzheimer
Advisor: Prof. Paul Greengard
- June 2000 – August 2000 **Leibniz Institute of Neurobiology Magdeburg, Germany**
Summer research project
Title: *In vitro* interaction of presynaptic Bassoon protein with NPC2
Advisor: Wilko Altmann, Ph.D., Prof. Eckard Gundelfinger

Publications

- Zengin T, Ekinci B, Kucukkose C, **Yalcin-Ozuysal O**. – “IRF6 is involved in the regulation of cell proliferation and transformation in MCF10A cells downstream of Notch signaling” – PLoS ONE, 2015, 10(7): e0132757, doi:10.1371/journal.pone.0132757.
- Rajaram R, Buric D, Caikovski M, Ayyanan A, Rougemont J, Shan J, Vainio S, **Yalcin-Ozuysal O**, Brisken C. – “Progesterone and Wnt4 control mammary stem cells via myoepithelial crosstalk” – EMBO Journal, 2015, 4;34(5):641, doi: 10.15252/embj.201490434.
- Tanos T, Sflomos G, Echeverria PC, Ayyanan A, Gutierrez M, Delaloye JF, Raffoul W, Fiche M, Dougall W, Schneider P, **Yalcin-Ozuysal O**, Brisken C. – “Progesterone/RANKL Is a Major Regulatory Axis in the Human Breast” – Science Translational Medicine, 2013, 24;5(182):182ra55, doi: 10.1126/scitranslmed.3005654.
- Restivo G, Nguyen BC, Dziunycz P, Ristorcelli E, Ryan RJ, **Özuysal ÖY**, Di Piazza M, Radtke F, Dixon MJ, Hofbauer GF, Lefort K, Dotto GP. – “IRF6 is a mediator of Notch pro-differentiation and tumour suppressive function in keratinocytes” – EMBO Journal, 2011, 30(22):4571, doi:10.1038/emboj.2011.325.
- Ayyanan A, Laribi O, Schuepbach-Mallepell S, Schrick C, Gutierrez M, Tanos T, Lefebvre G, Rougemont J, **Yalcin-Ozuysal O**, Brisken C. – “Perinatal exposure to bisphenol a increases adult mammary gland progesterone response and cell number” – Molecular Endocrinology, 2011, 25(11):1915, doi: 10.1210/me.2011-1129.
- Yalcin-Ozuysal O**, Fiche M, Guitierrez M, Wagner K, Raffoul W, Brisken C. – “Antagonistic roles of Notch and p63 in controlling mammary epithelial cell fates” – Cell Death and Differentiation, 2010, 17(10):1600, doi:10.1038/cdd.2010.37.
- Yalcin-Ozuysal O**, Brisken C. – “From normal cell types to malignant phenotypes” – Breast Cancer Research, 2009, 11:306, doi: 10.1186/bcr2418.
- Ozturk N, Erdal E, Mumcuoglu M, Akcali KC, **Yalcin O**, Senturk S, Arslan-Ergul A, Gur B,

Yulug I, Cetin-Atalay R, Yakicier C, Yagci T, Tez M, Ozturk M. - “Reprogramming of replicative senescence in hepatocellular carcinoma-derived cells” – PNAS, 2006, 103(7): 2178, doi: 10.1073/pnas.0510877103.

Grants

- June 2014-June 2017 “Identification of novel Notch target genes that are mediators of Notch in inducing epithelial-mesenchymal transition and migration/invasion” supported by TUBITAK (The Scientific and Technological Research Council of Turkey)
- April 2011-April 2014 “The role of IRF6 as a switch for the cell growth inhibitor or inducer functions of Notch signaling” supported by TUBITAK (The Scientific and Technological Research Council of Turkey)
- June 2011-June 2012 “Understanding the tumor suppressor role of IRF6 and its effect on p63” supported by Izmir Institute of Technology

Conferences and Meetings

- October, 2013 **XIII. National Congress of Medical Biology and Genetics**
Kusadasi, Turkey
Poster presentation
- October 2009 **Invited speaker** by Prof. Daniela Taverna
Molecular Biotechnology Center, Universita di Torino
Turin, Italy
- April 2009 **ENBDC (European Network of Breast Development and Cancer Labs) Workshop on “Methods in Mammary Gland Biology and Breast Cancer”**
Luzern, Switzerland
Poster presentation
- August 2008 **Cancer and the Cell Cycle**
EPFL Life Science Symposium, Lausanne, Switzerland
Poster presentation
- June 2008 **Mammary Gland Biology Gordon Conference**
Il Ciocco, Italy
Short talk: Mechanisms of Notch signaling in breast epithelial cells
- March 2008 **NCCR Molecular Oncology Cancer Research Day**
Lausanne, Switzerland
Poster presentation
- February 2008 **Biology Meets Engineering**
USGEB Meeting, Lausanne, Switzerland
- June 2007 **5th Annual Meeting of Frontiers in Genetics**
National Center of Competence in Research (NCCR),

Saas Fee, Switzerland

Short talk: Mechanisms of Notch signaling in breast epithelial cells

Teaching Experience

- September 2010 - Current Courses taught:
MBG202- Molecular Biology
MBG212- Molecular Biology Lab
MBG401- Recombinant DNA Technologies
MBG404- Developmental Biology
MBG405- Current Techniques in Molecular Biology
- July 2008 – August 2008 Summer student supervision , ISREC/EPFL, Switzerland
Title: Effects of Notch signaling inhibition on human breast cancer cell lines
- July 2007 – August 2007 Summer student supervision, ISREC/EPFL, Switzerland
Title: Cloning of Notch2 intracellular domain (ICD) into retroviral vector and effects of Notch2 ICD expression in human breast epithelial cell lines
- October 2008, 2007 and 2006 Teaching of cell culture techniques and virus work in October Module course, ISREC/EPFL, Switzerland
- September 2002 – January 2004 Teaching assistant in Biochemistry I Laboratory, Bilkent University, Ankara

Post Graduate Courses

- August 2007 Introduction to animal experimentation, practical aspects EPFL, Lausanne, Switzerland
- May 2007 Introduction to animal experimentation, theoretical part CHUV, Lausanne, Switzerland
- March 2007 Introduction to statistics for biologists EMBnet course, Basel University, Switzerland
- September 2006 DNA microarray data analysis EMBnet course, EPFL, Switzerland

Honors and Awards

- 1998 - 2004 Full scholarship at Bilkent University, Dept. Molecular Biology and Genetics
- 1998-2004 TUBITAK Scholarship for qualified Science master and bachelor students (TUBITAK, Turkish Council of Science and Technology)
- 1998 220th rank among more than 1.5 million students taking national university entrance exam (OSS-OYS)
- 1997 First prize in physics in “National project competition among high school students” by TUBITAK

1995 37th rank among more than 500.000 students taking the national science high school entrance exam

Skills

- Laboratory Skills
- Molecular biology techniques for RNA and protein expression analysis (Real-time QRT-PCR, in situ hybridization, Western-Blott, immunostaining)
 - Cloning
 - Gene expression by retro- and lenti-viral systems
 - shRNA mediated knockdown
 - Establishment and culturing of primary cells from normal human breast
 - Fluorescence activated cell sorting (FACS)
 - Mouse handling: Transgenic mouse models, in vivo manipulation and analysis of mouse mammary gland (surgeries for mammary gland reconstitution assays by tissue transplantations or cell injections, ovariectomy, tumor assay, embryonic bud dissection)
- Computer Skills
- Basic MS Office applications
 - Basic bioinformatic tools for data mining
 - R programming language (beginner level)
 - Java programming language (beginner level)