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EDUCATION

Postdoc. Biology, 2008 – 2013.

Massachusetts Institute of Technology, Cambridge, MA, USA.

Ph. D. Biology, 2001 – 2007.

Johns Hopkins University, Baltimore, MD, USA.

Thesis: Characterization of double-strand break-induced cohesin domain assembly and function.

B.S. Molecular Biology and Genetics, 1997 – 2001.

Bilkent University, Ankara, Turkey.

RESEARCH and PROFESSIONAL EXPERIENCE

Assistant Professor of Genetics, Genomics and Development, January 2014 – now.

University of California, Berkeley, CA

- My lab studies the principles and regulation of meiotic differentiation. Specifically, we aim to understand (1) how the dynamic gene expression program of meiosis controls specialized events such as stepwise chromosome segregation and (2) how gamete formation promotes cellular rejuvenation and how cellular quality control pathways mediate organelle segregation and protein homeostasis during meiotic differentiation.

Postdoctoral Fellow, Feb 2008 – Sep 2013.

Massachusetts Institute of Technology, Cambridge, MA.

Advisor: Dr. Angelika Amon

- Using molecular and cell biological tools to study (1) the effect of gametogenesis on aging and lifespan (2) the role of cyclin-CDK regulation in meiotic chromosome segregation in *Saccharomyces cerevisiae*.

Visiting Fellow, Jun 2012 – Aug 2012.

University of Wisconsin, Madison, WI.

Advisor: Dr. Judith Kimble

- Initiated studies to develop *Caenorhabditis elegans* as a metazoan model system to study gametogenesis-induced rejuvenation.

Postdoctoral Fellow, May 2007 – Jan 2008.

Carnegie Institute for Science, Baltimore, MD.

Advisor: Dr. Douglas Koshland

- Investigated the Eco1 acetyltransferase function during sister chromatid cohesion establishment.

Graduate Student, June 2002 – Apr 2007.

Johns Hopkins University and Carnegie Institute for Science, Baltimore, MD.

Advisor: Dr. Douglas Koshland

- Characterized the regulation and function of cohesin complex during DNA double-strand break response.

Research Assistant, Sep 2000 – Jun 2001.

Bilkent University, Ankara, Turkey.

Advisor: Dr. Işık Yuluğ

- Characterized the expression patterns of p63 and p73 tumor suppressor genes from breast cancer tissues.

Research Assistant, Jun 2000 – Sep 2000.

Johns Hopkins University, Baltimore, MD.

Advisor: Dr. Gary Ostrander

- Characterized novel Retinoblastoma gene mutations in the fish model *Oryzias latipes*.

HONORS AND AWARDS

R.R. Bensley Award in Cell Biology	2018
NIH Director's New Innovator Award	2016
Damon Runyon Innovator	2015
March of Dimes Basil O'Connor Award	2015
Pew Charitable Trusts Scholar	2014
John P. Stock Faculty Fellow	2014
Glenn Foundation Faculty Fellow	2014
Jane Coffin Childs Memorial Fund Postdoctoral Fellow	2008
Harold M. Weintraub Graduate Student Award	2008
Phi Beta Kappa Honor Society, Johns Hopkins University	2008
Best Poster Award, Department of Biology, Johns Hopkins University	2003
DuPont Teaching Excellence Award, Johns Hopkins University	2002
Undergraduate Research Certificate, Howard Hughes Medical Institute	2000
Dean's Honors List, Bilkent University	2001
Full Scholarship, Bilkent University	1997

UNIVERSITY and DEPARTMENTAL SERVICE

MCB Graduate Program Admissions Committee Member	2014 – now
MCB Emphasis Night GGD Representative Faculty	2015 – now
UC Berkeley WiSE Panel Discussion Member	2014 – now
Thesis Committee Member for UC Berkeley Graduate Students	2014 – now
Qualifying Exam Committee Member for UC Berkeley Graduate Students	2014 – now
MCB Graduate Affairs Committee GGD Representative Faculty	2016
QB3 SLAM Seminar Speaker	2016
MCB Graduate Program Fundraising Brochure Featured Faculty	2016
MCB293 Responsible Conduct of Research Instructor	2015
MCB Graduate Student Micro Symposium Reviewer	2014
MCB Undergraduate Honors Symposium Reviewer	2014

PROFESSIONAL SERVICE

Member of the Genetics Society of America	2014 – now
Peer Reviewer for eLife, Science, PLOS, Aging Cell, JCB, Current Biology, NAR	2014 – now
Genetics Society of America DeLill Nasser Award Ad Hoc Reviewer	2015 – now
Cold Spring Harbor Yeast Genetics and Genomics Course Instructor	2017 – now
eLife Reviewing Editor	2018 – now
ASCB-EMBO Meeting Minisymposium Organizer	2017
BRF Seed Funding Ad Hoc Reviewer	2016

CLASSROOM TEACHING (2014 – now)

Classroom Teaching

- Spring 2018, Spring 2017, Spring 2016, Spring 2015 | MCB140 | General Genetics | faculty instructor | undergraduate upper division course
- Spring 2018, Spring 2017, Spring 2016 | MCB140L | General Genetics Lab | faculty instructor | undergraduate upper division course
- Spring 2017 | MCB231 | Advanced Stem Cell and Developmental Biology | guest lecturer | graduate course
- Spring 2017, Spring 2016 | MCB210 | Macromolecular Reactions and the Cell | guest lecturer | graduate course
- Fall 2014 | MCB290 | Cellular Quality Control Pathways | faculty instructor | graduate seminar course

LIST OF PUBLICATIONS

PUBLISHED RESEARCH PAPERS

1. Rotchell J.M., **Ünal, E.**, Van Beneden R.J., Ostrander G.K. *Retinoblastoma Gene Mutations In Chemically Induced Liver Tumor Samples Of Japanese Medaka*. **Marine Biotechnology**. 2001 Jun; 3, 44-49. (PR)
2. Glynn, E. F., Megee, P. C., Yu, H., Mistrot, C., **Ünal, E.**, Koshland, D. E., DeRisi, J. D., Gerton, J. L. *Genome-Wide Mapping Of The Cohesin Complex In The Yeast *S. Cerevisiae**. **PLoS Biology**. 2004 Sep; 2, 1325-1339. (PR)
3. **Ünal, E.**, Arbel-Eden, A., Sattler, U., Shroff, R., Lichten, M., Haber, J. E., and Koshland. *DNA Damage Response Pathway Uses Histone Modification To Assemble A Double-Strand Break-Specific Cohesin Domain*. **Molecular Cell**. 2004 Dec; 16, 991-1002. (PR)
 - Highlight of the article: Hirano, T. Cell biology: holding sisters for repair. *Nature*. 2005 Feb; 433(7025), 467-468.
4. Noble, D., Kenna M.A., Dix, M., Skibbens, R.V., **Ünal, E.**, Guacci, V. *Intersection Between The Regulators Of Sister Chromatid Cohesion Establishment And Maintenance In Budding Yeast Indicates A Multi-Step Mechanism*. **Cell Cycle**. 2006 Nov; 5(21), 2528-2536. (PR)
5. Milutinovich, M., **Ünal, E.**, Ward, C., Skibbens, R.V., Koshland, D. *A Multi-Step Pathway For The Establishment Of Sister Chromatid Cohesion*. **PLoS Genetics**. 2007 Jan; 19; 3(1), e12. (PR)
6. **Ünal, E.**, Pauli, J.H., Koshland, D. *DNA Double-Strand Breaks Trigger Genome-Wide Sister Chromatid Cohesion Through Eco1(Ctf7)*. **Science**. 2007 Jul; 317, 245-248. (PR)
 - Highlight of the article: Watrin, E. and Peters, J.M. Molecular biology: How and when the genome sticks together. *Science*. 2007 Jul; 317, 209-210.
7. **Ünal, E.**, Pauli, J.H., Kim, W., Guacci, V., Onn I., Gygi, S.P., Koshland, D. *A Molecular Determinant For The Establishment Of Sister Chromatid Cohesion*. **Science**. 2008 Jul; 321, 566-569. (PR)
 - Highlight of the article: Tanaka, K. and Watanabe, Y. Chromatid cohesion: acetylation joins the sisters. *Current Biology*. 2008 Oct; 18(19), 917-919.
8. Pauli, J.H., **Ünal, E.**, Guacci, V., Koshland, D. *The Kleisin Subunit Of Cohesin Dictates Damage-Induced Cohesion*. **Molecular Cell**. 2008 Jul; 31, 47-56. (PR)
9. Pauli, J.H., **Ünal, E.**, Koshland, D. *Distinct Targets Of The Eco1 Acetyltransferase Modulate Cohesion In S Phase And In Response To DNA Damage By Inhibiting The Wpl1 Protein*. **Molecular Cell**. 2009 May; 34, 311-321. (PR)

10. Boselli, M., Rock, J., **Ünal, E.**, Amon, A. *Effects Of Age On Meiosis In Budding Yeast. **Developmental Cell.*** 2009 Jun; 16, 844-855. (PR)
11. **Ünal, E.**, Kinde, B., Amon, A. *Gametogenesis Eliminates Age-Induced Cellular Damage And Resets Life-Span In Yeast. **Science.*** 2011 Jun; 332, 1554-1557. (PR)
 - Highlight of the article: Wrighton, K.H. Recapturing youth. *Nature Reviews Molecular Cell Biology.* 2011 Aug; 12(8): 466-467.
12. Miller, M.P.¹, **Ünal, E.¹**, Brar, G.A., Amon, A. *Meiosis I Chromosome Segregation Is Established Through Regulation Of Microtubule-Kinetochore Interactions. **eLife.*** 2012 Dec; 18, e00117 (1^{equal contribution}) (PR)
 - Highlight of the article: Lacefield, S. Helping chromosomes and chromatids stay on track. *eLife.* 2012 Dec; 18, e00388
13. Chen J.¹, Tresenrider A.¹, Chia M.H., McSwiggen D., Spedale G., Jorgensen V., Liao H., Van Werven F.², and **Ünal E.²** *Kinetochore Inactivation Through Expression of a Repressive mRNA. **eLife.*** 2017; 6. doi: 10.7554/eLife.27417. PubMed PMID: 28906249. (1^{equal contribution}, 2^{co-corresponding}) (PR)
14. Chia M.H.¹, Tresenrider A., Chen J., Spedale G., Jorgensen V., **Ünal E.²**, and Van Werven F.². *Transcription of a 5' extended mRNA isoform directs dynamic chromatin changes and interference of a downstream promoter. In revisions, **eLife.*** 2017; 6. doi: 10.7554/eLife.27420. PubMed PMID: 28906248. (2^{co-corresponding}) (PR)
 - Highlight of the article: Hildreth, A.E. and Arndt K.M. A transcriptional switch controls meiosis. *eLife.* 2017; 6: e31911
15. Chen J., McSwiggen D. and **Ünal E.** Single molecule fluorescence in situ hybridization (smFISH) analysis in budding yeast vegetative growth and meiosis. **JOVE** (accepted manuscript) (PR)
16. Hollerer I, Barker JC, Jorgenson V, Tresenrider A, Dugast-Darzacq C, Chan LY, Darzacq X, Tjian R, **Ünal, E*[#]**, Brar GA*. mRNA expression-mediated gene repression in human cells. *bioRxiv.* doi.org/10.1101/264721 (*equal contributions, #corresponding) (pre-print)

REVIEWS AND BOOKS

17. Onn, I., Pauli, J.H., Guacci, V., **Ünal, E.**, Koshland, D. *Sister Chromatid Cohesion: A Simple Concept With A Complex Reality. **Annual Reviews in Cell and Developmental Biology.*** 2008; 24, 105-129 (PR)
18. **Ünal, E.** 2008. *Guardian Of Genome Integrity: Cohesin And DNA Damage Repair. **VDM Verlag Press.*** ISBN 3639004914.
19. **Ünal, E.**, Amon, A. *Gamete Formation Resets The Aging Clock In Yeast. **Cold Spring Harbor Symposia on Quantitative Biology.*** 2011 Sep; 76, 73-80.
20. Miller, M.P., Amon, A., **Ünal, E.** *Meiosis I: When Chromosomes Undergo Extreme Makeover. **Current Opinions in Cell Biology.*** 2013 Dec; 25(6):687-96 (PR)
21. Tresenrider A. and **Ünal E.** One-two punch mechanism of gene repression: a fresh perspective on gene regulation. ***Current Genetics.*** 2017 Dec 1 (PR)