

# Didem P. Sarikaya

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## EDUCATION

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Degree

**Harvard University:** Organismic and Evolutionary Biology, Ph.D. (2009-2015)

**McGill University:** Human Genetics, M.S. (2007-2009)

**University of Toronto:** Genetics and Biotechnology, B.S. with distinction (2004-2007)

Non-degree

**Drosophila species workshop:** University of California San Diego (2011)

## AWARDS/FUNDING

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2015. Fonds de la recherche en santé du Québec, Postdoctoral Training Fellowship: \$90,000

2014. Kansas State University Ecological Genomics Conference Travel Fellowship: \$500

2014. Harvard University Graduate School of Arts and Sciences Merit Fellowship: \$13,000

2013. Fonds de la recherche en santé du Québec, Doctoral Training Scholarship (declined for 2011-2012, \$40,000): \$20,000

2012. National Science Foundation Doctoral Dissertation Improvement Grant (DEB-1209570): \$14,957

2012. Cold Spring Harbor Conference Travel Award: \$500

2011-12. Natural Sciences and Engineering Research Council of Canada, Post-graduate Scholarship: \$42,000

2011. Society of Developmental Biology Travel Award: \$300

2010. Harvard University Certificate of Distinction in Teaching

2008. McGill University Travel Grant for Conferences. \$750

## PUBLICATIONS

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**Sarikaya, DP**, Church S, Lagomarsino LP, Magnacca KM, Montgomery SL, Price D, Kaneshiro KK, Extavour CG. Reproductive capacity evolves in response to ecology through similar developmental mechanisms in Hawaiian *Drosophila* (*in prep*).

Hou, W, **Sarikaya, DP**, Jerome-Majewska, LA. (2016) Ex vivo culture of pre-placental tissues reveals that the allantois is required for maintained expression of Gcm1 and Tpbpa. *Placenta* 47:12-23.

**Sarikaya, DP**, Extavour, CG. (2015) Hippo signaling coordinates growth of germline and soma. *PLoS Genet.* 11(2): e1004962. doi: 10.1371/journal.pgen.1004962

**Sarikaya, DP**, Belay, AA, Ahuja, A, Dorta, A, Green, DA, Extavour, CG. (2012) The roles of cell size and cell number in determining ovariole number in *Drosophila*. *Developmental Biology*. 363: 279-89.

**Sarikaya\***, **DP**, Green\*, DA, Extavour, CG. (2011) Counting in oogenesis. *Cell Tissue Res.* 344: 207-12. [\* - authors contributed equally to this work]

**Sarikaya, DP**, Jerome-Majewska, LA. (2011) Notch1 and activated NOTCH1 intracellular domain are expressed in differentiated trophoblast cells. *Cell Biol. Int.* 35: 443-7.

## RESEARCH APPOINTMENTS

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**2015-Present: University of California, Davis (Davis, CA)**

Postdoctoral research fellow with Dr. David Begun and Dr. John Albeck

- I study the functional role of population level variants of growth regulating genes in *D. melanogaster*.

### **2009-2015: Harvard University (Cambridge, MA)**

PhD student with Dr. Cassandra Extavour

- I investigated the developmental and molecular mechanisms that underlie evolution of ovariole number in African and Hawaiian *Drosophilids* by combining a comparative multispecies approach and the genetic tools of *D. melanogaster*

### **2007-2009: McGill University (Montreal, Canada)**

Master's student with Dr. Loydie Jerome-Majewska

- I studied the role of Notch signaling in the development of the mouse placenta using stem cell lines derived from mouse blastocysts, and studied the gene and protein expression patterns in differentiating stem cells. I also developed a protocol to grow the early developing placenta *ex vivo* and confirmed that these tissues start to undergo early stages of placental morphogenesis

### **2006-2007: University of Toronto (Toronto, Canada)**

Undergraduate research student with Dr. Ellen Larsen

- I studied the role of the gene *bric a brac* in establishing sex combs in *D. melanogaster* and *D. ananassae* by analyzing protein expression and time-lapse imaging of the developing sex combs

## **PRESENTATIONS**

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### *Invited Oral Presentations*

2016. "Reproductive capacity evolves through changes in ecology and allometric growth in Hawaiian *Drosophila*" Evolution 2016 Conference, Austin, Texas; SDB Southwest Regional Meeting, Salt Lake City.
2014. "Hippo pathway regulates coordinated growth of the germline and soma" Cellular Dynamics Seminar Series, Harvard University.
2013. "Hippo signaling regulates homeostatic growth of the germ line and soma" 23<sup>rd</sup> European *Drosophila* Research Conference, Barcelona, Spain.
2009. "An explant model for placental development" Montreal Children's Hospital Annual Research day, Montreal, Canada.
2008. "Activated *Notch1* is expressed throughout trophoblast stem cell differentiation" 4<sup>th</sup> Canadian Developmental Biology Conference, Banff, Canada.

### *Poster Presentations*

2014. "The role of ecology in the evolution of female reproductive capacity in Hawaiian *Drosophila*" 10<sup>th</sup> Kansas Ecological Genomics Meeting, Kansas City, KS.
2012. "Distinct roles for the Hippo signaling pathway in regulating the proliferation of germ line and soma in the *D. melanogaster* larval ovary" Germ Cells Meeting, Cold Spring Harbor, NY.
2011. "Different developmental mechanisms underlie change in ovariole number caused by phenotypic plasticity and genetic background" Society of Developmental Biology 70<sup>th</sup> Annual Meeting, Chicago, IL.
2010. "Counting in morphogenesis: ovariole number determination in *Drosophila melanogaster*" 51<sup>st</sup> Annual *Drosophila* Research Conference, Washington, DC.

## TEACHING AND OUTREACH ACTIVITIES

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### Teaching experience:

- 2012 – 2015. Teaching Consultant, Derek Bok Center for Teaching (Harvard University)
- 2009, 2010. Teaching Assistant, MCB52 The Molecular Biology of the Cell (Harvard University)
- 2012, 2013, 2014. Teaching Assistant, MCO Model Organisms Jamboree (Harvard University)

### Undergraduate researcher training:

- 2015-Present. Nossin Khan, undergraduate researcher at UC Davis
- 2015-Present. Sophia Davis, undergraduate researcher at UC Davis
- 2013-2014. Inanna Carter, undergraduate researcher at Harvard University. Inanna is currently a science teacher in Maui, Hawaii
- 2012-2013. Prince Antwi, undergraduate researcher at Harvard University. Prince is currently a medical student at Yale University
- 2012. Kassi Crocker, undergraduate researcher through the Leadership Alliance Summer Research program. Kassi is currently a PhD candidate at University of Wisconsin Madison
- 2011. Aisha Dorta, undergraduate researcher through the Leadership Alliance Summer Research program. Aisha is currently a post-baccalaureate researcher at Harvard University
- 2008. Daniel Castano, medical student at McGill University. Daniel is currently a MD in Montreal

### Media and press:

- 2015. Featured guest on Lady Paragons Women in STEM podcast Episode 21. <http://ladyparagons.com/2015/01/women-in-stem-podcast-episode-21-didem-sarikaya-developmental-and-evolutionary-biologist/>
- 2015. Featured in “The ovary’s event coordinator” Schubert C., Biol. Reprod. 2015.

### Outreach and organizing activities:

- 2017-Present. Co-chair, Career Development Committee, Genetics Society of America.
- 2016-Present. Organizing member, Women in Science, UC Davis, Davis CA.
- 2014. Guest teacher at Franklin Elementary School’s after school arts class with Mr. Gary Tucker for holding sessions on insect diversity, Newton MA.
- 2014. Selected participant, Innovations in Museum Curatorial Practices bridging Arts-Sciences seminar series. Harvard University, Cambridge MA.
- 2013 – 2015. Executive organizer, Harvard GSAS Canadian Students Club, Cambridge MA
- 2012-2013. Funding committee reviewer, Seeding Labs NGO, Boston MA.
- 2010. Invited speaker to “Role of women in Science” discussion session, Theological Opportunities Program, Cambridge MA.
- 2010. Member of organizing committee. 2<sup>nd</sup> International Congress of Invertebrate Morphology, Harvard University, Cambridge MA.
- 2010. Organizer. Monthly “Origin of Species” reading seminar for graduate cohort of 2009. Harvard University, Cambridge MA.