DAVID ADLER GOLD

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CURRENT POSITION

2016-2018 Cordes Post-Doctoral Fellow. California Institute of Technology.
Division of Biology and Biological Engineering
Advisor: Lea Goentoro

EDUCATION

2014-2016 Agouron Post-Doctoral Fellow. Massachusetts Institute of Technology.
Department of Earth, Atmospheric and Planetary Sciences
Advisor: Roger E. Summons

2014 Ph.D. Biology, University of California, Los Angeles.
Advisor: David K. Jacobs

2007 B.S. Ecology and Evolutionary Biology, University of California, Irvine.

PROFESSIONAL EXPERIENCE

2016 Visiting researcher (March). Paula Welander lab, Stanford University.

2012 International School of Astrobiology: Origins of the Building Blocks of Life. Universidad Internacional Menéndez Pelayo. Santander, Spain

2011 Embryology: Concepts & Techniques in Modern Developmental Biology.
Marine Biological Laboratory. Woods Hole, Massachusetts.

PUBLICATIONS

Gold D.A., Caron A., Fournier G.P., and Summons R.E. (2017) Paleoproterozoic sterol biosynthesis and the rise of oxygen. *Nature*. 543(7645): 420–423.

Gold D.A., Grabenstatter J., de Mendoza A., Riesgo A., Ruiz-Trillo I., and Summons R.E. (2016) Sterol and genomic analyses validate the sponge biomarker hypothesis. *Proceedings of the National Academy of Sciences of the United States of America*. 113(10): 2684–2689.

Gold D.A., Nakanishi N., Hensley N.M., Hartenstein V., Jacobs D.K. (2016) Cell tracking supports secondary gastrulation in the moon jellyfish *Aurelia*. *Development Genes and Evolution*. 226(6): 383-387.

Gold D.A., O'Reilly S.S., Luo G., Briggs D.E.G., Summons R.E. (2016) Prospects for sterane preservation in sponge fossils from museum collections, and the utility of sponge biomarkers for molecular clocks. *Bulletin of the Peabody Museum of Natural History*. 57(2): 181–189.

Gold D.A., Runnegar B., Gehling J.G., and Jacobs D.K. (2015) Ancestral state reconstruction of ontogeny supports a bilaterian affinity for *Dickinsonia*. *Evolution and Development*. 17(6): 315-397.

Gold D.A., Nakanishi N., Hensley N.M., Cozzolino K., Tabatabaee M., Martin M., Hartenstein V., and Jacobs D.K. (2015) Structural and developmental disparity in the tentacles of the moon jellyfish *Aurelia* sp.1. *PLoS ONE*. 10(8): e0134741.

Nakanishi N., Camara A.C., Yuan D.C., **Gold D.A.**, and Jacobs D.K. (2015) Gene expression data from the moon jelly, *Aurelia*, provide insights into the evolution of the combinatorial code controlling animal sense organ development. *PLoS ONE*. 10(7): e0132544.

Gold D.A., Gates R.D., Jacobs D.K. (2014) The early expansion and evolutionary dynamics of POU class genes. *Molecular Biology and Evolution*. 31(12): 3136-3147.

Ghisalberti M., **Gold D.A.**, Laflamme M., Clapham M.E., Narbonne G., Summons R.E., Johnston D.T., and Jacobs D.K. (2014) Canopy flow models identify the advantage of size in the oldest communities of multicellular eukaryotes. *Current Biology*. 24(3): 305–309.

Gold D.A., Robinson J., Farrell A.B., Harris J.M., Thalmann O., and Jacobs D.K. (2014) Attempted DNA extraction from a Columbian mammoth (*Mammuthus columbi*): Prospects for ancient DNA from asphalt deposits. *Ecology and Evolution*. 4(4): 329–336.

Gold, D.A. and Jacobs, D.K. (2013) Stem cell dynamics in Cnidaria: are there unifying principles? *Development Genes and Evolution*. 223(1-2): 53-66.

Takashima, S., **Gold, D.A.**, and Hartenstein, V. (2013) Stem cells and lineages of the intestine: a developmental and evolutionary perspective. *Development Genes and Evolution*. 223(1-2): 85-102.

Jacobs, D.K., **Gold, D.A.**, Nakanishi, N., Yuan, D., Camara, A., Nichols, S.A., and Hartenstein, V. (2010) Basal metazoan sensory evolution. pp. 175-193 in Key Transitions in Animal Evolution. B. Schieirwater and R. DeSalle eds. CRC Press.

INVITED TALKS

4-7-2016. Woods Hole Oceanographic Institute. Department of Biology.

3-15-2016. Stanford University. School of Earth, Energy, and Environmental Science.

2-26-2016. NASA Astrobiology Executive Council Meeting.

CONFERENCE PRESENTATIONS

2017. Society for Developmental Biology West Coast Regional Meeting (Poster). Manipulating regenerative plasticity in jellyfish.

2016. Northeastern Geobiology Symposium (Talk). Sterol and genomic analyses validate the sponge biomarker hypothesis.

2015. International Meeting on Organic Geochemistry (Talk). *Plenary Talk*: Sterols, rocks and molecular clocks: a geochemical and genomic approach to the emergence of animals.

2015. Astrobiology Science Convention (Talk). The evolution of microbial sterol synthesis as it pertains to the sponge biomarker hypothesis.

2014. MIT Chemical Oceanography, Geology, Geochemistry & Geobiology Seminar Series (Talk). A Paleo-genomic approach to the origins of animal life.

2014. MIT Museum Soap Box Series (Talk). Why life got big.

2013. 15th UCLA Biology Research Symposium (Poster). The evolution of animal complexity: insights from the Aurelia genome. *Award: Best Graduate Student Poster.*

2012. Genomic Analysis Training Grant/Burroughs Wellcome Fund Inter-school Training Program in Metabolic Diseases Annual Research Seminar (Poster). Growth and regeneration in cnidarians reveals differential use of stem cells. *Award: First Prize Poster.*

2012. Evolution Conference (Talk). Jellyfish eyes and Pax genes: a case study for research in evo-devo.

2012. 15th UCLA Biology Research Symposium (Poster). Growth and regeneration in cnidarians reveals differential use of stem cells. *Award: Best Graduate Student Poster.*

2012. Astrobiology Science Convention (Talk). Trees on the mind: how the emerging animal phylogeny challenges our conception of brain evolution.

2012. CalPaleo (Talk). The classification of *Dickinsonia*: a genomic and developmental approach.

2011. 14th UCLA Biology Research Symposium (Poster). Diffusing the Cambrian explosion: A multidisciplinary approach to the origins of animal life. *Award: Second Prize Graduate Student Poster.*

2011. UCLA EcoLunch Series (Talk). Diffusing the Cambrian explosion: A multidisciplinary approach to the origins of animal life.

2010. NAI/MIT Annual Meeting (Talk). Mechanics behind the evolution of the Mistaken Point fauna.

2010. Evolution Conference (Talk). Development in Aurelia and the beginnings of animal evolution.

2010. UCLA Biology Research Symposium (Poster). Conserved genes are expressed in the eyes of the moon jellyfish *Aurelia* species 1. *Award: First Prize Graduate Student Poster.*

2010. Astrobiology Science Convention (Talk). Constraints on the evolution of the Mistaken Point rangeomorph fauna.

2010. Southern California Geobiology Symposium (Talk). Constraints on the evolution of the Mistaken Point rangeomorph fauna.

2008. Astrobiology Science Convention (Talk). Intelligence in basal Metazoa.

GRANTS, FELLOWSHIPS, AND AWARDS

2016-2018	James E. and Charlotte Fedde Cordes Postdoctoral Fellowship in Biology (Caltech)
2014-2016	Agouron Institute Geobiology Post-Doctoral Fellowship (MIT)
2014	Robert E. Lasiewski award for outstanding research accomplishments by a graduate student in organismal biology (UCLA)
2011-2014	NIH Genomic Analysis Training Program Fellowship
2012	NASA Astrobiology Institute Scholarship
	To cover the full cost of the International Summer School of Astrobiology in Santander, Spain.
2012	Development Cover Contest Winner (Issue 139, volume 12)
	http://dev.biologists.org/content/139/12.cover-expansion
2012	NAI Student Travel Award
2010	UCLA Departmental Research/Travel Award
2011	Collegium of University Teaching Fellows (UCLA)
	Funding to design and teach EEB 98T: Current Debates in Animal Evolution
2011	The Company of Biologists Ltd Scholarship; Lorus & Margery Milne Scholarship (Marine Biological Laboratory)
2010	UCLA Departmental Research/Travel Awards
2009-2010	GANN Graduate Support Fellowship
2009	UCLA Departmental Research/Travel Awards (March; June; November)
2008	Volunteer Recognition Award: Five Years of Service
	George C. Page Museum at the La Brea Tar Pits, Los Angeles
2007-2008	UCLA Departmental Fellowship

2003-2007 UC Irvine Chancellor's Scholar

To cover the cost of undergraduate tuition at UC Irvine

2006 UC Irvine Excellence in Biological Research Award

TEACHING EXPERIENCE/ PUBLIC OUTREACH

Undergraduate/ Post-baccalaureate Student Mentoring

Micah Battson (UCLA), Paola Benefo (Caltech) Abigail Caron (MIT), Kira Cozzolino (Northwestern), Holly Fuong (UCLA), Nicholai Hensley (UCLA), Gregory Kao (UCLA), Irrawaddy Lamouth (UCLA), José Andrade López (Berkeley), Michelle Martin (UCLA), Ignacio Navarrete (UCLA), Dhruv Patel (UCLA), Kia Safatian (UCSD), Megan Sailors (UCLA), Aubrey Silva (UCLA), Andrew Suh (UCLA), Mariam Tabatabaee (UCLA)

Lecturer

EPSS 17: Dinosaurs and their Relatives (UCLA, Spring 2017); EEB 98T: Current Debates in Animal Evolution (UCLA, Spring 2011)

Guest Lecturer

12.007: Geobiology (MIT, Spring 2015/2016); EEB 186: Evolutionary Medicine (UCLA, Spring 2014)

Teaching Fellow

EEB 186: Evolutionary Medicine (Fall 2013); EEB 495: Departmental TA Training Course (Spring 2012/2013/2014)

Teaching Assistant

Evolution (Winter 2007, Winter 2009); Molecular Evolution (Spring 2009); Invertebrate Zoology (Spring 2010)

COMMITTEES AND APPOINTMENTS

2010 Biological Science Council

2009 Departmental Seminar Committee

REVIEWING

Scientific Journals – *Nature Ecology and Evolution*, *Science Advances*, *Geobiology*, *PLoS One*, *Development Genes and Evolution*, *Biology Letters, Biological Journal of the Linnean Society*