
CURRICULUM VITAE

David A Gold

Personal Information

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Education

Education and Training

2003-2007 University of California, Irvine, BS, Ecology and Evolution
2007-2014 University of California, Los Angeles, PhD, Biology (David K. Jacobs)

Employment

Employment History

06/2014-06/2016 Massachusetts Institute of Technology, Cambridge, MA, Postdoctoral Fellow
06/2016-06/2018 California Institute of Technology, Pasadena, CA, Postdoctoral Fellow
06/18- University of California, Davis, Davis, CA, Assistant Professor

Grants and Contracts

Grants Active

09/01/2021 - 08/31/2026 Grant #2044871, \$779,119, Principal Investigator, CAREER: An Evolutionary Framework for the Molecular Fossil Record, National Science Foundation

Grants Completed

05/01/2018 - 05/01/2019 \$5,000, Principal Investigator, The evolution of brachiopod biomineralization: a comparative genetics approach, Paleontological Society
12/14/2018 - 12/14/2020 \$40,000, Principal Investigator, The role of microbial sulfate reduction in oyster biomineralization: implications for changing oceans., UC Davis Microbiome Special Research Program

Honors & 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)
2012	NAI Student Travel Award
2012	NAI Student Travel Award
2011	The Company of Biologists Ltd Scholarship; Lorus & Margery Milne Scholarship (Marine Biological Laboratory)
2011	Collegium of University Teaching Fellows (UCLA), Funding to design and teach EEB 98T: Current Debates in Animal Evolution
2010	UCLA Departmental Research/Travel Award
2009-2010	GANN Graduate Support Fellowship
2009	UCLA Departmental Research/Travel Awards (March; June; November)
2010	UCLA Departmental Research/Travel Awards
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
2018	Norman Newell Early Career Award. Paleontological Society
2019	Journal article (18) awarded Editor's Choice "for its exemplary scientific quality" by Evolution and Development

List of Evaluations

Winter Quarter 2019	GEL 107: Paleobiology Total Enrollment: 67, Total Responses: 45, % of Return: 67.16% (Complete), Instructor Score: 4.5, Course Score: 4.3
Winter Quarter 2019	GEL 107L: Paleobiology Lab (taught by graduate student Mark DeBlois) Total Enrollment: 9, Total Responses: 5, % of Return: 55.56% (Summary), Instructor Score: 3.8, Course Score: 4.6
Spring Quarter 2019	GEL 012: Dinosaurs Total Enrollment: 237, Total Responses: 113, % of Return: 47.68% (Complete), Instructor Score: 4.5, Course Score: 4.0
Fall Quarter 2020	GEL 298: Group Study Total Enrollment: 13, Total Responses: 5, % of Return: 38.46% (Summary), Instructor Score: 4.8, Course Score: 4.8
Fall Quarter 2020	GEL 232: Oceans & Climate Change

Winter Quarter 2021	Total Enrollment: 11, Total Responses: 4, % of Return: 36.36% (Summary), Instructor Score: 5.0, Course Score: 5.0 GEL 107: Paleobiology
Winter Quarter 2021	Total Enrollment: 71, Total Responses: 41, % of Return: 57.75% (Summary), Instructor Score: 4.7, Course Score: 4.6 GEL 107L: Paleobiology Lab
Spring Quarter 2021	Total Enrollment: 12, Total Responses: 7, % of Return: 58.33% (Summary), Instructor Score: 4.1, Course Score: 4.6 GEL 012: Evol & Paleo of Dinosaur
	Total Enrollment: 275, Total Responses: 123, % of Return: 44.73% (Summary), Instructor Score: 4.7, Course Score: 4.5

Publications

Journals

- 2013 **Gold, D.A.** and Jacobs, D.K. Stem cell dynamics in Cnidaria: are there unifying principles? *Development Genes and Evolution*, 223(1-2): 53-66.
- 2013 Takashima, S., **Gold, D.A.**, and Hartenstein, V. Stem cells and lineages of the intestine: a developmental and evolutionary perspective. *Development Genes and Evolution*, 223(1-2): 85-102.
- 2014 **Gold D.A.**, Gates R.D., Jacobs D.K. The early expansion and evolutionary dynamics of POU class genes. *Molecular Biology and Evolution*, 31(12): 3136-3147.
- 2014 Ghisalberti M., **Gold D.A.**, Laflamme M., Clapham M.E., Narbonne G., Summons R.E., Johnston D.T., and Jacobs D.K. Canopy flow models identify the advantage of size in the oldest communities of multicellular eukaryotes. *Current Biology*, 24(3): 305–309.
- 2014 **Gold D.A.**, Robinson J., Farrell A.B., Harris J.M., Thalmann O., and Jacobs D.K. Attempted DNA extraction from a Columbian mammoth (*Mammuthus columbi*): Prospects for ancient DNA from asphalt deposits. *Ecology and Evolution*, 4(4): 329– 336.
- 2015 **Gold D.A.**, Runnegar B., Gehling J.G., and Jacobs D.K. Ancestral state reconstruction of ontogeny supports a bilaterian affinity for Dickinsonia. *Evolution and Development*, 17(6): 315-397.
- 2015 **Gold D.A.**, Nakanishi N., Hensley N.M., Cozzolino K., Tabatabaee M., Martin M., Hartenstein V., and Jacobs D.K. Structural and developmental disparity in the tentacles of the moon jellyfish *Aurelia* sp.1. *PLoS ONE*, 10(8): e0134741.

- 2015 Nakanishi N., Camara A.C., Yuan D.C., **Gold D.A.**, and Jacobs D.K. Gene expression data from the moon jelly, *Aurelia*, provide insights into the evolution of the combinatorial code controlling animal sense organ development. *10(7)*: e0132544.
- 2016 **Gold D.A.**, Grabenstatter J., de Mendoza A., Riesgo A., Ruiz-Trillo I., and Summons R.E. 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.
- 2016 **Gold D.A.**, Nakanishi N., Hensley N.M., Hartenstein V., Jacobs D.K. Cell tracking supports secondary gastrulation in the moon jellyfish *Aurelia*. *Development Genes and Evolution*, 226(6): 383-387.
- 2016 **Gold D.A.**, O'Reilly S.S., Luo G., Briggs D.E.G., Summons R.E. 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.
- 2017 **Gold D.A.**, Caron A., Fournier G.P., and Summons R.E. Paleoproterozoic sterol biosynthesis and the rise of oxygen. *Nature*, 543(7645): 420–423.
- 2017 **Gold D.A.**, O'Reilly S.S., Watson J., Degnan B.M., Degnan S.M., Kroemer J., and Summons R.E. Lipidomics of the sea sponge *Amphimedon queenslandica* and implication for biomarker geochemistry. *Geobiology*, 1-8.
- 2018 **Gold D.A.** Life in changing fluids: A critical appraisal of swimming animals before the Cambrian. *Integrative and Comparative Biology*, 58(4): 677–687.
- 2018 **Gold D.A.** The slow rise of complex life as revealed through biomarker genetics. *Emerging Topics in Life Sciences*, 2: 191–199.
- 2019 Moore, Kelsey R., Magnabosco, Cara, Momper, Lily, Gold, David A., Bosak, Tanja, Fournier, Gregory P. An Expanded Ribosomal Phylogeny of Cyanobacteria Supports a Deep Placement of Plastids. *Frontiers in Microbiology*, 10: 1612.
- 2019 **Gold D.A.**, Katsuki T., Li Y., Yan X., Regulski M., Ibberson D., Holstein T., Steele R.E., Jacobs D.K., Greenspan R.J. The genome of the jellyfish *Aurelia* and the evolution of animal complexity. *Nature Ecology and Evolution*, 3(1): 96-104.
- 2019 **Gold D.A.**, Lau, C.L.F., Fuong H., Kao G., Hartenstein V., Jacobs D.K. Mechanisms of cnidocyte development in the moon jellyfish *Aurelia*. *Evolution and Development*, 21(2): 72-81.

- 2019 Moore K.R., Magnabosco C., Momper L., **Gold D.A.**, Bosak T., Fournier G.P. An expanded ribosomal phylogeny of cyanobacteria supports a deep placement of plastids. *Frontiers in Microbiology*.
- 2021 Picciani, N., Kerlin, J.R., Jindrich, K., Hensley, N.M., **Gold, D.A.**, Oakley, T.H. Light modulated cnidocyte discharge predates the origins of eyes in Cnidaria. *Ecology and Evolution*, 11(9): 3933-3940.
- 2021 Pankov, K.V., McArthur, A.G., **Gold, D.A.**, Nelson, D.R., Goldstone, J.V., Wilson, J.Y. The cytochrome P450 (CYP) superfamily in cnidarians. *Scientific Reports*, 11(1): 9834.

Abstracts

- 2010 **Gold D.A.** Constraints on the evolution of the Mistaken Point rangeomorph fauna. Astrobiology Science Convention.
- 2015 **Gold D.A.** The evolution of microbial sterol synthesis as it pertains to the sponge biomarker hypothesis. Astrobiology Science Convention.
- 2017 Buckner, J. C., Ellingson, R., **Gold D.A.**, & Jacobs, D. K. Sequencing Dead Ducks-The Labrador Duck is Sister to Stellar's Eider and the Subfossil *Chendytes lawi* roots the dabbling duck clade. *Integrative and Comparative Biology*, 57: E214-E214.
- 2017 Zhang, P., **Gold, D.A.**, & Jacobs, D.K. DNA Methylation Across Life History Stages of Jellyfish *Aurelia* (Cnidaria, Scyphozoa). *Integrative and Comparative Biology*, 57: pp. E454-E454.
- 2018 **Gold, D.A.** The evolution and adaptation of jellyfish in Precambrian oceans. *Integrative and Comparative Biology*, 58: pp. E78.

Presentations

- 2016 February 26, Invited speaker. NASA Astrobiology Executive Council Meeting.
- 2016 March 15, Invited speaker. Stanford University. School of Earth, Energy, and Environmental Science.
- 2016 July 4, Invited speaker. Woods Hole Oceanographic Institute. Department of Biology.
- 2018 September 2, Invited speaker. University of California, Berkeley. Museum of Paleontology.
- 2019 June 9, Invited speaker. 2nd Geobiology Society Conference. Banff, Canada.
- 2019 November 8, Invited speaker. University of Arkansas. Department of Biological Sciences.

2021 June 29, Invited speaker. University of Oxford. Department of Zoology.

Service

Committees

Department/Section

2020 Member; Admissions Committee. Reviewed packages for prospective graduate students. Coordinated with committee members to rank prospective students and advocate for high-ranking students with other faculty.

2021 Member; Admissions Committee. Reviewed packages for prospective graduate students. Coordinated with committee members to rank prospective students and advocate for high-ranking students with other faculty.

2021-2022 Chair; Seminar Committee. Led the process of choosing and coordinating speakers for the department's Wednesday seminar series.

Other University

2009 UCLA Departmental Seminar Committee.
2010 UCLA Biological Science Council.

Other Non-University

2014-Present Reviewer - Scientific Journals – Nature, Nature Ecology and Evolution, Science Advances, Geobiology, PLoS One, Development Genes and Evolution, Biology Letters, Biological Journal of the Linnean Society.

2018-2020 Secretary; Geobiology and Geomicrobiology Division, Geological Society of America. (service on planning committee, leading planning activities at the annual meeting).

2019 External reviewer. NASA Exobiology proposal review panel.

2020-2022 Treasurer; Geobiology and Geomicrobiology Division, Geological Society of America. (management of division funds, planning activities at the GSA annual meeting, including co-chairing of "New Voices in Geobiology" session).

Teaching

Curricular Development

2018 Developed an 099 training class for four undergraduates for summer session 2 at the Bodega Marine Laboratory.

2020 Developed a new course for EPS graduate students, "Foundations of Geo/Paleobiology" as part of the broader effort to produce a series of core courses for EPS students.

Student Advising

2018 - 2019 Number of undergraduate advisees: (1), Number of graduate advisees: (1)
2019 - 2020 Number of undergraduate advisees: (6), Number of graduate advisees: (2)
2020 - 2021 Number of undergraduate advisees: (4), Number of graduate advisees: (4)

Thesis Committees

2018-2021 Noemie Sierra
2018-2021 Hannah Kempf
2019-2019 Sydney Salley
2019-2021 Veronica Padilla Vriesman
2020-2021 Tessa Brunoir
2020-2021 Caitlin Livsey
2021-2021 Christopher Mulligan
2021-2021 Meghan Zulian
2021-2021 Esther Kennedy