

Diana Aguilar Gómez

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Education

University of California Berkeley (UCB)

Berkeley, US

PHD COMPUTATIONAL BIOLOGY

Fall 2017 - Summer 2023

- Center for Computational Biology (CCB)
- Advisor: Dr. Rasmus Nielsen

Universidad Nacional Autónoma de México (UNAM)

Cuernavaca, Mexico

BACHELOR WITH HONORS IN GENOMIC SCIENCE

Fall 2013 - Spring 2017

- Center for Genomic Sciences (CCG) and Institute of Biotechnology
- Licenciado en Ciencias Genómicas (Mención Honorífica)

Appointments

University of California Los Angeles (UCLA)

Los Angeles, US

CHANCELLOR'S POSTDOCTORAL FELLOW

Summer 2023 - present

- Ecology and Evolutionary Biology (EEB) Department
- Advisor: Dr. Kirk Lohmueller

Awards, Fellowships, & Grants

Total \$449,170+ (not counting the Faculty Hiring Incentive for UCs)

2023-2025	Chancellor's Postdoctoral Fellowship UCLA	
	2 year salary + research funds and moving expenses	\$ 150,500+
	Faculty Hiring Incentive for UCs (5 year of salary, up to 20% of start-up funds)	\$425,000+
2023	Graduate Division Conference Travel Grant UCB	\$ 1,500
2022	Graduate Division Conference Travel Grant UCB	\$ 900
	SACNAS Diversity STEM Research Conference Travel Grant Award Cal NERDS	\$2,500+
	Berkeley Impact Research Initiative UCB	\$2,500
2018-2022	UC MEXUS-CONACYT Fellowship	
	4 year PhD tuition (including out-of-state)	\$118,750+
	4 year PhD partial stipend + insurance	\$77,250+
2018	Community Builder Award LAGSES	
2017-2020	Fulbright-Garcia Robles	\$75,000
2016-2017	"Movilidad Estudiantil" UNAM Research Exchange Program (\$95,000 MXN)	~\$4,500
2016	MITACS Globalink Research Award (\$7,000 CDN)	~\$4,900
2014	SURP Proyecta 100,000 Cornell University	\$6,070
2013 - 2017	PRONABES - UNAM Fellowship (\$96,000 MXN)	~\$4,800

Publications

11 publications | 373 total citations | h-index : 7 | i10-index : 6

* co-first authors; † mentored undergraduate

IN REVIEW

Aguilar-Gomez, D, L Freeborn, L Yuan[†], LL Smith, A Guzman, A Vaughn, E Steigerwald et al. "Evolution and Diversification of the Aposematic Poison Frog, *Oophaga pumilio*, in Bocas del Toro." *bioRxiv* (2024): 2024-08.

PREPRINTS

Linderoth, T, **D Aguilar-Gómez**, E White, E Twomey, A Stuckert, K Bi, A Ko et al. "Genetic basis of aposematic coloration in a mimetic radiation of poison frogs." *bioRxiv* (2023): 2023-04.

PUBLISHED

11. **Aguilar-Gómez, D**, L Yuan[†], Y Zhang, A Ochoa, M Culver, R Fitak, D Onorato, KE Lohmueller, R Nielsen. 2025. Genetic rescue of Florida Panthers reduced homozygosity but did not swamp ancestral genotypes. *Proceedings of the National Academy of Sciences* 122(31).
10. **Aguilar-Gómez, D**, J Bejder, J Andreasen, Y Ko, A Vaughn, K Clement, M Tristani, JY Lee, N Nordsborg, R Nielsen, M Ilardo. 2025. Genetic and Training Adaptations in the Haenyeo Divers of Jeju, Korea. *Cell reports*, 44(5). [Featured in: PopSci](#)
[NPR](#) [NatGeo](#) [Technology Networks](#) [Independent](#) [The Washington Post](#) [University of Utah Health](#) [CNN](#)
[Milenio](#) [Nature](#) [BBC](#) [and more](#)
9. Yáñez-Cuna, FO, **D Aguilar-Gómez**, A Dávalos, and D Romero. 2023. Prevalent role of homologous recombination in the repair of specific double-strand breaks in *Rhizobium etli*. *Frontiers in Microbiology* 15: 1333194.
8. **Aguilar-Gómez, D***, Y Jin ^{*}, DYC Brandt, TA Square, J Li, Z Liu, T Wang, PH Sudmant, CT Miller, R Nielsen. 2022. Population genomics of variegated toad-headed lizard *Phrynocephalus versicolor* and its adaptation to the colorful sand of the Gobi Desert. *Genome Biology and Evolution*. [Highlighted in GBE](#)
7. Chen, Z, Y Xu, X Xie, D Wang, **D Aguilar-Gómez**, G Liu, X Li et al. 2021. Whole-genome sequence analysis unveils different origins of European and Asiatic mouflon and domestication-related genes in sheep. *Communications Biology* 4(1): 1-15.
6. Bheda, P, **D Aguilar-Gómez**, I Kukhtevich, J Becker, G Charvin, A Kirmizis, and R Schneider. 2020. Microfluidics for single-cell lineage tracking over time to characterize transmission of phenotypes in *Saccharomyces cerevisiae*. *STAR Protocols*: 100228.
5. Bheda, P, **D Aguilar-Gómez**, NB Becker, J Becker, E Stavrou, I Kukhtevich, T Höfer et al. 2020. Single-Cell Tracing Dissects Regulation of Maintenance and Inheritance of Transcriptional Reinduction Memory. *Molecular Cell*.
4. Acosta, A, G Suárez-Varón, LA Rodríguez-Miranda, A Lira-Noriega, **D Aguilar-Gómez**, M Gutiérrez-Mariscal, OHernández-Gallegos, F Méndez-de-la-Cruz, and D Cortez. 2019. Corytophanids Replaced the Pleurodont XY System with a New Pair of XY Chromosomes. *Genome Biology and Evolution* 11(9): 2666.
3. H Tong, J Li, Y Wo, G Shao, W Zhao, **D Aguilar-Gómez**, and Y Jin. 2019. Effects of substrate color on intraspecific body color variation in the toad-headed lizard, *Phrynocephalus versicolor*. *Ecology and Evolution* 9(18): 10253.
2. V Link, **D Aguilar-Gómez**, C Ramírez-Suástegui, LD Hurst, and D Cortez. 2017. Male mutation bias is the main force shaping chromosomal substitution rates in monotreme mammals. *Genome Biology and Evolution* 9(9): 2198-2210.
1. AF Kebede, A Nieborak, L Zorro Shahidian, S Legras, **D Aguilar-Gómez**, F Richter, MP Baltissen, G Meszaros, H de Fatima Magliarelli, R Ricci, M Vermeulen, G Mittler, and R Schneider. 2017. Histone propionylation is a novel mark of active chromatin. *Nature Structural & Molecular Biology* 24(12): 1048.

Teaching Experience

- Spring 2021 **Population and Evolutionary Genetics (IB 161)**
Graduate Student Instructor, Integrative Biology Department, UC Berkeley
- Sum 2023 **Python Bootcamp** Instructor, Center for Computational Biology, UC Berkeley
- Winter 2021 **Python Bootcamp** Instructor, Center for Computational Biology, UC Berkeley
- Winter 2020 **Python Bootcamp** Instructor, Center for Computational Biology, UC Berkeley
- Sum 2018 **Python Bootcamp** Teaching Assistant, Center for Computational Biology, UC Berkeley

Experience

UCLA, Department of Ecology and Evolutionary Biology

Los Angeles, U.S.

POSTDOC SCHOLAR

August 2023 - present

- Supervisor: Dr. Kirk Lohmueller
- Modeling structural variants and repeats in populations of concern
- Assessing inbreeding depression and survival in Rice's whale
- Selection on Puma concolor (mountain lion) genetic rescue (co-advised with Dr. Rasmus Nielsen)

University of California Berkeley, Center for Computational Biology**PHD CANDIDATE**

- Supervisor: Dr. Rasmus Nielsen
- Map genetic variants underlying color polymorphism in *Oophaga pumilio* (strawberry poison frog)
- Color adaptation in populations of *Phrynocephalus versicolor* (toad-headed lizard)
- Genomic adaptation to free diving in the Haenyeo

Berkeley, U.S.
May 2018 - July 2023

Helmholtz Zentrum München, Institute of Functional Epigenetics**RESEARCH ASSISTANT**

- Supervisor: Dr. Robert Schneider
- Single-cell analysis of transcriptional memory in *S. cerevisiae*

Munich, Germany
Sep 2016 - Sep 2017

UNAM, CCG, Dynamic Genomics Department**RESEARCH STUDENT**

- Supervisor: Dr. Diego Cortez
- Male mutation bias in monotremes
- Finding sex chromosomes in *Basiliscus vittatus* (basilisk lizard)

Cuernavaca, Mexico
Sep 2015 - Jun 2016

UNAM, CCG, Genomic Engineering Department**RESEARCH STUDENT**

- Supervisor: Dr. David Romero
- Double-strand break repair in *Rhizobium etli* (nitrogen-fixing bacteria)

Cuernavaca, Mexico
Jan 2015 - Jun 2016

University of British Columbia, Medical Genetics Department**RESEARCH ASSISTANT**

- Supervisor: Dr. Carolyn Brown
- Finding boundary genes for escape regions in the human inactive X chromosome

Vancouver, Canada
Summer 2016

Institut de Génétique et de Biologie Moléculaire et Cellulaire**RESEARCH ASSISTANT**

- Supervisor: Dr. Robert Schneider
- ChIP-seq analysis of histone modifications and their link to metabolism

Strasbourg, France
Summer 2015

Cornell University, Plant Pathology and Plant-Microbe Biology Section**RESEARCH ASSISTANT**

- Supervisor: Dr. Rebecca Nelson
- Develop novel methods to detect endophyte content in the seedlings of maize

Ithaca, U.S.
Summer 2014

Presentations**INVITED SEMINARS**

- Spring 2025 **Next Wave of Faculty in Genomics Symposium** UC Santa Cruz Genomics Institute and the Baskin School of Engineering
- Spring 2024 **Research & Collections Seminar** Natural History Museum of Los Angeles County
- Spring 2023 **IB 234 Seminar on Biology of Amphibians and Reptiles** UC Berkeley
- Spring 2022 **Center for Theoretical and Evolutionary Genetics Seminar** UC Berkeley
- Fall 2021 **Ecology, Evolution, and Conservation Seminar** CSU Sacramento (virtual)

ORAL PRESENTATIONS

- 2025 **Society for Molecular Biology and Evolution Meeting** Beijing, China
- 2024 **25th Biennial Conference on the Biology of Marine Mammals** Perth, WA
- 2024 **10th World Congress of Herpetology** Kuching, Sarawak
- 2024 **Biology of Genomes** Cold Spring Harbor Laboratory
- 2024 **SCaE Meeting** Caltech
- 2024 **President's Postdoctoral Fellowship Program Academic Retreat** UCLA
- 2023 **Society of Systematic Biologists 5th Standalone Meeting** UNAM
- 2022 **Evolution** Cleveland, OH
- 2022 **CCB Computational and Genomic Biology Retreat**
- 2021 **CCB Graduate Student Symposium on Computational Biology**

- 2019 CCB Student Lunch Seminar Spring
- 2021 Evolution virtual
- 2014 4th Annual Undergraduate Research Symposium for Life Sciences Cornell University

POSTER

- 2024 Society for Molecular Biology and Evolution Meeting
- 2023 Society for Molecular Biology and Evolution Meeting
- 2022 Bay Area Population Genomics Conference, Fall
- 2022 Biology of Genomes
- 2021 CCB Computational and Genomic Biology Retreat (Best Poster Award)
- 2021 Society for Molecular Biology and Evolution Virtual Meeting
- 2020 CRA-URMD Conference
- 2019 CCB Computational and Genomic Biology Retreat
- 2019 Bay Area Population Genomics Conference, Fall
- 2019 CRA-W Grad Cohort
- 2019 Bay Area Population Genomics Conference, Spring
- 2016 EMBO Conference: From Functional Genomics to Systems Biology

PANELIST

- 2025 EEB 250: Professional Skills for Biological Research UCLA
- 2024 Bioinformatics for conservation genomics Genomics of Marine Mammals IV Workshop
- 2022 Graduate Student Success Panel Invited by: Berkeley International Office
- 2021 Biology X Data Science - Showcase / Workshop 2021 Teaching using the R Datahub at UCB
- 2020 HES x LAGES Panel 2020 Invited by: Hispanic Engineers and Scientists (HES) at UCB
- 2020 Berkeley Connect Comp Bio Grad Student Panel Virtual

Outreach & Science Communication

RADIO INTERVIEWS

- Spring 2025 Radio UAEM
"MUTANTE: la ciencia cambiante", transmitted May 19 2025
- Spring 2025 Radio Red, RCN Radio
Transmitted May 29 2025

AUTHORED ARTICLES

ENGLISH

- 2025 [Infidelity, divorce, and real-estate drama in the Alpine swift](#) American Society of Naturalists
- 2021 [Photographing nucleo-some friends](#) Berkeley Science Review
- 2020 [An interview with Professional in Residence Mike Holmes: Pioneering genome editing tools in gene therapy](#) Qb3 Berkeley
- 2020 [Searching for adaptation secrets in the Sahara Desert](#) Qb3 Berkeley

SPANISH

- 2025 [Cicatrices en el ADN de las ballenas](#) Nexos
- 2022 [Las distintas ciudades de las aves migratorias](#) Nexos
- 2021 [Un T. rex por cada tres personas](#) Nexos
- 2015 [El sexo no es un código binario](#) Página de divulgación del Centro de Ciencias Genómicas, UNAM.
- 2015 [Los descendientes de los dinosaurios](#) Página de divulgación del Centro de Ciencias Genómicas, UNAM

OTHER

- Spring 2025 **Pint of Science**
How can DNA help us to protect endangered species?
Share scientific discoveries to a general public at local bar (Weary Livers - Santa Monica, CA)
- Spring 2023 **Caminos de la Ciencia by Science at Cal**
Joyas del Bosque: La genética de color en ranas venenosas
Talk in Spanish at the Cesar Chavez Public Library in Oakland, CA
- Fall 2021 **Orientation Leader** Lead students for Berkeley International Office student orientation
- Spring 2020 **Literatura COVID** Project that translated articles about COVID-19/SARS-Cov2 to Spanish
- Fall 2019 **BASIS (Bay Area Scientists in Schools)** Catapult Challenge, John Muir Elementary School, Berkeley, CA
- Spring 2019 **El Desafío de la catapulta: The Catapult Challenge** Taught for Spanish-speaking kids at the Cesar Chavez Public Library in Oakland, CA
Taught for Spanish-speaking kids at the Cesar Chavez Public Library in Oakland, CA
- 2012-2013 **Jóvenes en Acción (Youth in Action)** U.S. Department of State & Mexican Government Program, Civic education, community service, and youth leadership development

Service

MENTORING

- 2025- **James Clawson** Data Theory undergraduate at UCLA
- 2024-2025 **Mallory Kenfield** Computational Biology undergraduate at UCLA. Currently Masters Student @Georgia Tech
- 2022-2024 **Lin Yuan** Undergraduate at the Chinese University of Hong Kong. Currently PhD @Cornell University
- 2021-2024 **Teresa Parra Alvarado** Undergraduate at the National Autonomous University of Yucatán (Gradiente Program). Currently PhD @Cornell University
- 2021 **Adam Chois** Undergraduate at UC Berkeley (First Steps in Research Program)
- 2020 **Irene Liang** Undergraduate at UC Berkeley

COMMITTEES AND LEADERSHIP POSITIONS

- 2024-2025 **CARE at EEB UCLA: Committee for Anti-Racism and Equity**
- 2024-2025 **Postdoctoral Association at UCLA** Vice Chair of Operations
- 2017-2023 **MEXASB: Mexican Association of Students at Berkeley** Vice President (2021-2021)
- 2021-2022 **Mentorship Program CCB, UC Berkeley** co-founder
- 2020-2021 **CCB DEI Committee, UC Berkeley**
- 2017-2023 **LAGSES: Latinx Association of Graduate Students in Engineering and Science at UCB**
Outreach Chair (2019-2020)
Public Relations Chair (2018-2019)

MEMBERSHIPS

- 2020-2025 **Society for Molecular Biology and Evolution (SMBE)**
- 2021 **Society of Systematic Biologists (SSB)**
- 2014-2017 **Systems Biology, Computational Genomics at UNAM**

REVIEWER

- 2025 **Molecular Biology and Evolution**
- 2025 **Journal of Heredity**
- 2024 **PNAS**
- 2020 **Molecular Ecology Resources**
- 2020 **Biological Journal of the Linnean Society**

WORKSHOPS

- Fall 2020 **Holistic Graduate Admissions Workshop with Julie Posselt**
- Spring 2020 **Science Writing for the Public Workshop from CCB at UC Berkeley**

ORGANIZER

- 2025 **Life After Postdoc at UCLA** Academic and consulting speakers, +70 attendees
- 2019 **Northern California Computational Biology (NCCB) Student Symposium**
- 2018-2019 **Center for Computational Biology (CCB) Seminar Series**
- 2018 **Computational and Genomic Biology Retreat at UC Berkeley**
- 2016 **Epigenetics Advanced Course, Genomic Science Program at UNAM**