

Diana Aguilar Gómez

✉ aguilargomez@ucla.edu | 🏠 <https://aguilar-gomez.github.io/> | 📺 [aguilar-gomez](#)

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 | 345 total citations | h-index : 6 | i10-index : 6

* co-first authors; † mentored undergraduate

IN REVIEW

Aguilar-Gomez, Diana, Layla Freeborn, Lin Yuan[†], Lydia L. Smith, Alex Guzman, Andrew Vaughn, Emma Steigerwald et al. "Evolution and Diversification of the Aposematic Poison Frog, *Oophaga pumilio*, in Bocas del Toro." *bioRxiv* (2024): 2024-08.

PREPRINTS

Linderoth, Tyler, **Diana Aguilar-Gómez**, Emily White, Evan Twomey, Adam Stuckert, Ke Bi, Amy Ko et al. "Genetic basis of aposematic coloration in a mimetic radiation of poison frogs." *bioRxiv* (2023): 2023-04.

PUBLISHED

11. **Aguilar-Gómez, Diana**, Lin Yuan[†], Yulin Zhang, Alexander Ochoa, Melanie Culver, Robert Fitak, Dave Onorato, Kirk E. Lohmueller, Rasmus Nielsen. 'Genetic rescue of Florida Panthers reduced homozygosity but did not swamp ancestral genotypes'. *Proceedings of the National Academy of Sciences* *In press*.
10. **Aguilar-Gómez, Diana**, Jacob Bejder, Jonathan Andreasen, Yelin Ko, Andrew Vaughn, Kendell Clement, Martin Tristani, Joo Young Lee, Nikolai Nordsborg, Rasmus Nielsen, Melissa Ilardo. *In Press*. Genetic and Training Adaptations in the Haenyeo Divers of Jeju, Korea. *Cell Reports*. *In press*.
9. Yáñez-Cuna, Fares Osam, **Diana Aguilar-Gómez**, Araceli Dávalos, and David 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, Diana***, Yuanting Jin^{*}, Débora Y. C. Brandt, Tyler A. Square, Jiasheng Li, Zhengxia Liu, Tao Wang, Peter H. Sudmant, Craig T. Miller, Rasmus 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, Ze-Hui, Ya-Xi Xu, Xing-Long Xie, Dong-Feng Wang, **Diana Aguilar-Gómez**, Guang-Jian Liu, Xin 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, Poonam, **Diana Aguilar-Gómez**, Igor Kukhtevich, Johannes Becker, Gilles Charvin, Antonis Kirmizis, and Robert Schneider. 2020. Microfluidics for single-cell lineage tracking over time to characterize transmission of phenotypes in *Saccharomyces cerevisiae*. *STAR Protocols*: 100228.
5. Bheda, Poonam, **Diana Aguilar-Gómez**, Nils B. Becker, Johannes Becker, Emmanouil Stavrou, Igor Kukhtevich, Thomas Höfer et al. 2020. Single-Cell Tracing Dissects Regulation of Maintenance and Inheritance of Transcriptional Reinduction Memory. *Molecular Cell*.
4. Acosta, Armando, Gabriel Suárez-Varón, Luis A. Rodríguez-Miranda, Andrés Lira-Noriega, **Diana Aguilar-Gómez**, Mariana Gutiérrez-Mariscal, Oswaldo Hernández-Gallegos, Fausto Méndez-de-la-Cruz, and Diego Cortez. 2019. Corytophanids Replaced the Pleurodont XY System with a New Pair of XY Chromosomes. *Genome Biology and Evolution* 11(9): 2666.
3. Haojie Tong, Jiashen Li, Yubin Wo, Gang Shao, Wei Zhao, **Diana Aguilar-Gómez**, and Yuanting 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. Vivian Link, **Diana Aguilar-Gómez**, Ciro Ramírez-Suástegui, Laurence D. Hurst, and Diego 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. Adam F. Kebede, Anna Nieborak, Lara Zorro Shahidian, Stephanie Legras, **Diana Aguilar-Gómez**, Florian Richter, Marijke P. Baltissen, Gergo Meszaros, Helena de Fatima Magliarelli, Romeo Ricci, Michiel Vermeulen, Gerhard Mittler, and Robert 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 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

- 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

Mentoring

- 2025- **James Clawson** Data Science undergraduate at UCLA
- 2024- **Mallory Kenfield** Computational Biology undergraduate at UCLA
- 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

Outreach

- 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

Science Communication

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

- 2022 [Las distintas ciudades de las aves migratorias](#) Nexos Simbiosis
- 2021 [Un T. rex por cada tres personas](#) Nexos Simbiosis
- 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

Service

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

- 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

- 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**