

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 | 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*. Provisionally accepted for publication.
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 Theory 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**