

## **CURRICULUM VITAE**

Noah K. Whiteman

Department of Molecular & Cell Biology

University of California, Berkeley

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### **EDUCATION**

Harvard University	Cambridge, MA	Genomics & Molecular Biology	Postdoctoral	2006-2010
University of Missouri	St. Louis, MO	Biology	Ph.D.	2006
University of Missouri	Columbia, MO	Entomology	M.S.	2000
St. John's University	Collegeville, MN	Biology (with Distinction)	B.A. <i>cum laude</i>	1998

### **PROFESSIONAL APPOINTMENTS**

2026-pres.	Head, Division of Genetics, Genomics, Evolution, and Development, Department of Molecular & Cell Biology, University of California, Berkeley
2023-25	Director, Essig Museum of Entomology, University of California, Berkeley Natural History Museums
2024-pres.	Professor, Division of Genetics, Genomics, Evolution, and Development, Department of Molecular & Cell Biology (100%) and Department of Integrative Biology (0%), University of California, Berkeley
2021-2024	Professor, Division of Genetics, Genomics, Evolution, and Development, Department of Molecular & Cell Biology (50%) and Department of Integrative Biology (50%), University of California, Berkeley
2016-2021	Associate Professor, Department of Integrative Biology, University of California, Berkeley
2010-2016	Assistant (2010-2015) and Associate (2015-2016) Professor, Department of Ecology & Evolutionary Biology, University of Arizona
2009-pres.	Principal Investigator, Rocky Mountain Biological Laboratory
2007-2010	NIH F32 National Research Service Award Postdoctoral Fellow, Department of Organismic & Evolutionary Biology and Department of Genetics, Harvard University; Department of Molecular Biology, Massachusetts General Hospital

### **SELECTED HONORS, AWARDS, AND DISTINCTIONS**

2026-pres.	Fellow, American Association for the Advancement of Science
2025	Genetics Society of America Medal for outstanding contributions to genetics
2025	Chair, Gordon Research Conference on Plant-Herbivore Interaction
2024	Miller Faculty Fellow, Miller Institute for Basic Research
2021-pres.	Fellow, John Simon Guggenheim Memorial Foundation
2021-pres.	Fellow, Royal Entomological Society
2020-pres.	Fellow, California Academy of Sciences
2019-pres.	Full Member, Sigma Xi, The Scientific Research Society
2016-pres.	Outstanding Investigator Award, National Institutes of Health
2012-pres.	Elective Member, American Ornithological Society
2012-pres.	National Geographic Explorer, National Geographic Society
2007	Distinction in Teaching Award, Harvard University
2000-03	Peter Raven Graduate Fellowship in Tropical Biology, University of Missouri-St. Louis

## SELECTED INVITED SEMINARS

- 2026 Keynote, Gregor Mendel Institute Early Career Symposium, Vienna, Austria
- 2026 Keynote, Institute for Integrative Genome Biology Annual Symposium, University of California, Riverside
- 2026 Brown University, Dean's Interdisciplinary Seminar Series Speaker, Division of Biology and Medicine
- 2026 Norman L. Ford Endowed Science Literacy Lecturer, Saint John's University, Collegeville, Minnesota
- 2025 Evening Speaker, Gordon Research Conference on Animal-Microbial Symbioses, University of Southern Maine
- 2024 Harry Hann Endowed Lecturer, University of Michigan Biological Station
- 2024 Speaker, Inaugural EMBO|EMBL Symposium on Diversity of Plants: from Genomes to Metabolism, Heidelberg, Germany
- 2023 Speaker, Max Planck Society, Symposium on Adaptation to Diverse Toxins in Animals, Harnack Haus, Berlin
- 2023 Johns Hopkins University, Chemistry-Biology Interface Graduate Student Invited Speaker
- 2023 Marine Biological Laboratory Physiology Course Guest Speaker and Instructor
- 2021 University of Chicago, Department of Ecology and Evolution, Graduate Student Invited Speaker
- 2021 University of Utah, School of Biological Sciences, LGBTQ+STEM Distinguished Speaker
- 2021 75th Anniversary Symposium Speaker, Annual Meeting of the Society for the Study of Evolution
- 2021 Plenary, International Conference on Arabidopsis Research (ICAR), Seattle, Washington
- 2020 Princeton University, Ecology & Evolutionary Biology Department Seminar Series Speaker
- 2020 Yale University, Department of Ecology and Evolutionary Biology Seminar Series Speaker
- 2020 Duke University, Department of Biology Series Speaker
- 2019 Evening Speaker, Eating Novel Food Resources session, Gordon Research Conference on Plant-Herbivore Interaction, Ventura, CA
- 2017 Chair and Keynote, 16<sup>th</sup> Symposium on Insect-Plant Interactions, Tours, France
- 2017 Instructor, Evolutionary Biology Workshop in the Alps, University of Lausanne

## SELECTED SERVICE

- 2026 Philomathia Prize Committee
- 2026-pres. Nomination Committee, Genetics Society of America
- 2026 Visitor, Genetic Variation and Evolution Study Section, US National Institutes of Health
- 2025-pres. Scientific Advisory Board, Max Planck Institute for Chemical Ecology, Jena, Germany
- 2025 Chair, Gordon Research Conference on Plant-Herbivore Interaction
- 2023-pres. Lead co-Director, Genetic Dissection of Cells and Organisms Training Program (NIH T32 predoctoral training grant for 16 trainees)
- 2023-25 Co-lead (with Professor Serena Chen), Faculty Link Program, Office for Faculty Equity & Welfare, University of California, Berkeley
- 2022-pres. Senior Editor for Genome Reports, *G3: Genes, Genomes, Genetics*
- 2021-24 Board of Directors, Genetics Society of America
- 2019-20 Fly Board Elections Committee, Genetics Society of America
- 2018 Co-organizer, 59<sup>th</sup> Annual Drosophila Research Conference

## ACTIVE GRANTS

- 2026-29 **Simons Foundation**, Evolutionary Dynamics and Genomic Ecology on Barro Colorado Island Research Grant (\$2,582,284 subaward from Smithsonian Tropical Research Institute to University of California, Berkeley, Noah Whiteman, Lead co-PI and Daniel Rokhsar, co-PI).

- 2026-31 **National Institute of General Medical Science (NIGMS) of the US National Institutes of Health (NIH), Outstanding Investigator Award (R35GM119816-11)**, Co-evolutionary Genetics of Host-Parasite Interactions (\$2,447,215 to University of California, Berkeley, Noah Whiteman, PI).
- 2024-29 **NIGMS (NIH), T32 Predoctoral Training Grant (5T32GM132022)**, Genetic Dissection of Cells and Organisms Training Grant (\$3,819,915 to University of California, Berkeley, Noah Whiteman, Lead co-PI and Nicole King, co-PI).

#### SELECTED PEER REVIEWED PUBLICATIONS

Tarnopol, R.L., J. Tamsil, G. Cinege, J. Ha, K.I. Verster, E. Abraham, L.B. Magyar, B.Y. Kim, S.L. Bernstein, Z. Lipinszki, I. Andó & **N.K. Whiteman** (2025). Experimental horizontal transfer of phage-derived genes to *Drosophila* confers innate immunity to parasitoids. *Current Biology* 35: 514-529.

Guo, L., X. Qiao, D. Haji, T. Zhou, Z. Liu, **N.K. Whiteman** & J. Huang (2023). Convergent resistance to GABA receptor neurotoxins through plant-insect coevolution. *Nature Ecology & Evolution* 7: 1444-1456.

Verster, K.I., G. Cinege, Z. Lipinszki, L.B. Magyar, É. Kurucz, R.L. Tarnopol, E. Abraham, Z. Darula, M. Karageorgi, J.A. Tamsil, S.M. Akalu, I. Andó & **N.K. Whiteman** (2023). Evolution of insect innate immunity through domestication of bacterial toxins. *Proceedings of the National Academy of Sciences, USA* 120: e2218334120.

Peláez, J.N., A.D. Gloss, J.F. Ray, S. Chaturvedi, D. Haji, J.L.M. Charboneau, K.I. Verster & **N.K. Whiteman** (2022). Evolution and genomic basis of the plant-penetrating ovipositor: a key morphological trait in herbivorous Drosophilidae. *Proceedings of the Royal Society, Series B* 289: 20221938.

Matsunaga, T., C.E. Reisenman, B. Goldman-Huertas, P. Brand, K. Miao, H. Suzuki, K.I. Verster, S.R. Ramírez & **N.K. Whiteman** (2022). Evolution of olfactory receptors tuned to mustard oils in herbivorous Drosophilidae. *Molecular Biology and Evolution* 39: msab362.

Groen, S.C. & **N.K. Whiteman** (2021). Convergent evolution of cardiac-glycoside resistance in predators and parasites of milkweed herbivores. *Current Biology* 31: R1465-R1466.

Nabity, P.D., G.A. Barron-Gafford & **N.K. Whiteman** (2021). Intraspecific competition for host resources in a parasite. *Current Biology* 31: 1344-1350.

Humphrey, P.T. & **N.K. Whiteman** (2020). Insect herbivory reshapes a leaf microbiome. *Nature Ecology & Evolution* 4: 221-229.

Karageorgi, M., S.C. Groen, F. Sumbul, J. N. Pelaez, K.I. Verster, J.M. Aguilar, A.P. Hastings, S.L. Bernstein, T. Matsunaga, M. Astourian, G. Guerra, F. Rico, S. Dobler, A.A. Agrawal & **N.K. Whiteman** (2019). Genome editing retraces the evolution of toxin resistance in the monarch butterfly. *Nature* 574: 409-412.

Verster, K.I., J.H. Wisecaver, R.P. Duncan, M. Karageorgi, A.D. Gloss, E. Armstrong, D.K. Price, A.R. Melon, Z.M. Ali & **N.K. Whiteman** (2019). Horizontal transfer of bacterial cytolethal distending toxin B genes to insects. *Molecular Biology and Evolution* 36: 2105-2110.

Gloss, A.D., S.C. Groen & **N.K. Whiteman** (2016). A genomic perspective on the generation and maintenance of biodiversity in herbivorous insects. *Annual Review of Ecology, Evolution and Systematics* 47: 165-187.

Goldman-Huertas, B., R.F. Mitchell, R.L. Lapoint, C.P. Faucher, J.G. Hildebrand & **N.K. Whiteman** (2015). Evolution of herbivory in Drosophilidae linked to loss of behaviors, antennal responses, odorant receptors and ancestral diet. *Proceedings of the National Academy of Sciences, USA* 112: 3026-3031.

## SELECTED MEDIA AND PRESS ARTICLES REPORTING RESEARCH FINDINGS

2026: Discussion with Viviane Callier for *Quanta Magazine* on horizontal gene transfer:

<https://www.quantamagazine.org/the-ancient-weapons-active-in-your-immune-system-today-20260415/>

2025: Profile by Caitlan Rossi, *Genes to Genomes* (Genetics Society of America): <https://genestogenomes.org/evolutionary-geneticist-studies-co-evolution-in-unprecedented-detail/>

2023: Discussion with Elizabeth Pennisi, for *Science* article on terpenoid neurotoxin-insecticide resistance: <https://www.science.org/content/article/ancient-arms-race-has-helped-insects-gain-resistance-pesticides-again-and-again>

2022: Carolyn Wilke for *The New York Times*, “While Other Insects Played, This Species Evolved the Blade”: <https://www.nytimes.com/2022/11/14/science/fruit-fly-vaginal-teeth.html>

2019: Discussion with Elizabeth Pennisi for *Science* article on monarch butterfly adaptation: <https://www.sciencemag.org/news/2019/10/how-monarch-butterfly-evolved-its-resistance-toxic-milkweed>

2019: Discussion with Carl Zimmer for *New York Times* article on monarch butterfly adaptation: <https://www.nytimes.com/2019/10/02/science/monarch-butterflies-milkweed.html>

2019: Discussion with Tim Vernimmen for *Scientific American* article on monarch butterfly adaptation <https://www.scientificamerican.com/article/how-monarch-butterflies-evolved-to-eat-a-poisonous-plant/>

2019: Discussion with Viviane Callier for article on horizontal gene transfer in *Proceedings of the National Academy of Sciences*: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6628661/>

## SCIENCE EDUCATION MEDIA AND FILM

2016: Lead Evolutionary Biologist, PBS series “*Genius by Stephen Hawking: What Are We?*” (2016), with an accompanying educational lesson, “*How and Where Did Life Begin?*”

## BOOKS

**Whiteman, N.** *Most Delicious Poison: The Story of Nature’s Toxins—From Spices to Vices*. Little Brown Spark, New York. ISBN-13: 978-0-316-38657-9 (October 24, 2023). Audiobook by Brilliance (Audible) and narrated by the author. Also published in the UK and Commonwealth (OneWorld), translated into: Romanian (Publica), Polish (Feeria Science), Spanish (Zinetmedia), and Chinese (China South Booky Culture Media). [trade book]

### *Selected Reviews & Recognition for Most Delicious Poison:*

[The New York Times](#) – “[Most Delicious Poison] feel[s] like a riveting lecture by a passionate professor.”

[The Wall Street Journal](#) – “The plants in *Most Delicious Poison: The Story of Nature’s Toxins—From Spices to Vices* come off as very smart, even cunning... a spirited debut.”

[Current Biology](#) – “Establishes [Whiteman] as a natural historian with great breadth and depth. He delivers a compendium of knowledge on plant poisons with fascinating details on their chemistry, physiological effects, ecology, and evolution.”

[Evolution](#) – “*Most Delicious Poison* shows how we are mere bystanders in chemical warfare between plants, microbes, fungi, animals, and the organisms that threaten them—a conflict almost as old as life itself.”

[Nature](#) – “The stories Whiteman chooses are often complex... but the author deftly navigates readers through nature’s chemical mazes... The author’s passion for his subject matter comes through on almost every page of *Most Delicious Poison*.”

[Scientific American](#) – “Biologist Noah Whiteman’s exacting yet expansive analysis reminds us that although they ‘permeate our lives in the most mundane and profound ways,’ the toxic chemicals we use every day are not nature’s gifts to us but rather its munitions.”

[Science News](#) – Selected as Top 20 Science Book of 2023 – “Pour a cup of herbal tea, add some drops of lavender oil to the diffuser and enjoy this mind-bending read.”

[Kirkus Reviews](#) – Awarded a Kirkus Star – “A fascinating discussion of how nature’s toxins can affect us all.”

[NPR Science Friday](#) – Staff Pick for 2023

### **Popular Essays & Articles**

[TIME Magazine](#) – “The Evolutionary Origins of Psychedelics in Nature”

[ATMOS Magazine](#) – “How the Dance of Poison Shapes Nature and Mankind”

[Asimov Press](#) – “Toxic Proteins”

### **Selected Interviews & Features for *Most Delicious Poison***

[American Chemical Society](#) – Featured interview

[Adverse Reactions Podcast \(Society of Toxicology\)](#) – Discussing *Most Delicious Poison*

[NPR Science Friday](#) – Featured interview and book excerpt

[KQED \(NPR\) Forum with Mina Kim](#) – Discussing *Most Delicious Poison*

[Futureproof Podcast](#) – Discussing *Most Delicious Poison*

[NPR Science Friday](#) – Discussing *Most Delicious Poison*

[This Podcast Will Kill You](#) – Discussing *Most Delicious Poison*

[Foodie Pharmacology Podcast with Dr. Cassandra Quave](#) – Discussing *Most Delicious Poison*

[Inquiring Minds with Indre Viskontas](#) – Discussing *Most Delicious Poison*

[Business Insider](#) – Interview on poisonous houseplants

[UC Berkeley Research News](#) – Feature interview

### **Book Talks & Speaking Events**

[Harvard Science Book Talk with Ryan Nett – Harvard University](#)

[The Providence Athenaeum Book Talk – Providence, RI](#)

[UC Berkeley Library Book Talk – Morrison Library \(March 5, 2025\)](#)

[UC Botanical Garden Book Talk – UC Berkeley](#)

[KALX 90.7FM Fiat Lux Redux Radio Interview](#)

[Nerd Nite SF – San Francisco](#)

### **RECENT SCIENTIFIC PROFILES**

2025: Genetics Society of America, *Genes to Genomes* Blog: <https://genestogenomes.org/an-evolutionary-geneticist-studies-co-evolution-in-unprecedented-detail/>

2025: *UC Berkeley News*: [“The freedom to be fully human’: A Berkeley biology professor’s take on \*Pride and thriving in academia\*”](#)

2022: *Current Biology*: [https://www.cell.com/current-biology/fulltext/S0960-9822\(22\)01757-2](https://www.cell.com/current-biology/fulltext/S0960-9822(22)01757-2)

### **MENTORING**

#### **Postdoctoral Fellows:**

*University of California, Berkeley*

Dr. Jack Liu (2026-present, LSRF Postdoctoral Fellowship through Simons Foundation)

Dr. Jeffrey Groh (2025-present, Miller Institute Fellowship, co-advised with Prof. Ben Blackman)

Dr. Sam Chaturvedi (2021-2023, Postdoctoral Fellow, currently Assistant Professor, Tulane University)

Dr. Moe Bakhtiari (2020-2023, Early Postdoc Mobility Fellowship, Swiss National Science Foundation, currently postdoc University of Zurich, Switzerland)

Dr. Rebecca Tarvin (2018-2020, Miller Institute Fellowship, co-advised with Prof. R. Nielsen, now Associate Professor, Department of Integrative Biology, UC-Berkeley)

Dr. Rebecca Duncan (2016-2021, Miller Institute Fellowship, co-advised with Prof. S. Lindow, UC-Berkeley, now research scientist at CDC)

Dr. Teruyuki Matsunaga (2016-2022), Japan Science Fellowship and Uehara Foundation Fellowship, currently Assistant Professor, University of Tokyo)

Dr. Catherine Rushworth (January 2016-July 2018, currently Assistant Professor, Utah State)

Dr. Marianthi Karageorgi (August 2017-August 2020, starting as Lecturer, University of Melbourne in 2026)

*University of Arizona*

Dr. Simon Groen (Postdoctoral Fellow, April 2014-2016, now Assistant Professor, UC-Riverside).

Dr. Paul Nabity (USDA NIFA Fellow, 2012-2015, now Associate Professor of Applied Entomology, University of Melbourne)

Dr. Anna Nelson Dittrich (PERT Postdoctoral Fellow, Center for Insect Science (CIS), 2012-2015, now Laboratory Manager, Boyce Thompson Institute)

Dr. Jennifer Koop (PERT Postdoctoral Fellow, CIS, August 2011-2014, now Assistant Professor, Northern Illinois University)

Dr. Rick Lapoint (PERT Postdoctoral Fellow, CIS, July 2011-2014, now staff scientist, NCBI)

**Graduate Students:**

*University of California, Berkeley*

Amulya Aluru (Ph.D. student, 2026-present)

Dr. Rebecca Tarnopol (NSF Graduate Research Fellowship, 2020-2026, now Sandler Fellow, UCSF)

Dr. Diler Haji (NSF Graduate Research Fellowship, Berkeley Fellowship, 2019-2026, now postdoctoral fellow, Stanford University)

Dr. Hiromu Suzuki (Heiwa Nakajima Foundation Fellowship, 2019-2025, now postdoctoral fellow, Yale University)

Dr. Jessica Aguilar (NSF Graduate Research Fellowship, UC-Berkeley Chancellor's Fellow, HHMI Gilliam Fellow, 2017-2025, now NSF Postdoctoral Research Fellow, Stanford University)

Dr. Tim O'Connor (NSF Graduate Research Fellowship and Philomathia Fellowship 2012-2019, NIH NRSA postdoctoral fellow, University of Chicago and now Geneticist, AbbVie)

Dr. Kirsten Verster (NSF Graduate Research Fellowship 2016-2023, now NSF PRFB Postdoctoral Fellow at Stanford)

Dr. Nicolas Alexandre (NSF Graduate Research Fellowship Honorable Mention, and Philomathia Fellowship, 2016-2023, now postdoctoral fellow, UC-Santa Cruz and Geneticist, Colossal)

Dr. Julianne Peláez (NSF Graduate Research Fellowship, UC-Berkeley Mentored Research Fellowship 2016-2023, now Hannah Gray Postdoctoral Fellow, Brandeis University)

*University of Arizona*

Dr. Parris Humphrey (EEB Ph.D. student and IGERT in Comparative Genomics fellow, 2010-2015, postdoctoral fellow, Harvard University, now computational biologist, Myriad Genetics)

Dr. Andrew Gloss (EEB Ph.D., IGERT in Comparative Genomics fellow and NSF Graduate Research

Fellow, 2010-2017, postdoctoral fellow, University of Chicago and New York University, now Assistant Professor, University of Georgia)

Dr. Benjamin Goldman-Huertas (EEB Ph.D., and NSF Graduate Research fellow, 2010-2018, now Research Specialist, University of California, Berkeley)

## **SELECTED UNIVERSITY TEACHING**

*University of California, Berkeley*

- 2026 Instructor, Genetics Immersion Graduate Seminar, MCB 290 (with Prof. Nicole King)
- 2026 Instructor, Advanced Genetic Analysis, MCB 240 (with Prof. Doug Koshland and Prof. Barbara Meyer)
- 2025 Instructor, Genetics Immersion Graduate Seminar, MCB 290 (with Prof. Nicole King)
- 2025 Instructor, Evolution of Genomes, Cells, and Development, MCB 143 (with Prof. Nicole King)
- 2024 Instructor, Genetics Immersion Graduate Seminar, MCB 290 (with Prof. Nicole King)
- 2023 Instructor, Evolutionary Biology, IB 160 (sole instructor)
- 2023 Instructor, Genetics Immersion Graduate Seminar, MCB 290 (with Prof. Nicole King)
- 2022 Instructor, Evolutionary Biology, IB 160, Fall (sole instructor)
- 2020 Instructor, Evolutionary Biology, IB 160, Fall (sole instructor)
- 2019 Instructor, Evolutionary Biology, IB 160, Fall (sole instructor)
- 2019 Instructor, Academic Survivorship (graduate level), IB 305 (with Prof. Caroline Williams)
- 2019 Instructor, Population and Evolutionary Genetics, IB 161 (with Prof. Rasmus Nielsen)
- 2018 Instructor, Evolutionary Biology, IB 160 (with Prof. Kevin Padian)
- 2018 Instructor, Academic Survivorship (graduate level), IB 305 (with Prof. Caroline Williams)
- 2018 Instructor, Bio 1B (Evolution section)
- 2017 Instructor, Evolutionary Biology, IB 160 (with Prof. Kevin Padian)
- 2017 Instructor, Population and Evolutionary Genetics, IB 161 (with Prof. Rasmus Nielsen)
- 2016 Instructor, Evolutionary Biology, IB 160 (with Prof. Kevin Padian)
- 2016 Instructor, Freshman Seminar, Exploration of Nature (IB 24)