

Dr. Casey William Dunn — Curriculum Vitae

1 Position and Contact Information

Professor, Department of Ecology and Evolutionary Biology
Curator, Division of Invertebrate Zoology, Yale Peabody Museum
Curator, Department of Informatics, Yale Peabody Museum
Professor (Secondary), Department of Genetics
Member, Wu Tsai Institute
Member, Quantitative Biology Institute (QBio)

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2 Education

2005	Ph.D. Yale University, Department of Ecology and Evolutionary Biology (With Distinction)
2003	M.S. Yale University, Department of Ecology and Evolutionary Biology
1999	B.S. Stanford University, Biological Sciences (Honors, Phi Beta Kappa)

3 Professional Appointments

2026–present	Member, Wu Tsai Institute
2025–present	Member, Quantitative Biology Institute (QBio)
2021–present	Curator, Informatics, Peabody Museum, Yale University
2017–present	Professor, Ecology and Evolutionary Biology, Yale University
2019–present	Professor (Secondary), Genetics, Yale University
2017–present	Curator, Division of Invertebrate Zoology, Peabody Museum, Yale University
2017–2018	Adjunct Professor, Ecology and Evolutionary Biology, Brown University
2014–2017	Associate Professor, Ecology and Evolutionary Biology, Brown University
2010–2014	Manning Assistant Professor, Ecology and Evolutionary Biology, Brown University
2008–2010	Assistant Professor, Ecology and Evolutionary Biology, Brown University

2007–2008	Assistant Professor (Research), Ecology and Evolutionary Biology, Brown University
2005–2007	Postdoctoral Fellow, Kewalo Marine Lab, University of Hawaii
1999–2000	Research Assistant with Stuart Chapin III and James Randerson, University of Alaska Fairbanks
1995–1998	Co-op Technical at KLA-Tencor.
1994–1995	Tour guide at La Selva Jungle Lodge in the Amazon Basin of eastern Ecuador
1993–1994	Student researcher with John Postlethwait, University of Oregon

4 Publications

a. Books

- Dunn, C. W. (2026). *Phylogenetic Biology*. First Edition. New Haven, CT: Casey W. Dunn. ISBN: 979-8-9934524-0-1. DOI: 10.5281/zenodo.17267993. URL: https://dunnlab.org/phylogenetic_biology/.
- Haddock, S. H. D. and C. W. Dunn (2010). *Practical Computing for Biologists*. Sunderland, MA: Sinauer Associates, p. 538. ISBN: 978-0-87893-391-4. URL: <http://practicalcomputing.org>.

b. Chapters in books

- Collins, A. G., M. Daly, and C. W. Dunn (2020). “Cnidaria”. In: *Phylonyms: A Companion to the PhyloCode*. CRC Press, pp. 457–460. DOI: 10.1201/9780429446276.
- Collins, A. G. and C. W. Dunn (2020). “Medusozoa”. In: *Phylonyms: A Companion to the PhyloCode*. CRC Press, pp. 473–475. DOI: 10.1201/9780429446276.
- Dunn, C. W. (2020). “Siphonophora”. In: *Phylonyms: A Companion to the PhyloCode*. CRC Press, pp. 491–492. DOI: 10.1201/9780429446276.
- Dunn, C. W. and A. G. Collins (2020a). “Hydroidolina”. In: *Phylonyms: A Companion to the PhyloCode*. CRC Press, pp. 489–490. DOI: 10.1201/9780429446276.
- Dunn, C. W. and A. G. Collins (2020b). “Hydrozoa”. In: *Phylonyms: A Companion to the PhyloCode*. CRC Press, pp. 473–475. DOI: 10.1201/9780429446276.
- Dunn, C. W. and A. G. Collins (2020c). “Trachylina”. In: *Phylonyms: A Companion to the PhyloCode*. CRC Press, pp. 485–487. DOI: 10.1201/9780429446276.
- Giribet, G., C. W. Dunn, G. D. Edgecombe, A. Hejnol, M. Q. Martindale, and G. W. Rouse (2009). “Assembling the spiralian tree of life”. In: *Animal Evolution*. Oxford University Press, pp. 52–64.
- Mills, C. E., A. C. Marques, A. E. Migotto, D. R. Calder, C. Hand, J. T. Rees, S. H. D. Haddock, C. W. Dunn, and P. R. Pugh (2007). “Hydrozoa: Polyps, Hydromedusae, and Siphonophora”. In: *The Light & Smith manual: intertidal invertebrates from central California to Oregon, 4th edition*. University of California Press.

c. Refereed journal articles

- Ahuja, N., D. T. Schultz, D. Destanović, S. H. Church, N. Picciani, C. Munro, K. Kon-Nanjo, T. Kon, M. K. Mañko, W. Shi, O. Simakov, and C. W. Dunn (July 2026). “Siphonophore genome structure and the evolution of functional specialization”. In: *PLOS ONE* 21.7, pp. 1–25. DOI: 10.1371/journal.pone.0351247.
- Dunn, C. W. and S. H. Church (Apr. 2026). “Sharkmer: repurposing PCR primers for targeted genome assembly using in silico PCR”. In: *Bioinformatics*, btag163. ISSN: 1367-4811. DOI: 10.1093/bioinformatics/btag163.

- Church, S. H., R. B. Abedon, N. Ahuja, C. J. Anthony, D. Destanović, D. A. Ramirez, L. M. Rojas, M. E. Albinsson, I. Álvarez Trasobares, R. E. Bergemann, O. Bogdanovic, D. R. Burdick, T. J. Cunha, A. Damian-Serrano, G. D'Elia, K. B. Dion, T. K. Doyle, J. M. Gonçalves, A. Gonzalez Rajal, S. H. D. Haddock, R. R. Helm, D. Le Gouvello, Z. R. Lewis, B. I. M. M. Magalhães, M. K. Mañko, C. G. Mayorga-Adame, A. de Mendoza, C. J. Moura, C. Munro, R. Nel, K. Oguchi, J. N. Perelman, L. Prieto, K. A. Pitt, M. Roughan, A. Schaeffer, A. L. Schmidt, J. Sellanes, N. G. Wilson, G. Yamamoto, E. A. Lazo-Wasem, C. Simon, M. B. Decker, J. M. Coughlan, and C. W. Dunn (2025). "Population genomics of a sailing siphonophore reveals genetic structure in the open ocean". In: *Current Biology* 35 (15), 3556–3569.e6. doi: 10.1016/j.cub.2025.05.066.
- Guang, A. A., C. W. Dunn, V. Novitsky, M. Howison, and R. Kantor (2025). "T-shaped alignments integrating HIV-1 near full-length genome and partial pol sequences can improve phylogenetic inference of transmission clusters". In: *PLOS Computational Biology* 21.11, pp. 1–18. doi: 10.1371/journal.pcbi.1013676.
- Oguchi, K., A. Maeno, K. Yoshida, H. Kohtsuka, and C. W. Dunn (2025). "Zooid arrangement and colony growth in *Porpita porpita*". In: *Frontiers in Zoology* 22, p. 11. doi: 10.1186/s12983-025-00565-3.
- Price, K. L., D. M. Tharakan, W. Salvenmoser, K. Ayers, J. Mah, C. W. Dunn, B. Hobmayer, and L. Cooley (2025). "Examination of Germline and Somatic Intercellular Bridges in *Hydra vulgaris* Reveals Insights into the Evolutionarily Conserved Mechanism of Intercellular Bridge Formation". In: *Molecular Biology and Evolution* 42, msaf248. doi: 10.1093/molbev/msaf248.
- Sebé-Pedrós, A., A. Tanay, M. K. N. Lawniczak, D. Arendt, S. Aerts, J. Archibald, M. I. Arnone, M. Blaxter, P. Cleves, S. M. Coelho, M. Dias, C. W. Dunn, A. Elek, J. Frazer, T. Gabaldón, J. Gillis, X. Grau-Bové, R. Guigó, O. Hobert, J. Huerta-Cepas, M. Irimia, A. Klein, H. Lewin, C. J. Lowe, H. Marlow, J. M. Musser, L. G. Nagy, S. R. Najle, L. Pachter, S. Paez, I. Papatheodorou, M. J. Passalacqua, N. Rajewsky, S. Y. Rhee, T. A. Richards, T. Sauka-Spengler, L. M. Saunders, E. Seuntjens, J. Solana, Y. Song, U. Technau, and B. Wang (2025). "The Biodiversity Cell Atlas: mapping the tree of life at cellular resolution". In: *Nature* 645, pp. 877–885. doi: 10.1038/s41586-025-09312-4.
- Ahuja, N., X. Cao, D. T. Schultz, N. Picciani, A. Lord, S. Shao, K. Jia, D. R. Burdick, S. H. D. Haddock, Y. Li, and C. W. Dunn (2024). "Giants among Cnidaria: Large Nuclear Genomes and Rearranged Mitochondrial Genomes in Siphonophores". In: *Genome Biology and Evolution* 16 (3). doi: 10.1093/gbe/evae048.
- Church, S. H., J. L. Mah, and C. W. Dunn (2024). "Integrating phylogenies into single-cell RNA sequencing analysis allows comparisons across species, genes, and cells". In: *PLOS Biology* 22, e3002633. doi: 10.1371/journal.pbio.3002633.
- Fulton, J., V. Novitsky, F. Gillani, A. Guang, J. Steingrimsson, A. Khanna, J. Hague, C. Dunn, J. Hogan, K. Howe, M. MacAskill, L. Bhattarai, T. Bertrand, U. Bandy, and R. Kantor (2024). "Integrating HIV Cluster Analysis in Everyday Public Health Practice: Lessons Learned From a Public Health–Academic Partnership". In: *JAIDS Journal of Acquired Immune Deficiency Syndromes* 97, pp. 48–54. doi: 10.1097/QAI.0000000000003469.
- Hetherington, E. D., H. G. Close, S. H. Haddock, A. D. Damian-Serrano, C. W. Dunn, N. J. Wallsgrave, S. C. Doherty, and C. A. Choy (2024). "Vertical trophic structure and niche partitioning of gelatinous predators in a pelagic food web: Insights from stable isotopes of siphonophores". In: *Limnology and Oceanography* 69 (4), pp. 902–919. doi: 10.1002/lno.12536.
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- Oguchi, K., G. Yamamoto, H. Kohtsuka, and C. W. Dunn (2024). "Physalia gonodendra are not yet sexually mature when released". In: *Scientific Reports* 14, p. 23011. doi: 10.1038/s41598-024-73611-5.
- Church, S. H., J. L. May, G. Wagner, and C. W. Dunn (2023). "Normalizing need not be the norm: count-based math for analyzing single-cell data". In: *Theory in Biosciences*. doi: 10.1007/s12064-023-00408-x.
- Church, S. H., C. Munro, C. W. Dunn, and C. G. Extavour (2023). "The evolution of ovary-biased gene expression in Hawaiian *Drosophila*". In: *PLoS Genet* 19, e1010607. doi: 10.1371/journal.pgen.1010607.
- Dunn, C. W. (2023). "Neurons that connect without synapses". In: *Science* 380, pp. 241–242. doi: 10.1126/science.adh0542.

- Howison, M., F. S. Gillani, V. Novitsky, J. A. Steingrimsson, J. Fulton, T. Bertrand, K. Howe, A. Civitarese, L. Bhattarai, M. MacAskill, G. Ronquillo, J. Hague, C. W. Dunn, U. Bandy, J. W. Hogan, and R. Kantor (2023). “An Automated Bioinformatics Pipeline Informing Near-Real-Time Public Health Responses to New HIV Diagnoses in a Statewide HIV Epidemic”. In: *Viruses* 15, p. 737. URL: <https://www.mdpi.com/1999-4915/15/3/737>.
- Khanna, A., V. Novitsky, A. Guang, M. Howison, F. S. Gillani, J. Steingrimsson, C. Dunn, J. Fulton, T. Bertrand, K. Howe, L. Bhattarai, G. Ronquillo, M. MacAskill, U. Bandy, and R. Kantor (2023). “Integrating HIV Partner Services and Molecular Epidemiology Data to Enhance HIV Transmission Disruption in Rhode Island: Findings from a Public Health-Academic Partnership”. In: *Open Forum Infectious Diseases* 10. doi: 10.1093/ofid/ofad500.170.
- Novitsky, V., J. Steingrimsson, M. Howison, C. W. Dunn, F. S. Gillani, J. Fulton, T. Bertrand, K. Howe, L. Bhattarai, G. Ronquillo, M. MacAskill, U. Bandy, J. Hogan, and R. Kantor (2023). “Not all clusters are equal: dynamics of molecular HIV-1 clusters in a statewide Rhode Island epidemic”. In: *AIDS*. doi: 10.1097/QAD.0000000000003426.
- Damian-Serrano, A., E. D. Hetherington, A. Choy, S. H. D. Haddock, A. Lepides, and C. W. Dunn (2022). “Characterizing the secret diets of siphonophores (Cnidaria: Hydrozoa) using DNA metabarcoding”. In: *PLoS One*. doi: 10.1371/journal.pone.0267761.
- Guang, A., M. Howison, L. Ledingham, M. D’Antuono, P. A. Chan, C. Lawrence, C. W. Dunn, and R. Kantor (2022). “Incorporating Within-Host Diversity in Phylogenetic Analyses for Detecting Clusters of New HIV Diagnoses”. In: *Frontiers in Microbiology*. doi: 10.3389/fmicb.2021.803190.
- Hetherington, E. D., A. Damian-Serrano, S. H. D. Haddock, C. W. Dunn, and A. Choy (2022). “Integrating siphonophores into marine food-web ecology”. In: *Limnology and Oceanography Letters*. doi: 10.1002/lo12.10235.
- Munro, C., F. Zapata, M. Howison, S. Siebert, and C. W. Dunn (2022). “Evolution of gene expression across species and specialized zooids in Siphonophora”. In: *MBE*. doi: 10.1093/molbev/msac027.
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- Damian-Serrano, A., S. H. D. Haddock, and C. W. Dunn (2021a). “The evolution of siphonophore tentilla for specialized prey capture in the open ocean”. In: *PNAS* 118, e2005063118. doi: 10.1073/pnas.2005063118.
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- Guang, A., M. Howison, F. Zapata, C. Lawrence, and C. W. Dunn (2021). “Revising transcriptome assemblies with phylogenetic information”. In: *PLoS ONE* 16, e0244202. doi: 10.1371/journal.pone.0244202.
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- Li, Y., J. L. Steenwyk, Y. Chang, Y. Wang, T. Y. James, J. E. Stajich, J. W. Spatafora, M. Groenewald, C. W. Dunn, C. T. Hittinger, X. X. Shen, and A. Rokas (2021). “A genome-scale phylogeny of the kingdom Fungi”. In: *Current Biology* 31, pp. 1653–1665. doi: 10.1016/j.cub.2021.01.074.
- Novitsky, V., J. Steingrimsson, M. Howison, C. W. Dunn, F. S. Gillani, A. Manne, Y. Li, M. Spence, Z. Parillo, J. Fulton, T. Marak, P. Chan, T. Bertrand, U. Bandy, N. Alexander-Scott, J. Hogan, and R. Kantor (2021). “Longitudinal typing of molecular HIV clusters in a statewide epidemic”. In: *AIDS*. doi: 10.1097/QAD.0000000000002953.
- Kantor, R., J. P. Fulton, J. Steingrimsson, V. Novitsky, M. Howison, F. Gillani, Y. Li, A. Manne, Z. Parillo, M. Spence, T. Marak, P. Chan, C. W. Dunn, T. Bertrand, U. Bandy, N. Alexander-Scott, and J. W. Hogan (2020). “Challenges in evaluating the use of viral sequence data to identify HIV transmission networks for public health”. In: *Statistical Communications in Infectious Diseases* 12, s1. doi: 10.1515/scid-2019-0019.
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- Wang, L. G., T. T. Y. Lam, S. Xu, Z. Dai, L. Zhou, T. Feng, P. Guo, C. W. Dunn, B. R. Jones, T. Bradley, H. Zhu, Y. Guan, Y. Jiang, and G. Yu (2019). “treeio: an R package for phylogenetic tree input and output with richly annotated and associated data”. In: *Molecular Biology and Evolution*. doi: 10.1093/molbev/msz240.
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d. Non-refereed journal articles

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e. Selected lectures

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| 2026 | Intelligent Systems for Molecular Biology(ISMB) Evolution and Comparative Genomics Keynote |
| 2025 | Swarthmore College, Michigan State University, Jacques Monod Conference Metazoan Origins (Roscoff, France), North Carolina State University Genetics and Genomics Academy Seminar |
| 2024 | Bio Cell Atlas Meeting (MBL) |
| 2023 | Biodiversity Cell Atlas Meeting (Barcelona, Spain), International Congress on Invertebrate Morphology (Vienna, Austria) |
| 2022 | Moss Landing Marine Lab, Jacques Monod Conference Metazoan Origins (Roscoff, France) |
| 2019 | Keynote speaker at the Simon Fraser University Day of Omics, Systems Biology Teory Lunch invited speaker (Harvard), Graduate Student Invited Speaker (Stony Brook, Department of Ecology and Evolution), Yale University Department of Genetics |
| 2018 | UC Davis Department of Evolution and Ecology, University of Guelph Department of Integrative Biology |
| 2017 | Harvard Department of Organismal and Evolutionary Biology graduate student invited speaker, University of Alabama Allele Series speaker, Missouri Botanical Garden Annual Fall Symposium invited speaker, University of Texas |
| 2016 | Stanford University Abbott Lecture, Ctenopalooza (University of Florida) Keynote Speaker, University of Maryland BISI-BEES seminar student invited speaker, Blavatnik Science Symposium (New York Academy of Sciences), Yale University Department of Ecology and Evolutionary Biology, Boston Evolutionary Genomics Supergroup meeting at Harvard |
| 2015 | Gordon Research Conference, Friday Harbor Marine Laboratory, Systematics and Biodiversity Symposium at the Norwegian Academy of Sciences and Letters, University of Rhode Island |

- 2014 Universidad Austral de Chile (Valdivia, Chile), Bowdoin College (Brunswick, Maine), University of Missouri, Evolution of First Nervous Systems II meeting (Whitney Laboratory for Marine Bioscience, Florida), 13th Annual Genome Symposium (New York University), Kyushu University (Fukuoka, Japan)
- 2013 American Museum of Natural History, Global Invertebrate Genomics Alliance (GIGA) workshop at Nova University (Fort Lauderdale, FL), meeting of the Centre National de Ressources Biologiques Marines, EMBRC (Villefranche, France), Brown Department of Ecology and Evolutionary Biology Seminar, Brown Computer Science Department Industrial Partners Program Symposium, Tree of Life Symposium at the 2013 meeting of the Society of Systematic Biologists (title: “Building trees with transcriptomes and analyzing transcriptomes with trees”), Brown EPSCoR Bioinformatics Workshop
- 2012 World Economic Forum Annual Meeting (Davos, Switzerland), Smithsonian Tropical Research Institute (Panama), Sars International Centre for Marine Molecular Biology (Bergen, Norway), Clark University, University of Miami, Stony Brook University, Applied Math at Brown University, University of Florida
- 2011 National Science Board, (Washington, DC), National Science Foundation (Washington, DC), Marine Biological Laboratory (Woods Hole, MA), Boston University (Boston, MA), Marine Observatory at Villefranche-sur-Mer (France), Smithsonian National Museum of Natural History Department of Invertebrate Zoology (Washington, DC), Smithsonian National Museum of Natural History - Symposium “Next generation Sequencing: Transformative Technology for Biodiversity Science”, keynote speaker at the Brown University Communicating Your Science Workshop, Rhode Island College
- 2010 Harvard University, University of Gothenburg (Sweden), Iowa State University, Brown University Wayland Collegium, Helicos BioSciences, National Academy of Science “Kavli Frontiers of Science” meeting, PopTech, University of Texas at Austin
- 2009 Yale University, University at Buffalo, LM University Munich, meeting of the German Research Foundation Priority Program “Deep Metazoan Phylogeny” at Humboldt University Berlin, University of Connecticut, Harvard University course OEB275r: “Phylogenetics in the Era of Genomics”, University of Rhode Island, Barcelona University, Brown MCB, invited speaker at the Society for Systematic Biologists symposium “Advances in Tree Reconstruction from Complex Data Matrices” in Moscow, Idaho
- 2008 University of Rochester, Friday Harbor Marine Laboratory, Woods Hole Oceanographic Institute, New England Biolabs
- 2007 Harvard University, Roger Williams University
- 2005 University of Hawaii

f. Patents and inventions

- 2016 US Patent number 9,330,295. “Spatial sequencing/gene expression camera”

5 Service

5.1 To the University

- 2025 Humanities Advisory and Tenure and Appointments Committee (HTAC), Faculty Senator, Chair of FAS-SEAS Senate Science and Engineering Committee, FASTAP Review Committee
- 2024 EEB Director of Graduate Studies (DGS), Humanities Advisory and Tenure and Appointments Committee (HTAC)
- 2023 EEB Director of Graduate Studies (DGS), CEID review committee

- 2022 EEB Director of Graduate Studies (DGS), Committee on the Economic Status of the Faculty (CESOF), EEB safety officer (overseeing COVID research reactivation and approval), Yale Genetics Training Grant (TPG) Executive Committee, Undergraduate Admissions, Yale Institute for Biospheric Studies (YIBS) small grant director
- 2021 EEB Director of Graduate Studies (DGS), Committee on the Economic Status of the Faculty (CESOF), EEB safety officer (overseeing COVID research reactivation and approval), Yale Genetics Training Grant (TPG) Executive Committee, Yale Institute for Biospheric Studies (YIBS) small grant director
- 2020 Biological Sciences Advisory Committee (July 1, 2018, to June 30, 2020), Life Sciences department review at Yale NUS, faculty search committee at Yale NUS, Committee on the Economic Status of the Faculty (CESOF), EEB safety officer (overseeing COVID research reactivation and approval), Yale Institute for Biospheric Studies (YIBS) small grant director
- 2019 Biological Sciences Advisory Committee (July 1, 2018, to June 30, 2020), Multiple committees at Yale NUS
- 2018 Biological Sciences Advisory Committee (July 1, 2018, to June 30, 2020), Peabody Exhibits Committee
The following were at Brown University:
- 2016 Served on the Digital Teaching and Learning Committee, Director of the COBRE Computational Biology Core
- 2014 Served on the Steering Committee for the Brown Genomics Core Facility, served on the Advisory Board for the Brown Center for Computation and Visualization, maintained department website for EEB, served on the the provost's committee to explore RISD/Brown collaboration, guest lecture in BIOL2010
- 2013 Served on the University Strategic Planning Committee on Online Teaching and Learning, served on the Steering Committee for the Brown Genomics Core Facility, served on the Advisory Board for the Brown Center for Computation and Visualization, assisted in the creation of a new department website for EEB, served on the the provost's committee to explore RISD/Brown collaboration
- 2012 Participated in the Strategic Planning Sessions for the Program in Biology, served on the University Strategic Planning Committee on Online Teaching and Learning, served on the Steering Committee for the Brown Genomics Core Facility, served on the Advisory Board for the Brown Center for Computation and Visualization, presented at the Academic Technology Showcase, filed New Invention Disclosures (Tech ID 2157, 2174)
- 2011 Co-directed the Center for Computational Molecular Biology "Genome Assembly Special Forces Workshop", member of the CCV Advisory Board for High Performance Computing, member of the Illumina steering committee, was a presenter to the visiting World Economic Forum panel, presented to the Medical School Advisory Council
- 2010 Directly involved in hiring a bioinformatician in BioMed, faculty representative on panel to redesign the Brown home page, played an active role (including technical support in the lab) on the selection of a next-generation sequencer for the NIH SIG award, member of the CCV Advisory Board for High Performance Computing, member of the Illumina steering committee, participated in the EEB internal departmental review. Teaching and mentorship: sophomore advisor to two undergraduate students, MCB trainer.
- 2009 Participated in the OVPR sponsored "Brown Research Data Storage Focus Group", provided assistance with NIH SIG proposal for a next-generation DNA sequencer, participated in discussions with IBM regarding High Performance Computing acquisition, panel member at the Sheridan Center roundtable "UTRAs – Integrating Research and Teaching in the Life & Physical Sciences", joined the CCV Advisory Board for High Performance Computing at the invitation of the Vice President for Research, played an active role in next-generation sequencing platform selection for NIH SIG Award. Teaching and mentorship: was a sophomore advisor to two students, became a graduate student trainer in MCB, organized a special campus-wide presentation by the science writer Carl Zimmer sponsored by EEB, BIBS, and ECI

2008 Assisted in the preparation of a Rhode Island EPSCoR proposal for next generation sequencing and downstream computational analyses; Participated in discussions with IBM to develop supercomputing resources at Brown

5.2 *To the profession*

Editorial

2025 Guest editor PLoS Computational Biology
 2015 Guest editor at Proceedings of the National Academy of Science USA (PNAS)
 2014 Guest editor at Proceedings of the National Academy of Science USA (PNAS), co-hosted (with Chris Pires) the Society for Systematic Biologists symposium “Phylogenomics, transcriptomics, and the evolution of gene expression” at the annual Evolution meeting
 2012-2014 Member of the editorial board of the Journal of Experimental Zoology Part B: Molecular and Developmental Evolution

Journal Reviews

2025 Bioinformatics, Journal of Comparative Neurology
 2025 Current Biology, Nature, Nature Communications, PNAS, Mitochondrial DNA: Resources, Molecular Biology and Evolution, Current Opinion in Genetics and Development
 2024 Molecular Biology and Evolution, Current Biology, Proceedings of the Royal Academy Series B, PNAS
 2023 Bioinformatics Advances, Molecular Biology and Evolution, Genome Research, Evolution and Development
 2022 PNAS, Nature Ecology and Evolutionary Biology, Nature Communications, BMC Biology, Bioinformatics, Science, Genome Biology
 2021 PeerJ, ICOES, MBE, Nature
 2020 PNAS, Science
 2019 Nature, Developmental Biology, Development, PNAS
 2018 Systematic Biology, Nature, Current Biology, Nature Ecology and Evolutionary Biology, Molecular Biology and Evolution, PeerJ, Organisms Development and Evolution
 2017 Systematic Biology, Nature, Nature Ecology and Evolution, Nature Scientific Reports, BMC Evolutionary Biology
 2016 Systematic Biology, Nature Scientific Reports, Current Biology, Journal of Experimental Zoology Series B, BMC Evolutionary Biology, eLIFE, PNAS
 2015 PNAS, Current Biology, Nature Communications, EvoDevo, Systematic Biology, Proceedings of the Royal Society Series B, Nature Protocols, Nature, Zootaxa
 2014 PLoS Currents, PNAS
 2013 BMC Genomics, Nature, Genome Biology and Evolution, Current Biology, PLoS One, Molecular Biology and Evolution
 2012 Nature, PNAS, Bioinformatics, Current Biology, Molecular Reproduction and Development
 2011 Current Biology, Molecular Biology and Evolution, Evolutionary Ecology, Mitochondrial DNA, PLoS One
 2010 Proceedings of the National Academy of Sciences (USA), Current Biology, BMC Evolutionary Biology, BMC Bioinformatics, PLoS Biology, Molecular Phylogenetics and Evolution, Trends in Genetics, Biology Letters

2009	Nature, Molecular Biology and Evolution, Current Biology, Zootaxa, BMC Evolutionary Biology, Molecular Phylogenetics and Evolution
2008	Current Biology, BMC Evolutionary Biology, Systematic Biology, Proceedings of the Royal Society B, Journal of the Marine Biological Association of the United Kingdom, Caribbean Journal of Science, Deep-Sea Research Part I, Journal of Molecular Biology, Bioinformatics
2007	Developmental Dynamics, Hydrobiologia, Integrative and Comparative Biology, JEZ Part B: Molecular and Developmental Evolution, Journal of the Marine Biological Association of the UK, Systematics and Biodiversity, Zoologica Scripta, Zootaxa

Other Activities

2019-2021	Trustee of the Society of Systematic Biologists
2016-2018	Treasurer of the Society of Systematic Biologists
2013-2016	Member of the supervisory board of the Neptune Consortium (http://neptune-itsn.eu/), a multi-institution evolutionary developmental biology and neurobiology training network funded by the European Union
2012	Served as a faculty member for the PopTech Science Fellows Program

6 Academic Honors

2016	Blavatnik Award for Young Scientists Finalist
2012	Teaching with Technology Award (Brown University)
2011	Alan T. Waterman Award (National Science Foundation)
2010	Named the Manning Assistant Professor of Ecology and Evolutionary Biology
2010	PopTech Science and Public Leadership Fellow
2010	Kavli Frontiers of Science Fellow (Sponsored by U.S. National Academy of Sciences)
2006	John Spangler Nicholas Prize (Yale University)
2000–2003	NSF Graduate Research Fellowship (National Science Foundation)
2000–2002	Sterling Fellowship (Yale University)

7 Teaching

Courses

2025 Fall	Invertebrate Zoology Lecture (EEB2255, 13 students)
2025 Fall	Invertebrate Zoology Lab (EEB2256L, 13 students)
2025 Spring	Advanced Topics in Ecology and Evolution (EEB501, 5 students)
2025 Spring	Responsible Conduct of Research (EEB545, 5 students)
2024 Fall	Phylogenetic Biology (EEB 354, 15 students)
2024 Spring	Advanced Topics in Ecology and Evolution (EEB501, 9 students)
2024 Spring	Responsible Conduct of Research (EEB545, 9 students)
2023 Fall	Invertebrate Zoology Lecture (EEB255, 86 students)

2023 Fall	Invertebrate Zoology Lab (EEB256L, 13 students)
2022 Fall	Phylogenetic Biology (EEB 354, 19 students)
2022 Spring	Advanced Topics in Ecology and Evolution (EEB501, 10 students)
2022 Spring	Responsible Conduct of Research (EEB545, 10 students)
2021 Fall	Advanced Topics in Ecology and Evolution (EEB500, 10 students)
2021 Fall	Invertebrate Zoology Lecture (EEB255, 16 students)
2021 Fall	Invertebrate Zoology Lab (EEB256L, 6 students)
2020 Fall	Phylogenetic Biology (EEB 354, 22 students)
2020 Fall	Advanced Philosophy of Biology (EEB 821, 8 students)
2019 Fall	Philosophy of Biology (EEB321, 13 students)
2019 Fall	Invertebrate Zoology Lecture (EEB255, 81 students)
2019 Fall	Invertebrate Zoology Lab (EEB256L, 9 students)
2019 Spring	Comparative Genomics (EEB723, 11 students)
2018 Fall	Invertebrate Zoology Lecture (EEB255, 4 students)
2018 Fall	Invertebrate Zoology Lab (EEB256L, 3 students)
2018 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2017 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2016 Fall	Invertebrate Zoology (Biol 0410, 43 students)
2016 Spring	Phylogenetic Biology (Biol 1425, 13 students)
2016 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2015 Fall	Topics in Ecology and Evolutionary Biology: interacting with data (Biol 2430, 19 students).
2015 Fall	Invertebrate Zoology (Biol 0410, 37 students)
2015 Summer	Practical Computing for Biologists Workshop, Friday Harbor Labs, University of Washington
2015 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2014 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2013 Fall	Invertebrate Zoology (Biol 0410, 40 students)
2013 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2013 Spring	Phylogenetic Biology (Biol 1425, 11 students)
2012 Fall	Invertebrate Zoology (Biol 0410, 37 students)
2012 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA); Guest lecture in: Bioinformatics: Biodiscovery By Computer at Summer@Brown (a high school summer course)
2012 Spring	EEB IGERT Course in Reverse Ecology (3 students); Guest lectures in: Analysis of Development (Biol 1310), Topics in Science Communications: Science Journalism Practicum (Biol 0950B)
2011 Fall	Invertebrate Zoology (Biol 0410, 34 students)
2011 Summer	Workshop on Molecular Evolution at the Marine Biological Laboratory (Woods Hole, MA)
2011 Spring	Practical Computing for Biologists NESCENT Academy at North Carolina State University (co-taught with Steve Haddock)
2010 Fall	Invertebrate Zoology (Biol 0410, 33 students)
2010 Spring	Origins of Multicellularity and the Evolution of Germ Line (Biol 1940Y-S01, 14 students), Directed Research/Independent Study (Biol 195, 1 students)

2009 Fall	Invertebrate Zoology (Biol 0410, 18 students), Directed Research/Independent Study (Biol 195, 2 students)
2009 Spring	Topics in Ecology and Evolutionary Biology (Biol 0244, 16 students, included field trip to Belize), Directed Research/Independent Study (Biol 195, 1 student)
2008 Fall	Topics in Ecology and Evolutionary Biology (Biol 0243, 16 students), Directed Research/Independent Study (Biol 195, 2 student)
2008 Spring	Directed Research/Independent Study (Biol 0195, 2 students)
2007 Fall	Directed Research/Independent Study (Biol 0195, 1 students)

Advising—Postdoctoral researchers

2021–2025	Sam Church
2020–2023	Natasha Picciani de Souza
2018–2019	Yuanning Li
2016–2020	Zachary Lewis
2012–2016	Felipe Zapata
2010–2011	Stephen Smith
2009–2015	Stefan Siebert

Advising—Graduate students (primary advisor)

2023–present	Dalila Destanovic
2021–present	Namrata Ahuja
2019–2024	Lauren Mellenthin
2018–2024	Jasmine Mah
2015–2021	Alejandro Damian Serrano
2015–2016	Cat Luria (co-advised with Jeremy Rich)
2013–2018	August Guang (Applied Math, co-advised with Chip Lawrence)
2013–2018	Catriona Munro
2008–2015	Rebecca Helm

Advising—Graduate student thesis committee member

2025–present	Lan Wei (Yale, EEB)
2025–present	Dominica Cao (Yale, MCDB)
2024–present	Jacob Mathai (Yale, Immunobiology)
2023–present	Roy Zang (Yale, MCDB)
2023–present	Oluwatobi Oso (Yale, EEB)
2023–present	Haysun Choi (Yale, EEB)
2021–present	Delaney Farris (Yale, Genetics)
2019–present	Sara Siwiecki
2023–2025	Arianna Lord (Harvard, OEB)
2019–2025	Pranav Kantroo (Yale, Computational Biology and Bioinformatics)
2019–2024	Liam Taylor (Yale, EEB)

2019–2024	Daniel Stadtmauer (Yale, EEB)
2019–2021	Cecelia Harold (Yale, Genetics)
2020–2023	Cory Berger(MIT/ WHOI)
2019–2023	Chantal Parker (Yale, EEB)
2019–2023	Ian Gilman (Yale, EEB)
2018–2021	Jack Shaw (Yale, Geology)
2019–2021	Nicolas Mongiardino Koch (Yale, Geology)
2017–2020	Evelyn Pless (Yale, EEB)
2017–2021	Sam Church (Harvard, OEB)
2015–2021	Morgan Moeglein (Yale, EEB)
2016–2019	Joaquin Nunez (Brown University, EEB)
2019–2019	Ho Kwan Tang (Yale, EEB)
2016–2017	Aislinn Rowan (Brown University, MPP)
2015–2019	Christy Rhine (Brown University, MCB)
2015–2019	Robert Lamb (Brown University, EEB)
2015–2015	Kara Pellowe-Wagstaff (Brown University, EEB)
2013–2014	Warren Francis (University of California at Santa Cruz)
2012–2017	Tara Fresques (Brown University, MCB)
2011–2012	Dereck Stefanik (Boston University)
2011–2012	Anna Ritz (Brown University, CS)
2011–2015	Ariel Camp (Brown University, EEB)
2010–2012	Arturo Ruiz Villanueva (Institute of Ecology, Xalapa, Mexico)
2010–2015	Cat Luria (Brown University, EEB)
2009–2014	Adrian Reich (Brown University, MCB)
2009–2014	Ben Ewen-Campen (Harvard University, OEB)
2009–2011	John Cumbers (Brown University, MCB)
2009–2015	Steven Swartz (Brown University, MCB)
2009–2013	Henry Astley (Brown University, EEB)
2008–2012	Matt Ogburn (Brown University, EEB)
2007–2009	James Palardy (Brown University, EEB)