



Erik C. Andersen

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MAJOR PROFESSIONAL INTERESTS

Evolutionary genetics; quantitative genetics; molecular genetics; parasitology

EDUCATION

- 2008-2013 Post-doctoral fellowship
Princeton University
Advisor: Dr. Leonid Kruglyak
- 2000-2008 Ph.D. in Biology
Massachusetts Institute of Technology (MIT), Cambridge, MA
Advisor: Dr. H. Robert Horvitz
Dissertation: The synthetic Multivulva genes and their suppressors regulate opposing cell fates through chromatin remodeling
- 1996-2000 B.S. in Biological Sciences with departmental honors
Stanford University, Stanford, CA
Advisor: Dr. Matthew P. Scott
Dissertation: *in vivo* analysis of *Drosophila* heart-tube formation

AWARDS, HONORS, AND FELLOWSHIPS

- 2022 - 2024 Fulbright Global Scholar (Chile, New Zealand, Taiwan), declined
- 2022 - 2024 Editorial Board Member of *Journal of Nematology*
- 2021 Distinguished Teaching Award, Weinberg College of Arts and Sciences
- 2020 - 2023 Editorial Board Member of *Gene*
- 2019 - 2022 Human Frontiers Science Program Award Recipient
- 2018 - 2023 National Science Foundation CAREER Award Recipient
- 2017 - 2020 Editor Board Member of *BMC Genomics*
- 2015 - 2019 American Cancer Society Research Scholar
- 2015 - 2017 March of Dimes Basil O'Connor Research Scholar
- 2015 - Editorial Board Member of *Trends in Genetics*
- 2014 - 2018 Pew Scholar in the Biomedical Sciences
- 2012 - 2013 Howard Hughes Medical Institute Post-doctoral Fellow
- 2011 - 2012 National Cancer Institute Post-doctoral Fellow, training grant T32-CA009528
- 2009 - 2011 Ruth L. Kirschstein National Research Service Award Recipient
- 2005 - 2006 Anna Fuller Cancer Graduate Research Fellowship
- 2000 Firestone Medal for Excellence in Undergrad. Research (top Biological Sciences researcher)
- 1999, 1998 Howard Hughes Medical Institute Summer Research Fellowship
- 1998 Stanford University Undergraduate research small grant recipient
- 1996-1998 Robert C. Byrd Honors Scholarship recipient

EMPLOYMENT

2023 - Professor of Biology, Johns Hopkins University

2022 - 2023 Professor of Molecular Biosciences, Northwestern University

2022 - 2023 Professor of Cell and Developmental Biology, Feinberg School of Medicine, Northwestern University

2020 - 2022 Associate Professor of Cell and Developmental Biology, Feinberg School of Medicine, Northwestern University

2019 - 2022 Associate Professor of Molecular Biosciences, Northwestern University

2013 - 2023 Preceptor for the Interdisciplinary Biological Sciences Graduate Program (IBiS)
Resident member of the Chemistry of Life Processes Institute (CLP)
Full Member of the Robert H. Lurie Comprehensive Cancer Center
Member of Northwestern Institute on Complex Systems (NICO)

2013 - 2019 Assistant Professor of Molecular Biosciences, Northwestern University

2008 - 2013 Post-doctoral fellow, Princeton University, Advisor: Dr. Leonid Kruglyak

2000 - 2008 Graduate student, Biology Department at Massachusetts Institute of Technology (MIT), Advisor: Dr. H. Robert Horvitz

RESEARCH SUPPORT**PRESENT**

2025 - 2028 National Science Foundation, EDGE CMT (2524223)
Defining the mechanistic roles of hyper-divergent regions in gene-by-environment interactions
PI: Andersen

2025 - 2029 National Institutes of Health (R01 AI182355)
Combining B. thuringiensis crystal proteins with small molecule anthelmintics to combat parasitic nematode resistance
PI: Aroian (Univ. of Massachusetts Chan Med School), co-PI: Andersen

2025 Genetic Resources Core Facility Discovery Initiative Award recipient
Optimization of ultra-long nanopore reads
PI: Andersen

2024 - 2026 National Institutes of Health (R21 AI180805)
Investigating the genetics and genomics of antiparasitic drug responses in a poultry ascarid model
PI: Andersen

2020 - 2025 National Institutes of Health (R01 AI153088) - NIAID
Discovery of novel benzimidazole resistance mechanisms
Lead PI: Andersen, co-PIs: Fraser (UCSF), Gilleard (U Calgary), Kaplan (U Georgia)

PAST

2022 - 2025 National Science Foundation, Capacity: Biological Collections (2224885)
Enhancement of the Caenorhabditis Natural Diversity Resource
co-PI: Andersen, co-PI: Tanny

2023 - 2025 US Poultry and Egg Association
Discovery of Novel Anthelmintic Resistance Genes to Reduce Production Loss Caused by Blackhead
PI: Andersen

- 2022 - 2024 National Institutes of Health (R21 OD030067) - Office of the Director
Genetic and genomic tools for C. briggsae research
Lead PI: Chamberlin (OSU), co-PI: Andersen
- 2018 - 2024 National Science Foundation CAREER Award (1751035)
Discovery of the molecular mechanisms underlying microevolution of phenotypic plasticity in a developmental trait
PI: Andersen
- 2018 - 2024 National Institutes of Health (R01 ES029930) - NIEHS
Discovery of conserved molecular mechanisms underlying population-wide variation in toxin responses
Lead PI: Andersen, co-PIs: Baugh (Duke), Rockman (NYU)
- 2019 - 2024 Human Frontiers Science Program Research Grant (RGP0001/2019)
The repeatability of the genetic mechanisms underlying behavioral evolution
Lead PI: Andersen, co-PIs: Brown (Imperial, MRC), Hodgins (Monash)
- 2022 - 2025 National Science Foundation, Research Experiences for Undergraduates (2150134)
No funding to REU leadership
REU Site: Quantitative Biology REU (QBREU) at Northwestern University
- 2018 - 2023 National Science Foundation (1764421) and Simons Foundation (597491)
Research Center for Mathematics of Complex Biological Systems
Understanding organismal growth and development through quantitative approaches
- 2022 - 2023 Les Turner ALS Center Pilot Grant
Creation of C. elegans ALS models incorporating natural variation
- 2019 - 2022 National Science Foundation, Collections in Support of Bio. Res. - Living Collections (1930382)
Enhancement of the Caenorhabditis Natural Diversity Resource
- 2017 - 2021 National Institutes of Health (R01 DK115690) - NIDDK
Large scale nutrigenetics and genomics in a tractable metazoan model
- 2015 - 2020 American Cancer Society Research Scholar Grant (127313-RSG-15-135-01-DDC)
Elucidating the genetic causes of variation in chemotherapy-based toxicity
- 2017 - 2020 National Institutes of Health (R21 AG053638) - NIA
High-throughput multi-modal analysis of natural variation in C. elegans healthspan
- 2016 - 2019 National Institutes of Health (R21 AI121836) - NIAID
Discovery and validation of avermectin resistance loci in free-living and parasitic nematodes
- 2014 - 2019 Pew Charitable Trusts, Scholars Program in the Biomedical Sciences
Elucidating the genetics of anthelmintic resistance in nematode-borne neglected tropical diseases
- 2015 - 2017 March of Dimes Basil O'Connor Starter Research Grant
Identification of hookworm anthelmintic resistance genes to ameliorate maternal and infant anemia

2014 - 2016 Chicago Biomedical Consortium, Catalyst Grant
Uncovering “missing heritability” in an experimentally tractable model organism

PUBLICATIONS

h-index=45, i10-index=82, link to Google Scholar page ([here](#))

Andersen lab graduate students denoted in *italics* and post-docs denoted in underline.

PREPRINTS:

107. Shaver AO, *McKeown R*, Reyes Otero JM, and Andersen EC (2025)
 Independent mechanisms of benzimidazole resistance across *Caenorhabditis* nematodes
bioRxiv, Posted Mar. 13, 2025
 DOI: <https://doi.org/10.1101/2025.03.13.643047>
106. Clites BL, Frohock B, Koury EJ, Andersen EC, and Pierce JT (2024)
 Natural variation in protein kinase D modifies alcohol sensitivity in *Caenorhabditis elegans*
bioRxiv, Posted Jun. 9, 2024
 DOI: <https://doi.org/10.1101/2024.06.09.598102>
105. Fouad AD, Churgin MA, Hayden J, Xu J, Park JI, Liu A, Teng C, Sun H, Parrado M, Bowlin P, La Torre MD, Crombie TA, Sedore CA, Coleman-Hulbert AL, Johnson E, Phillips P, Andersen EC, and Fang-Yen C (2021)
 High-throughput imaging of *Caenorhabditis elegans* aging using collective activity monitoring
bioRxiv, Posted Oct. 19, 2021
 DOI: <https://doi.org/10.1101/2021.10.18.464905>

PEER-REVIEWED:

104. Polk EA, Aqil A, Collins JB, Tanny RE, Andersen EC, Gokcumen O, and Ferkey DM (2025)
 Wild Strains Reveal Natural Variation in *C. elegans* Avoidance Behaviors.
G3 (Bethesda). 2025 Oct 10;jkaf243.
 DOI: <https://doi.org/10.1093/g3journal/jkaf243>
103. Collins JB, Choo R, Shaver AO, *Schaye ES*, Volpe T, Nunn L, Lighty ME, Niel KR, Frye EM, Zamanian M, and Andersen EC (2025)
 A small-scale survey of fenbendazole resistance in *Ascaridia galli* and *Heterakis gallinarum*, two common ascarid parasites of poultry.
Poultry Science 2025 Sep 10;104(11):105808
 DOI: <https://doi.org/10.1016/j.psj.2025.105808>
102. Jhaveri NS, *Mastronardo MK*, Collins JB, and Andersen EC (2025)
 Development of a size-separation technique to isolate *Caenorhabditis elegans* embryos using mesh filters
PLoS ONE, 2025 Apr 24;20(4):e0318143
 DOI: <https://doi.org/10.1371/journal.pone.0318143>
101. Jhaveri NS and Andersen EC (2025)
 Fecundities of Hawaiian *Caenorhabditis briggsae* wild strains are not correlated with natural niche temperatures.
MicroPublication Biology, 2025 Jan 15; 2025:10.17912/micropub.biology.001356
 DOI: <https://doi.org/10.17912/micropub.biology.001356>

100. Collins JB, Dilks CM, Hahnel SR, Rodriguez B, Fox BW, Redman E, Yu J, Cooke B, Sihuta K, Zamanian M, Roy PJ, Schroeder FC, Gillard JS, and Andersen EC (2024)
Naturally occurring variation in a cytochrome P450 modifies thiabendazole responses independent of beta-tubulin
PLoS Pathogens, 2025 Jan 14;21(1):e1012602
DOI: <https://doi.org/10.1371/journal.ppat.1012602>
99. Moya ND, Yan SM, McCoy RC, and Andersen EC (2024)
The long and short of hyper-divergent regions
Trends in Genetics, 2024 Nov 15
DOI: <https://doi.org/10.1016/j.tig.2024.11.005>
98. Shaver AO and Andersen EC (2024)
Integrating metabolomics into the diagnosis and investigation of anthelmintic resistance
Trends in Parasitology, 2024 Dec;40(12):1097-1106.
DOI: <https://doi.org/10.1016/j.pt.2024.10.020>
97. Zhang G, Felix MA, and Andersen EC (2024)
Transposon-mediated genic rearrangements underlie variation in small RNA pathways
Science Advances, 2024 Sep 20;10(38):eado9461.
DOI: <https://doi.org/10.1126/sciadv.ado9461>
96. Collins JB, Shaver AO, Schaye ES, Volpe T, Nunn LR, Zamanian M, and Andersen EC (2024)
Lack of correlation between parasite burden and key weight metrics in poultry infected with intestinal ascarids
MicroPublication Biology, 2024 Aug 7;2024:10.17912/micropub.biology.001197.
DOI: <https://doi.org/10.17912/micropub.biology.001197>
95. Crombie TA, Raja M, Saxena AS, Johnson LM, Saber S, Tanny RE, Ponciano JM, Andersen EC, Zhou J, and Baer CF (2024)
Direct inference of the distribution of fitness effects of spontaneous mutations from recombinant inbred *C. elegans* mutation accumulation lines
Genetics, 2024 Aug 14:iyae136.
DOI: <https://doi.org/10.1093/genetics/iyae136>
94. Collins JB, Stone S, Koury E, Paredes A, Shao F, Lovato C, Chen M, Shi R, Li A, Candal I, Al Moutaa K, Moya ND, and Andersen EC (2024)
Quantitative tests of albendazole resistance in beta-tubulin mutants
International Journal for Parasitology: Drugs and Drug Resistance, 2024 Jul 7;25(100556),
DOI: <https://doi.org/10.1016/j.ijpddr.2024.100556>
93. Yang H, Lee D, Kim H, Cook DE, Paik YK, Andersen EC, and Lee J (2024)
Glial expression of a steroidogenic enzyme underlies natural variation in hitchhiking behavior
PNAS 2024 Jul 3;121(28):e2320796121, DOI: <https://www.pnas.org/doi/10.1073/pnas.2320796121>
92. Knox J, Burns AR, Cooke B, Cammalleri SR, Kitner M, Ching J, Castelli JMP, Puumala E, Snider J, Koury E, Collins JB, Andersen EC, Stagljar I, Cowen LE, Laurens M, Zasada I, and Roy PJ (2023)
Diverse plant-parasitic nematodes are selectively killed by oxadiazole thioether pro-nematocides
Nature Communications 2024 July 2;15(5529), DOI: <https://doi.org/10.1038/s41467-024-49738-4>

91. Shaver AO, Miller IR, Schaye ES, Moya ND, Collins JB, Wit J, Blanco AH, Shao FM, Andersen EJ, Khan SA, Paredes G, and Andersen EC (2024)
Quantifying the fitness effects of resistance alleles with and without anthelmintic selection pressure using *C. elegans*
PLoS Pathogens 2024 May 20;20(5):e1012245, DOI: <https://doi.org/10.1371/journal.ppat.1012245>
90. Lee H, Boor SA, Hilbert ZA, Meisel JD, Park J, Wang Y, McKeown R, Fischer SEJ, Andersen EC, and Kim DH (2023)
Genetic variants that modify the neuroendocrine regulation of foraging behavior in *C. elegans*
Science Advances 2024 Jun 14;10(20):eadk9481, DOI: <https://doi.org/10.1126/sciadv.adk9481>
89. Iyu H, Moya ND, Andersen EC, and Chamberlin HM (2024)
Gene duplication and evolutionary plasticity of *lin-12*/Notch gene function in *Caenorhabditis*
Genetics 2024 May 29:iyae064
DOI: <https://doi.org/10.1093/genetics/iyae064>
88. Wolstenholme AJ, Andersen EC, Choudhary S, Ebner F, Hartmann S, Holden-Dye L, Kashyap SS, Krücken J, Martin RJ, Midha A, Neysum P, Neveu C, Robertson AP, von Samson-Himmelstjerna G, Walker R, Wang J, Whitehead BJ, and Williams PDE
Getting around the roundworms: Identifying knowledge gaps and research priorities for the ascarids
Advances in Parasitology 2024 Feb 20
DOI: <https://doi.org/10.1016/bs.apar.2023.12.002>
87. Crombie TA, McKeown R, Moya ND, Evans KS, Widmayer S, LaGrassa V, Roman N, Tursunova O, Zhang G, Gibson S, Buchanan C, Roberto N, Vieira R, Tanny RE, and Andersen EC
CaeNDR, the *Caenorhabditis* Natural Diversity Resource
Nucleic Acids Research 2023 Oct 19; gkad887
DOI: <https://doi.org/10.1093/nar/gkad887>
86. Moya ND, Stevens L, Miller IR, Galindo JL, Bardas AD, Yeo C, Rozenich AJ, Xu M, Koh ESH, and Andersen EC (2023)
Novel and improved *Caenorhabditis briggsae* gene models generated by community curation
BMC Genomics 2023 Aug 25;24(1):486
DOI: <https://doi.org/10.1186/s12864-023-09582-0>
85. Wit J, Dilks CM, Zhang G, Kim Guisbert KS, Zdraljevic S, Guisbert E, and Andersen EC (2023)
Praziquantel inhibits *Caenorhabditis elegans* development and species-wide differences might be *cct-8*-dependent
PLoS ONE 2023 Aug 10;18(8):e0286473
DOI: <http://doi.org/10.1371/journal.pone.0286473>
84. Lee D, Fox BW, Palomino DCF, Panda O, Tenjo FJ, Evans KS, Stevens L, Koury E, Rodrigues PR, Kolodziej AR, Schroeder KF, and Andersen EC (2023)
Natural genetic variation in the pheromone production of *C. elegans*
The Proceedings of the National Academy of Sciences 2023 May 10;120(26):e2221150120
DOI: <https://doi.org/10.1073/pnas.2221150120>
83. Zhang G and Andersen EC (2023)
Genome-wide regulatory effects of STRs stabilized by elevated expression of antioxidant genes in *C. elegans*
Molecular Biology and Evolution 2023 Apr 4;40(4):msad067
DOI: <https://doi.org/10.1093/molbev/msad067>

82. Shaver AO, Wit J, Dilks CM, Crombie TA, Li H, Aroian RV, and Andersen EC (2023)
Variation in anthelmintic responses are driven by genetic differences among diverse *C. elegans* wild strains
PLoS Pathogens 2023 Apr 3;19(4):e1011285
DOI: <https://doi.org/10.1371/journal.ppat.1011285>
81. Venkatesan A, Jimenez Castro PD, Morosetti A, Horvath H, Chen R, Redman E, Dunn K, Collins JB, Fraser JS, Andersen EC, Kaplan RM, and Gilleard JS (2023)
Molecular evidence of widespread benzimidazole drug resistance in *Ancylostoma caninum* from domestic dogs throughout the USA and discovery of a novel β -tubulin benzimidazole resistance mutation
PLoS Pathogens 2023 Mar 2;19(3):e1011146
DOI: <https://doi.org/10.1371/journal.ppat.1011146>
80. Collins JB and Andersen EC (2022)
The turkey ascarid, *Ascaridia dissimilis*, as a model genetic system
International Journal for Parasitology 2022 Dec 19;S0020-7519(22)00177-1
DOI: <https://doi.org/10.1016/j.ijpara.2022.10.005>
79. Lesack K, Mariene GM, Andersen EC, and Wasmuth JD (2022)
Different structural variant prediction tools yield considerably different results in *Caenorhabditis elegans*
PLoS ONE 2022 Dec 30;17(12):e0278424
DOI: <https://doi.org/10.1371/journal.pone.0278424>
78. Nyaanga J, Shirman S, Mangan NM, and Andersen EC (2022)
Characterization of larval growth in *C. elegans* cuticle mutants
microPublication Biology 2022 Nov. 4, 2022:10.17912/micropub.biology.000662
DOI: <https://doi.org/10.17912/micropub.biology.000662>
77. Gibson S, Ness-Cohn E, and Andersen EC (2022)
Benzimidazoles cause lethality by inhibiting the function of *Caenorhabditis elegans* neuronal beta-tubulin
International Journal for Parasitology: Drugs and Drug Resistance 2022 Dec;20:89-96
DOI: <https://doi.org/10.1016/j.ijpddr.2022.10.004>
76. Shaver AO, Garcia BM, Gouveia GJ, Morse AM, Liu Z, Asef CK, Borges RM, Leach FE, Andersen EC, Amster IJ, Fernandez FM, Edison AS, and McIntyre LM (2022)
An anchored experimental design and meta-analysis approach to address batch effects in large-scale metabolomics
Frontiers Molecular Biosciences 2022 Nov 9;9:930204
DOI: <https://doi.org/10.3389/fmolb.2022.930204>
75. Zhang G, Wang Y, and Andersen EC (2022)
Natural variation in *C. elegans* short tandem repeats
Genome Research 2022 Oct;32(10):1852-1861
DOI: <https://doi.org/10.1101/gr.277067.122>
74. Widmayer SJ, Crombie TA, Nyaanga JN, Evans KS, and Andersen EC (2022)
C. elegans toxicant responses vary among genetically diverse individuals
Toxicology 2022 Aug 20; 479:153292
DOI: <https://doi.org/10.1016/j.tox.2022.153292>

73. Nyaanga J and Andersen EC (2022)
Linkage mapping reveals loci that underlie differences in *C. elegans* growth
G3 2022 Sep 30;12(10):jkac207
DOI: <https://doi.org/10.1093/g3journal/jkac207>
72. Wit J, Workentine ML, Redman E, Laing R, Stevens L, Cotton JA, Chaudry U, Ali Q, Andersen EC, Yeaman S, Wasmuth JD, and Gilleard JS (2022)
Genomic signatures of selection associated with benzimidazole drug treatments in *Haemonchus contortus* field populations
International Journal for Parasitology: Drugs and Drug Resistance 2022 Sep;52(10):677-689
DOI: <https://doi.org/10.1016/j.ijpara.2022.07.004>
71. Webster AK, Chitrakar R, Powell M, Chen J, Fisher K, Tanny RE, Stevens L, Evans KS, Antoshechkin I, Andersen EC, and Baugh LR
Using population selection and sequencing to characterize natural variation of starvation resistance in *Caenorhabditis elegans*
eLife 2022 Jun 21; 11:e80204
DOI: <https://doi.org/10.7554/eLife.80204>
70. Zhang G, Roberto NM, Lee D, Hahnel SR, and Andersen EC (2022)
The impact of species-wide gene expression variation on *Caenorhabditis elegans* complex traits
Nature Communications 2022 Jun 16; 13(1):3462
DOI: <https://doi.org/10.1038/s41467-022-31208-4>
69. Pallotto LM, Dilks CM, Park YJ, Smit RB, Lu B, Gopalakrishnan C, Gilleard JS, Andersen EC, and Mains PE (2022)
Interactions of *Caenorhabditis elegans* β -tubulins with the microtubule inhibitor and anthelmintic drug albendazole
Genetics 2022 Jul 30; 221(4):iyac093
DOI: <https://doi.org/10.1093/genetics/iyac093>
68. Fox BW, Ponomarova O, Lee YU, Zhang G, Giese GE, Walker M, Roberto NM, Na H, Reis-Rodriguez P, Curtis BJ, Kolodziej AR, Crombie TA, Zdraljevic S, Yilmaz LS, Andersen EC, Schroeder FC, and Walhout AJM (2022)
C. elegans as a model for inter-individual variation in metabolism
Nature 2022 Jul; 607(7919):571-577
DOI: <https://doi.org/10.1038/s41586-022-04951-3>
67. Crombie TA, Chikuturudzi C, Cook DE, and Andersen EC (2022)
An automated approach to quantify chemotaxis index in *C. elegans*
microPublication Biology 2022 May 26; 2022:10.17912/micropub.biology.000567
DOI: <https://doi.org/10.17912/micropub.biology.000567>
66. Widmayer SJ, Evans KS, Zdraljevic S, and Andersen EC (2021)
Evaluating the power and limitations of genome-wide association mapping in *C. elegans*
G3 2022 May 10; jkac114
DOI: <https://doi.org/10.1093/g3journal/jkac114>

65. Nyaanga J, Goss C, Zhang G, Ahmed HN, Andersen EJ, Miller IR, Rozenich JK, Swarthout IL, Vaughn JA, Mangan NM, Shirman S, and Andersen EC (2022)
Changes in body shape implicate cuticle stretch in *C. elegans* growth control
Cells and Development 2022 Apr 19;170:203780
DOI: <https://doi.org/10.1016/j.cdev.2022.203780>
64. Stevens L, Moya ND, Tanny RE, Gibson SB, Tracey A, Na H, Han Y, Chitrakar R, Dekker J, Walhout AJM, Baugh LR, and Andersen EC (2021)
Chromosome-level reference genomes for two strains of *Caenorhabditis briggsae*: an improved platform for comparative genomics
Genome Biology and Evolution 2022 Apr 10;14(4):evac042
DOI: <https://doi.org/10.1093/gbe/evac042>
63. Crombie TA, Tanny RE, Buchanan CM, Roberto NM, and Andersen EC (2022)
A highly scalable approach to perform ecological surveys of selfing *Caenorhabditis* nematodes
Journal of Visualized Experiments 2022 Mar 1;(181)
DOI: <https://doi.org/10.3791/63486>
62. Barlow I, Feriani L, Minga E, McDermott-Rouse A, O'Brien T, Liu Z, Hofbauer M, Stowers JR, Andersen EC, Ding SS, and Brown AEX (2022)
Megapixel camera arrays for high-resolution animal tracking in multiwell plates
Communications Biology 2022 Mar 23;5(1):253
DOI: <https://doi.org/10.1038/s42003-022-03206-1>
61. Crombie TA, Battlay P, Tanny RE, Evans KS, Buchanan CM, Cook DE, Dilks CM, Stinson LA, Zdraljevic S, Zhang G, Roberto NM, Lee D, Ailion M, Hodgins KA, and Andersen EC (2022)
Local adaptation and spatiotemporal patterns of genetic diversity revealed by repeated sampling of *Caenorhabditis elegans* across the Hawaiian Islands
Molecular Ecology 2022 Apr;31(8):2327-2347
DOI: <https://doi.org/10.1111/mec.16400>
60. Andersen EC and Rockman MV (2022)
Natural genetic variation as a tool for discovery in *Caenorhabditis* nematodes
Genetics 2022 Jan 4; 220(1):iyab156
DOI: <https://doi.org/10.1093/genetics/iyab156>
59. Gilbert KJ, Zdraljevic S, Cook DE, Cutter AD, Andersen EC, and Baer CF (2021)
The distribution of mutational effects on fitness in *Caenorhabditis elegans* inferred from standing genetic variation
Genetics 2022 Jan 4; 220(1):iyab166
DOI: <https://doi.org/10.1093/genetics/iyab166>
58. Dilks CM, Koury EJ, Buchanan CM, and Andersen EC (2021)
Newly identified parasitic nematode beta-tubulin alleles confer resistance to benzimidazoles
International Journal for Parasitology: Drugs and Drug Resistance 2021 Dec; 17:168-175
DOI: <https://doi.org/10.1016/j.ijpddr.2021.09.006>
57. Di Bernardo M, Crombie TA, Cook DE, and Andersen EC (2021)
easyFulcrum: An R package to process and analyze ecological sampling data generated using the Fulcrum mobile application
PLoS ONE 2021 Oct 6; 16(10):e0254293
DOI: <https://doi.org/10.1371/journal.pone.0254293>

56. Nyaanga J, Crombie TA, Widmayer SJ, and Andersen EC (2021)
easyXpress: An R package to analyze and visualize high-throughput *C. elegans* microscopy data generated using CellProfiler
PLoS ONE 2021 Aug 12; 16(8):e0252000
DOI: <https://doi.org/10.1371/journal.pone.0252000>
55. Rajaei M, Saxena AS, Johnson LM, Snyder MC, Crombie TA, Tanny RE, Andersen EC, Joyner-Matos J, and Baer CF (2021)
Mutability of mononucleotide repeats, not oxidative stress, explains the discrepancy between laboratory-accumulated mutations and the natural allele-frequency spectrum in *C. elegans*
Genome Research 2021 Sep;31(9):1602-1613
DOI: <https://doi.org/10.1101/gr.275372.121>
54. Evans KS, van Wijk MH, Andersen EC, and Sterken MG (2021)
From QTL to gene: *C. elegans* facilitates discoveries of the genetic mechanisms underlying natural variation
Trends in Genetics 2021 Jul 3; S0168-9525(21)00164-3
DOI: <https://doi.org/10.1016/j.tig.2021.06.005>
53. Gibson SB, Harper CS, Lackner LL, and Andersen EC (2021)
The *Caenorhabditis elegans* and *Haemonchus contortus* beta-tubulin genes cannot substitute for loss of the *Saccharomyces cerevisiae* beta-tubulin gene
microPublication 2021 Jun 20; 2021
DOI: <https://doi.org/10.17912/micropub.biology.000411>
52. Gouveia GJ, Shaver AO, Garcia BM, Morse AM, Rodriguez B, Park G, Andersen EC, Edison AS, McIntyre LM (2021)
Long-term metabolomics reference material
ACS Analytical Chemistry, 2021 Jul 6; 93(26):9193-9199
DOI: <https://doi.org/10.1021/acs.analchem.1c01294>
51. Zhang G, Mostad JD, and Andersen EC (2021)
Natural variation in fecundity is correlated with species-wide levels of divergence in *Caenorhabditis elegans*
G3 2021 Aug 7;11(8):jkab168
DOI: <https://doi.org/10.1093/g3journal/jkab168>
50. Wit J, Hahnel SR, Rodriguez BC, and Andersen EC (2021)
Natural variation in *Caenorhabditis elegans* responses to the anthelmintic emodepside
International Journal for Parasitology: Drugs and Drug Resistance 2021 Apr 17; 16:1-8
DOI: <https://doi.org/10.1016/j.ijpddr.2021.04.001>
49. Lee D, Zdraljevic S, Stevens L, Wang Y, Tanny RE, Crombie TA, Cook DE, Webster AK, Chirakar R, Baugh LR, Sterken M, Braendle C, Felix M-A, Rockman MV, and Andersen EC (2020)
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16. Cook DE and Andersen EC (2017)
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14. Evans KS, Zhao Y, Brady SC, Long L, McGrath PT, Andersen EC (2016)
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10. Zamanian M and Andersen EC. (2016)
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6. Andersen EC, Shimko TC, Crissman JR, Ghosh R, Gerke JP, Seidel HS, Kruglyak L. (2015)
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5. Farhadifar R, Baer CF, Valfort AC, Andersen EC, Muller-Reichert T, Delattre M, Needleman DJ. (2015)
Scaling, Selection, and Evolutionary Dynamics of the Mitotic Spindle
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4. Balla K, Andersen EC, Kruglyak L, Troemel E. (2015)
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3. Etienne V, Andersen EC, Ponciano JM, Blanton D, Cadavid A, Joyner-Matos J, Matsuba C, Tabman B, Baer CF. (2015)
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2. Shimko TC, Andersen EC. (2014)
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1. Andersen EC, Bloom JS, Gerke JP, Kruglyak L. (2014)
A variant in the neuropeptide receptor *npr-1* is a major determinant of *Caenorhabditis elegans* growth and physiology
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Publications from research prior to my first tenure-track position:

- Felix MA, Jovelin R, Ferrari C, Han S, Cho YR, Andersen EC, Cutter AD, Braendle C. (2013)
Species richness, distribution and genetic diversity of *Caenorhabditis* nematodes in a remote tropical rainforest
BMC Evolutionary Biology, Jan 12;13:10.
- Ghosh R, Andersen EC, Shapiro JA, Gerke JP, Kruglyak L. (2012)
Natural variation in a chloride channel subunit confers avermectin resistance in *C. elegans*
Science, 335(6068): 574-578.
- Andersen EC*, Gerke JP*, Shapiro JA*, Crissman JR, Ghosh R, Bloom JS, Felix MA, Kruglyak L. (2012)
Chromosome-scale selective sweeps shape *Caenorhabditis elegans* genomic diversity
Nature Genetics, 44(3): 285-290. *equal contribution
- Andersen EC. (2011)
PCR-directed *in vivo* plasmid construction using homologous recombination in baker's yeast
Molecular Methods for Evolutionary Genetics, 772; 409-421. *Invited book chapter
- Raj A, Rifkin SA, Andersen EC, van Oudenaarden A. (2010)
Variability in gene expression underlies incomplete penetrance
Nature, 463(7283): 913-918.
- Bessler JB, Andersen EC, Villeneuve AB. (2010)
Differential localization and independent acquisition of the H3K9me2 and H3K9me3 chromatin modifications in the *Caenorhabditis elegans* adult germ line
PLoS Genetics, 6(1): e1000830
- Reddy KC*, Andersen EC*, Kruglyak L, and Kim DH. (2009)
A polymorphism in *npr-1* is a behavioral determinant of pathogen susceptibility in *C. elegans*
Science, 323(5912): 382-384. *equal contribution

- Andersen EC, Saffer AM, and Horvitz HR. (2008)
Multiple levels of redundant processes inhibit *Caenorhabditis elegans* vulval cell fates
Genetics, 179(4): 2001-2012.
- Andersen EC and Horvitz HR. (2007)
Two *C. elegans* histone methyltransferases repress *lin-3* EGF transcription to inhibit vulval development
Development, 134(16): 2991-2999.
- Reddien PW, Andersen EC, Huang M, and Horvitz HR. (2007)
DPL-1 DP, LIN-35 Rb, and EFL-1 E2F act with the MCD-1 Zinc-finger protein to promote programmed cell death in *C. elegans*
Genetics, 175(4): 1719-1733.
- Andersen EC, Lu X, and Horvitz HR. (2006)
C. elegans ISWI and NURF301 antagonize an Rb-like pathway in the determination of multiple cell fates
Development, 133(14): 2695-2704
- Furlong EE, Andersen EC, Null B, White KP, and Scott MP. (2001)
Patterns of gene expression during *Drosophila* mesoderm development
Science, 293(5535): 1629-1633

PROFESSIONAL SEMINARS

Departmental seminars and invited conference presentations (not including trainees):

- 2026 Dept. of Biology, Univ. of Maryland, College Park, MD
- 2025 Dept. of Biology, Univ. of Buffalo, Buffalo, NY
EMBL Workshop on Wild Frontiers of Model Organisms, Heidelberg, Germany
Les Treilles Foundation meeting on nematode evolution, Nice, France
- 2024 Molecular genetics, genomics, microbiology, University of Strasbourg, Strasbourg, France
Dept. of Biology, Lehigh University, Lehigh, PA
Dept. of Biochemistry, Cellular, and Molecular Biology, Univ. of Tennessee, Knoxville, TN
Dept. of Human Genetics, University of California - Los Angeles
Evolution of *Caenorhabditis* and other nematodes, Vienna, Austria
Poultry Science Dept., Univ. of Veterinary Medicine - Vienna, Vienna, Austria
NIH, Laboratory of Parasitic Diseases, Bethesda, MD
Carnegie Institute of Embryology, Baltimore, MD
Baltimore Worm Club
- 2023 Chicago Area Worm Meeting (keynote)
Zoom about Parasites (ZaP worms), virtual seminar
Latin American Worm Meeting, Valparaiso, Chile
- 2022 Institute for Integrative Genome Biology, Univ. of California - Riverside, Riverside, CA
International Congress of Toxicology, Maastricht, Netherlands
Human Frontiers Research Symposium, Paris, France
The *C. elegans* Metabolism, Aging, Pathogenesis, Stress and Small RNAs
Genetics and Molecular Biology seminar series, University of North Carolina - Chapel Hill
Dept. of Biology, Oklahoma University, Norman, OK
Wellcome Evolutionary Systems Biology
- 2021 The Ascarid Research and Training Initiative, Lyon, France (Keynote)
Bridging the Divide: International Worm Meeting (Keynote)
66th Annual Meeting of the American Association of Veterinary Parasitologists (Keynote)

- 2021 Max Planck Institute for Evolutionary Biology, Plön, Germany
Institut de Biologie Valrose, Nice, France
- 2020 American Society of Tropical Medicine and Hygiene, symposium on genetic crosses
Dept. of Molecular Medicine, Univ. of Massachusetts Medical School, Worcester, MA
Oakton Community College, Des Plaines, IL
Chengdu Research Base of Giant Panda Breeding, Chengdu, People's Republic of China
- 2019 Netherlands Institute for Ecology (NIOO-KNAW), Wageningen, Netherlands
Dept. of Genetics, Wageningen Univ. and Research, Wageningen, Netherlands
Dept. of Nematology, Wageningen Univ. and Research, Wageningen, Netherlands
Dept. of Genome Sciences, Univ. of Washington, Seattle, WA
Institute of Molecular Biology, Academia Sinica, Taiwan
Dept. of Genetics, Univ. of Georgia, Athens, GA
Dept. of Infectious Diseases, Univ. of Georgia, Athens, GA
Dept. of Biology, Georgia Institute of Technology, Atlanta, GA
Ingram Cancer Center, Vanderbilt University, Nashville, TN
- 2018 Max Planck Institute for Developmental Biology, Tübingen, Germany
Dept. of Evolutionary Ecology and Genetics, Christian-Albrechts-Universität, Kiel, Germany
Berlin Seminar for Resistance Research, Freie Universität Berlin, Berlin, Germany
Robert H Lurie Comprehensive Cancer Center, Northwestern University, Chicago, IL
Dept. of Genetics, Washington University School of Medicine, St. Louis, MO
Dept. of Genetics, University of Pennsylvania, Philadelphia, PA
Dept. of Pathobiology, University of Pennsylvania, Philadelphia, PA
Dept. of Microbiology, Seoul National University, Seoul, Korea
Dept. of Biology, University of Oregon, Eugene, OR
Dept. of Biological Sciences, University of Southern California, Los Angeles, CA
Dept. of Cell Biology and Anatomy, Rosalind Franklin University, Chicago, IL
New York Univ. Center for Genomics and Sys. Bio. Parasite Workshop, Abu Dhabi, UAE
Department of Biology, Univ. of California - San Diego, San Diego, CA
Department of Biology, Duke University, Durham, NC
Donnelly Centre for Cellular And Biomolecular Research, University of Toronto, Toronto, ON
Department of Molecular Biology and Genetics, Cornell University, Ithaca, NY
Medical Research Council, London Institute of Medical Sciences, London, UK
Department of Biology, Carnegie Mellon University, Pittsburgh, PA
Host-Parasite Interactions, University of Calgary, Banff, Canada
Florida Area Worm Meeting (Keynote), Florida Institute of Technology, Melbourne, FL
Department of Biology, Skirball Institute, New York University Medical School, New York, NY
Department of Biology, University of Minnesota, Minneapolis, MN
- 2017 Department of Biology, Indiana University, Bloomington, IN
New York University Center for Genomics and Systems Biology Symposium in Abu Dhabi, UAE
- 2016 Midwest Quantitative Biology at Purdue University, West Lafayette, IN
Molecular and Cellular Biology of Helminth Parasites X, Hydra, Greece
Computational Research Day, Northwestern University, Evanston, IL
Evolutionary Biology of *Caenorhabditis* and other nematodes (Keynote), CSHL, Cold Spring Harbor, NY
Department of Genetics, University of Utah, Salt Lake City, UT
Department of Biology, University of Iowa, Iowa City, IA
Department of Biomedical Sciences, Iowa State University, Ames, IA
Anthelmintics: Discovery to Resistance II, San Diego, CA
Program in Systems Biology, University of Massachusetts Medical School, Worcester, MA
- 2015 Evolution seminar series, University of Wisconsin, Madison, WI
Biotechnology Training Program, Northwestern University, Evanston, IL
Department of Biology, Johns Hopkins University, Baltimore, MD
Department of Biology, University of Maryland, College Park, MD

- 2015 Department of Pharmacology, Feinberg School of Medicine, Northwestern University, Chicago, IL
Midwest Neglected Infectious Disease Meeting, Notre Dame University, South Bend, IN
Quantitative genetics workshop, 20th International *C. elegans* meeting, UCLA, Los Angeles, CA
Michigan Area Worm Meeting, van Andel Institute, Grand Rapids, MI
- 2014 Northwestern Institute on Complex systems, Northwestern University, Evanston, IL
Fondation de Treilles: Revisiting the roles of phenotypic plasticity in evolution, Provence, France
Biology Department, Marquette University, Milwaukee, WI
Pharmacogenomics group, University of Chicago, Chicago, IL
- Seminars before starting at first faculty position:*
- 2013 Quantitative genetics workshop, 19th International *C. elegans* meeting, UCLA, Los Angeles, CA
Molecular Bioscience Department, Northwestern University, Evanston, IL
Program in Systems Biology, University of Massachusetts Medical School, Worcester, MA
- 2012 Biology Department, Dartmouth University, Hanover, NH
Human Genetics Department and Life Sciences Institute, University of Michigan, Ann Arbor, MI
Genetics Department, University of Georgia, Athens, GA
Biology Department, Case Western Reserve University, Cleveland, OH
Biology Department and BioDesign Institute, Arizona State University, Phoenix, AZ
Center for Computational and Integrated Biology, Rutgers University, Camden, NJ
- 2012 Biology Department, University of Florida, Gainesville, FL
- 2011 Evolution workshop, 18th International *C. elegans* meeting, UCLA, Los Angeles, CA
Laboratory of Toxicology, NIEHS, Research Triangle Park, NC
- 2010 Institute for Evolutionary Biology Department, University of Edinburgh, Edinburgh, UK
- 2008 Featured talk at *C. elegans* Aging, Stress, and Pathogenesis meeting, Madison, WI
- 2000 Undergraduate research symposium, Stanford University, Stanford, CA

PEER REVIEW AND RELATED ACTIVITIES

Editorial Board:

- 2022 - 2024 *Journal of Nematology*
2020 - 2023 *Genes*
2015 - *Trends in Genetics*

Associate Editor:

- 2017 - 2019 *BMC Genomics (Multicellular invertebrate genomics)*

Guest Associate Editor:

- PLoS Genetics, eLife, PLoS Pathogens, PLoS Neglected Tropical Disease, Genetics*

Reviewing activity: Grants and fellowships

- 2025 *Ad hoc* reviewer BBSRC UK
Ad hoc reviewer European Science Foundation
Ad hoc reviewer Swiss National Science Foundation
Ad hoc reviewer NIH Neurotoxicology and Alcohol (NAL) Study Section
Ad hoc reviewer NIH Pathogenic Eukaryotes (PTHE) Study Section
- 2024 NIH F30/F31/F32 fellowship review panel ZRG F05-Q
Ad hoc reviewer Fulbright Fellowship
International Research Olympiad Advisory Board
Ad hoc reviewer Japan Society for the Promotion of Science
Ad hoc reviewer BBSRC UK
Ad hoc reviewer Swiss National Science Foundation
- 2023 *Ad hoc* reviewer Dept. of Defense - Neurotoxicity

- 2023 NIH F30/F31/F32 fellowship review panel
Ad hoc reviewer NIH ViCTER Award
 Panel reviewer NSF EDGE
Ad hoc reviewer NIH NIDA Avenir Award
Ad hoc reviewer Dept. of Defense - Neurotoxicity
- 2022 NIH F30/F31/F32 fellowship review panel ZRG F05-Q
Ad hoc BBSRC grant reviewer
 Katholieke Universiteit Leuven grant reviewer
Ad hoc reviewer National Science Foundation (IOS)
Ad hoc reviewer NIH NIDA Avenir Award
 Scientific Advisory Board for P01AI127338 (PI Michael Ferdig, Notre Dame Univ.)
- 2021 ERC Consolidator Grant reviewer (COI, declined)
 NIH F30/F31/F32 fellowship review panel ZRG F05-Q
 Canada Foundation for Innovation reviewer
 NSF GRFP reviewer
 Scientific Advisory Board for P01AI127338 (PI Michael Ferdig, Notre Dame Univ.)
- 2020 NIH Special Emphasis panel ZRG IFCN-C (02)
 NIH Special Emphasis panel ZRG ETTN-N (02)
 Scientific Advisory Board for P01AI127338 (PI Michael Ferdig, Notre Dame Univ.)
- 2019 *Ad hoc* reviewer for Wellcome Trust Early Career Grant
 Panel reviewer on NASA, Flight and Ground Space Biology
Ad hoc reviewer for Agence Nationale de la Recherche
Ad hoc reviewer for Univ. of Wisconsin - Milwaukee Catalyst grant
 Panel reviewer on NIH NIAID R13
Ad hoc reviewer National Science Foundation (CAREER)
Ad hoc reviewer for Swiss 3R Competence Centre
Ad hoc reviewer for Austrian Science Foundation
 Scientific Advisory Board for P01AI127338 (PI Michael Ferdig, Notre Dame Univ.)
- 2018 *Ad hoc* reviewer for Alzheimer's Society
Ad hoc reviewer National Science Foundation (IOS)
Ad hoc reviewer National Science Foundation (CAREER)
 Scientific Advisory Board for P01AI127338 (PI Michael Ferdig, Notre Dame Univ.)
Ad hoc reviewer for Bill and Melinda Gates Foundation
- 2016 ERC COST grant reviewer
- 2015 *Ad hoc* reviewer for National Toxicity Program, project assessment
- 2014 *Ad hoc* reviewer for Human Frontiers Science Program
Ad hoc reviewer for National Science Foundation (IOS)

PROFESSIONAL AFFILIATIONS AND SERVICE

Membership in Professional Societies:

Genetics Society of America
 Society of Molecular Biology and Evolution (lifetime)
 Society for Evolution (lifetime)
 Society for Integrative and Comparative Biology
 World Association for the Advancement of Veterinary Parasitology
 American Association of Veterinary Parasitologists
 Society of Nematologists

Mentorship and Diversity training:

- 2024 Johns Hopkins University, Center for the Improvement of Mentored Experiences in Research (CIMER), virtual
- Building Trust Through Effective Communication
 - Creating a Culture of Inclusion in your Lab
 - Aligning Expectations to Promote Independence
- 2022 Univ. of Wisconsin - Madison, Center for the Improvement of Mentored Experiences in Research (CIMER), in-person
- Arizona State Univ., Culturally Aware Mentoring, virtual
- 2021 Univ. of Southern California, Strategies for Equity-based Holistic Review in Graduate Admissions
- 2021 Northwestern Univ., Diversity, equity, and inclusion in hiring decisions
- 2020 NIH OITE training on Health and Wellness of Trainees

Professional service:

- 2027 International Worm Meeting, main organizer, Asia
- 2025 International Worm Meeting, organizing committee/abstract reviewer
- 2024 *C. elegans* and other nematodes meeting organizer, IMBA, Vienna, Austria
- External thesis examiner member for Victor Loegler (Schacherer lab, Univ. of Strasbourg)
- C. elegans* Community Faculty Mentor, Genetics Society of America
- External thesis examiner member for Maria Mercado (Fraser lab, Univ. of Toronto)
- External thesis committee member for Youn Jae Kang (Ding lab, Max Planck Institute of Animal Behavior)
- 2023 External thesis examiner for Nikita Jhaveri (Gupta lab, McMaster Univ.)
- Worm Board *ex officio* member Nematode Genomes
- C. elegans* Community Faculty Mentor, Genetics Society of America
- External thesis committee member for Youn Jae Kang (Ding lab, Max Planck Institute of Animal Behavior)
- 2022 *C. elegans* Community Faculty Mentor, Genetics Society of America
- External thesis committee member for Leonor Gianechini (Moorhead lab, Univ. of Georgia)
- External thesis committee member for Youn Jae Kang (Ding lab, Max Planck Institute of Animal Behavior)
- External thesis committee member for Amanda Shaver (Edison lab, Univ. of Georgia)
- Worm Board *ex officio* member Nematode Genomes
- Organizing committee Anthelmintics V: Resistance and vaccines
- Scientific Advisory Board Member for P01AI127338 (PI Dr. Michael Ferdig, Notre Dame Univ.)
- 2021 Worm Board *ex officio* member Nematode Genomes
- Co-organizer of the Chicago Area Worm Meeting (ChAWM, www.chawm.org)
- Scientific Advisory Board Member for P01AI127338 (PI Dr. Michael Ferdig, Notre Dame Univ.)
- 2020 Worm Board *ex officio* member Nematode Genomes
- Co-organizer of the Chicago Area Worm Meeting (ChAWM, www.chawm.org)
- Scientific Advisory Board Member for P01AI127338 (PI Dr. Michael Ferdig, Notre Dame Univ.)
- 2019 External thesis committee examiner for Yiru Wang (Kammenga lab, Wageningen Univ. and Research)
- External thesis committee member for Amanda Shaver (Edison lab, Univ. of Georgia)
- External thesis committee examiner for Aurian Garcia-Gonzalez (Walhout lab, UMMS)
- Co-organizer of the Chicago Area Worm Meeting (ChAWM, www.chawm.org)
- Scientific Advisory Board Member for P01AI127338 (PI Dr. Michael Ferdig, Notre Dame Univ.)
- 2018 Organizing committee for *C. elegans* dev., cell bio., and gene exp. meeting (Barcelona, Spain)
- Chair of the Natural Variation session, *C. elegans* dev., cell bio., and gene exp. meeting
- Co-organizer of the Chicago Area Worm Meeting (ChAWM, www.chawm.org)

- 2018 Scientific Advisory Board Member for P01AI127338 (PI Dr. Michael Ferdig, Notre Dame Univ.)
Organizing committee for Parasitic Nematodes meeting, NYU Abu Dhabi
External thesis committee member for Victoria Vu (Fraser lab, University of Toronto)
Poster judge, Northwestern Undergraduate Research Symposium
- 2017 Organizing committee for the 21st International *C. elegans* meeting
Chair of the Evolution and Ecology parallel session, 21st International *C. elegans* meeting
- 2015 Organizing committee for the 20th International *C. elegans* meeting
Poster judge, 20th International *C. elegans* meeting - Evolution and Genomics section
Genetics Soc. of America Mentor Lunch, *Postdoc search*, 20th International *C. elegans* meeting
- 2014 Panelist, NUIN Post-doc Association, *Interviews and Start-up packages*
Poster judge, Northwestern Undergraduate Research Symposium
Panelist, Pathways to the Professoriate, *How to prepare for a job interview?*
- 2013 Poster judge, Northwestern Undergraduate Research Symposium
Panelist, Bioscientist Freshman seminar; *How to find a research lab?*
Poster judge, 19th International *C. elegans* meeting - Evolution and Genomics section

***C. elegans* community service and open-science software:**

- 2016 - Creator and advisor board member of the *C. elegans* Natural Diversity Resource (CeNDR, [link](#))
This resource organizes and disseminates wild *C. elegans* strains, whole-genome sequence data, and enables genome-wide association mappings through a cloud-based service.

TEACHING AND ADVISING

Undergraduate teaching:

- 2025 **New course: AS.020.383: *Advanced Genetics* (fall semester, 23 students)**
AS.020.314: *Biology of Disease* (fall semester, 180 students)
AS.020.503: *Independent study in Biology* (fall and spring semesters)
- 2024 AS.020.303: *Genetics* (spring semester, 465 students)
AS.020.314: *Biology of Disease* (fall semester, 180 students)
AS.020.503: *Independent study in Biology* (fall and spring semesters)
- 2023 Biological Sciences 203: *Genetics and Evolution* (winter, 285 students)
Biological Sciences 398: *Independent Research* (Fiona Shao, Alyssa Blanco)
Biological Sciences 399: *Independent Research* (Andrea Phung, Cassia Yeo, Sharik Khan)
- 2022 **New course: Biological Sciences 203: *Genetics and Evolution* (winter, 379 students)**
Biological Sciences 398: *Independent Research* (Andrea Phung)
- 2021 **Biological Sciences 393: *Genetic Analysis* (spring, 31 students)**
Biological Sciences 399: *Independent Research* (Karan Gowda, Kailyn Parham, Katie Introcaso)
- 2020 **Biological Sciences 215: *Genetics and Molecular Biology* (spring, 492 students)**
Biological Sciences 399: *Independent Research* (Anna Derrick, Emily Jahn, Jake Mostad, Kailyn Parham)
- 2019 **Biological Sciences 393: *Biomedical Genetics* (spring, 19 students)**
Biological Sciences 398: *Tutorial in Biology* (Anna Derrick, Emily Jahn, Kailyn Parham)
Biological Sciences 399: *Independent Research* (Karol Bisaga, Grace Park, Jake Mostad)
- 2018 **Biological Sciences 393: *Genetic Analysis* (winter, 28 students)**
Biological Sciences 398: *Tutorial in Biology* (Karol Bisaga)
Biological Sciences 399: *Independent Research* (Karol Bisaga, Kimberly Collins, Selina Deiparine, Grace Park)
- 2017 **Biological Sciences 393: *Genetic Analysis* (spring, 22 students)**
Biological Sciences 398: *Tutorial in Biology* (Kimberly Collins)

- 2017 Biological Sciences 399: *Independent Research* (Selina Deiparine, Samuel Hamilton, Grace Park)
- 2016 **Biological Sciences 393: *Genetic Analysis* (spring, 17 students)**
Biological Sciences 398: *Tutorial in Biology*
(Sarah Bier, Mattlyn Cordova, Selina Deiparine, Samuel Hamilton, Grace Park)
- 2015 *Guest Lecture: University of Wisconsin-Madison Biology 675 - Evolution seminar*
(fall, 8 students)
New course: Biological Sciences 393: *Genetic Analysis* (spring, 10 students)
Biological Sciences 398: *Tutorial in Biology* (Lautaro Cilenti)
Biological Sciences 399: *Independent Research* (Kreena Patel, Hillary Tsang)
- 2014 Biological Sciences 398: *Tutorial in Biology* (Mazeed Aro-Lambo, Kreena Patel, Hillary Tsang)

Graduate teaching:

- 2025 **New course: AS.020.683: *Advanced Genetics* (fall semester, 22 students)**
CMDB RCR course - *Collaborative Science* (one lecture, 26 students)
- 2024 CMDB RCR course - *Collaborative Science* (one lecture, 22 students)
- 2022 Driskill Graduate Program 430: *Genetic Analysis - Leveraging Big Data and Model Organisms*
(spring, one guest lecture, 12 students)
- 2021 **New course: Interdisciplinary Biological Sciences: *Introduction to R for biologists***
(fall, Five students)
Driskill Graduate Program 430: *Genetic Analysis - Leveraging Big Data and Model Organisms*
(spring, one guest lecture, 16 students)
- 2020 Interdisciplinary Biological Sciences 423: *Ethics of collaboration*
(fall, one guest lecture, 45 students)
- 2019 Interdisciplinary Biological Sciences 421: *Rigor and Reproducibility*
(summer, one guest lecture, 17 students)
- 2018 Interdisciplinary Biological Sciences 421: *Rigor and Reproducibility*
(summer, one guest lecture, 25 students)
Interdisciplinary Biological Sciences/Chemistry 416: *Practical Training in Chemical Biology Methods and Experimental Design*
(spring, five lectures, 10 students)
- 2017 Interdisciplinary Biological Sciences 421: *Rigor and Reproducibility*
(summer, one guest lecture, 15 students)
Interdisciplinary Biological Sciences/Chemistry 416: *Practical Training in Chemical Biology Methods and Experimental Design*
(spring, five lectures, 8 students)
Interdisciplinary Biological Sciences 421: *Rigor and Reproducibility*
(spring, one guest lecture, 5 students)
- 2016 Interdisciplinary Biological Sciences: *Graduate Computational Biology Bootcamp*
(fall, 3 days, eight hours per day, 19 students) - www.GitHub.com/AndersenLab/IBiS-Bootcamp
- 2015 Interdisciplinary Biological Sciences 402: *Eukaryotic Molecular Biology*
(fall, one guest lecture, 22 students)
Interdisciplinary Biological Sciences: *Graduate Computational Biology Bootcamp*
(fall, 3 days, eight hours per day, 22 students) - www.GitHub.com/AndersenLab/IBiS-Bootcamp
Interdisciplinary Biological Sciences 423: *Ethics of peer review*
(spring, one guest lecture, 41 students)
- 2014 Interdisciplinary Biological Sciences 402: *Eukaryotic Molecular Biology*
(fall, one guest lecture, 16 students)
New course: Interdisciplinary Biological Sciences: *Graduate Computational Biology Bootcamp*
(fall, 3 days, eight hours per day, 16 students) - www.GitHub.com/AndersenLab/IBiS-Bootcamp

- 2014 Interdisciplinary Biological Sciences 423: *Ethics of peer review*
(spring, one guest lecture, 42 students)
- 2013 Interdisciplinary Biological Sciences 402: *Eukaryotic Molecular Biology*
(fall, one guest lecture, 24 students)

K-12 advising:

Esha Sharma, Richard Montgomery High School (2025)
 Ariel Shi, Baltimore Polytechnic Institute (2025-2026)
 Cecilia Soko, Baltimore Polytechnic Institute (2025-2026)
 Arya Takalkar, Thomas Jefferson High School (2025)
 Colin Lily, Baltimore Polytechnic Institute (2024-2025)
 Jinghan (Jonathan) Xiao, Lake Forest Academy (2022-2023)
 Anwyn Zhou, New Trier High School (2022)
 Richelle Lee, Adlai E. Stevensen High School (2022)
 Preeti Rao, Adlai E. Stevensen High School (2022)
 Ned Koh, Lake Forest Academy (2021-2022)
 Yahya Junejo, Hinsdale Central High School (2020)
 Shanthi Hegde, Lambert High School (2020 - 2021)
 Aarnav Patel, Barrington High School (2020)
 Justine Rozenich, Saint Ignatius College Preparatory (2020-2022)
 Hannah Ahmed, Normal Community High School (2019-2020)
 Ally Bardas, New Trier High School (2019-2021)
Regeneron Science Talent Search Finalist 2021
 Sarosh Nagar, Glenbrook North High School (2018-2019 academic year)
 Britney Sun, Glenbrook North High School (summer 2018)
 Ethan Schonfeld, Glenbrook North High School (summer 2018)
 Lillian Tushman, Oak Park and River Forest High School (2016-2017 academic year)
Recipient of 3rd place All-Illinois Science Research Competition
 Caitlin Westerfield, Evanston Township High School (2015-2016 academic year)
 Matteo di Bernardo, Evanston Township High School (2015-2016 academic year)
Recipient Columbia University Scientific Scholars Fellowship, Recipient Fulbright Fellowship
 Ainsley Tran, Oak Park and River Forest High School (2015-2016 academic year)
 Lauren Mann, Oak Park and River Forest High School (2014-2015 academic year)
 Jacob Cruger, Latin School of Chicago (summers 2013, 2014)
 Gina Liu, Illinois Math and Science Academy (2013-2014 academic year)

Undergraduate advising:

Jack Weinstein (2025 - , Class of 2027), Haverford College
 Grayson Benson (2025 - , Class of 2027), Oberlin College
 Kate Stone (2024 - , Class of 2027), Cell and Molecular Biology Major
2025 Johns Hopkins Summer Provost's Undergraduate Research Award (PURA) recipient
 Rohan Shrishrimal (2024 - , Class of 2028), Cell and Molecular Biology Major
 Rachel Choo (2023 - , Class of 2026), Cell and Molecular Biology Major
 Joyce Reyes-Otero (2024, Class of 2025), Industrial Microbiology Major, Univ. of Puerto Rico - Mayagüez
2024 Johns Hopkins Biology Summer REU recipient
 Alyssa Blanco (2023 - 2024, Class of 2025), Biological Sciences Major, Northwestern University
2023 PBS Summer grant recipient
2024 Johns Hopkins Biology Summer REU recipient
 Fiona Shao (2022 - 2023, Class of 2024), Biological Sciences Major
2023 Summer URG recipient
 Gracie Paredas (2022 - 2023, Class of 2025), Biological Sciences Major
2023 Summer URG recipient

Michael Chen (2022, Class of 2024), Biological Sciences Major, University of Southern California
Crystal Lovato (2022, Class of 2023), Biological Sciences Major, Idaho State University
2022 SROP student

Andrew Yang (2022, Class of 2025), Math Major, Brown University
2022 Quantitative Biology REU student

Sharik Khan (2022 - 2023, Class of 2024), Biological Sciences Major
2022 Summer URG recipient, 2023 Summer URG recipient

Skyler Stone (2022 - 2024, Class of 2025), Biological Sciences Major
2022 Posner Fellow, 2023 Summer URG recipient

Andrea Phung (2021 - 2024, Class of 2025), Biological Sciences Major
2022 AYURG recipient, 2022 Summer URG recipient

Cassia Yeo (2021 - 2024, Class of 2025), Biological Sciences Major
*2022 Summer URG recipient, 2022 Academic Year URG recipient,
2023 Summer Advanced URG recipient, 2023 National Collegiate Undergraduate Research Award*

Chloe Sokol (2021 - 2022, Class of 2024), Data Sciences Major

Nicole Banks (2021 - 2022, Class of 2022), Biological Sciences Major

Joey Gallindo (2021, Class of 2024), Engineering Major
2021 Summer URG recipient

Jordan Vaughn (2020 - 2021, Class of 2023), Biological Sciences Major
2021 WCAS Baker Family Summer Grant recipient

Karan Gowda (2020 - 2021, Class of 2022), Biological Sciences Major
2020 Center for Quantitative Biology Summer Grant recipient, 2021 Academic Year URG recipient

Iris Swarthout (2020 - 2021, Class of 2023), Biological Sciences Major
2020 Summer Internship Grant Program recipient, 2021 Summer URG recipient

Raghav Gupta (2020, Class of 2022), Biological Sciences Major

Isabella Miller (2020 - , Class of 2023), Biological Sciences and Hispanic studies double major, Bowdoin Coll.
2022 Summer research grant recipient

Emily Jahn (2019 - 2020, Class of 2020), Biological Sciences Major
2019 Weinberg College Summer Grant recipient

Kailyn Parham (2019 - 2021, Class of 2021), Biological Sciences Major
2019 Summer URG recipient, 2020 Academic Year URG Recipient, 2021 Acad. Year URG Recipient

Anna Derrick (2019 - 2020, Class of 2021), Biological Sciences Major
2019 Weinberg College Summer Grant recipient

Jake Mostad (2018 - 2020, Class of 2020), Biological Sciences Major
2019 Summer URG recipient

Katie Introcaso (2018 - 2022, Class of 2022), Biological Sciences Major
2020 Summer URG recipient, 2021 WCAS Baker Family Summer Grant recipient

Ellen Chao (2018 - 2021, Class of 2021), Biological Sciences Major
2018 Summer URG recipient, 2019 Chemistry of Life Processes Lambert Fellow

Karol Bisaga (2017 - 2019, Class of 2020), Biological Sciences Major
2017 NU Bioscientist Summer Grant recipient

Tim Sheng (2018 - 2019, Class of 2019), Biological Sciences Major
2018 Summer URG recipient

Grace Park (2016 - 2019, Class of 2019), Biological Sciences Major
*2016 Posner Fellowship recipient, 2017 Program in Biological Sciences Summer Grant recipient,
Natural Sciences and Engineering 2nd place poster prize recipient*

Zyneb Adewusi (2018, Class of 2018), Biological Sciences Major, Moraine Valley Community College
2018 Summer Research Opportunities Program (SROP) recipient 2019 Northwestern Undergraduate

Yihong Hu (2018 - 2019, Class of 2021), Biological Sciences Major
2018 Program in Biological Sciences Summer Grant recipient

Chido Chikaturudzi (2017-2018, Class of 2018), Biological Sciences Major, Northeastern Illinois Univ.

Peter Finnegan (2017 - 2018, Class of 2020), Biological Sciences Major
2017 Program in Biological Sciences Summer Grant recipient

Kimberly Collins (2016 - 2018, Class of 2020), Biological Sciences Major
2017 NU Bioscientist Summer Grant recipient

Selina Deiparine (2016 - 2018, Class of 2018), Biological Sciences Major
2016 Summer URG recipient, 2016 Academic URG recipient

Rohit Rastogi (2016 - 2017, Class of 2019), Computer Science and Statistics Majors

Sarah Bier (2016 - 2017, Class of 2019), Biological Sciences Major
2016 Summer URG recipient

Mattlyn Cordova (2016 - 2017, Class of 2019), Gender Studies Major
2016 Program in Biological Sciences Summer Grant recipient

Joshua Roberts (2015-2016, Class of 2016), Computer Science Major

Nicholas Irons (2015, Class of 2018), Physics Major
2015 Summer URG recipient

Annika Zhang (2014-2015, Class of 2018), Biological Sciences Major
2015 Weinberg College Summer Grant recipient

Tyler Shimko (summers 2012, 2013, 2014, 2015, University of Utah Class of 2015), Biology Major
Barry Goldwater Scholarship recipient
Myriad Academic Scholarship recipient
Thomas Verender Hanks Scholarship recipient
National Science Foundation Graduate Research Fellowship recipient
Department of Energy Computational Science Graduate Fellowship Honorable Mention

Mazeed Aro-Lambo (2014, Class of 2017), Biological Sciences Major
2014 NU Bioscientist Summer Grant recipient

Stevie Hippleheuser (2014 - , Class of 2017), Biological Sciences Major
2016 Program in Biological Sciences Summer Grant recipient
2015 Summer URG recipient
2014 Weinberg College Summer Grant recipient

Camille Calvin (2014, Class of 2017), Mechanical Engineering Major
2014 Posner fellowship recipient

Hillary Tsang (2013 - 2016, Class of 2016), Biological Sciences Major
2015 Weinberg Summer Grant recipient
2014 Summer URG recipient
2014 Academic URG recipient

Lautaro Clienti (2013 - 2015, Class of 2017), Mechanical Engineering Major
2014 Academic URG recipient

Kreena Patel (2013 - 2015, Class of 2015), Biological Sciences and Psychology Double Major
2015 Emmanuel Margoliash Prize for Basic Research recipient
Winfred Hill Award recipient
James Alton James Scholar
Ellen Taus Scholarship recipient
J.G. Nolan Scholarship recipient
2014 Academic URG recipient

Zifan Xiang (2014 - 2015, Class of 2015), Biomedical Engineering Major

Stephen Chan (2013 - 2014, Class of 2014), Computer Science Major
2013 Summer URG recipient

Graduate student and post-doctoral advising:**Masters student advising:**

Ayeh Khorshidian (Johns Hopkins Genetics and Genomics Masters), 2025
 Caroline Bond (Quantitative and Systems Biology Masters), 2021-2022
 Anita Huang (Biotechnology Program), 2018 - 2020
 Ryan (Heechul) Chung (Quantitative and Systems Biology Masters), 2018 - 2019
 Suma Aldakeel (advisor, Cindy Voisine - Northeastern Illinois Univ.), 2016 - 2017
 Kristen Larrichia (advisor, Nyree Zerega – Program in Plant Biology and Conservation), 2014 - 2015
 Lucie Bastin-Heline (Master's exchange student, Ecole Normale Superior, Paris, France), 2014

Graduate PhD candidates (*Current position*):

Etta Schaye (2025 -), Ph.D. student, Cell, Molecular, Biophysics, and Developmental Biology Program
 Maya Mastranardo (2024 -), Ph.D. student, Cell, Molecular, Biophysics, and Developmental Biology Program
 Lance O'Connor (2024 -), Ph.D. student, Cell, Molecular, Biophysics, and Developmental Biology Program
NSF GRFP Honorable mention
Recipient of Best TA award - Biochemistry lab (2025)
 Ryan McKeown (2022 -), Ph.D. student, Interdisciplinary Biological Sciences Program
Funded by the NIH Biotechnology Training grant full member (2022-2024)
 Nic Moya (2020 - 2025), Ph.D. student, Interdisciplinary Biological Sciences Program
Funded by the NIH Biotechnology Training grant full member (2021-2022)
 Joy Nyaanga (2019 - 2022), Ph.D. student jointly advised with Niall Mangan, Interdisciplinary Bio. Sci. Program
Funded by NSF-Simons Center for Quantitative Biology (2019-2022)
(Lead bioinformaticist, Lurie Children's Hospital)
 Loraina Stinson (2019 - 2021), Ph.D. student - left with Masters, Interdisciplinary Biological Sciences Program
Funded by the Cell and Molecular Basis of Disease NIH Training grant (2019-2021)
 Clayton Dilks (2018 - 2021), Ph.D. student, Interdisciplinary Biological Sciences Program
Funded by the NIH Biotechnology Training grant cluster (2019)
Funded by the NIH Biotechnology Training grant full member (2020)
Recipient of travel award from WAAVP (2019)
Recipient of Burroughs-Wellcome Travel Award (2019)
(Senior scientist, Evozyne)
 Ye Wang (2017 - 2019), Visiting Ph.D. student, Sichuan Agricultural University, China
Funded by China Scholarship Council (2017-2019)
(Program Director for Panda Genomes, the Chengdu Panda Base)
 Kathryn Evans (2016 - 2020), Ph.D. student, Interdisciplinary Biological Sciences Program
Funded by the NSF-Simons Center for Quantitative Biology (2020)
Funded by the Cell and Molecular Basis of Disease NIH Training grant (2017-2019)
Recipient of travel awards from IBiS and the Northwestern Graduate School (2017)
Recipient of Biotechnology NIH Training grant cluster member, declined (2017)
(Bioinformaticist, Precision Biosciences, Inc.)
 Shannon Brady (2015 - 2019), Ph.D. student, Interdisciplinary Biological Sciences Program
Recipient of the Dr. John N. Nicholson Fellowship (2018-2019)
Funded by the Biotechnology NIH Training grant (2015-2017)
National Science Foundation Graduate Research Fellowship Program (Honorable Mention)
Recipient of travel award from Union Biometrika (2016), IBiS and the NU Graduate School (2017)
Poster first prize winner Northwestern Computational Research Day (2017)
Poster prize winner 21st International C. elegans meeting
Best TA award IBiS Graduate Program (2017)
(Consultant, Boston Consulting Group)

Daniel Cook (2014 - 2018), Ph.D. student, Driskill Graduate Program
 Current position: Senior Programmer at Google, Mountain View, CA
Northwestern Graduate School Outstanding Thesis Award (2018)
Funded by a National Science Foundation Pre-doctoral Fellowship (2015-2018)
Northwestern Presidential Fellowship Finalist (2017)
Recipient of travel awards from IBiS and the Northwestern Graduate School (2016)
(Genomics team lead, Google)

Stefan Zdraljevic (2014 - 2019), Ph.D. student, Interdisciplinary Biological Sciences Program
Recipient of the Widom Award for Research Excellence (2019)
Northwestern Graduate School Outstanding Thesis Award (2019)
Recipient of the IBiS Rappaport Award for Research Excellence (2018)
Funded by the Cell and Molecular Basis of Disease NIH Training grant (2015-2017)
Recipient of travel awards from Northwestern Center for Genetic Medicine (2016, 2017)
Recipient of travel awards from IBiS and the Northwestern Graduate School (2015, 2017)
Chemistry of Life Processes Drug Discovery Scholar (2017)
(Post-doctoral fellow at UCLA and HHMI, Kruglyak lab)

Additional rotation graduate students:

Etta Schaye (2025), Joshua Bauman (2025), Sara Seegers (2025), Izabella Mastroianni (2024), Mingling (Derek) Hui (2024), Tabor Rodriguez (2024), Francesca Batelli (2024), Jake Gavin (2024), Maya Mastronardo (2024), Lance O'Connor (2023), Corinne Croslyn (2022), Ryan McKeown (2022), Brooke Angel (2021), Jack Sumner (2021), Nic Moya (2020), Joy Nyaanga (2019), Loraina Stinson (2019), Emily Czajkowski (2018), Julie Liang (2018), Elan Ness-Cohn (2018) Kyle Siegel (2018), Clayton Dilks (2018), Garth Fisher (2017), Nicholas Sepulveda (2017), Michael Schamber (2017), Evan Buechel (2016), Nic Daffern (2016), Bryan Eder (2016), Ryan Abdella (2015), Erin Baker (2014), Alex Karge (2014), Saiorse McSharry (2014), Amy Nilles (2013), Ian Wolff (2013)

Post-doctoral researchers (Current position):

Zihao (John) Li (2026 -), Ph.D. from the University of Pennsylvania, advisor Dr. Chris Fang-Yen
 Nikita Jhaveri (2024 -), Ph.D. from McMaster University, advisor Dr. Bhagwati Gupta
 Bowen Wang (2024 -), Ph.D. from Northeast Forestry University, advisor Dr. Ling Ma
 Amanda Shaver (2022 -), Ph.D. from Univ. of Georgia, advisor Dr. Arthur Edison
Janelia Leading Edge Fellow, 2024
Chair of the National Post-doctoral Council
NIH F32 Post-doctoral fellow (2024-2027)

José Luis Tellez Arreola (2022), Ph.D. from Universidad Autonoma de Mexico, advisor Dr. Ataulfo Torres
(Research Assistant Professor, National University Autonomous of México)

JB Collins (2021 -), Ph.D. from Univ. of Georgia, advisor Dr. Ray Kaplan
USDA Post-doctoral fellow (2024-2027)

Janneke Wit (2019 - 2021), Ph.D. from Aarhus Univ., advisor Dr. Volker Loeschcke
 Sam Widmayer (2019 - 2022), Ph.D. from North Carolina State Univ., advisor Dr. David Aylor
(Associate Computational Scientist, The Jackson Laboratory)

Gaotian Zhang (2018 - 2023), Ph.D. from Ecole Normale Supérieure, Paris, advisor Dr. Marie-Anne Felix
(La Fondation pour la Recherche Médicale, CNRS, Ecole Normale Supérieure - Paris)

Timothy Crombie (2017 - 2023), Ph.D. from University of Florida, advisor Dr. David Julian
(Assistant Professor of Biology, Florida Institute of Technology)

Lewis Stevens (2019 - 2020), Ph.D. from Univ. of Edinburgh, advisor Dr. Mark Blaxter
(Bioinformaticist, Wellcome Trust Sanger Institute, Hinxton, England)

Steffen Hahnel (2017 - 2018), Ph.D. from Justus-Liebig University, advisor Dr. Christoph Grevelding
Recipient of DFG German Science Fellowship (2018-2020)
Recipient of Northwestern Post-doctoral Travel Award (2018)
Recipient of Burroughs-Wellcome Travel Award (2018)
(Scientist, Boehringer Ingelheim Health, Germany)

Daehan Lee (2017 - 2020), Ph.D. from Seoul National University, advisor Dr. Junho Lee
(Assistant Professor of Biological Sciences, Sungkyunkwan University, South Korea)

Mostafa Zamanian (2014 - 2016), Ph.D. from Iowa State University, advisor Dr. Timothy Day
Recipient of NIH/NIAID K22 Career Transition Award (2016)
Recipient of Northwestern Post-doctoral Travel Award (2016)
Funded by the Bill and Melinda Gates Foundation (2014)
(Associate Professor of Pathobiological Sciences, University of Wisconsin - Madison)

Bryn Gaertner (2014), Ph.D. from University of Oregon, advisor Dr. Patrick Phillips
(Associate Scientific Director at Ashfield, part of UDG Healthcare PLC)

Graduate Board Oral (GBO) Exam committee memberships:

2025 (1 CS): Kavya Vaddadi (Chair)
 2024 (5 CMDDB): Cameron Allen, Jake Galvin, Betty Huang, Alexis Mottram, Qi Wang
 2024 (1 BME): Mao-Jan Lin (Chair)

Graduate thesis committee memberships:

Amanda Ray (advisor, Andrew Gordus) 2025
 Calvin Runnels (advisor, Andrew Gordus) 2024 -
 Harjit Khaira (advisor, Nichole Broderick) (chair) 2024 -
 Mao-Jan Lin (advisor, Ben Langmead) (chair) 2024 -
 Nick Wong (advisor, Will Ludington) 2024 -
 Sara Carioscia (advisor, Rajiv McCoy) (chair) 2024 - 2025
 Corinne Croslyn (advisor, Shelby Blythe) 2022 - 2023 (no longer IBiS preceptor)
 Feihong Xu (advisor, Luis Amaral) (chair) 2021 - 2023 (no longer IBiS preceptor)
 Elias Guan (advisor, Chris Petersen) (chair) 2021 - 2023 (no longer IBiS preceptor)
 Reese Richardson (advisor, Luis Amaral) (chair) 2021 - 2023 (no longer IBiS preceptor)
 Idalis Ramirez (advisor, Rick Morimoto) 2021
 Taojunfeng Su (advisor, Neil Kelleher) (chair) 2021 - 2023 (no longer IBiS preceptor)
 Emily Czajkowski (advisor, Sadie Wignall) 2020 - 2023 (no longer IBiS preceptor)
 Elan Ness-Cohn (advisor, Rosemary Braun - DGP, Feinberg School of Medicine) (chair) 2019 - 2021
 Gabriel Cavin (advisor, Sadie Wignall) 2019 - 2022
 Hannah Horton (advisor, Sadie Wignall) 2019 - 2023
 Alex McFarland (advisor, Erica Hartman) (chair) 2018 - 2021
 Matt Robey (advisor, Neil Kelleher) 2016 - 2020
 Rachel Bakker (advisor, Rich Carthew) 2015 - 2020
 Joseph Muldoon (advisors, Neda Bagheri and Josh Leonard) (chair) 2015 - 2020
 Aaron Sue (advisor, Thomas O'Halloran) 2014 - 2022
 Ritika Giri (advisor, Richard Carthew) 2013 - 2020
 Sumach Aldakeel (advisor, Cindy Voisine - Northeastern Illinois Univ.) 2016 - 2017
 Adam Hockenberry (advisors, Luis Amaral and Michael Jewett) 2015 - 2017
 Sarah Stainbrook (advisor, Keith Tyo) 2015 - 2019
 Timothy Toby (advisor, Neil Kelleher) 2015 - 2018
 Rose Njoroge (advisor, Sarki Abdulkadir – DGP, Feinberg School of Medicine), 2014 - 2018
 Keila Torre-Santiago (advisor, Sadie Wignall) 2014 - 2017
 Arianne Rodriguez (advisor, Yun Wang) 2014 (Transferred to DGP)
 Lilien Voong (advisor, Alec Wang) 2013 - 2017

DEPARTMENT, COLLEGE, AND UNIVERSITY SERVICE

Johns Hopkins University Department of Biology Service:

- 2025 Department Vice Chair
- Faculty chalk talks, organizer
- 2024 Holiday Party organizing committee
- Dr. Kavi Rangan Faculty Mentorship Committee
- Faculty chalk talks, organizer
- 2023 Faculty search committee, chair
- Faculty chalk talks, organizer

Johns Hopkins University Krieger School of Arts and Sciences Service:

- 2025 CMDB Executive Committee
- KSAS Dissertation Prize Committee
- CMDB Graduate Retreat Organizer
- CMDB Branding and Web Design Committee
- 2024 KSAS Dissertation Prize Committee
- CMDB Graduate Program Admissions Committee
- CMDB Graduate Retreat Organizer
- 2023 CMDB Graduate Program Admissions Committee

Johns Hopkins University Service:

- 2025 Woodrow Wilson Fellowship Review Committee
- Limited Submissions Evaluation Committee
- 2024 Woodrow Wilson Fellowship Review Committee
- Ad hoc* Pew Scholars Review Committee

Northwestern University Department of Molecular Biosciences Service:

- 2022 Faculty search committee, chair
- 2021 Faculty search committee
- 2019 Faculty search committee
- 2017 Strategic Planning committee
- 2016 Faculty search committee
- Strategic Planning committee
- 2015 Faculty search committee
- 2014 Program Review committee

Northwestern University Weinberg College of Arts and Sciences Service:

- 2022 WCAS Single-cell Genomics committee
- WCAS Teaching Award committee
- 2019 Program in Biological Sciences curriculum committee
- 2016 Faculty search committee for the Neurobiology Department
- 2014 NUIN Post-doc Association, *Interviews and Start-up packages*

Northwestern University Service:

- 2022 Undergraduate Research Grant review committee
- Steering committee for NUSeq Facility in Northwestern Medicine
- Ad hoc* Limited submissions grant review panel
- 2021 Undergraduate Research Grant review committee
- NSF-Simons Center for Quantitative Biology Pilot grant review panel
- Limited Submissions Grant review committee
- IBiS Graduate Admissions committee, chair

2021	Steering committee for NUSeq Facility in Northwestern Medicine IBiS Graduate Student Advisor <i>Ad hoc</i> reviewer for Data Science Initiative grants and fellowships
2020	Limited submissions grant review panel IBiS Graduate Admissions committee, chair Steering committee for NUSeq Facility in Northwestern Medicine IBiS Graduate Student Advisor
2019	Limited submissions grant review panel NSF-Simons Center for Quantitative Biology Pilot grant review panel IBiS Graduate Admissions committee, chair Steering committee for NUSeq Facility in Northwestern Medicine Masters Program in Quantitative and Systems Biology, Curriculum committee IBiS curriculum committee
2018	IBiS Graduate Admissions committee Steering committee for NUSeq Facility in Northwestern Medicine Masters Program in Quantitative and Systems Biology, Curriculum committee Poster judge, Northwestern Undergraduate Research Symposium <i>Ad hoc</i> reviewer for Chemistry of Life Processes undergraduate grants and fellowships <i>Ad hoc</i> reviewer for Data Science Initiative grants and fellowships NSF-Simons Center for Quantitative Biology Pilot grant review panel
2017	Discussion organizer, Northwestern Computational Research Day Steering committee for NUSeq Facility in Northwestern Medicine <i>Ad hoc</i> reviewer for Chemistry of Life Processes undergraduate grants and fellowships <i>Ad hoc</i> reviewer for Data Science Initiative grants and fellowships
2016	IBiS Computational Bootcamp for incoming graduate students Lurie Cancer Center American Cancer Society IRG review panel Steering committee for NUSeq Facility in Northwestern Medicine <i>Ad hoc</i> reviewer for Chemistry of Life Processes undergraduate grants and fellowships <i>Ad hoc</i> reviewer for Data Science Initiative grants and fellowships
2015	IBiS Graduate Admissions committee IBiS Retreat committee, Co-chair IBiS Computational Bootcamp for incoming graduate students
2014	Creation of IBiS Computational Bootcamp for incoming graduate students IBiS Retreat committee, Co-chair Poster judge, Northwestern Undergraduate Research Symposium IBiS Graduate Admissions committee
2013	Poster judge, Northwestern Undergraduate Research Symposium

COMMUNITY WORK

2023	Hosted 45 8th grade students from North Shore Country Day School for a day of science
2020	STEM presenter at ConnectCon presented by Wizards.exe
2020 - 2025	Assistant Scoutmaster, Troop 2, Wilmette, IL
2015 - 2019	Hosted 80 5th grade students from Lincolnwood Elementary School for a day of science
2014 - 2018	Lecturer on <i>C. elegans</i> genetics to the Latin School of Chicago advanced biology class
2014	Co-organized (with Jacob Cruger) nematode collections with the Punahou School, Hawaii
2009	Organized nematode collections with Vassalboro Community School, Maine