Dr. Frank Wolfgang Albert

Curriculum vitae

Department of Genetics, Cell Biology, & Development
University of Minnesota
6-160 Jackson Hall
321 Church St SE
Minneapolis, MN 55455
USA
falbert@umn.edu
albert-lab.org

PROFESSIONAL APPOINTMENTS

05 / 2022 – present	Associate Professor Department of Genetics, Cell Biology, & Development University of Minnesota
01 / 2016 – 05 / 2022	Assistant Professor Department of Genetics, Cell Biology, & Development University of Minnesota

EDUCATION

02 / 2010	Doctoral degree in Biology, University of Leipzig, Germany Graduate work at the Max Planck Institute for Evolutionary Anthropology in Leipzig with Dr. Svante Pääbo
03 / 2005	"Diplom" degree in Biology with Computer Science as additional subject, University of Würzburg, Germany Thesis work at the Max Planck Institute for Human Cognitive & Brain Sciences in Leipzig with Dr. Sonja Kotz
07 / 1997	"Abitur" degree at Hanns Seidel Gymnasium, Hösbach, Germany

RESEARCH EXPERIENCE

2011 – 2015	Post-doctoral research: "Genomic approaches into protein expression variation in yeast" Princeton University & UCLA (Lab moved to UCLA in August 2013) Advisor: Dr. Leonid Kruglyak
2010	Post-doctoral research: "Brain gene expression levels in domesticated and wild animals" Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany
2005 – 2009	Graduate research: "The genetic basis for tameness and aggression" Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany

2004 – 2005 Diplom research: “Cognitive profiling of a language and speech impediment”
Max Planck Institute for Human Cognitive & Brain Sciences, Leipzig, Germany

SCHOLARSHIPS & HONORS

2019 – 2023 Pew Biomedical Scholar

2018 – 2020 Sloan Research Fellow in Computational & Evolutionary Molecular Biology

2012 – 2014 Research Fellow of the German Science Foundation (DFG)

2006 – 2009 Max Planck Society Doctoral Fellowship

2002 – 2003 Fulbright Scholarship, University of Maryland, College Park

GRANT FUNDING (ACTIVE)

08 / 2025 – 07 / 2029 NIH/NHGRI – 1R01HG014395 (PI: Frank Albert)
“EDGE CMT: Identifying genes that shape complex multigenic traits within and between yeast species”

08 / 2022 – 07 / 2027 NIH/NIGMS – R35GM124676 (PI: Frank Albert)
“Causes and consequences of regulatory genetic variation”

07 / 2021 – 06 / 2026 NIH/NIGMS – 5T32GM140936 (PIs: David Greenstein, Anna Selmecki, Frank Albert)
“An Interdisciplinary Training Program to Transform Graduate Education in Genetics and Genomics”

09 / 2022 – 06 / 2027 NIH/NICHD – 1R01HD109830 (PIs: Ellen Demerath, Ran Blekhman)
“Milk-Omics: Systems Biology of Human Milk and Its Links to Maternal and Infant Health” (co-I)

05 / 2019 – 02 / 2024 NIH/NIDA – 1R01DA044283 (PI: Scott Vrieze)
“Deep sequencing, phenotyping, and imputation in large-scale biobanks: A novel and cost-effective framework to identify rare mutations associated with addiction” (MPI, in NCE)

RESEARCH FUNDING (COMPLETED)

03 / 2020 – 02 / 2025 NIH/NIA – 1R01AG065636 (PI: Wei Pan)
“Discovering causal genes, brain regions and other risk factors for Alzheimer's disease” (co-I)

08 / 2023 – 07 / 2024 NIH/NIGMS – 3R35GM124676-07S1 (PI: Frank Albert)
“Causes and consequences of regulatory genetic variation”
Equipment supplement to purchase a high-throughput phenotyping instrument

05 / 2022 – 04 / 2023 Immune Deficiency Foundation (PIs: Charles Billington, Beth Thielen)
"Transcriptomic Approaches to Diagnosis and Management of Inborn Errors of Immunity" (co-I)

01 / 2021 – 12 / 2022 Minnesota Masonic Charities – Masonic Cross-Departmental Grants in Children's Health (PIs: Frank Albert, Ran Blekhman, Ellen Demerath, Cheryl Gale)
"Genomics of Human Milk Composition and Its Effects on Infant Growth and Development"

08 / 2017 – 07 / 2022 NIH/NIGMS – 5R35GM124676 (PI: Frank Albert)
"Genomic approaches for dissecting regulatory variation"

09 / 2018 – 08 / 2020 NIH/NHGRI – 5R21HG010380-02 " (PIs: Frank Albert, Jakub Tolar)
"Genetic mapping of cellular trait variation in human individuals

08 / 2018 – 07 / 2019 NIH/NIGMS – 3R35GM124676-02S1 (PI: Frank Albert)
"Genomic approaches for dissecting regulatory variation"
Equipment supplement to purchase an Illumina NextGen 550 sequencer

09 / 2017 – 08 / 2021 NIH/NIGMS – 5R01GM126002-03 (PIs: Xiaotong Shen & Wei Pan)
"Estimation and Inference of Gene Regulatory Networks" (co-I)

PUBLICATIONS

A self-updating list of publications and citations is available at Google Scholar:
https://scholar.google.com/citations?hl=en&user=RvETgnYAAAAJ

39. Lutz S*, Lawler M, Amidon S, and **Albert FW***
High-resolution, genotype-free mapping of genetic variation with CRI-SPA-Map
bioRxiv (2025) doi: https://doi.org/10.1101/2025.09.16.676640
* co-corresponding

38. Avery R, Collins MA*, and **Albert FW***
Genotype-by-environment interactions shape ubiquitin-proteasome system activity
Genetics (2025): iyaf180
* co-corresponding

37. Renganaath K and **Albert FW**
Trans-eQTL hotspots shape complex traits by modulating cellular states
Cell Genomics (2025) 5(5):100873

36. Abdill RJ, Graham SP, Rubinetti V, **Albert FW**, Greene CS, Davis S, and Blekhman R
Integration of 168,000 samples reveals global patterns of the human gut microbiome
Cell (2025) 188 (4), 1100-1118. e17

35. Macaulay ARK, Yang J, Price MA, Forster CL, Riddle MJ, Ebens CL, **Albert FW**, Giubellino A, McCarthy JB, Tolar J
Chondroitin sulfate proteoglycan 4 (CSPG4) increases invasion of recessive dystrophic epidermolysis bullosa-associated cutaneous squamous cell carcinoma by modifying TGFβ signaling
British Journal of Dermatology (2025) 192(1):104-117

34. Johnson KE*, Heisel T, Allert M, Furst A, Yerabandi N, Knights D, Jacobs KM, Lock EF, Bode L, Fields DA, Rudolph MC, Gale CA, **Albert FW***, Demerath EW*, and Blekhman R*
Human milk variation is shaped by maternal genetics and impacts the infant gut microbiome
Cell Genomics (2024) 4(10):100638
* co-corresponding

33. Johnson KE*, Heisel T, Fields DA, Isganaitis E, Jacobs KM, Knights D, Lock EF, Rudolph MC, Gale CA, Schleiss MR, **Albert FW***, Demerath EW*, and Blekhman R*
Human cytomegalovirus in breast milk is associated with milk composition and the infant gut microbiome and growth
Nature Communications (2024) 15(1):6216
* co-corresponding

32. Allert M, Ferretti P, Johnson KE, Heisel T, Gonia S, Knights D, Fields DA, **Albert FW**, Demerath EW, Gale CA, and Blekhman R
Assembly, stability, and dynamics of the infant gut microbiome are linked to bacterial strains and functions in mother's milk
bioRxiv (2024) doi: https://doi.org/10.1101/2024.01.28.577594

31. Collins MA, Avery RR, and **Albert FW**
Substrate-Specific Effects of Natural Genetic Variation on Proteasome Activity
PLoS Genetics (2023) 19(5): e1010734. PMID: 37126494; PMCID: PMC10174532

30. Collins MA, Mekonnen G, and **Albert FW**
Variation in Ubiquitin System Genes Creates Substrate-Specific Effects on Proteasomal Protein Degradation
eLife (2022) 11:e79570. PMID: 36218234

29. Lutz S, Van Dyke KJ, and **Albert FW**
Multiple epistatic DNA variants in a single gene affect gene expression in *trans*
Genetics (2022) 220(1): iyab208. PMID: 34791209; PMCID: PMC8733636

28. Thompson EL†, Pickett-Leonard M†, Riddle MJ, Chen W, **Albert FW**, and Tolar J
Genes and compounds that increase type VII collagen expression as potential treatments for dystrophic epidermolysis bullosa
Experimental Dermatology (2022) 31(7): 1065-1075. PMID: 35243691; PMCID: PMC9318024
† equal contribution

27. Van Dyke KJ, Lutz S, Mekonnen G, Myers CL, and **Albert FW**
Trans-acting genetic variation affects the expression of adjacent genes
Genetics, (2021) 217(3): iyaa051. PMID: 33789351; PMCID: PMC8611878

26. Renganaath K†, Cheung R†, Day L, Kosuri S, Kruglyak L*, and **Albert FW***
Systematic identification of causal variants underlying gene expression differences in a yeast cross
eLife (2020) 9: 62669. PMID: 33179598; PMCID: PMC7685706
† equal contribution, * co-corresponding

25. Brion C, Lutz S, and **Albert FW**
Simultaneous quantification of mRNA and protein in single cells reveals post-transcriptional effects of genetic variation
eLife (2020) 9: e60645. PMID: 33191917; PMCID: PMC7707838

24. Lutz S, Brion C, Kliebhan M, and **Albert FW**
DNA variants affecting the expression of numerous genes in *trans* have diverse mechanisms of action and evolutionary histories
PLoS Genetics (2019) 15(11): e1008375. PMID: 31738765; PMCID: PMC6886874

23. **Albert FW**†,*, Bloom JS†,*, Siegel J, Day L, and Kruglyak L*
Genetics of *trans*-regulatory variation in gene expression
eLife (2018) 7: e35471. PMID: 30014850; PMCID: PMC6072440
† equal contribution, * co-corresponding

22. Singh N, **Albert FW**, Trut L, Pääbo S, and Harvati K
Facial shape differences between rats selected for tame and aggressive behaviors
PLoS One (2017) 12(4): e0175043. PMID: 28369080; PMCID: PMC5378367

21. **Albert FW**
Brains, genes and power
Nature Neuroscience (2016) 19 (11): 1428-1430. PMID: 27786186
(solicited News & Views article)

20. **Albert FW** and Kruglyak L
The role of regulatory variation in complex traits and disease
Nature Reviews Genetics (2015) 16: 197-212. PMID: 25707927
(solicited review article)

19. Treusch S, **Albert FW†**, Bloom JS†, Kotenko IE, and Kruglyak L
Genetic mapping of MAPK-mediated complex traits across S. cerevisiae
PLoS Genetics (2015) 11 (1): e1004913. PMID: 25569670; PMCID: PMC4287466
† equal contribution

18. Bloom JS, Kotenko I, Sadhu MJ, Treusch S, **Albert FW**, and Kruglyak L
Genetic interactions contribute less than additive effects to quantitative trait variation in yeast
Nature Communications (2015) 6: 8712. PMID: 26537231; PMCID: PMC4635962

17. **Albert FW**, Muzzey D, Weissman J, and Kruglyak L
Genetic influences on translation in yeast
PLoS Genetics (2014) 10 (10): e1004692. PMID: 25340754; PMCID: PMC4207643

16. **Albert FW**, Treusch S, Shockley AH, Bloom JS, and Kruglyak L
Genetics of single-cell protein abundance variation in large yeast populations
Nature (2014) 506: 494-497. PMID: 24402228; PMCID: PMC4285441

15. Heyne HO, Lautenschläger S, Nelson R, Besnier F, Rotival M, Cagan A, Kozhemyakina R, Plyusnina IZ, Trut L, Carlborg Ö, Petretto E, Kruglyak L, Pääbo S, Schöneberg T, Albert FW
Genetic Influences on Brain Gene Expression in Rats Selected for Tameness and Aggression
Genetics (2014) 198 (3): 1277-1290. PMID: 25189874; PMCID: PMC4224166

14. Carneiro M†, Rubin CJ†, Di Palma†, Albert FW, …[33 additional authors]…, Ferrand N, Lindblad-Toh K, Anderson L
Rabbit genome analysis reveals a polygenic basis for phenotypic change during domestication
Science (2014) 345 (6200): 1074-1079. PMID: 25170157; PMCID: PMC5421586
† equal contribution

13. Carneiro M, Albert FW, Afonso S, Pereira RJ, Burbano H, Campos R, Melo-Ferreira J, Blanco-Aguiar JA, Villafuerte R, Nachman MW, Good JM, and Ferrand N
The Genomic Architecture of Speciation in the European Rabbit
PLoS Genetics (2014) 10 (8): e1003519. PMID: 25166595; PMCID: PMC4148185

12. Good JM, Wiebe V, Albert FW, Burbano HA, Kircher M, Green RE, Halbwax M, André C, Atencia R, Fischer A, and Pääbo S
Comparative population genomics of the ejaculate in humans and the great apes
Molecular Biology and Evolution (2013) 30 (4): 964-976. PMID: 23329688

11. Ka S, Markljung E, Ring H, Albert FW, Harun-Or-Rashid M, Wahlberg P, Garcia-Roves PM, Zierath JR, Denbow DM, Pääbo S, Siegel PB, Andersson L, and Hallböök F
Expression of carnitine palmitoyl-CoA transferase-1B is influenced by a cis-acting eQTL in two chicken lines selected for high and low body weight
Physiological Genomics (2013) 45 (9): 367-376. PMID: 23512741

10. Albert FW, Somel M, Carneiro M, Aximu-Petri A, Halbwax M, Thalman O, Blanco-Aguiar JA, Plyusnina I, Trut L, Villafuerte R, Ferrand N, Kaiser S, Jensen P, and Pääbo S
A comparison of brain gene expression levels in domesticated and wild animals
PLoS Genetics (2012) 8 (9): e1002962. PMID: 23028369; PMCID: PMC3459979

9. Carneiro M, Albert FW, Melo-Ferreira J, Galtier N, Gayral P, Blanco-Aguiar JA, Villafuerte R, Nachman MW, and Ferrand N
Evidence for widespread positive and purifying selection across the European rabbit (Oryctolagus cuniculus) genome
Molecular Biology and Evolution (2012) 29 (7): 1837-49. PMID: 22319161; PMCID: PMC3375474

8. Albert FW, Hodges E, Jensen JD, Besnier F, Xuan Z, Rooks M, Bhattacharjee A, Brizuela L, Good JM, Green RE, Burbano HA, Plyusnina IZ, Trut L, Andersson L, Schöneberg T, Carlborg Ö, Hannon GJ, & Pääbo S
Targeted resequencing of a genomic region influencing tameness and aggression reveals multiple signals of positive selection
Heredity (2011) 107: 205-214. PMID: 21304545; PMCID: PMC3183948

7. Brawand D, Soumillon M, Necsulea A, Julien P, Csardi G, Harrigan P, Weier M, Liechti A, Aximu-Petri A, Kircher M, Albert FW, Zeller U, Khaitovich P, Grützner F, Bergmann S, Nielsen R, Pääbo S, and Kaessmann H
The evolution of gene expression levels in mammalian organs
Nature (2011) 478 (7369): 343-8. PMID: 22012392

6. Ka S, Albert FW, Denbow DM, Pääbo S, Siegel PB, Andersson L, and Hallböök F
Differentially expressed genes in hypothalamus in relation to genomic regions under selection in two chicken lines resulting from divergent selection for high or low body weight
Neurogenetics (2011) 12(3): 211-21. PMID: 21748255

5. Liebscher I, Müller U, Teupser D, Engemaier E, Engel KMY, Ritscher L, Thor D, Sangkuhl K, Ricken A, Wurm A, Piehler D, Schmutzler S, Fuhrmann H, Albert FW, Reichenbach A, Thiery J, Schöneberg T, Schulz A
Altered immune response in mice deficient for the G-protein coupled receptor GPC34
Journal of Biological Chemistry (2011) 286(3): 2101-10. PMID: 21097509; PMCID: PMC3023507

4. Burbano HA, Hodges E, Green RE, Briggs AW, Krause J, Meyer M, Good JM, Maricic T, Johnson PLF, Xuan Z, Rooks M, Bhattacharjee A, Brizuela L, Albert FW, de la Rasilla M, Fortea J, Rosas A, Lachmann M, Hannon GJ, and Pääbo S
Targeted investigation of the Neandertal genome by array-based sequence capture
Science (2010) 328(5979): 723-725. PMID: 20448179; PMCID: PMC3140021

3. Addis L, Friederici AD, Kotz SA, Sabisch B, Barry J, Richter N, Ludwig AA, Rübsamen R, Albert FW, Pääbo S, Newbury DF, and Monaco AP
A locus for an auditory processing deficit and language impairment in an extended pedigree maps to 12p13.31-q14.3
Genes, Brain and Behavior (2010) 9(6): 545-561. PMID: 20345892; PMCID: PMC2948670

2. Albert FW, Carlborg Ö, Plyusnina I, Besnier F, Hedwig D, Lautenschläger S, Lorenz D, McIntosh J, Neumann C, Richter H, Zeising C, Kozhemyakina R, Shchepina O, Kratzsch J, Trut L, Teupser D, Thiery J, Schöneberg T, Andersson L, and Pääbo S
Genetic architecture of tameness in a rat model of animal domestication
Genetics (2009) 182(2): 541-554. PMID: 19363126; PMCID: PMC2691762

1. Albert FW, Shchepina O, Winter C, Römpler H, Teupser D, Palme R, Ceglarek U, Kratzsch J, Sohr R, Trut L, Thiery J, Morgenstern R, Plyusnina I, Schöneberg T, and Pääbo S
Phenotypic differences in behavior, physiology and neurochemistry between rats selected for tameness and for defensive aggression towards humans
Hormones and Behavior (2008) 53(3): 413-421. PMID: 18177873

INVITED TALKS

University of Chicago, Genetics, Genomics, and Systems Biology Seminar Series, November 12, 2024

Human Genetics & Department of Ecology and Evolutionary Biology Postdoc Symposium, University of Michigan, September 12, 2024 (trainee-invited guest speaker)

7th Single Cell Proteomics conference, Boston, MA, May 25, 2024

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 7 – 11, 2024 (invited speaker & session chair)

University of Minnesota, Department of Psychology Proseminar, March 11, 2024

NHGRI Workshop: “Genetic Architecture of Complex Human Traits”, November 16 – 17, 2023
(invited discussion panelist)

Minnesota Schachtele Symposium, University of Minnesota, September 29, 2023.

University of Southern California, April 28, 2023.

Cold Spring Harbor Yeast Genetics & Genomics Course, August 2, 2022.

ASBMB Special Symposium "Evolution and Core Processes in Gene Expression", Stowers Institute for Medical Research, July 21st-24th, 2022.

Center for Precision Plant Genomics, University of Minnesota, October 15, 2021

University of Montana, Evolution & Ecology Seminars, September 8, 2021

University of Virginia, Genome Sciences Seminar Series, April 7, 2021. Given remotely due to COVID-19.

Cold Spring Harbor Yeast Genetics & Genomics Course, August, 2021. Cancelled due to COVID-19.

University of Michigan, Department of Ecology and Evolutionary Biology, October 29, 2020. Given remotely due to COVID-19.

Northwestern University, Department of Molecular Biosciences, October 15, 2020. Given remotely due to COVID-19.

Cold Spring Harbor Yeast Genetics & Genomics Course, August, 2020. Cancelled due to COVID-19.

Mayo Clinic Genomics Interest Group, December 19, 2018

University of Minnesota IMA Data Science Lab Seminar, September 24, 2018

Friedrich Miescher Laboratory of the Max Planck Society, Tübingen, Germany, November 14, 2017

Northwestern University, Speaker at Andersen Lab retreat; November 10, 2017

Linköping University, PhD thesis defense "Opponent", Department of Physics, Chemistry & Biology (IFM), Sweden, June 9, 2017

Linköping University, Department of Physics, Chemistry & Biology (IFM), Sweden, June 8, 2017

Uppsala University, Department of Medical Biochemistry and Microbiology, Sweden, June 7, 2017

University of Cambridge, Department of Genetics, Cambridge, UK, October 18, 2016

Sanger Research Institute, Cambridge, UK, October 17, 2016

University of Minnesota, Department of Ecology, Evolution & Behavior, May 4, 2016

Rat Genomics & Models, Cold Spring Harbor Laboratory, NY, December 9 – 12, 2015

National Human Genome Research Institute (NHGRI), Bethesda, MD, February 4, 2015

University of Minnesota Department of Genetics, Cell Biology and Development, January 29, 2015

Symposium "Selected Topics in Science and Technology", Technische Universität München, Munich, Germany, November 5, 2014

Symposium "Quantitative Cell Biology", Friedrich Miescher Institute for Biomedical Research, Basel, Switzerland, June 30, 2014

Bay Area Yeast Meeting, UC Berkeley, November 16, 2013

New York University, Evening Evolution Group Seminar, December 4, 2012

53. Symposium of the German Endocrinology Society, Leipzig, Germany, March 3 – 6, 2010

International Conference Dedicated to the 90th Anniversary of Prof. Dmitry K. Belyaev, Novosibirsk, Russia, August 7 – 9, 2007

TALKS SELECTED FROM ABSTRACTS

32nd International Conference on Yeast Genetics and Molecular Biology, Paris, France, July 21 – 24, 2025

International Congress of Quantitative Genetics VII, Vienna, Austria, July 22 – 26, 2024

EMBO Workshop "Predicting Evolution", Heidelberg, Germany, July 11 – 14, 2023

EMBO Workshop "From functional genomics to systems biology", Heidelberg, Germany, November 15 – 18, 2022

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 10 – 14, 2022 (talk given by postdoc Dr. Mahlon Collins)

International Congress of Quantitative Genetics VI, Brisbane, Australia, November 2020. Given remotely due to COVID-19.

The Allied Genetics Conference, April 22 – 25, 2020. Given remotely due to COVID-19.

EMBO Symposium "Systems Genetics: From Genomes to Complex Traits", Heidelberg, Germany, September 29 – October 2, 2019

29th International Conference on Yeast Genetics and Molecular Biology, Gothenburg, Sweden, August 18 – 22, 2019

Yeast Genetics Meeting, Stanford, CA, August 22 – 26, 2018

Population, Evolutionary, & Quantitative Genetics Meeting, Madison, WI, May 13 – 16, 2018 (short "lightning talk")

Systems Biology: Global Regulation of Gene Expression, Cold Spring Harbor Laboratory, NY, March 20 – 23, 2018

The Allied Genetics Conference, Orlando, FL, July 13 – 17, 2016

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 10 – 14, 2016

Yeast Genetics Meeting, University of Washington, Seattle, WA, July 29 – August 3, 2014

Southern California Evolutionary Genetics & Genomics Meeting, USC, CA, March 1, 2014

Society for Molecular Biology and Evolution, Chicago, IL, July 7 – 11, 2013

Gordon Research Seminar on Quantitative Genetics and Genomics, Galveston, TX, February 17 –18, 2013

Rat Genomics & Models, Cold Spring Harbor Laboratory, NY, December 2 – 5, 2009

POSTER PRESENTATIONS

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 7 – 11, 2019

EMBO Conference "Experimental Approaches to Evolution and Ecology Using Yeast and Other Model Systems", Heidelberg, Germany, October 17 – 20, 2018

Population, Evolutionary, & Quantitative Genetics Meeting, Madison, WI, May 13 – 16, 2018

EMBO Conference "Experimental Approaches to Evolution and Ecology Using Yeast and Other Model Systems", Heidelberg, Germany, October 19 – 23, 2016

International Congress of Quantitative Genetics V, Madison, WI, June 12 – 17, 2016

Gordon Research Conference on Quantitative Genetics & Genomics, Lucca, Italy, February 22-27, 2015

EMBL Conference "From Functional Genomics to Systems Biology", Heidelberg, Germany, November 8 – 11, 2014

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 6 – 10, 2014

Systems Biology: Global Regulation of Gene Expression, Cold Spring Harbor Laboratory, NY, March 18 – 22, 2014

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 7 – 11, 2013

Gordon Research Conference on Quantitative Genetics and Genomics, February 18 – 22, 2013

Yeast Genetics and Molecular Biology Meeting, Princeton, NJ, July 31 – August 5, 2012

Society for Molecular Biology and Evolution, Dublin, Ireland, June 23 – 26, 2012

International Congress of Quantitative Genetics, Edinburgh, Scotland, June 17 – 22, 2012

Biology of Genomes, Cold Spring Harbor Laboratory, NY, May 10 – 14, 2011

Gordon Research Conference on Quantitative Genetics and Genomics, February 20 – 25, 2011

74th Symposium: Evolution, Cold Spring Harbor Laboratory, NY, May 27 – June 1, 2009

International Congress of Genetics, Berlin, Germany, July 12 – 17, 2008

3rd International Conference of Quantitative Genetics, Hangzhou, China, August 19 – 24, 2007

TEACHING & MENTORING

2016 – present	Mentor to three postdoctoral researchers (Drs. Christian Brion, Mahlon Collins, Kelsey Johnson*), seven graduate students (Megan Lawler, Kevin Zhan, Randi Avery, Krisna Van Dyke, Kaushik Renganaath, Samantha Graham*, Mattea Allert*), & seven undergraduate students (Ana Juarez Hernandez, Hayley Moeller, Nour Dameh, Matthew Feraru, Margareth Kliebhan, Francesca Caracci, Sam Levin) *joint with Dr. Ran Blekhman
2017 – present	Instructor in GCD 4143 "Human Genetics & Genomics" (undergraduate) Course director since 2019
2017 – 2021	Instructor in GCD 8920 / 8141 "Genome Analysis" (graduate)
2018 – 2021	Instructor in GCD 8131 "Advanced Molecular Genetics and Genomics" (graduate)
2017	Invited Senior Discussion Leader & Faculty Mentor, Gordon Research Seminar on Quantitative Genetics & Genomics, Galveston, TX, February 25 – 26, 2017
2010 – 2014	Remote advisor to a graduate student (Henrike Heyne) at the Max Planck Institute for Evolutionary Anthropology, Leipzig, Germany
2014	Mentor to a rotation student in the UCLA Molecular Biology PhD program
2013	Teaching Assistant in "MOL205 – Genes, Health and Society" taught by Prof. Leon Rosenberg, Princeton University
2009	Organized and led three-week practical lab course and literature seminar for master students in Biology and Biochemistry, University of Leipzig

NATIONAL & INTERNATIONAL SERVICE

Grant Review	2024 – present: NIGMS MIRA - F Study Section (MRAF); permanent member
	2024 & 2025: German Research Foundation, DFG
	2023 & 2024: NIGMS MIRA - F Study Section (MRAF); 3 *ad hoc* meetings
	2023: Academy of Medical Sciences, UK
	2023: Swiss National Science Foundation
	2022: MRC Human Genetics Unit, University of Edinburgh, UK
	2021: European Research Commission – Consolidator Grants
	2021: NIH Director's DP5 Early Independence Award (written evaluations)
	2020: NIMH R01 Special Emphasis Panel (ZMH1 ERB-C-08)
	2019: NIGMS ESI MIRA Special Emphasis Panel (2019/05 ZGM1 TRN-7 (MR))
	2019: NIGMS K99/R00 Special Emphasis Panel (2019/10 ZGM1 TWD-7 (KR))
	2019: Swedish Wallenberg Foundation
	2017: National Science Foundation *ad hoc* review
	2015: Leaky Foundation Research Grant
Journal Review	American Journal of Human Genetics; Behavioural Processes; Bioinformatics; Brain, Behavior and Immunity; BMC Evolutionary Biology; BMC Genomics; BMC Systems Biology; Cell Genomics; Cell Systems; Current Opinion in Genetics and Development; eLife; Ethology; Evo Devo; Evolution Letters; Disease Models & Mechanisms; Genetics; Genome Biology; Genome Biology and Evolution; Genome Research; G3: Genes, Genomes, Genetics; Hormones and Behavior; Human Genetics and Genomics Advances; Molecular Biology & Evolution; Molecular Ecology; Molecular Genetics and Genomics; Molecular Omics; Molecular Systems Biology; Nature; Nature Communications; Nature Genetics; Nature Neuroscience; PLoS Computational Biology; PLoS Genetics; PLoS One; PNAS; Science; Scientific Reports; Yeast
Abstract Review	Biology of Genomes, 2024
	Program committee member, Yeast Genetics Meeting, 2024
	Great Lakes Bioinformatics (GLBIO) conference 2019, 2021, 2023, 2025
	Pacific Symposium on Biocomputing (PSB) 2015 session on Personalized Medicine
Editorial Service	2016: PLoS Genetics Guest Editor
Meeting organization	Co-Chair for the Gordon Research Seminar in Quantitative Genetics & Genomics, Lucca, Italy, February 21-22, 2015
	Co-organizer of the Southern California Evolutionary Genetics & Genomics Meeting at UCLA, November 15, 2014

UNIVERSITY SERVICE (Selected)

2025 – present	GCD Advisory Council Team Research
2022 – present	Mentoring committee for pre-tenure faculty Arslan Zaidi (lead), PingHsun Hsieh, Xiao Dong
2021 – present	Faculty Review Committee, MCDB&G graduate program
2016 – present	Graduate student committees for 25 students in various programs (4 as chair)
2023 – 2025	Faculty Search Committee, Department of Genetics, Cell Biology, & Development (co-chair)
2017 – 2025	Executive Committee, Department of Genetics, Cell Biology, & Development
2023 – 2024	Advisory Committee, University of Minnesota Genome Center
2021 – 2022	Faculty Search Committee, Department of Genetics, Cell Biology, & Development (co-chair)
2017 – 2021	Graduate Recruiting Committee (Co-Chair), MCDB&G graduate program
2019 – 2020	Faculty Search Committee, Department of Genetics, Cell Biology, & Development
2019 – 2020	Co-Organizer, UMycoNet interest group
2017 – 2018	Faculty Search Committee, Department of Microbiology and Immunology

OTHER EXPERIENCE

2006	Internship, The Boston Consulting Group, Frankfurt, Germany
2005	Internship at United Nations Headquarters, New York, NY, USA
2001	JAVA Developer at 'i–te Systems', Würzburg, Germany
1997 – 1998	German Civilian Service