NANDITA R. GARUD

EDUCATION

2015	Ph.D. in Genetics, Stanford University, Stanford, CA
2012	MS in Statistics, Stanford University, Stanford, CA
2008	BS in Biometry & Statistics and Biological Sciences, Cornell University, Ithaca, NY

RESEARCH AND WORK EXPERIENCE

2019- current	Assistant Professor, Department of Ecology and Evolutionary Biology at UCLA
2015-2019	Postdoctoral Researcher, The Gladstone Institutes at UCSF Advised by Katherine Pollard, University of California, San Francisco (UCSF)
2015 summer	Data Scientist Intern, Intuit Inc., Mountain View, California
2010-2015	Ph.D. Candidate, Department of Genetics Advised by Dmitri Petrov, Stanford University, Stanford, CA
2009	Rotation Student, Department of Genetics Advised by Carlos Bustamante and Hua Tang, Stanford University, CA
2008-2009	Fulbright Scholar, Denmark Advised by Jakob Pedersen, The Bioinformatics Centre, University of Copenhagen
2006-2008	Undergraduate Honors Student, Department of Molecular Biology and Genetics Advised by Andrew Clark, Cornell University, Ithaca, NY
2006	Cold Spring Harbor Summer Undergraduate Research program Intern Advised by Doreen Ware, Cold Spring Harbor, NY

AWARDS AND HONORS

2014-2015	Stanford Center for Evolution and Human Genomics Fellow
2013	Walter Fitch Finalist, SMBE, Chicago.
2010-2013	National Science Foundation Graduate Research Fellow
2008-2009	Fulbright Scholar, Denmark
2009-2010	Stanford Genome Training Program Grant
2007-2008	Cornell Hughes Scholar
2007-2008	CALS Charitable Trust Grant and Morley Grant for Undergraduate Research
2004-2008	Dean's List, Cornell University
2004-2008	Byrd Undergraduate Scholarship
2004-2008	New York Lottery Undergraduate Scholarship

PUBLICATIONS

Garud NR*, Good BH*, Hallatschek O, Pollard KS. "Evolutionary dynamics of bacteria in the gut microbiome within and across hosts." *PLoS Biology* (2019). *equal contributors.

Harris, AM, **Garud NR**, DeGiorgio M. "Detection and classification of hard and soft sweeps from unphased genotypes by multilocus genotype identity." *Genetics* (2018).

Battlay, P, Leblanc P, Green L, **Garud NR**, Schmidt J, Fournier-Level A, Robin C, "Structural variants and selective sweep foci contribute to insecticide resistance in the *Drosophila melanogaster* genetic reference panel." *G3* (2018).

Nayfach S, Rodriguez-Mueller B, **Garud NR**, Pollard KS. "An integrated metagenomics pipeline for strain profiling reveals novel patterns of bacterial transmission and biogeography." *Genome Research* (2016).

Garud NR and Petrov DA. "Elevated linkage disequilibrium and signatures of soft sweeps are common in Drosophila melanogaster**.**" *Genetics* (2016).

Wilson BA*, **Garud NR***, Feder AF*, Assaf ZJ*, and Pennings PS. "The population genetics of drug resistance evolution in natural populations of viral, bacterial and eukaryotic pathogens." *Molecular Ecology* (2015). *equal contributors

Garud NR and Rosenberg NA. "Enhancing the mathematical properties of haplotype homozygosity statistics for the detection of soft selective sweeps." *Theoretical Population Biology* (2015).

Garud NR, Messer P, Buzbas E, and Petrov D. "Soft selective sweeps are the primary mode of adaptation in Drosophila." *PLoS Genetics* 11: e1005004 (2015).

McCoy RC, **Garud NR**, Kelley JL, Boggs CL, and Petrov DA. "Genomic inference accurately predicts the timing and severity of a recent bottleneck in a non-model insect population." *Molecular Ecology* (2013).

Molina J, Sikora M, **Garud NR**, Flowers J, Rubinstein S, Reynolds A, Huang P et al. "Molecular evidence for a single evolutionary origin of domesticated rice." *Proceedings of the National Academy of Sciences* 108, no. 20 (2011): 8351-8356.

TALKS AND POSTER PRESENTATIONS

Jan. 2019	UCLA Behavior, Evolution, and Culture speaker series (Invited Talk)
Oct. 2018	Microbial Ecology and Evolution meeting in Lisbon, Portugal (Talk)
Sept. 2018	Lake Arrowhead Microbial Genetics (Talk)
March 2018	University of Pennsylvania Biology Departmental Seminar (Invited Talk)
Feb. 2018	New York Genome Center Departmental Seminar (Invited Talk)
Feb. 2018	Temple University iGEM Departmental Seminar (Invited Talk)
Jan. 2018	UCLA Ecology and Evolutionary Biology Departmental Seminar (Invited Talk)
Jan. 2018	New York Area Population Genetics meeting (Talk)
Nov. 2017	Bay Area Population Genetics meeting (Talk)
July 2017	Society for Molecular Biology and Evolution (SMBE), (Poster presented by me and Talk presented by co-author at the microbiome session I organized)
April 2017	California Academy of Sciences (Talk)
July 2015	Society for Molecular Biology and Evolution (SMBE), (Talk)
Nov. 2014	Stanford Genetics Department (Talk)
June 2014	Society for Molecular Biology and Evolution (SMBE), (Talk)
Jan. 2014	Biomedical Computation at Stanford (BCATS) (Talk)
Dec. 2013	Penn State University, Department of Biology (Invited Talk)
July 2013	Walter Fitch Symposium, Society for Molecular Biology and Evolution (Talk)
April 2013	Drosophila Research Conference (Talk)

April 2013	Stanford Genome Training Program retreat (Talk)
Jan. 2013	Bay Area Population Genetics meeting (Talk)

Conference travel awards

2018	DeLill Nasser Award
2017	Gladstone Institutes Career Advancement Award
2015	SMBE in Vienna Young Investigator Travel Award
2014	Stanford BioX travel grant to the SMBE conference in Puerto Rico
2013	SMBE travel grant to the SMBE conference in Chicago
2013	Stanford BioX travel grant to the Drosophila conference in Washington DC
2013	Stanford School of Medicine travel grant to the Drosophila conference in Washington DC
2012	Stanford Department of Biology travel grant to the SMBE conference in Ireland
2011	National Science Foundation travel award to the SMBE conference in Kyoto, Japan

TEACHING & MENTORSHIP EXPERIENCE

2017-2019	Mentor for graduate student Annamarie Bustion on machine learning project.
2017-2018	Mentor for high school student Katherine Zhang's project on supervised and unsupervised deep learning on microbiome data. Project won semi finalist position at the National Siemens Westinghouse Competition.
Fall 2016	Guest lecturer at San Francisco State University
Summer 2016	Mentor for undergraduate Haleigh Miller's summer project and reading on machine learning techniques for microbiome analysis.
2012-2014	Designed and taught a Splash! (Stanford Educational Studies Program) course on introductory population genetics to high school students semiannually.
Fall 2013	Teaching assistant for Bio-explorations course at Stanford for freshmen undergrads
Spring 2012	Teaching assistant for the PhD level Genomics course at Stanford

ACADEMIC, COMMUNITY AND UNIVERSITY SERVICE

2013-current	Referee for *PLoS Genetics, Genetics*, *Molecular Biology and Evolution, Molecular Ecology, Genome Biology and Evolution, Journal of Molecular Evolution, PLoS One, F1000, GigaScience, Nature Hereditary,* and *Nucleic Acid Research.*
Summer 2017	Organizer of SMBE 2017 symposium on 'Probing microbiome dynamics'
Spring 2016	Organizer of the UCSF OUT in Science panel discussion
June 2014	Poster presentation judge at the Society for Molecular Biology and Evolution
Spring 2014	Seminar Organizer for the Stanford Center for Evolution and Human Genomics
Spring 2013	Science fair judge for the Synopsys Championship for high school students
Spring 2012	Created a $30,000 per year fund with the Stanford School of Medicine for travel grants for conferences for all Bioscience PhD students.
Fall 2011	Organizer of the Biomedical Computation at Stanford (BCATS) Conference
Spring 2011	Consultant for the Stanford Statistical Consulting group