

Sara D. Niedbalski

Phone: 574.360.8548, Email: sdn@unm.edu

EDUCATION

PhD, Anthropology, University of New Mexico, anticipated 2020

Dissertation: **Novel genomic architectures resulting from the Beringian Standstill; Evolutionary perspectives on human health**

Dissertation advisor: Dr. Jeffrey C. Long

Bachelor of Science, Biological Sciences, University of Notre Dame, 2011

SUMMARY

My research uses an interdisciplinary skill set that integrates 1) theoretical modeling to generate hypotheses about expected patterns of genomic diversity; 2) bioinformatic approaches to understanding functional outcomes of genomic-level variation; and 3) translational methods in public health to understand how genomic variation interacts with environment and behavior to produce observed health disparities.

RESEARCH EXPERIENCE

Dr. Jeff Long, University of New Mexico, Department of Anthropology, 2011 - present

Graduate student

Human population genetics, genetic architectures of Native Americans

Dr. Deirdre Hill, University of New Mexico, Department of Internal medicine, 2018-present

Graduate research collaborator on NIH/NCI R01 grant

Identification of ancestry-specific risk factors for breast cancer survival in Latinas

Dr. Jada Benn-Torres, University of Notre Dame, Department of Anthropology, 2009 - 2011

Undergraduate research assistant

Human population genetics, genetic ancestry and population history of African and Indigenous Caribbean populations

Dr. Jason McLachlan, University of Notre Dame, Department of Biology, 2009-2011

Undergraduate research assistant

Ecological genetics and climate reconstructions in North America during the last glacial maximum

Dr. David Hyde, University of Notre Dame, Department of Biology, 2007-2009

Undergraduate research assistant

Transcriptomics of the Wnt signaling pathway

PRESENTATIONS AND PUBLICATIONS

Niedbalski SD, Long JC. *Genomic ontologies provide evidence against environmental adaptation during the Beringian standstill*, American Association of Physical Anthropologists. April, 2019

Niedbalski SD, Schwartz, MR, Long JC. *The importance of evolutionary history in genomic architectures of complex traits*, National Center for Genomic Research. April, 2019

Niedbalski SD, Long JC. *Genomic consequences of the first migration into the Americas*, Southwest Seminars, Santa Fe, NM. April, 2018

Niedbalski SD, Long JC. *Thousand Genomes Project reveals unique Native American alleles that originated during Beringian standstill*, American Association of Physical Anthropologists. April, 2018.

Niedbalski SD, Long JC. *Analysis of Thousand Genomes data reveals unique genetic architectures*, International Society for Evolution, Medicine, and Public Health, August, 2017 Groningen, Netherlands

Niedbalski SD, Long JC. *Analysis of Mexican American full genome DNA sequences identifies 137 SNPs of unique Native American origin*, American Association of Physical Anthropologists. March, 2017.

Niedbalski SD, Long JC. *AIMs and Ascertainment Bias in Genomic Datasets: Considerations for Personalized Medicine*. International Congress on Human Genetics, April, 2016. Kyoto, Japan

Niedbalski SD, Long JC. *AIMs and Ascertainment Bias in Genomic Diversity Sets*. Podium Presentation, American Association of Physical Anthropologists. March, 2016.

Long JC, **Niedbalski SD**. *Population Structure Beyond That Detected Using Model-Based Clustering*. Podium Presentation, American Association of Physical Anthropologists. March, 2015.

Long JC, **Niedbalski SD**. *The AIMless Genome*. Plenary talk at the American Association of Physical Anthropologists annual meetings. April, 2013

GRANTS AND AWARDS

- NSF Research Experience for Graduates (REG) supplement, Sponsored by Dr. Siobhan Mattison: *A multidimensional investigation of the dynamics of market transition and social change in rural China; 2019*
- Program for Interdisciplinary Biological and Biomedical Sciences (PiBBS) Fellowship, Howard Hughes Medical Institute and the National Institute of Health; 2013-2015
- University of New Mexico Doctoral Conference Presentation Award; 2017, 2018, 2019
- University of New Mexico Student Conference Program Award Grant; 2016, 2017, 2018
- University of New Mexico GPSA Professional Development Grant; 2014, 2015, 2016, 2017, 2018
- University of New Mexico GPSA Student Research Grant; 2011, 2012, 2013, 2014, 2016, 2017, 2018
- University of New Mexico Graduate Studies Research Project Travel Grant, Spring 2013
- University of New Mexico Academy of Graduate Scholars Scholarship, 2012

TEACHING EXPERIENCE

- Primary Instructor, Plants, Humans, and Disease: An Evolutionary Perspective (BIO 419)
- Graduate Lecturer, Evolutionary Medicine, (BIO 502)
- Lab Instructor, Cell Biology (BIO 201L)
- Lab Instructor, Genetics (BIO 202L)
- Lab Instructor, Human Evolution and Emergence (ANTH 151)
- Graduate Assistant, Human Biology (ANTH 350)
- Graduate Assistant, Evolution and Human Emergence (ANTH 150)
- Graduate Assistant, Human Life Course (ANTH 150)
- Graduate Assistant, Forensics (ANTH 251)

APPOINTMENTS

- Advancing Women in Science (AWS) Undergraduate Outreach Chair, 2018
- PiBBS Fellow, 2013-2015
- UNM Graduate and Professional Student Association Grants Committee Chair, 2013-2014
- UNM Graduate and Professional Student Association Grants Committee Vice Chair Spring 2013
- UNM Graduate and Professional Student Association Events Committee Co-Chair, Fall 2012
- Anthropology Graduate Student Union President, 2013
- Anthropology Graduate Student Union Vice President, 2012 and 2018
- Anthropology Graduate Student Union Treasurer, 2012