CURRICULUM VITAE

**Negin Valizadegan**

Department: 109 Davenport Hall, 607 South Mathews Avenue, Urbana, Illinois, 61801

Email: valizad2(at)illinios(dot)edu

Website: <https://neginvalizadegaan.wixsite.com/neginvalizadegan>

Google Scholar: <https://scholar.google.com/citations?user=7bdv_DoAAAAJ&hl=en>

Tel: +1-217-722-6345

**EDUCATION**

2015-Present PhD student in Biological Anthropology

University of Illinois at Urbana-Champaign, UIUC, USA

Dissertation: Evolution of the human blood microbiome

2015-2018 M.A. in Biological Anthropology

University of Illinois at Urbana-Champaign, USA

Thesis: The Association between Aggression and the Gut Microbiome in Wild Chimpanzees

2011-2013 MSc in Environmental Sciences - Habitats and Biodiversity (*Honors*)

Gorgan University of Agricultural Sciences and Natural Resources, Iran

Thesis: The effects of environmental factors on bird communities in riparian zones and upland areas

2004-2009 BSc in Cellular Molecular Biology

University of Tehran, Iran.

**AWARDS & HONORS**

2019 Graduate College Conference Travel Award, UIUC, USA

2018, 2019 Leadership Award for Environmental Stewardship in Sustainable Laboratory Practices, Institute for Sustainability, Energy, and Environment, UIUC, USA.

* 1. Franklin Mosher Baldwin Fellowship, Leakey Foundation, USA, $30000.

2017, 2019 Summer Research Award, Department of Anthropology, UIUC, USA, $5000.

* 1. Department of Anthropology Conference Travel Award, UIUC, USA, $825.

2017 Teaching Excellence Award, Center for Innovation in Teaching and Learning, UIUC, USA: Ranked excellent (> 4.5/5) for teaching Biological Anthropology (ANTH 240).

**PEER-REVIEWED PUBLICATIONS**

2019 Batstone, R.T., Christian, N., Ringwald, K., **Valizadegan, N.**, Zeineldin, M., Alnaji, F., Martin, B.E., Whitaker, R.J. Evolution is infectious: gene mobility, nested and collective genomic interactions, and the emerging field of infection genomics. *Trends in Ecology and Evolution* (Under submission).

2019 Brinkworth, J.F. & **Valizadegan, N.**. Sepsis and the evolution of human high sensitivity to lipopolysaccharide. *Evolutionary Anthropology* (Revise and Resubmit). (Invited)

2019 **Valizadegan, N.**, Asangba, A. Stumpf, R.M.. The association between aggression and the fecal microbiota in wild chimpanzees (*Pan troglodytes schweinfurthii*), *American Journal of Primatology* (Revise and Resubmit) (Invited)

2019 Yousefi, M., Kafash, A., **Valizadegan, N.**, Sheykhi Ilanloo, S., Rajabizadeh, M, Malekoutikhah*,* S., Hosseinian Yousefkhani, S.S., and Ashrafi, S. Climate change, a major problem for biodiversity conservation: a systematic review of recent studies in Iran. *Contemporary Problems of Ecology.* 12(4), 394-403.

1. Sheykhi Ilanloo, S., Khani, A., Kafash, A., **Valizadegan, N.**, Ashrafi, S., Loercher, F., Ebrahimi, E., Yousefi, M. Applying opportunistic observations to model current and future suitability of the Kopet Dagh Mountains for a Near Threatened rare avian scavenger, *Ecological Informatics* (Under Review).

2018 Sheykhi Ilanloo, S., Ebrahimi, E., **Valizadegan, N.**, Ashrafi, S., Rezaei, H., Yousefi, M. Little Owl *Athene noctua* around human settlements and agricultural lands: conservation and management enlightenments. *Acta Ecologica Sinica.* (Under Review).

2016 Mahmoudi, S., Shaykhi, S. Keivanloo, A., **Valizadegan, N.**, Yousefi, M.. Effect of human-induced forest edges on the understory bird community in Hyrcanian forests in Iran: implication for conservation and management, *Forest Ecology and Management*, 382, 120-128.

2015 Farhadinia, M.S. & **Valizadegan, N.**. (2015). A preliminary baseline status of the Syrian Brown Bear Ursus arctos syriacus (Mammalia: Carnivora: Ursidae) in Golestanak, northern Iran. *Journal of Threatened Taxa*, 7(1), 6796-6799.

**PRESENTATIONS & PEER-REVEIWED ABSTRACTS**

2019 **Valizadegan, N.**, Stumpf, R. M., Brinkworth, J. F.. What does blood microbiome look like in primates? Biocomplexity Theme Review, Carl Woese Institute for Genomic Biology,University of Illinois, Urbana, IL.

2019 Brinkworth, J.F., Van Etten, K., Bhatt, P., McClure, K., **Valizadegan, N.**, Woo, M., S. Gunaskera, Suarez, Y., Aldrige B. The Journal of Immunology, Functional comparison of human and non-human primate neutrophil responses. *The Journal of Immunology*, 202: 73-21.

2019 **Valizadegan, N.**, Stumpf, R. M., Brinkworth, J. F.. The blood microbiome and gram-negative bacterial LPS. Microbial Early-career Researchers Association (microERA) Research Symposium.University of Illinois, Urbana, IL.

2019 **Valizadegan, N.**, Stumpf, R. M., Brinkworth, J. F.. The Blood Microbiome of Human and Non-Human Primates. *American Association of Physical Anthropologists*, 168: 254-254 (Invited)

2019Brinkworth, J.F.,and Van Etten, K., Prasad, S., Hicks, H., McClure, K., Bhatt, P., **Valizadegan**, **N.,** Aldridge, B. 2018. “The evolution of human neutrophilia”. Biology Graduate Student Association at the University of Louisville, Louisville, KY. (Invited)

2019 Brinkworth, J.F., Van Etten, K., Bhatt, P., McClure, K., Woo, M., **Valizadegan, N.**, S. Gunaskera, Suarez, Y., Aldrige B.. The evolution of human neutrophilia and the functional divergence of a bactericidal cell in primates. *American Association of Physical Anthropologists*, 168: 29-29.

2018 **Valizadegan, N.**, & Stumpf, R.. The association between aggression and the gut microbiome in wild chimpanzees (*Pan troglodytes*). In *American Journal of Physical Anthropology*, 165: 282-282.

2018 Brinkworth, J.F.,and Suarez, J., Van Etten, K., Gunasekera, S., **Valizadegan**, **N.,** Witola, W., Linde, J.. 2018. "The functional genomics of severe toxoplasmosis in primates" Lemurs! Science! Beer! Colloquium. Duke Lemur Center. Durham, NC. (Invited)

2018 Van Etten, K., Woo, M., **Valizadegan, N.**, Gunasekara, S., Suarez, Y., Aldridge, B., & Brinkworth, J.F.. Divergent evolution of extracellular trapping in primates, *American Association of Physical Anthropologists*.

2018 Suarez, Y., Van Etten, K., Gunasekera, S., **Valizadegan, N.**, Witola, W., Linde, J., & Brinkworth, J.F.. Mechanisms of fatal toxoplasmosis in primates. In *American Journal of Physical Anthropology*, 165: 267-267.

2017 Suarez, Y., Gunasekera, S., **Valizadegan, N.**, Van Etten, K., Witola, W. H., Linde, J., & Brinkworth, J.F.. Genomic basis for fatal *Toxoplasma gondii* infection in primates. In *American Journal of Physical Anthropology,* 162:129-129.

2014 Farhadinia, M.S., **Valizadegan, N.**, Zaveri, F.H., Taghdisi, M.. Carnivore community and their intra-specific relationships in Sarigol National Park, The First National Conference on Biology and Natural Sciences in Iran, Tehran, Iran.

2014 **Valizadegan, N.**, Varasteh Moradi, H., Salmanmahiny, A., Ramezani, M.. Effects of riparian zone on density and diversity of trees and shrubs (a case study on Madarsoo river in Golstan National Park), The First National Conference on Environmental Planning, Conservation, Protection and Sustainable Development, Hamedan, Iran.

2014 **Valizadegan, N.** & Ramezani, M.. Wildlife corridors and identifying suitable habitats to build corridors in protected areas, The First National Conference on Environmental Planning, Conservation, Protection and Sustainable Development, Hamedan, Iran.

2013 Farhadinia, M.S. & **Valizadegan, N.**. Structure & abundance of Syrian brown bear population *Ursus arctos syriacus* in Central Alborz Protected Area, The Second National Student Conference of Conservation Ecology, Tehran, Iran.

2013 **Valizadegan, N.**, Varasteh Moradi, H., Salmanmahiny, A.. Effects of riparian zone on bird species composition (case study: Madarsoo river in Golestan National Park), The Seventh National Conference on World Environmental Day, Tehran, Iran.

2013 **Valizadegan, N.**, Varasteh Moradi, H., Salmanmahiny, A.. Importance of riparian zones in environmental conservation, First National Conference on Environmental Protection and Planning, Hamedan, Iran.

**RESEARCH POSITIONS**

Statistical Analyst in High-Performance Biological Computing Center (HPCBio), UIUC, USA.

2019

* Statistical analysis of over ten large-scale genomics datasets such as genome-wide gene expression datasets (RNA and DNA) in Unix and R for several labs from around the world resulting in more than $60000 income for the company in three months.
* Metagenomic microbiome data analysis using HUMAnN2 and MetaPhlAn2 and statistical analysis such as MaAslin2 and LEfSe
* Developed scripts and programs for the statistical analysis of genomic datasets

Research Assistant in Dr. Brinkworth’s Evolutionary Immunology and Genomics lab, UIUC, USA

2015-Present.

* Research on the link between blood microbiome and immune system response to lipopolysaccharide in primates which requires DNA and RNA extraction from blood samples, blood culture, and PyroGene™ Recombinant Factor C Assay for measuring endotoxin in plasma
* Differential expression analysis (RNA-Seq)
* Research on several project on the evolution of plague in humans, neutrophil extracellular traps in humans, horses, cows and pigs and assessed why some primate species suffer from severe infections, while others control T. gondii.
* Analyzed 16S rRNA blood microbiome data using QIIME2 and PICRUST and LEfSe
* Co-organized and chaired a symposium on “Primate hosts and microbial interactions and communities: disease, development and evolution” that was successfully accepted and funded
* Co-authored a review paper on the evolution of sepsis in humans.
* Conducted literature review on a project on the opossum’s resistance to rabies.
* Completed IACUC applications for various animal species in several projects.
* Wrote grants and fellowship applications resulting in $35000 income for the lab.

Research Assistant in Dr. Stumpf’s Microbiome and Hormone Lab, UIUC, USA.

2017-2019

* Conducted DNA extraction for over 1000 fecal samples from several primate species.
* Microbiome analysis (16S rRNA) of chimpanzee fecal samples to study the link between behavior and microbiome.
* Designed and implemented an organizational system for the efficient use of the freezer space.
* Wrote lab safety plans and organized several -80 freezers.

Undergraduate Research Assistant in Dr. Dehpour’s Medical Pharmacology Lab, Tehran University of Medical Sciences, Iran

2005-2007 Conducted research on the role of the opioid system in the serotonin-induced scratch model in mice.

**TEACHING POSITIONS**

2019 Teaching Assistant for Biology of Human Behavior (ANTH 143), Department of Anthropology, UIUC, USA.

2019 Teaching Assistant, Microbial Profiling Analysis (using Unix, QIIME2 and R), HPCBio, UIUC, USA.

2019 Teaching Assistant for Biological Anthropology (ANTH 240), Department of Anthropology, UIUC, USA.

2017, 2019 Teaching Assistant for Forensic Science (ANTH 246), Department of Anthropology, UIUC, USA.

2018 Teaching Assistant for Applied Statistical Methods I (CPSC 440), Department of Crop Sciences, UIUC, USA.

2016 Teaching Assistant for Biological Anthropology (ANTH 240), Department of Anthropology, UIUC, USA.

2015-2017 Teaching Assistant for Biology of Human Behavior (ANTH 143), Department of Anthropology, UIUC, USA.

2014-2015 TOEFL Teacher, Nogkhbegan Zaban Language Institute, Iran.

2014-2015 English Teacher, Pishtazan Language Center, Iran.

2014 English Teacher, Kosar Scientific Institute of Mazandaran, Iran.

2013 TOEFL Workshop Instructor, Saryan University, Iran.

2011 English Teacher, Oxford Language Center, Ghaemshahr, Iran.

**PROFESSIONAL & COMMUNITY SERVICE / OUTREACH**

2019 Served on a panel for “IB 270: Evolution of Molecules and Cells” at the School of Integrative Biology, to discuss evolutionary genetics concept related to the course and our recent review paper on “Evolution is infectious: gene mobility, nested and collective genomic interactions, and the emerging field of infection genomics”, UIUC, IL, USA.

2019 Co-organizer, Biocomplexity Theme Early Career Meetings, Carl Woese Institute for Genomic Biology, UIUC, IL, USA.

2019 Co-organizer and Chair, Invited Podium Symposium, “Primate hosts and microbial interactions and communities: disease, development and evolution”, American Associations of Physical Anthropologists, OH, USA.

2018-2019 Head of Fundraising Committee, Iranian Cultural Association, UIUC, USA. Applied and received $400 funding from UIUC’s Program Coordinating Council (PCC) for Yalda Night traditional events. Assisted in fundraising in Yalda night and several other events through selling food, T-shirt, etc.

2018-2019English Editor, Student Journal of Ecosphere, University of Tehran, Iran.

2018 Volunteer, Game Genomics Day, Carl Woese Institute for Genomic Biology (IGB), UIUC, USA.

2018Moderator, 4-H Illini Summer Academies, Department of Anthropology, UIUC, USA.

* 1. Board Member, Iranian Cultural Association, UIUC, USA.

2018 Chair, Contributed Poster Symposium, “Non-human genetic variation and population genetics”, American Associations of Physical Anthropologists, LA, USA

2017 Moderator, Stumpf Lab Outreach, Montessori School, Champaign, USA.

2016-2019 English Editor, Student Journal of Biosphere, University of Tehran, Iran.

2014-2015 Guest Speaker, Environmental Science Special Program, Jamejam Radio, Sari, Iran

2008 Student Volunteer, Second International Student Symposium of Biotechnology, UT, Iran

**PROFESSIONAL MEMBERSHIP**

2019-2020 Member, American Society for Microbiology, Washington, D.C., USA

2018-2019 Member, Society for Conservation Biology, Washington, D.C., USA.

2018-2019English Editor, Student Journal of Ecosphere, University of Tehran, Iran.

2017-2019 Iranian Cultural Association, Head of Fundraising Committee, UIUC, USA.

2016-2019 English Editor, Student Journal of Biosphere, University of Tehran, Iran.

2015-2019 Member, Association of Biological Anthropologists, UIUC, USA.

2014 Member, Society of Sustainable Development, Iran

2009-2016 Member, Iranian Cheetah Society (ICS), Iran.

**COMPUTER & ANALYTICAL SKILLS**

Coding R, Unix, SAS, Python

Software Galaxy, Scotty, SPSS, CANOCO, Minitab, Distance, ArcGIS, MEGA 7

Version Control Git

Analysis RNA-Seq Analysis, Microbiome Analysis (16S rRNA and Shotgun)

Design Illustrator, Photoshop

**LABORATORY TECHNIQUES**

Cell Biology Cell Culture, PBMC Isolation, Freezing Cells, Differential Cell Counting, Fluorescence Activated Cell Sorting (FACS), Flow Cytometry

Molecular Biology DNA Extraction and RNA Isolation, Making RNA-Seq libraries, PCR, Qubit Analysis

Other Endotoxin Detection Assays (Pyrogen and LAL)

**CERTIFICATIONS & WORKSHOPS**

2019 Professional Skills for Careers in Biosciences, Institute for Genomic Biology, UIUC, USA

2019 Microbiome Initiative Workshop, Carl Woese Institute for Genomic Biology, UIUC, USA.

2018 ChIP-seq Analysis, High-Performance Biological Computing, Carl Woese Institute for Genomic Biology, UIUC, USA.

2018 Intro to Linux & Biocluster, High-Performance Biological Computing & Computer & Network Resource Group, UIUC, USA.

2018 Excel 2016 Database Functions, WebStore/FAST3 Training,UIUC, USA.

2017 R Workshop Certificate of Completion, UIUC, USA.

2017 R Workshop, SBSRI Methods Series, UIUC, USA.

2017 Center for Innovation in Teaching and Learning (CITL), Workshop R II: Inferential Statistics with R, UIUC, USA.

2017 CITL Workshop R I: Getting Started with R, UIUC, USA.

2017 CITL Workshop SAS II: Inferential Statistics with SAS, UIUC, USA.

2017 Women's Coding Workshop (Software Carpentry Workshop), UIUC, USA.

2015 RNA-Sequencing Analysis, High-Performance Biological Computing, Carl Woese Institute for Genomic Biology, UIUC, USA.

2013 HSE Certificate (health, safety and environment), Quay Audit Limited, Iran.

2012 First Aid Certificate, Red Crescent Society, Iran.

2011 Successful Marketing Strategies, Khorshid School of Entrepreneurship for Women, Eurasia Foundation, USA.

2010 Business Plan Development, Khorshid School of Entrepreneurship for Women, Eurasia Foundation, USA.

**LANGUAGE PROFICIENCY**

Farsi: Native

English: Fluent

Arabic: Pre-intermediate

French: Basic