Biographical Sketch

Zhian Namir Kamvar
Department of Plant Pathology
University of Nebraska, Lincoln NE 68583
Phone: 541-286-0187; Email: zkamvar@unl.edu

Education and Training

Institution	Area	Degree	Awarded
Oregon State University	Botany and Plant Pathology	***Ph. D.***	2016-12-06
Truman State University	Biology	***B. Sc.***	2007-12-17

Research and Professional Experience

2017 – Present Postdoctoral Research Assistant, Department of Plant Pathology University of Nebraska (UNL), Lincoln, NE

2011 – 2016 Graduate Research Assistant, Department of Botany and Plant Pathology, Oregon State University (OSU), Corvallis, OR

Personal Statement

I am a first year postdoctoral scholar working in the intersection of plant pathology, fungal evolutionary biology, and data science. My Ph. D. dissertation focused on developing open source tools for reproducible analysis of clonal pathogen populations. **My ultimate research goal is to understand how clonal plant pathogen populations evolve in agricultural ecosystems.** As environmental pressures mount from management practices and changing climate, our food security depends on our knowledge of pathogen evolution. I am also dedicated to the practice of open and reproducible research as there are many well-documented benefits including the potential for making agricultural science a more diverse and inclusive field.

Ideally, I would like to pursue this goal by obtaining a faculty position with research and teaching responsibilities. This would place me in a situation where I would be able to contribute to plant pathology by both mentoring the future generation of scientists and pursuing my research interests on the evolution of clonal plant pathogens. The teacher training that I would receive through this fellowship would both aid in my acquisition of a faculty position and provide a course that I can take with me in a new position.

Synergistic Activities

Professional Service

1. ***Ad-hoc peer review for:*** Molecular Ecology, Methods in Ecology and Evolution
2. ***Maintainer of:*** NESCent Population Genetics in R website: popgen.nescent.org

Outreach

2012 – 2016	Co-creator and Host, *Inspiration Dissemination* — award-winning science communication radio program interviewing graduate students about their lives and research at Oregon State University.
2011 – 2015	Volunteer at *OSU Discovery Days* — teaching K-8 students about the diversity of plants and fungi.

Teaching Experience

Summer 2017	Introduction to R workshop, University of Nebraska-Lincoln and North-Central American Phytopathological Society Meeting, Champaign, IL
Summer 2016	Reproducible Research in R Workshop, American Phytopathological Society (APS) Annual Meeting, Tampa, FL
Spring 2016	Botany 101: A Human Concern, Graduate Teaching Assistant, OSU
Summer 2015	Population Genetics in R Workshop, APS Annual Meeting, Pasadena, CA
Summer 2014	Population Genetics in R Workshop, APS Annual Meeting, Minneapolis, MN
Spring 2014	Population Genetics in R Workshop, OSU
Winter 2012	Biology 212: Intro to Biology, Graduate Teaching Assistant, OSU
2008 – 2011	English Instructor, Daegu, South Korea
Fall 2007	Cell Biology, Undergraduate Teaching Assistant, TSU
Fall 2006	Cell Biology, Undergraduate Teaching Assistant, TSU

Awards and Honors

2016	Botany and Plant Pathology Grad. Student Assoc. Travel Award
2016	APS Foundation Student Travel Award
2015	APS Pacific Division Travel Award
2015	OSU Graduate School Travel Award
2015	National Evolutionary Synthesis Center (NESCent) Travel Award for Population Genetics in R Hackathon
2014	OSU Botany and Plant Pathology Anita Summers Travel Award
2014	Most Innovative [Radio] Program (*Intercollegiate Broadcasting System*)
2013	Seattle Institute For Statistical Genetics Travel Award
2006	Truman State University Summer Research Stipend
2003	Truman State University Presidential Leadership Scholarship

Peer-Reviewed Publications (last four years)

1. Grünwald NJ, Everhart SE, Knaus BJ, **Kamvar ZN**. (2017) Best practices for population genetic analyses. *Phytopathology* **In Press** doi: 10.1094/PHYTO-12-16-0425-RVW
2. Tabima JF, Everhart SE, Larsen MM, Weisberg AJ, **Kamvar ZN**, Tancos MA, Smart CD, Chang JH, Grünwald NJ. (2016) Microbe-ID: an open source toolbox for microbial genotyping and species identification. *PeerJ* **4**: e2279 doi: 10.7717/peerj.2279
3. Jombart T, Archer F, Schliep K, **Kamvar ZN**, Harris R, Paradis E, Goudet J, Lapp H (2016). apex: phylogenetics with multiple genes. *Molecular Ecology Resources*. **17**:1 19-26 doi: 10.1111/1755-0998.12567
4. **Kamvar ZN**, López-Uribe MM, Coughlan S, Grünwald NJ, Lapp H, Manel S (2016). Developing educational resources for population genetics in R: an open and collaborative approach. *Molecular Ecology Resources*. **17**:1 120-128 doi: 10.1111/1755-0998.12558
5. Grünwald NJ, Larsen MM, **Kamvar ZN**, Reeser PW, Kanaskie A, Laine J, Wiese R (2015) First report of the EU1 clonal lineage of *Phytophthora ramorum* on tanoak in an OR forest. *Plant Disease*. **100**:5, 1024-1024. doi: 10.1094/PDIS-10-15-1169-PDN
6. **Kamvar ZN**, Brooks JC and Grünwald NJ (2015) Novel R tools for analysis of genome-wide population genetic data with emphasis on clonality. *Front. Genet.* **6**: 208. doi: 10.3389/fgene.2015.00208
7. **Kamvar ZN**, Larsen MM, Kanaskie AM, Hansen EM, and Grünwald NJ. (2015) Spatial and temporal analysis of populations of the sudden oak death pathogen in Oregon forests. *Phytopathology*. **105**:7 982-989. doi: 10.1094/PHYTO-12-14-0350-FI.
8. Weiland JE, Garrido PA, **Kamvar ZN**, Marek SM, Grünwald NJ, and Garzón CD. (2015) Population structure of *Pythium irregulare*, *P. sylvaticum*, and *P. ultimum* in forest nursery soils of Oregon and Washington. *Phytopathology*. **105**:5 684-694. doi: 10.1094/PHYTO-05-14-0147-R
9. **Kamvar ZN**, Tabima JF, Grünwald NJ. (2014) *Poppr*: an R package for genetic analysis of populations with clonal, partially clonal, and/or sexual reproduction. PeerJ **2**: e281. doi: 10.7717/peerj.281