Anuj Sharma

anujsharma@ufl.edu

Postdoctoral Associate
Department of Plant Pathology
University of Florida

2550 Hull Rd, Gainesville, FL 32611
Phone (Work): (352) 273-4674
Website: anujs.com.np

EDUCATION

PhD in Plant Pathology 2021
University of Florida Gainesville, FL, USA

BS in Agriculture 2016
Tribhuvan University Chitwan, Bagmati, Nepal

RESEARCH EXPERIENCE

Postdoctoral Associate 2021–Present
University of Florida Gainesville, FL, USA
(Supervisors: Dr. Jeffrey B. Jones and Dr. Erica M. Goss)

- Elucidating the bacterial mutation rate of over tomato growing seasons.
- Exploring fitness role of *Xanthomonas perforans* bacteriocins.
- Fine mapping of *bs8* resistance gene against bacterial spot of pepper.

Graduate Research Assistant 2017–2021
University of Florida Gainesville, FL, USA
(Advisor: Dr. Jeffrey B. Jones)

- Understanding transcriptomic changes in citrus due to *Xanthomonas citri* infection.
- Study of mutation rate of *Xanthomonas* TAL effectors.
- Modelling the dispersal of *Xanthomonas perforans* in field and greenhouse.
- Understanding the role effector *XopJ2* in spread of *Xanthomonas perforans*.
- Mapping of novel bacterial spot resistance genes in pepper.

Research Intern 2016–2017
Nepal Agriculture Research Council Pokhara, Gandaki, Nepal
(Supervisor: Tirtha R. Pokharel)

- National coordinated varietal trials of several vegetable crops.
- Evaluation of various coffee rust biocontrol strategies.
- Resistance breeding against late blight resistance in tomato.

Undergrad Research Assistant 2015–2016
Tribhuvan University Chitwan, Bagmati, Nepal
(Advisor: Dr. Sundar M. Shrestha)

- Screening of finger millet accessions for blast resistance.
- Disease diagnosis for plant diagnostic clinic.

TEACHING EXPERIENCE

Guest Lectures

University of Florida — Gainesville, FL, USA

- **Intro to linux, sequence alignment and phylogenetics** — 2021–2022
  Course: Applied Population Genetic Analysis of Microbes
- **Epidemiology** — 2021–2022
  Course: Bacterial Plant Pathogens
- **Dissemination, survival, and ingress** — 2021–2022
  Course: Bacterial Plant Pathogens
- **Spatio-temporal Dispersal Modeling** — 2021
  Course: Leveraging AI in Plant Pathology
- **Stramenopiles** — 2020
  Course: Fungal Plant Pathogens
- **Identification of bacteria** — 2020
  Course: Bacterial Plant Pathogens

Teaching Assistant

University of Florida — Gainesville, FL, USA

- **Fungal Plant Pathogens** (Lab support and lab introduction) — 2020
- **Bacterial Plant Pathogens** (Lab support and lab introduction) — 2020
- **General Plant Pathology** (Lab preparation and lab introductions) — 2019

Workshops

- Plant Health 2021: **Basic Bioinformatics in Plant Pathology** — 2021
- Plant Health 2020: **Basic Bioinformatics in Plant Pathology** — 2020
- USAID Youth in Agriculture Bootcamp: **Web design for Agribusiness** — 2017

AWARDS

APS Foundation Student Travel Award — 2020
American Phytopathological Society

IFAS Travel Award — 2020
University of Florida, Institute of Food and Agricultural Sciences

PPGSO Travel Award — 2019
UF Plant Pathology Graduate Student Organization

Graduate School Preeminence Fellowship — 2017
University of Florida, Department of Plant Pathology

Merit Scholarship Award — 2012
Tribhuvan University, Institute of Agriculture and Animal Science

PROFESSIONAL AFFILIATIONS

American Association for the Advancement of Science		2021–Present
American Phytopathological Society		2017–Present
Florida Phytopathological Society		2017–Present
UF Plant Pathology Graduate Student Organization		2017–2021
UF Plant Pathology Graduate Student Organization	(Treasurer)	2019–2020
APS Graduate Student Arts Committee		2019–2020

PUBLICATIONS

RESEARCH PAPERS

Sharma A, Minsavage GV, Gill U, Hutton SF, and Jones JB. 2022. Identification and mapping of *bs8*, a novel locus conferring resistance to bacterial spot caused by *Xanthomonas gardneri*. Phytopathology. doi.org/10.1094/PHYTO-08-21-0339-R.

Sharma A, Ference CF, Shantharaj D, Baldwin EA, Manthey JA, and Jones JB. 2021. Transcriptomic analysis of changes in *Citrus* × *microcarpa* gene expression post *Xanthomonas citri* subsp. *citri* infection. European Journal of Plant Pathology 162(1):163-181. doi.org/10.1007/s10658-021-02394-6

Sharma A, Timilsina S, Abrahamian P, Minsavage GV, Colee J, Ojiambo PS, Goss E, Vallad GE, and Jones JB. 2021. Need for speed: Bacterial effector XopJ2 is associated with increased dispersal velocity of *Xanthomonas perforans*. Environmental Microbiology 23(10):5850-5865. doi.org/10.1111/1462-2920.15541.

Abrahamian P, **Sharma A**, Jones JB, and Vallad GE. 2020. Dynamics and spread of bacterial spot epidemics in tomato transplants produced for field production. Plant Disease 105(3):566-575. doi.org/10.1094/PDIS-05-20-0945-RE.

Bhatta A, **Sharma A**, Gautam P, Subedi B, Paudel M, Pariyar K, and Mishra S. 2017. Resistant and susceptible response of finger millet to seedling blast. (*Pyricularia grisea* SACC.). IJIRR 4(12):4804-4809.

REVIEW PAPERS

Sharma A, Jones JB, et al. 2022. Future of Bacterial Disease Management. Annual Review of Phytopathology 60:12. doi.org/10.1146/annurev-phyto-021621-121806. [Pending publication on May 2022]

Osdaghi E, Jones JB, **Sharma A**, Goss EM, Abrahamian A, Newberry EA, Potnis N, Carvalho R, Choudhary M, Paret ML, Timilsina S, and Vallad GE. 2021. A Centenary for Bacterial Spot of Tomato and Pepper. Molecular Plant Pathology 22(10):1500-1519. doi.org/10.1111/mpp.13125.

Sharma A, Jones JB, and White FF. 2019. Recent Advances in Developing Disease Resistance in Plants. F1000Research 2019, 8(F1000 Faculty Rev):1934. doi.org/10.12688/f1000research.20179.1.

Dickstein ER, **Sharma A**, Jones JB, et al. Recovery Plan for Ralstonia solanacearum Race 3 Biovar 2. [In Preparation]

BOOK CHAPTERS

Sharma A, Jones JB, Sundin G, and Miller SA. Initial Identification of Common Bacterial Genera. *In Laboratory Guide for Identification of Plant Pathogenic Bacteria, 4th Edition*. American Phytopathological Society (APS Press). [In Preparation]

Ham JH, **Sharma A**, Jones JB, and Chun W. *Burkholderia* and *Robbsia*. *In Laboratory Guide for Identification of Plant Pathogenic Bacteria, 4th Edition*. American Phytopathological Society (APS Press). [In Preparation]

Sharma A and Jones JB. Bacterial Spot. *In Compendium of Pepper Diseases, 2nd Edition*. American Phytopathological Society (APS Press). [In Preparation]

PRESENTATIONS

Transcriptomic analysis of changes in *Citrus* × *microcarpa* gene expression post *Xanthomonas citri* subsp. *citri* infection. Plant Health online 2021.

Role of *AvrBsT* in dispersal of *Xanthomonas perforans* and severity of bacterial spot of tomato. Plant Health 2019, Cleveland, OH, USA.

Characterization of bacterial spot resistance gene against *Xanthomonas gardneri* in Hungarian pepper. 16th Biennial Florida Phytopathological Society Meeting, Lake Alfred, FL, USA. 2019.

POSTERS

Genetic mapping of bacterial spot resistance gene against *Xanthomonas gardneri* in Hungarian pepper. Plant Health 2020.

REFERENCES

References will be provided upon request.