

**Rozalynne Samira, PhD**  
Research Assistant Professor  
Department of Plant and Soil Science  
Davis College of Agricultural Sciences and Natural Resources  
Texas Tech University  
Bayer Plant Science Building, Room 117C  
2911 15th Street  
Lubbock, TX 79409-2122  
rsamira@ttu.edu  
+1 (806) 834-7377  
<https://orcid.org/0000-0002-1494-1579>

## **EDUCATION**

2017	Ph.D.	North Carolina State University, USA (Plant Biology)
2011	M.Phil.	University of Dhaka, Bangladesh (Biochemistry)
2005	M.Sc.	Bangalore University, India (Biotechnology)
2003	B.Sc.	Bangalore University, India (Biotechnology)

## **PROFESSIONAL EXPERIENCE**

2021-Present	Research Assistant Professor, Texas Tech University.
2019-2021	Postdoctoral Scholar, Texas Tech University.
2017-2019	Postdoctoral Scholar, North Carolina State University.
2005-2008	Lecturer, University of Science and Technology Chittagong.

## **MEMBERSHIPS IN PROFESSIONAL SOCIETIES**

2012-Present	Member, American Society of Plant Biologists (ASPB)
2017-Present	Member, American Phytopathological Society (APS).

## **HONORS AND AWARDS**

2016	Poster Award in 11 <sup>th</sup> Graduate Student Research Symposium, 2016, NCSU, Raleigh, North Carolina, USA in Life Sciences category.
2014	Travel Grant for participating American Society for Plant Biologist (ASPB) Symposium, Texas, USA.
2014	Metallo biochemistry of Plant Poster award at the 9 <sup>th</sup> International Bio-metals Symposium, Durham, NC, USA
2009	Prime Minister Higher Education and Research Scholarship, Bangladesh,
2009	National Science and Information & Communication Technology (NSICT) Fellowship Bangladesh for pursuing M. Phil research.
2009	FAOBMB travel fellowship, for participating 21 <sup>st</sup> IUBMB and 12 <sup>th</sup> FAOBMB International Conference, Shanghai, China.

## **AREA OF EXPERTISE**

Plant Molecular Pathology, Molecular Biology, Abiotic Stress, Gene Regulatory Network, QTL mapping, Cellular and Molecular Imaging, Plant Biochemistry, Plant-Soil microbial interaction.

## **PUBLICATIONS**

1. **Rozalynne Samira**, Luis Fernando Samayoa, James Holland, Peter John Balint-Kurti, Characterization of a host-specific toxic activity produced by *Bipolaris cookei*, causal agent of Target Leaf Spot of Sorghum, *Phytopathology*, 2023
2. Shailesh Karre, Saet-Byul Kim, **Rozalynne Samira**, Peter Balint-Kurti, The maize ZmMIEL1 E3 ligase and ZmMYB83 transcription factor proteins interact and regulate the hypersensitive defence response, *Molecular Plant Pathology*, 2021.
3. **Rozalynne Samira**, Jennifer A. Kimball, Luis Fernando Samayoa, James B. Holland, Tiffany M. Jamann, Patrick J. Brown, Gary Stacey, Peter J. Balint-Kurti, Genome-wide association analysis of the strength of the MAMP-elicited defense response and resistance to target leaf spot in sorghum, *Scientific Reports*, 2020, Volume 10
4. **Rozalynne Samira**, Colin Murphree, Saet-Byul Kim, Shailesh Karre, Balint-Kurti Peter, Use of virus-induced gene silencing to characterize genes involved in modulating hypersensitive cell death in maize, *Molecular Plant Pathology*, Volume 21, Issue 12, Pages 1662-1676
5. **Rozalynne Samira**, Xinye Zhang, Jennifer Kimball, Yaya Cui, Gary Stacey, Peter J Balint-Kurti Quantifying MAMP-induced production of reactive oxygen species in sorghum and maize, *Bioprotocol*, 2019.
6. **Rozalynne Samira**, Baohua Li, Daniel Kleibenstien, Chunying Li, Eric Davis, Jeffrey W. Gillikin, Terri A. Long. bHLH transcription factor ILR3 modulates multiple stress responses in *Arabidopsis*, *Plant Molecular Biology*, 2018, Volume 97, Issue 4-5, Pages 297-309.
7. Devarshi Selote, **Rozalynne Samira**, Anna Matthiadis, Jeffrey W. Gillikin, Terri A. Long, Iron binding E3 ligase mediates iron response in plants by targeting bHLH transcription factors, *Plant Physiology*, 2015, Volume 167, Issue 1, Pages: 273-286.
8. **Rozalynne Samira**, Anna Stallmann, Lynnica N. Massenburg, Terri A. Long, Ironing out the issues: Integrated approaches to understanding iron homeostasis in plants, *Review Article*, *Plant Science*, Volume 210, September 2013, Pages 250-259.
9. **Rozalynne Samira**, Mahdi Muhammad Moosa, Md. Maksudul Alam, Shamima Islam Keka, Haseena Khan, In silico analysis of jute SSR library and experimental verification of assembly. *Plant Omics*, Volume 3, Issue 2, 2010.

10. Salim Ahmed, Md. Zinnatun Nabi, Md. Maksudul Alam, Md. Sazzadul Islam, **Rozalynne Samira**, Mahdi M Moosa, Haseena Khan, A computational and experimental approach for developing jute ESTs from genomic clones. Australian Journal of Crop Science, 2009.

## **PRESENTATIONS AND LECTURES**

### **Invited Speaker-**

1. Metabolic and transcriptomic responses of Sorghum bicolor to phosphate deficiency, ASPB Plant Biology, 2023, Savannah, Georgia, USA.
2. Characterization of the role of an iron-binding protein in seed development, 30th Annual Plant Molecular Biology Retreat, 2016, Wrightsville, North Carolina, USA.
3. Characterization of the role of an iron-binding protein in seed development, ASPB Plant Biology 2016, Austin, Texas, USA.
4. Bioinformatic Analysis of Genomic DNA of Jute, Plant Tissue Culture and Biotechnology Conference 2008, Dhaka, Bangladesh.
5. Identification of a bacterial stress response regulating gene like sequence in the chloroplast genome of low-temperature tolerant variety of jute, BAS-IAP-TWAS-NASIC International Conference on Gender Participation in the Development of Science, 2009 Dhaka, Bangladesh.

### **Poster Presentation-**

1. Physiological and molecular -genetic characterization of basal resistance in Sorghum, ASPB Plant Biology 2019, San Jose, California, USA.
2. Characterization of the role of an iron-binding protein in seed development, 11th Graduate Student Research Symposium, 2016, NCSU, Raleigh, North Carolina, USA.
3. Elucidation of an Iron deficiency response mechanism in Arabidopsis thaliana, Poster presentation, 9th International Bio-metals Symposium, 2014, Durham, NC, USA.
4. Identification of a bacterial stress response-regulating gene like sequence in the chloroplast genome of low-temperature tolerant variety of jute. Poster presentation, 21st IUBMB and 12 FAOBMB International Conference, 2009, Shanghai, China.

## **TEACHING RESPONSIBILITIES**

### **North Carolina State University (2014– 2016)**

PB-250: Plant Biology- Laboratory (Fall semester)  
PB 321: Whole Plant Physiology (Spring semester)  
PB 200: Plant Life – Laboratory (Fall semester)

### **University of Science and Technology Chittagong (2005-2007)**

BB-114: Introductory Biotechnology

BB-124: Human Physiology-I  
BB-314: Basic Immunology  
BB-325: Plant Biochemistry  
BB-415: Environmental Biotechnology

## **GRANTS AND AWARDS**

### **Funded:**

2023 PI, STEM Research Assistance Program, TTU, \$8000  
2023 Faculty travel grant Summer 2023 travel, \$1000  
2023 Women's Young Investigator Travel Award, American Society of Plant Biologists, \$1000  
2012 Bangladesh-Sweden Trust fund for Bangladeshi student traveling abroad, BDT/- 75000  
2009 Prime Minister Higher Education and Research Scholarship, Bangladesh, BDT/-140,000  
2009 National Science and Information & Communication Technology (NSICT) Fellowship  
Bangladesh, BDT/- 75,000

### **Pending:**

2024 PI, USDA-NIFA Capacity Building Grants for Non-Land Grant colleges of Agriculture  
Program, \$165,000.

### **Rejected:**

2023 PI, Research seed Funding, TTU, &8000  
2022 PI, USDA-NIFA Capacity Building Grants for Non-Land Grant colleges of Agriculture  
Program, \$149,995  
2021 PI, Research seed Funding, TTU, &4000  
2018 PI, Life Sciences research Foundation (LSRF), Post-Doctoral fellowship program,  
\$200,000.

## **SERVICE TO**

### **Department:**

2023 Judge, IGCAS Research Symposium, Plant and Soil Science, TTU  
2023 Judge, Graduate Student Research Symposium, Plant and Soil Science, TTU  
2022 Judge, Graduate Student Research Symposium, Plant and Soil Science, TTU

### **Davis College:**

2024 Volunteer, the South Plains Food Bank's GRUB Farm.  
2023 Volunteer, the South Plains Food Bank's GRUB Farm

### **Professional:**

2021 Reviewer of the journal Molecular Plant-Microbe Interaction (MPMI).  
2020 Reviewer of the journal Genes.