

Dr. Jacquelyn R. Jackson

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PROFESSIONAL PREPARATION

Tuskegee University	B.S., Plant and Soil Sciences
Tuskegee University	M.S., Plant and Soil Sciences
Iowa State University	Ph.D., Genetics

APPOINTMENTS

2008-Present	Research Assistant Professor of Molecular Biology and Genetics , <i>Department of Agricultural, Environmental and Natural Sciences</i> , Tuskegee University, Tuskegee, AL
1997	Soil Conservationist , <i>USDA Natural Resources Conservation Service</i> , McDonough, Georgia

RESEARCH EXPERIENCE

2008- Present	Research Assistant Professor , <i>Department of Agricultural, Environmental and Natural Sciences</i> , Tuskegee University, Tuskegee, AL
2000-2007	Doctoral Research , <i>Iowa State University, Ames, IA</i> Thesis: Characterization of barley yellow dwarf virus subgenomic RNAs Advisor: Dr. W. Allen Miller
1998	NASA Scholar, Lyndon B. Johnson Space Center, Houston, Texas Project: Established a micropropagation system for sweet potato in the Plant Growth Systems Development facility and conducted experiments to evaluate hydroponic wicks made from recycled plant biomass. Work was significant for future testing in the Variable Pressure Growth Chamber and the Advanced Life Support Systems Integration Test Bed. <i>Received special recognition for this work.</i>
1995	Undergraduate Internship, Michigan State University, East Lansing, MI Project: Discovered and analyzed a putative glucosyltransferases in <i>Arabidopsis</i> that showed sequence similarity to glucosyltransferases in <i>drosophila</i> . Mentor: Dr. Kenneth Keegstra
1994	Undergraduate Internship, Michigan State University, East Lansing, MI Project: Cloned cold-regulated genes in <i>Rizobium Meliloti</i> strain 1021 in an effort to better understand cold tolerance in plants. Mentor: Dr. Michael Thomashow
1993-1996	Undergraduate Research Assistant/ NASA Scholar , Center for Plant Biotechnology Research, Tuskegee, Alabama Advisor: C. S. Prakash

Leadership: Exceptional communication, organizational, public speaking and mentoring skills. As a master's student, I set up a tissue culture lab and trained staff in sweet potato tissue culture at Johnson's Space Center, Houston, TX.

Teaching: 16 years of experience in teaching undergraduate and graduate students. Use innovative teaching methods in lectures, such as video and online resources. Ability to engage students in discussion by relating course material to real world problems and events. *Courses taught include: Plant science (co-taught), Animal biotechnology, Genetics, Toxicology (co-taught), Epidemiology (co-taught) and Plant Pathology. Also, guest lectures in Animal science and International Agriculture student courses.*

GRANTS RECEIVED

2020-2024	PI on USDA APHIS AgDiscovery Summer Enrichment Program
2015	Co-PI on an NSF project entitled, "Joint NSF/ERA-CAPS: Host Targets of Fungal EFFECTORS AS KEYS TO DURABLE DISEASE RESISTANCE" under the direction of Iowa State University (ISU) PI: Dr. Roger Wise.
2013	Project Investigator (PI) of an AAAS Women's International Research Collaborations (WIRC) for Minority Serving Institutions (MSIs) grant
2013	Co-PI on USDA-AFRI sub-award in conjunction with Iowa State University; "TRANSGENIC APPROACHES IN MANAGING SUDDEN DEATH SYNDROME IN SOYBEAN" (ISU) PI: Dr. Madan Bhattacharyya
2010-2013	Project Investigator (PI) of USDA Capacity Building Research Grant (<i>Proposal 2010-02507</i>); "NUCLEOTIDE BINDING SITE (NBS) PROFILING OF RESISTANCE GENE ANALOGS IN THE SWEETPOTATOTRANSCRIPTOME"
2003-2006	NIH National Research Service Award Pre-doctoral Fellowship for Minority Students. (Grant No: 5F31AI056673-02)

FELLOWSHIPS, HONORS AND AWARDS

2013	Scientist Mentoring & Diversity Program for Biotechnology (SMDP Biotech) Scholar
2009	Gamma Sigma Delta Honor Society of Agriculture Outstanding Service Award, <i>Tuskegee University</i>
2009	Sigma XI Research Society Certificate, <i>Tuskegee University</i>
2008	Teaching for Higher Academic Performance Workshop Certificate, <i>Tuskegee University</i> (0.7 CEUs)
2008	Outstanding Leadership Award for Impacting Biotechnology to Educators and Students, <i>Tuskegee University</i>
2006 2003-2006	Student Travel Grant Award - American Society for Virology Ruth L. Kerchsentein Minority Fellowship Award-National Institutes of Health (NIH), <i>Iowa State University</i>
2000-2003	George Washington Carver Fellowship, <i>Iowa State University</i>
1998	NASA Scholar Certificate, <i>Johnson Space Center, Houston, Texas</i>

- 1998** NASA Recognition of an Exemplary Contribution Award - *Johnson Space Center, Houston, Texas*
- 1997** NASA Certificate of Special Recognition, *North Carolina*
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PROFESSIONAL SOCIETIES

- 2009-2026** Gamma Sigma Delta, *Ex Official*

VOLUNTEER/ LEADERSHIP ACTIVITIES

- 2022-Present** Program Coordinator for the Environment, Natural Resources and Plant/Soil Sciences Program
- 2020-present** Program Director for Agri-Trek and other CAENS summer programs.
- 2020-present** Program Coordinator for the K-12 Plant Biotechnology and Genomics Summer Workshop for Teachers
- 2019** Career Coordinator for the College of Agriculture, Tuskegee University
- 2013** Guest Speaker for health workshop at local church; talk entitled "How stress affects your genes"
- 2009-2013** Science Fair Judge for 7th graders; Floyd Middle Magnet School in Montgomery, Alabama
- 2013-2015** Coordinator for K-12 teacher and student summer workshops in Plant Biotechnology and Genomics, as well as for the iTAG Barley workshop for high school science teachers.

PUBLICATIONS

- Sparks, E., Shange, R., **Jackson, J.**, Khan, V., Currington, J.E., Ramble, A., Nathaniel, E., Hunter Jr., G.X., and Moore, J.L. 2018. The Evaluation of Two Different Harvesting 'Topbunch' and 'Hi-Crop' Collards (Brassica Oleracea (L)) Leaves from Plants Grown in a Wiregrass Tunnel House. Professional Agricultural Workers Journal 6(1):64-72.
- Miller, W. Allen, **Jackson, J** and Feng, Y. 2015. *Cis-* and *trans*-regulation of luteovirus gene expression by the 3' end of the viral genome. Virus Research, Volume 206, p 37-45
- Rakotondrafara, A. M., **Jackson, J.R.**, Pettit-Kneller, E. and Miller, W. A. 2007. Preparation and Electroporation of Oat Protoplasts from Cell Suspension Culture. Current Protocols in Microbiology, 16D.3.1-16D.3.12. John Wiley & Sons, Inc.

SYNERGISTIC ACTIVITIES

- 2021-present: Agri-Trek/Sci-Trek and CAENS Summer Enrichment Programs, Tuskegee University, Tuskegee, AL.** Served as Director of the summer programs within the college. (*Programs run annually each June*)

2020- Present: Plant Genomics and Biotechnology Teacher Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the workshop for high school teachers. (Held in June every summer)

2020-2021: AgDiscovery, Agri-Trek and FNR-TREK Summer Enrichment Program, Tuskegee University, Tuskegee, AL. Served as Director of the summer programs (held virtually) within the college.

2019: AgDiscovery, Agri-Trek and FNR-TREK Summer Enrichment Program, Tuskegee University, Tuskegee, AL. Served as Co-Director of the summer programs within the college. (June 8th-June 22nd, 2019)

2017: Plant Genomics and Biotechnology Teacher Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the workshop for high school teachers. (May 29th–June 2nd, 2017)

2016: iTAG Barley Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the workshop for high school teachers. (July 11-14th, 2016)

2016: Plant Genomics Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the Plant Genomics Workshop for K-12 students and teachers. (June 13-17th, 2016)

2015: Plant Genomics Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the Plant Genomics Workshop for K-12 students and teachers. (June 15-19th, 2015)

2015: Elected to serve as a member of the faculty senate

2014: Served as and adhoc NSF Panel Reviewer for the SBIR/STTR Program for Phase I proposals (Fall 2014)

2014: Plant Genomics Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the Plant Genomics Workshop for K-12 students and teachers. (June 15- June 20, 2014)

2013: Served as NSF Panel Reviewer for the SBIR/STTR Program for Phase I and II (Spring 2013 and Fall 2013)

2013: Plant Genomics Workshop, Tuskegee University, Tuskegee, AL. Organized and conducted the Plant Genomics Workshop for K-12 students and teachers. (July 29- August 2, 2013)

2010: Council for Scientific and Industrial Research (CSIR), Kumasi, Ghana: Served as an instructor for the Institute of Crop Research Regional Training in Biotechnology and Biosafety program. (July 12-25th)

2010: West Africa Centre for Crop Improvement (WACCI), Accra, Ghana: Served as an instructor teaching molecular biology for the WACCI summer program at the University of Ghana. (July 5-11th)

2009: Institute for Integrated Rural Development (IIRD) Sweet Potato Tissue Culture Project, Dhaka/Sherpur, Bangladesh: Served as a collaborator for IIRD to evaluate the progress of an ongoing sweetpotato tissue culture project in Sherpur, Bangladesh.

2008: Visiting Scientist at the Institute of Integrated Rural Development (IIRD) in Bangladesh. Trained laboratory staff in sweetpotato tissue culture techniques and established two local varieties into culture in an effort to address widespread malnutrition existing among the poor in Bangladesh.