

# Jason G. Wallace

Associate Professor

## Curriculum Vitae

January 2025

Department of Crop & Soil Sciences, University of Georgia  
wallacelab.uga.edu  
+1-706-542-9696  
jason.wallace@uga.edu  
jgwall  
jason-wallace-a874b845  
0000-0002-8937-6543

## Academic History

<b>Present Rank</b>	Associate Professor
<b>Recommended Rank</b>	Full Professor
<b>Proportion Time Assignment</b>	75% research, 20% teaching, 5% service
<b>Tenure Status</b>	Tenured
<b>Graduate Faculty</b>	2015-Present

## Education

2011	<b>Ph. D. – Yale University</b>	Molecular, Cellular and Developmental Biology
2008	<b>M. S. – Yale University</b>	Molecular, Cellular and Developmental Biology
2006	<b>B. S. – Brigham Young University</b>	Integrative Biology

## Professional Experience

2020–Present	<b>Associate Professor</b>	University of Georgia – Crop & Soil Sciences (Athens, GA)
2015–2020	<b>Assistant Professor</b>	University of Georgia – Crop & Soil Sciences (Athens, GA)
2012–2015	<b>Postdoctoral associate</b>	Cornell University (Ithaca, NY)
2006–2011	<b>Graduate research assistant</b>	Yale University (New Haven, CT)
2007–2007	<b>Graduate research intern</b>	Bristol-Myers Squibb Pharmaceuticals (Wallingford, CT)
2005–2006	<b>Undergraduate research assistant</b>	Brigham Young University (Provo, UT)

## Awards

March 2019	<b>Nomination - 40 under 40</b>	Georgia Trend Magazine
November 2018	<b>New Innovator in Food and Agriculture Research Award</b>	Foundation for Food and Agriculture Research
July 2015	<b>Travel Awards for Early Career Professionals</b>	Phytobiomes Conference 2015
2022	<b>Nomination – William Terrell Distinguished Professor</b>	UGA College of Agriculture and Environmental Sciences

## Instruction

### Instructor of Record

CRSS 8010	<b>Research Methods and Design in Crop Science</b> <ul style="list-style-type: none"><li>Fall 2016</li><li>Fall 2018</li><li>Fall 2020</li><li>Fall 2022</li><li>Fall 2024</li></ul>	3 credits
PBGG 8860	<b>PBGG Student Communication Seminar</b> <ul style="list-style-type: none"><li>Spring 2022</li><li>Spring 2023</li><li>Fall 2023</li><li>Spring 2024</li><li>Fall 2024</li><li>Spring 2025</li></ul>	1 credit
PBGG 8861	<b>PBGG Student Research Seminar</b> <ul style="list-style-type: none"><li>Spring 2022</li><li>Spring 2023</li><li>Fall 2023</li><li>Spring 2024</li><li>Fall 2024</li><li>Spring 2025</li></ul>	1 credit

PBGG 8874	<b>Genomic selection</b>	1 credit
	<ul style="list-style-type: none"> <li>• Spring 2017</li> <li>• Spring 2019</li> <li>• Spring 2021</li> <li>• Spring 2023</li> <li>• Spring 2025</li> </ul>	
PBGG 8875	<b>Genome-wide association in plants</b>	1 credit
	<ul style="list-style-type: none"> <li>• Spring 2017</li> <li>• Spring 2019</li> <li>• Spring 2021</li> <li>• Spring 2023</li> <li>• Spring 2025</li> </ul>	

### Guest Lectures

24 July 2024	<b>Plant Breeding Practicum – Maize (PBGG 6000)</b>
16 Apr 2024	<b>Genome-wide Association (CRSS 8872)</b>
6 July 2023	<b>Plant Breeding Practicum – Maize (PBGG 6000)</b>
22 Feb 2023	<b>Rigor and Reproducibility in Research (CBIO 8500)</b>
Fall 2022	<b>PBGG Student Research Seminar (PBGG 8861)</b>
Fall 2022	<b>PBGG Student Communication Seminar (PBGG 8860)</b>
6 July 2022	<b>Plant Breeding Practicum – Maize (PBGG 6000)</b>
30 Jun 2022	<b>Rigor and Reproducibility in Research (CTEGD Lunch &amp; Learn)</b>
12 Apr 2022	<b>Genome-wide Association (CRSS 8872)</b>
13 July 2021	<b>Plant Breeding Practicum – Maize (PBGG 6000)</b>
19 Feb 2021	<b>Rigor and Reproducibility in Research (CBIO 8500)</b>
Spring 2021	<b>PBGG Student Research Seminar (PBGG 8861)</b>
Spring 2021	<b>PBGG Student Communication Seminar (PBGG 8860)</b>
17 Sept 2020	<b>Genome-wide Association (CRSS 8872)</b>
24 May 2019	<b>Plant Breeding Practicum – Maize (PBGG 6000)</b>
20 & 27 Mar 2019	<b>Reproducibility in Research (CTEGD Lunch &amp; Learn)</b>
13 Feb 2019	<b>Maize Domestication (FYOS 1001)</b>
6 Mar 2018	<b>Genome-wide Association (CRSS 8820)</b>

### Workshop Instructor

23 Oct 2024	<b>Software Carpentry: R for Reproducible Scientific Analysis</b>	Fort Valley State University; Fort Valley, Georgia
26 Mar 2024	<b>Software Carpentry: Git</b>	UGA Libraries; Athens, Georgia
26 Sep 2023	<b>Software Carpentry: Git</b>	UGA Libraries; Athens, Georgia
15 May 2023	<b>Data Carpentry: Genomics</b>	UGA Institute of Bioinformatics; Athens, Georgia
16 May 2022	<b>Data Carpentry: Genomics</b>	UGA Institute of Bioinformatics; Athens, Georgia
2 Dec 2021	<b>Capacity-Building Workshop: Association Mapping in Plants</b>	Fort Valley State University; Fort Valley, Georgia
29 Oct 2021	<b>Software Carpentry: R for Reproducible Scientific Analysis</b>	UGA Institute of Bioinformatics; Athens, Georgia
5 Jan 2021	<b>Software Carpentry: Git and Python</b>	UGA Institute of Bioinformatics; Virtual
17 Jun 2020	<b>Software Carpentry: R for Reproducible Scientific Analysis (Session B)</b>	UGA Institute of Bioinformatics; Virtual
15 Jun 2020	<b>Software Carpentry: R for Reproducible Scientific Analysis (Session A)</b>	UGA Institute of Bioinformatics; Virtual
4 Dec 2019	<b>Software Carpentry: Unix, Git, and Python</b>	UGA Institute of Bioinformatics; Athens, Georgia
8 Mar 2019	<b>Software Carpentry: R for Reproducible Scientific Analysis</b>	UGA Institute of Bioinformatics; Athens, Georgia

### Student Mentorship

#### Chair (Current)

PhD 2024-present	<b>Behnke, Mary-Frances</b>	UGA Institute of Bioinformatics
PhD 2020-present	<b>Talamantes, Darrian</b>	UGA Institute of Bioinformatics

#### Chair (Prior)

PhD 2024	<b>Corut, Kivanc</b>	UGA Institute of Bioinformatics
----------	----------------------	---------------------------------

PhD 2023	<b>Aduragbemi, Amo</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Transfer to Texas A&M)
PhD 2023	<b>Li, Hanxia</b>	UGA Institute of Bioinformatics
PhD 2023	<b>Schultz, Corey</b>	UGA Institute of Bioinformatics
MS 2022	<b>Griffis, Holly</b>	UGA Department of Genetics
MS 2021	<b>Rodman, Naomi</b>	UGA Department of Crop & Soil Sciences (incomplete)
PhD 2020	<b>Johnson, Matthew</b>	UGA Institute of Plant Breeding, Genetics, and Genomics
MS 2020	<b>Kovar, Lynsey</b>	UGA Institute of Bioinformatics

**Co-Chair (Prior)**

PhD 2021	<b>Voghoei, Sahar</b>	UGA Department of Computer Science
----------	-----------------------	------------------------------------

**Committee Member (Current)**

PhD 2023-present	<b>Newton, Carter</b>	UGA Plant Pathology
PhD 2022-present	<b>Maharjan, Namrata</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Soraya Bertoli Lab)
PhD 2022-present	<b>Ployaram, Wiriyanat</b>	UGA Department of Crop & Soil Sciences (Andrew Patterson lab)
PhD 2021-present	<b>Pinchi Davila, Xiomy</b>	UGA Department of Plant Pathology (Annie Chung lab)
PhD 2021-present	<b>Zhang, Shufan</b>	UGA Institute of Bioinformatics (Jonathan Arnold lab)
PhD 2019-present	<b>Fernandez-Canela, Josue</b>	UGA Department of Plant Biology (Jeff Bennetzen Lab)
PhD 2019-present	<b>Piri, Rebecca</b>	UGA Institute of Bioinformatics (Kelly Dawe lab)

**Committee Member (Prior)**

PhD 2024	<b>Kwon, Khee-Man</b>	UGA Department of Plant Pathology (Melissa Mitchum lab)
PhD 2024	<b>Wright, Hallie</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Katrien Devos lab)
PhD 2023	<b>Bhattarai, Guarab</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Patrick Connor lab)
PhD 2023	<b>Fleming, Zachary</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Esther van der Knaap lab)
PhD 2023	<b>Miller, Mark</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
PhD 2023	<b>Sapkota, Manoj</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Esther van der Knaap lab)
MS 2023	<b>Wang, Li</b>	UGA Department of Plant Pathology (Pingsheng Ji lab)
PhD 2022	<b>Adhikari, Jeevan</b>	UGA Plant Genome Mapping Laboratory (Andy Paterson lab)
PhD 2022	<b>Choi, Soyeon</b>	UGA Department of Genetics (Katrien Devos lab)
PhD 2021	<b>Liu, Jianing</b>	UGA Department of Genetics (Kelly Dawe lab)
MS 2021	<b>Meinecke, Colton</b>	UGA Warnell School of Forestry (Caterina Villari lab)
MS 2021	<b>Park, Jubilee</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Wayne Parrott lab)
MS 2021	<b>Pathania, Sakshi</b>	UGA Department of Horticulture (Dario Chavez lab)
PhD 2021	<b>Singh, Lovepreet</b>	UGA Department of Crop & Soil Sciences (Joann Connor / Peggy Ozias-Akins lab)
MS 2021	<b>Spruell, Chandler</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Peggy Ozias-Akins lab)
PhD 2021	<b>Tran, Dung("Ivy")</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
MS 2020	<b>Conway, Tara</b>	UGA Plant Genome Mapping Laboratory (Andrew Paterson lab)
MS 2020	<b>Moore, Bryshal("Bri")</b>	Fort Valley State University Department of Plant Biotechnology (Som Punhuri lab)
PhD 2020	<b>Taitano, Nathan</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Esther van der Knaap lab)
PhD 2019	<b>Gimode, Davis</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Peggy Ozias-Akins lab)
PhD 2019	<b>Taborda, Carolina</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Scott Jackson lab)
PhD 2018	<b>Steketee, Clint</b>	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
PhD 2018	<b>Sumabat, Leilani</b>	UGA Department of Plant Pathology (Marin Brewer lab)

**Visiting Scientists**

Spring 2016	<b>Yuan, Yibing</b>	Graduate student	Sichuan Agricultural University, China
Aug 2023 – Feb 2024	<b>Bozic, Manja</b>	Graduate student	University of Belgrade, Serbia

Feb 2024 – Feb 2025 **Renato Correa** Postdoc University of São Paulo, Brazil

### Undergraduate Mentoring

Summer 2016	<b>Sanford, Tierra</b>	Undergraduate field technician (UGA)
2016-2017	<b>Bagwell, John</b>	Undergraduate field technician (UGA)
Summer 2016;	<b>Rodriguez, David</b>	REU student (New Mexico State University)
2016-2019	<b>Giangacomo, Cecelia</b>	Undergraduate researcher (UGA)
2017	<b>Forester, Ethan</b>	Undergraduate field technician (UGA)
Summer 2017	<b>Mcdonald, Miles</b>	Undergraduate field technician (UGA)
Summer 2017	<b>Randolf, Hayden</b>	Undergraduate field technician (UGA)
Summer 2017	<b>Bejdic, Haris</b>	Undergraduate field technician (UGA)
Spring 2018	<b>Daftarian, Melody</b>	Undergraduate intern (Athens Technical College)
Summer 2018	<b>Morris, Samuel</b>	Undergraduate field technician (UGA)
Summer 2018	<b>Sangoyomi, Bamidele</b>	Undergraduate field technician (UGA)
Summer 2018	<b>Caro, Spencer</b>	Undergraduate field technician (UGA)
Summer 2018	<b>Andrews, Amaja</b>	REEU student & McNair scholar (UGA)
Fall 2018	<b>Leake, Jackson</b>	Undergraduate technician (UGA)
2018-2019	<b>Fox, Laurel</b>	Undergraduate researcher (UGA)
Summer 2019	<b>Brantley, Kamaya</b>	REEU student (UGA)
Summer 2019	<b>Grindle, Coleman</b>	Undergraduate field technician (UGA)
Summer 2019	<b>McCabe, Allison</b>	Undergraduate field technician (UGA)
Summer 2020	<b>Moore, Nathan</b>	Undergraduate field technician (UGA)
Summer 2020	<b>Duling, Hadden</b>	Undergraduate field technician (UGA)
2019-2021	<b>Wideman, Kya</b>	Undergraduate researcher (UGA)
2020-present	<b>Kirkpatrick, Caitlin</b>	Undergraduate researcher (UGA)
Summer 2021	<b>Quinn, Marielle</b>	Undergraduate field technician (UGA)
Summer 2021	<b>Pinto, Evonne</b>	Undergraduate field technician (UGA)
2021-2022	<b>Sanders, Kai</b>	Undergraduate technician (UGA)
2022-present	<b>Desai, Hanish</b>	Undergraduate researcher (UGA)
2022-present	<b>Idaewor, Fran</b>	Undergraduate technician (UGA)
Summer 2022	<b>Collins, Emma</b>	Undergraduate field technician (UGA)
Summer 2022	<b>Obialor, Michella</b>	Undergraduate field technician (UGA)

### High School Students

Spring 2018 **Weinmeister, Nathan** Clarke Central High School

## Scholarly Activities

### Publications

	Research Article	Review	Book Chapter	Protocol
Associate Professor	27	3	0	5
Assistant Professor	16	2	1	1
Postdoc	1	1	0	0
PhD	3	0	0	0
<i>Total</i>	<i>47</i>	<i>6</i>	<i>1</i>	<i>6</i>

### Associate Professor (35)

- Wallace JG, Favela A, Raglin S: **Sampling and analysis of the maize microbiome**. *Cold Spring Harbor Protocols* 2024, doi:[10.1101/pdb.top108463](https://doi.org/10.1101/pdb.top108463).
- Favela A, Raglin S, Wallace JG: **Sampling root-associated microbiome communities of maize (zea mays)**. *Cold Spring Harbor Protocols* 2024, doi:[10.1101/pdb.prot108580](https://doi.org/10.1101/pdb.prot108580).
- Wallace JG: **Sampling the maize (zea mays) leaf microbiome**. *Cold Spring Harbor Protocols* 2024, doi:[10.1101/pdb.prot108581](https://doi.org/10.1101/pdb.prot108581).
- Wallace JG, Laspisa D: **Sampling maize (zea mays) seed endophytes**. *Cold Spring Harbor Protocols* 2024, doi:[10.1101/pdb.prot108582](https://doi.org/10.1101/pdb.prot108582).
- Wallace JG, Griffis H: **Preparation of illumina 16s amplicon sequencing libraries with peptide nucleic acids (PNAs) for the analysis of maize-associated microbiomes**. *Cold Spring Harbor Protocols* 2024, doi:[10.1101/pdb.prot108583](https://doi.org/10.1101/pdb.prot108583).

6. Raglin SS, Favela A, Laspisa D, Wallace JG: **Manipulating the maize (zea mays) microbiome**. *Cold Spring Harbor Protocols* 2024, doi:[10.1101/pdb.prot108584](https://doi.org/10.1101/pdb.prot108584).
7. Vetriventhan M, Upadhyaya HD, Deshpande S, Johnson MS, Wallace JG, Victor A, Naresh D, Rayaprolu L, Singh K, Mayes S: **Genome-wide assessment of population structure and association mapping for agronomic and grain nutritional traits in proso millet (panicum miliaceum l.)**. *Scientific Reports* 2024, **14**.
8. Kvitko B, Wallace J, Desai HV, Lavender HF, Mijatovic J, Techtman S, Christner BC, Smith A: **Metagenomic analysis of a glacial ice core record from the contiguous united states**. 2024, doi:[10.21203/rs.3.rs-5045654/v1](https://doi.org/10.21203/rs.3.rs-5045654/v1).
9. Kusmec A, Yeh C'Eddy', Schnable PS: **Data-driven identification of environmental variables influencing phenotypic plasticity to facilitate breeding for future climates**. *New Phytologist* 2024, **244**:618–634.
10. Tran DT, Mitchum MG, Zhang S, Wallace JG, Li Z: **Soybean microbiome composition and the impact of host plant resistance**. *Frontiers in Plant Science* 2024, **14**.
11. Gimode D, Wallace J, Holbrook C, Isleib TG, Chu Y, Virk S, Porter W, Ozias-Akins P: **Genomic selection as an approach to select for reduced aflatoxin contamination in peanut under terminal drought stress**. *Peanut Science* 2024, **51**:18–31.
12. Punhuri S, Wallace J, Knoll J: **High-density genotyping for pearl millet linkage map improvement with next-generation sequencing data**. *The pearl millet genome* 2024, doi:[10.1007/978-3-031-56976-0\\_7](https://doi.org/10.1007/978-3-031-56976-0_7).
13. Talamantes D, Kirkpatrick C, Wallace J: **Developing robust quantitative PCR primers for comparative biomass analysis of tall fescue (festuca arundinacea) and its epichloë endophyte**. 2024, doi:[10.17912/micropub.biology.001275](https://doi.org/10.17912/micropub.biology.001275).
14. Corut AK, Wallace JG: **kGWASflow: A modular, flexible, and reproducible snakemake workflow for k-mers-based GWAS**. *G3: Genes, Genomes, Genetics* 2023, **14**.
15. Laspisa D, Illa-Berenguer E, Bang S, Schmitz RJ, Parrott W, Wallace J: **Mining the utricularia gibba genome for insulator-like elements for genetic engineering**. *Frontiers in Plant Science* 2023, **14**.
16. Lima DC, Aviles AC, Alpers RT, Perkins A, Schoemaker DL, Costa M, Michel KJ, Kaeppler S, Ertl D, Romay MC, et al.: **2020-2021 field seasons of maize GxE project within the genomes to fields initiative**. *BMC Research Notes* 2023, **16**.
17. Li H, Hill N, Wallace J: **A perennial living mulch system fosters a more diverse and balanced soil bacterial community**. *PLOS ONE* 2023, **18**:e0290608.
18. Lima DC, Washburn JD, Varela JI, Chen Q, Gage JL, Romay MC, Holland J, Ertl D, Lopez-Cruz M, Aguade FM, et al.: **Genomes to fields 2022 maize genotype by environment prediction competition**. *BMC Research Notes* 2023, **16**.
19. Adak A, Murray SC, Calderón CI, Infante V, Wilker J, Varela JI, Subramanian N, Isakeit T, Ané J-M, Wallace J, et al.: **Genetic mapping and prediction for novel lesion mimic in maize demonstrates quantitative effects from genetic background, environment and epistasis**. *Theoretical and Applied Genetics* 2023, **136**.
20. Lima DC, Aviles AC, Alpers RT, McFarland BA, Kaeppler S, Ertl D, Romay MC, Gage JL, Holland J, Beissinger T, et al.: **2018-2019 field seasons of the maize genomes to fields (G2F) g x e project**. *BMC Genomic Data* 2023, **24**.
21. Schultz CR, Johnson M, Wallace JG: **Effects of inbreeding on microbial community diversity of zea mays**. *Microorganisms* 2023, **11**:879.
22. Kick DR, Wallace JG, Schnable JC, Kolkman JM, Alaca B, Beissinger TM, Edwards J, Ertl D, Flint-Garcia S, Gage JL, et al.: **Yield prediction through integration of genetic, environment, and management data through deep learning**. *G3: Genes, Genomes, Genetics* 2023, **13**.
23. Wallace JG: **Maize seed endophytes**. *Molecular Plant Pathology* 2022, **24**:801–810.
24. Chandnani R, Kim C, Patel JD, Guo H, Shehzad T, Wallace JG, He D, Zhang Z, Adhikari J, Khanal S, et al.: **Identification of small effect quantitative trait loci of plant architectural, flowering, and early maturity traits in reciprocal interspecific introgression population in cotton**. *Frontiers in Plant Science* 2022, **13**.
25. Punhuri SM, Ayele AG, Harris-Shultz KR, Knoll JE, Coffin AW, Tadesse HK, Armstrong JS, Wiggins TK, Li H, Sattler S, et al.: **Genome-wide association mapping of resistance to the sorghum aphid in sorghum bicolor**. *Genomics* 2022, **114**:110408.
26. Schultz CR, Brantley KM, Wallace JG: **The role of genetic variation in zea mays response to beneficial endophytes**. *Plant Growth Regulation* 2022, **98**:167–177.
27. Park JY, Kovar L, LaFayette PR, Wallace JG, Parrott WA: **Plant-derived insulator-like sequences for control of transgene expression**. 2021, doi:[10.1101/2021.11.04.467280](https://doi.org/10.1101/2021.11.04.467280).
28. Brown N, Branch WD, Johnson M, Wallace J: **Genetic diversity assessment of georgia peanut cultivars developed during ninety years of breeding**. *The Plant Genome* 2021, **14**.
29. Johnson MS, Wallace JG: **Genomic and chemical diversity of commercially available high-CBD industrial hemp accessions**. *Frontiers in Genetics* 2021, **12**.
30. Hill NS, Levi M, Basinger N, Thompson A, Cabrera M, Wallace J, Saikawa E, Avramov A, Mullican J: **White clover living mulch enhances soil health vs. Annual cover crops**. *Agronomy Journal* 2021, **113**:3697–3707.

31. Wang X, Chen S, Ma X, Yssel AEJ, Chaluvadi SR, Johnson MS, Gangashetty P, Hamidou F, Sanogo MD, Zwaenepoel A, et al.: **Genome sequence and genetic diversity analysis of an under-domesticated orphan crop, white fonio (*digitaria exilis*)**. *GigaScience* 2021, **10**.
32. Giangacomio C, Mohseni M, Kovar L, Wallace JG: **Comparing DNA extraction and 16S rRNA gene amplification methods for plant-associated bacterial communities**. *Phytobiomes Journal* 2021, **5**:190–201.
33. Rogers AR, Dunne JC, Romay C, Bohn M, Buckler ES, Ciampitti IA, Edwards J, Ertl D, Flint-Garcia S, Gore MA, et al.: **The importance of dominance and genotype-by-environment interactions on grain yield variation in a large-scale public cooperative maize experiment**. *G3 Genes| Genomes| Genetics* 2021, **11**.
34. Diepenbrock CH, Ilut DC, Magallanes-Lundback M, Kandianis CB, Lipka AE, Bradbury PJ, Holland JB, Hamilton JP, Wooldridge E, Vaillancourt B, et al.: **Eleven biosynthetic genes explain the majority of natural variation in carotenoid levels in maize grain**. *The Plant Cell* 2020, **33**:882–900.
35. McFarland BA, AlKhalifah N, Bohn M, Bubert J, Buckler ES, Ciampitti I, Edwards J, Ertl D, Gage JL, Falcon CM, et al.: **Maize genomes to fields (G2F): 2014–2017 field seasons: Genotype, phenotype, climatic, soil, and inbred ear image datasets**. *BMC Research Notes* 2020, **13**.

#### Assistant Professor (20)

1. Johnson M, Deshpande S, Vetriventhan M, Upadhyaya HD, Wallace JG: **Genome-wide population structure analyses of three minor millets: Kodo millet, little millet, and proso millet**. *The Plant Genome* 2019, **12**.
2. Harris-Shultz KR, Davis RF, Wallace J, Knoll JE, Wang H: **A novel QTL for root-knot nematode resistance is identified from a south african sweet sorghum line**. *Phytopathology*® 2019, **109**:1011–1017.
3. Voghoei S, Hashemi Tonekaboni N, Wallace JG, Arabnia HR: **Deep learning at the edge**. *2018 international conference on computational science and computational intelligence (CSCI)* 2018, doi:10.1109/csci46756.2018.00177.
4. Wallace JG, Rodgers-Melnick E, Buckler ES: **On the road to breeding 4.0: Unraveling the good, the bad, and the boring of crop quantitative genomics**. *Annual Review of Genetics* 2018, **52**:421–444.
5. Walters WA, Jin Z, Youngblut N, Wallace JG, Sutter J, Zhang W, González-Peña A, Peiffer J, Koren O, Shi Q, et al.: **Large-scale replicated field study of maize rhizosphere identifies heritable microbes**. *Proceedings of the National Academy of Sciences* 2018, **115**:7368–7373.
6. Dawe RK, Lowry EG, Gent JJ, Stitzer MC, Swentowsky KW, Higgins DM, Ross-Ibarra J, Wallace JG, Kanizay LB, Alabady M, et al.: **A kinesin-14 motor activates neocentromeres to promote meiotic drive in maize**. *Cell* 2018, **173**:839–850.e18.
7. Pucher A, Hash CT, Wallace JG, Han S, Leiser WL, Haussmann BIG: **Mapping a male-fertility restoration locus for the A4 cytoplasmic-genic male-sterility system in pearl millet using a genotyping-by-sequencing-based linkage map**. *BMC Plant Biology* 2018, **18**.
8. Chandnani R, Kim C, Guo H, Shehzad T, Wallace JG, He D, Zhang Z, Patel JD, Adhikari J, Khanal S, et al.: **Genetic analysis of gossypium fiber quality traits in reciprocal advanced backcross populations**. *The Plant Genome* 2018, **11**.
9. Wallace JG, Kremling KA, Kovar LL, Buckler ES: **Quantitative genetics of the maize leaf microbiome**. *Phytobiomes Journal* 2018, **2**:208–224.
10. Wallace JG, May G: **Endophytes: The other maize genome**. *The maize genome* 2018, doi:10.1007/978-3-319-97427-9\_14.
11. Diepenbrock CH, Kandianis CB, Lipka AE, Magallanes-Lundback M, Vaillancourt B, Góngora-Castillo E, Wallace JG, Cepela J, Mesberg A, Bradbury PJ, et al.: **Novel loci underlie natural variation in vitamin e levels in maize grain**. *The Plant Cell* 2017, **29**:2374–2392.
12. Varshney RK, Shi C, Thudi M, Mariac C, Wallace J, Qi P, Zhang H, Zhao Y, Wang X, Rathore A, et al.: **Pearl millet genome sequence provides a resource to improve agronomic traits in arid environments**. *Nature Biotechnology* 2017, **35**:969–976.
13. Strable J, Wallace JG, Unger-Wallace E, Briggs S, Bradbury PJ, Buckler ES, Vollbrecht E: **Maize YABBY genes drooping leaf1 and drooping leaf2 regulate plant architecture**. *The Plant Cell* 2017, **29**:1622–1641.
14. Wallace JG, Mitchell SE: **Genotyping-by-sequencing**. *Current Protocols in Plant Biology* 2017, **2**:64–77.
15. McCaw ME, Wallace JG, Albert PS, Buckler ES, Birchler JA: **Fast-flowering mini-maize: Seed to seed in 60 days**. *Genetics* 2016, **204**:35–42.
16. Wallace JG, Zhang X, Beyene Y, Semagn K, Olsen M, Prasanna BM, Buckler ES: **Genome-wide association for plant height and flowering time across 15 tropical maize populations under managed drought stress and well-watered conditions in sub-saharan africa**. *Crop Science* 2016, **56**:2365–2378.
17. Punhuri SM, Wallace JG, Knoll JE, Hyma KE, Mitchell SE, Buckler ES, Varshney RK, Singh BP: **Development of a high-density linkage map and tagging leaf spot resistance in pearl millet using genotyping-by-sequencing markers**. *The Plant Genome* 2016, **9**.
18. Upadhyaya HD, Vetriventhan M, Deshpande SP, Sivasubramani S, Wallace JG, Buckler ES, Hash CT, Ramu P: **Population genetics and structure of a global foxtail millet germplasm collection**. *The Plant Genome* 2015, **8**.



19. Zhang N, Gibon Y, Wallace JG, Lepak N, Li P, Dedow L, Chen C, So Y-S, Kremling K, Bradbury PJ, et al.: **Genome-wide association of carbon and nitrogen metabolism in the maize nested association mapping population**. *Plant Physiology* 2015, **168**:575–583.
20. Wallace JG, Upadhyaya HD, Vetriventhan M, Buckler ES, Tom Hash C, Ramu P: **The genetic makeup of a global barnyard millet germplasm collection**. *The Plant Genome* 2015, **8**.

#### Postdoc (2)

1. Wallace JG, Bradbury PJ, Zhang N, Gibon Y, Stitt M, Buckler ES: **Association mapping across numerous traits reveals patterns of functional variation in maize**. *PLoS Genetics* 2014, **10**:e1004845.
2. Wallace JG, Larsson SJ, Buckler ES: **Entering the second century of maize quantitative genetics**. *Heredity* 2013, **112**:30–38.

#### PhD (3)

1. Wallace JG, Zhou Z, Breaker RR: **OLE RNA protects extremophilic bacteria from alcohol toxicity**. *Nucleic Acids Research* 2012, **40**:6898–6907.
2. Wallace JG, Breaker RR: **Improved genetic transformation methods for the model alkaliphile bacillus halodurans c-125: Bacillus halodurans transformation**. *Letters in Applied Microbiology* 2011, **52**:430–432.
3. Block KF, Puerta-Fernandez E, Wallace JG, Breaker RR: **Association of OLE RNA with bacterial membranes via an RNA-protein interaction**. *Molecular Microbiology* 2010, **79**:21–34.

#### Meetings attended

\* = speaker, † = poster, § = international scope

#### Associate Professor (38)

##### 2024 (7)

- § **Phytobiomes 2024**; St. Louis, Missouri (November 2024)
- UGA Plant Center Retreat**; Pine Mountain, Georgia (November 2024)
- \* § **DragonCon 2024**; Atlanta, Georgia (August 2024)
- UGA Institute of Plant Breeding, Genetics, and Genomics Retreat**; Hiawasee, Georgia (May 2024)
- \* **AI In Plant Breeding Symposium**; Athens, Georgia (April 2024)
- \* § **66th Annual Maize Genetics Conference**; Raleigh, North Carolina (March 2024)
- \* § **Plant & Animal Genome 31**; San Diego, California (January 2024)

##### 2023 (7)

- UGA Plant Center Retreat**; Young Harris, Georgia (December 2023)
- † **26th Annual Plant Genome Research Program Awardee Meeting**; Washington, D.C. (September 2023)
- \* § **DragonCon 2023**; Atlanta, Georgia (August 2023)
- † **Plant Biology 2023 (American Society of Plant Biologists)**; Savannah, Georgia (August 2023)
- UGA Institute of Plant Breeding, Genetics, and Genomics Retreat**; Columbus, Georgia (May 2023)
- § **65th Annual Maize Genetics Conference**; St. Louis, Missouri (March 2023)
- § **Plant & Animal Genome 30**; San Diego, California (January 2023)

##### 2022 (9)

- UGA Plant Center Retreat**; Young Harris, Georgia (December 2022)
- Georgia Plant Conservation Alliance Annual Meeting**; Brunswick, Georgia (November 2022)
- § **Phytobiomes**; Denver, Colorado (September 2022)
- † **25th Annual Plant Genome Research Program Awardee Meeting**; Washington, D.C. (September 2022)
- \* § **DragonCon 2022**; Atlanta, Georgia (September 2022)
- †§ **18th International Symposium on Microbial Ecology**; Lausanne, Switzerland (August 2022)
- UGA Institute of Plant Breeding, Genetics, and Genomics Retreat**; Jekyll Island, Georgia (May 2022)
- § **64th Annual Maize Genetics Conference**; St. Louis, Missouri (March 2022)
- \* § **Plant & Animal Genome XXIX**; Virtual (January 2022)

##### 2021 (8)

- UGA Plant Center Retreat**; Brasstown Bald, Georgia (December 2021)
- † **Plant Genome Research Program 24th Annual Awardee Meeting**; Virtual (September 2021)
- American Society of Plant Biologists Annual meeting**; Virtual (July 2021)
- UGA Institute of Plant Breeding, Genetics, and Genomics Retreat**; Virtual (May 2021)

**Transdisciplinary Research in Plant Sciences and Engineering: from Precision Agriculture to Synthetic Biology;** Virtual (May 2021)

**Microbiome for Agriculture Congress;** Virtual (March 2021)

†§ **63rd Annual Maize Genetics Conference;** Virtual (March 2021)

\* **Microbiome Movement AgBiotech;** Virtual (February 2021)

## 2020 (7)

**Plant Genome Research Program 23rd Annual Awardee Meeting;** Virtual (September 2020)

\* **National Association of Plant Breeders Annual Meeting;** Virtual (August 2020)

§ **62nd Annual Maize Genetics Conference;** Virtual (June 2020)

**Collective Behavior (UGA Institute of Bioinformatics Symposium);** Athens, Georgia (March 2020)

\* **Illinois' Corn Breeders' School;** Champaign, Illinois (March 2020)

**Plants by Design;** Athens, Georgia (February 2020)

\* **FFAR Foster Our Future;** Washington, D.C. (February 2020)

## Assistant Professor (31)

## 2019 (5)

\* § **ASA-CSSA-SSSA Annual Meeting;** Tampa, Florida (November 2019)

† **Plant Genome Research Program 22nd Annual Awardee Meeting;** Arlington, Virginia (September 2019)

**National Association of Plant Breeders Annual Meeting;** Pine Mountain, Georgia (August 2019)

†§ **61st Annual Maize Genetics Conference;** St. Louis, Missouri (March 2019)

\* § **Plant & Animal Genome XXVII;** San Diego, California (January 2019)

## 2018 (6)

**UGA Plant Center Retreat;** Helen, Georgia (September 2018)

† **Plant Genome Research Program 21st Annual Awardee Meeting;** Arlington, Virginia (September 2018)

\* § **China Agricultural University and University of Georgia Joint Research Project Symposium;** Beijing, China (July 2018)

† **Wild and Tame Phytobiomes;** University Park, Pennsylvania (June 2018)

\* § **60th Annual Maize Genetics Conference;** Saint Malo, France (March 2018)

**NIFA FACT Workshop – High-throughput, field-based phenotyping technologies for the Genomes to Fields (G2F) initiative;** Ames, Iowa (January 2018)

## 2017 (9)

\* **Corn Breeder's Research Conference;** Chicago, Illinois (December 2017)

**UGA Plant Center Retreat;** Helen, Georgia (October 2017)

\* **ASA-CSSA-SSSA Annual Meeting;** Tampa, Florida (October 2017)

**Parsing the Microbiome (UGA Institute of Bioinformatics Symposium);** Athens, Georgia (September 2017)

\* **Annual Meeting of the Mycological Society of America;** Athens, Georgia (July 2017)

**UGA Institute of Plant Breeding, Genetics, and Genomics Retreat;** Lake Blackshear, Georgia (May 2017)

**Advancing Plant Sciences: Where is the research leading us?;** Athens, Georgia (May 2017)

†§ **59th Annual Maize Genetics Conference;** St. Louis, Missouri (March 2017)

\* § **Plant & Animal Genome XXV;** San Diego, California (January 2017)

## 2016 (8)

†§ **Phytobiomes: From Microbes to Plant Ecosystems;** Santa Fe, New Mexico (November 2016)

**UGA Plant Center Retreat;** Helen, Georgia (October 2016)

\* § **7th International Crops Science Congress;** Beijing, China (August 2016)

\* **UGA Institute of Plant Breeding, Genetics, and Genomics Retreat;** Athens, Georgia (May 2016)

**Joe L. Key Symposium;** Athens, Georgia (May 2016)

\* § **BMZ Heterosis meeting;** Niamey, Niger (April 2016)

\* § **58th Annual Maize Genetics Conference;** Jacksonville, Florida (March 2016)

\*†§ **Plant and Animal Genome XXIV;** San Diego, California (January 2016)

## 2015 (3)

\* **UGA Plant Center Retreat;** Helen, Georgia (October 2015)

\* § **Phytobiomes 2015;** Washington, D.C. (July 2015)

†§ **57th Annual Maize Genetics Conference;** St. Charles, Illinois (March 2015)



## Invited Presentations

§ = international scope

### Associate Professor (18)

- 06 Nov 2024 **Elusive Partnerships: Quantifying the Relationships between Maize, the Environment, and the Microbiome.** Texas A&M Plant Pathology & Microbiology Departmental Seminar (College Station, Texas).
- 24 Apr 2024 **AI in Plant Breeding – Panel Discussion.** UGA AI in Plant Breeding Symposium (Athens, Georgia).
- 02 Mar 2024 § **Genetic & Environmental Impacts on the Maize Microbiome across the United States.** 66th Annual Maize Genetics Conference (Raleigh, North Carolina).
- 23 Jan 2024 **The Genomes to Fields Initiative.** Georgia Corn Short Course (Tifton, Georgia).
- 15 Jan 2024 § **Genetic, Environmental, and GxE Effects of the Maize Microbiome across the United States.** Plant & Animal Genome 30 (San Diego, California).
- 04 Oct 2023 **Productive Partnerships: Helping plants and microbes work better together.** University of Wisconsin Plant Cellular & Molecular Biology seminar series (Madison, Wisconsin).
- 15 Jan 2022 § **A Large, Full Diallel of Tall Fescue for Dissecting Plant-Microbe Mutualism.** Plant & Animal Genome XXIX (Virtual).
- 18 Nov 2021 **Thanks for the Little Monsters: What We Owe Our Microbes.** Athens Science Cafe (Athens, Georgia).
- 17 Sep 2021 **Habitat or Mastermind? How maize shapes its microbiomes.** University of Wisconsin Department of Plant Breeding & Plant Genetics seminar series (Madison, Wisconsin).
- 15 Jun 2021 **What You'll Wish You'd Known in Grad School.** UGA Institute of Bioinformatics Seminar Series (Athens, Georgia).
- 12 Apr 2021 **The Twists and Turns of an Agricultural Research and Communication Career in Academia.** NAPB Early Career Working Group Webinar (Virtual).
- 25 Mar 2021 **Genotype-by-Genotype Interactions between Corn and Microbes.** Genetics of Maize-Microbe Interactions seminar series (Virtual).
- 17 Mar 2021 **Habitat or Mastermind? The role of plant genetics in shaping microbiomes.** UGA Department of Animal & Dairy Science Seminar Series (Athens, Georgia).
- 22 Feb 2021 **Investigating genotype-by-genotype interactions between corn and microbes.** Microbiome Movement AgBiotech (Virtual).
- 23 Oct 2020 **Understanding Genotype-by-Genotype Interactions between Crops and Microbes.** University of Illinois at Urbana-Champaign Departmental Seminar Series (Virtual [Urbana-Champaign, Illinois]).
- 19 Aug 2020 **Understanding Genotype-by-Genotype Interactions between Corn and Microbes.** National Association of Plant Breeders Annual Meeting (Virtual).
- 02 Mar 2020 **Genotype-by-Genotype Interactions between Corn and Microbes.** Illinois' Corn Breeders' School (Champaign, Illinois).
- 05 Feb 2020 **Harnessing Endophytes to Improve Agriculture.** FFAR Foster Our Future (Washington, D.C.).

### Assistant Professor (29)

- 11 Nov 2019 **Unraveling the Mechanisms of Microbe-Induced Abiotic Stress tolerance in Plants.** Crop Science Society of America annual meeting (San Antonio, Texas).
- 22 Jul 2019 **Harnessing Microbes to Improve Agriculture.** Noble Research Institute seminar (Ardmore, Oklahoma).
- 13 Apr 2019 **The Effect of Host Genetics on the Maize Leaf Microbiome.** UGA Microbiome Seminar Series (Athens, Georgia).
- 16 Jan 2019 § **Genomics of Crop-Microbiome interactions.** Plant & Animal Genome XXVII (San Diego, California).
- 06 Nov 2018 § **La Microbiome del Maíz.** UNITEC Universidad Tecnológica de México – Campus León Seminar Series (Guanajuato, Mexico (via webinar)).
- 12 Oct 2018 **Harnessing Plant Microbiomes for Agriculture.** University of Kentucky Department of Plant & Soil Sciences Seminar Series (Lexington, Kentucky).
- 23 Jul 2018 § **Quantitative Genetics of the Maize Microbiome.** Chinese Agriculture University – University of Georgia collaboration conference (Beijing, China).
- 22 Mar 2018 § **The Maize Microbiome.** MaizeGDB workshop in conjunction with the 60th Annual Maize Genetics Conference (Saint Malo, France).
- 19 Feb 2018 **Quantitative genetics of the maize microbiome.** UGA Plant Pathology Seminar Series (Athens, Georgia).
- 04 Dec 2017 **The Maize Microbiome as a Target for Breeding and Management.** Annual Corn Breeder's Research Meeting (Chicago, Illinois).
- 23 Oct 2017 **The effect of host genetics on maize-microbiome interaction.** ASA-CSSA-SSSA Annual Meeting (Tampa, Florida).

- 18 Jul 2017 **Harnessing Fungi to Improve Agriculture.** Mycological Society of America (Athens, Georgia).
- 09 Mar 2017 **Unraveling the Genetics of Maize-Microbiome Interactions.** NewLeaf Symbiotics invited presentation (Saint Louis, Missouri).
- 14 Jan 2017 § **Exploring the other maize genome: Quantitative analysis of how maize plants interact with their microbial communities.** Plant & Animal Genome XXV (San Diego, California).
- 21 Sep 2016 **Leveraging Genomics to Improve Staple Crops.** UGA Genetics Seminar Series (Athens, Georgia).
- 24 Aug 2016 **The Effect of Host Genetics on the Maize Leaf Microbiome.** UGA Plant Functional Genomics Seminar (Athens, Georgia).
- 16 Aug 2016 § **Nested Association Mapping for QTL Discovery and Genome-Wide Association.** 7th International Crop Science Congress (Beijing, China).
- 20 May 2016 **Leveraging Genomics to Improve Staple Crops.** UGA Institute of Plant Breeding, Genetics, and Genomics Annual Retreat (Athens, Georgia).
- 26 Apr 2016 § **Genotyping by Sequencing (GBS) Method Overview.** West African Center for Crop Improvement seminar series (Accra, Ghana).
- 25 Apr 2016 § **Leveraging Genomics to Improve Staple Crops.** West African Center for Crop Improvement seminar series (Accra, Ghana).
- 22 Apr 2016 § **Genotyping by Sequencing (GBS) Method Overview.** BMZ Heterosis Project Meeting & Training (Niamey, Niger).
- 22 Apr 2016 § **TASSEL/GBS Practical Examples.** BMZ Heterosis Project Meeting & Training (Niamey, Niger).
- 20 Mar 2016 § **The effect of host genetics on the maize leaf microbiome across 270 diverse inbred lines.** 58th Annual Maize Genetics Conference (Jacksonville, Florida).
- 13 Jan 2016 § **Analyzing the Leaf Microbiome across 270 Diverse Maize Lines.** Plant & Animal Genome XXIV (San Diego, California).
- 30 Oct 2015 **Leveraging Genomics to Improve Staple Crops.** UGA Plant Center Retreat (Helen, Georgia).
- 02 Oct 2015 **Leveraging Genomics to Improve Staple Crops.** UGA Institute of Bioinformatics Seminar Series (Athens, Georgia).
- 30 Jun 2015 § **Analyzing the Leaf Microbiome across 270 Diverse Maize Lines.** Phytobiomes 2015 (Washington, D.C.).
- 19 Feb 2015 § **Applying High-Throughput Genomics to Crops for the Developing World.** Next Generation Genomics and Integrated Breeding for Crop Improvement (Hyderabad, India).
- 13 Feb 2015 § **Leveraging Genomics to Improve Staple Crops.** International Crops Research Institute for the Semi-Arid Tropics invited speaker (Hyderabad, India).

## Posters & Abstracts

### Associate Professor (48)

- 10 Jan 2025 \*Correa dos Santos, R., Wallace, J. **CoNekT Grasses Microbiome enables the network analysis for microbial co-occurrence and integration of host RNAseq and microbiome data.** Plant & Animal Genome 32 (San Diego, California).
- 10 Jan 2025 \*Talamantes, D., and Wallace, J. **Mapping Tall Fescue genetics to endophyte toxin and biomass production.** Plant & Animal Genome 32 (San Diego, California).
- 10 Jan 2025 \*Junior, R., Venado, R., Gibson, K., Laspisa, D., Phillips, C., Wallace, J., de Leon, N., Ane, J-M. **Maize breeding for biological nitrogen fixation on aerial roots.** Plant & Animal Genome 32 (San Diego, California).
- 11 Nov 2024 \*Harris-Schultz, K., Sapkota, S., Wallace, J., Schwartz, B., Coffin, A., and Zhang, J. **Candidate Genes for Stigma Color Were Identified in a Centipedegrass Population Using a Genome-Wide Association Study.** ASA, CSSA, SSSA International Annual Meeting (San Antonio, Texas).
- 31 Oct 2024 Laspisa, D., Gibson, K., Venado, R., Wilker, J., Infante, V., Calderon, C., Ane, J-M., and Wallace, J. **Genetic Determinants of Aerial Root Formation in Maize: Prospects for Harnessing Biological Nitrogen Fixation.** UGA Plant Center Retreat 2024 (Pine Mountain, Georgia).
- 31 Oct 2024 Correa dos Santos, R., Wallace, J. **Correlation analysis of paired transcriptomic and metataxonomic datasets of leaves across diverse maize lines.** UGA Plant Center Retreat 2024 (Pine Mountain, Georgia).
- 31 Oct 2024 Talamantes, D., and Wallace, J. **Tall Fescue Genetics Changes the Toxicity of Epichloë Endophytes.** UGA Plant Center Retreat 2024 (Pine Mountain, Georgia).
- 15 May 2024 Correa dos Santos, R., Wallace, J. **Correlation analysis of paired transcriptomic and metataxonomic datasets of leaves across diverse maize lines.** UGA Institute of Plant Breeding, Genetics & Genomics annual retreat (Hiawasee, Georgia).
- 15 May 2024 Laspisa, D., Gibson, K., Venado, R., Wilker, J., Infante, V., Calderon, C., Ane, J-M., and Wallace, J. **Genetic Determinants of Aerial Root Formation in Maize: Prospects for Harnessing Biological Nitrogen Fixation.** UGA Institute of Plant Breeding, Genetics & Genomics annual retreat (Hiawasee, Georgia).

- 01 Mar 2024 \*Laspisa, D., Gibson, K., Venado, R., Wilker, J., Infante, V., Calderon, C., Ane, J-M., and Wallace, J. **Genetic Determinants of Aerial Root Formation in Maize: Prospects for Harnessing Biological Nitrogen Fixation**. 66th Annual Maize Genetics Conference (Raleigh, North Carolina).
- 17 Jan 2024 \*Laspisa, D., Gibson, K., Venado, R., Wilker, J., Infante, V., Calderon, C., Ane, J-M., and Wallace, J. **Genetic Determinants of Aerial Root Formation in Maize: Prospects for Harnessing Biological Nitrogen Fixation (talk)**. Plant & Animal Genome 31 (San Diego, California).
- 15 Jan 2024 \*Venado, R., Gibson, K., Wilker, J., Wolf, E., Vela, S., Pankievicz, V., Laspisa, D., Infante, V., Calderon, C., Robbins, F., Fernandez-Junior, P., Wallace, J., Vermerris, W., Ane, J-M. **Biological Nitrogen Fixation on the Aerial Roots of Maize and Sorghum for Sustainable Agriculture (talk)**. Plant & Animal Genome 31 (San Diego, California).
- 10 Jan 2024 \*Venado, R., Gibson, K., Wilker, J., Wolf, E., Vela, S., Pankievicz, V., Laspisa, D., Infante, V., Calderon, C., Robbins, F., Fernandez-Junior, P., Wallace, J., Vermerris, W., Ane, J-M. **Biological Nitrogen Fixation on the Aerial Roots of Maize and Sorghum for Sustainable Agriculture (poster)**. Plant & Animal Genome 31 (San Diego, California).
- 10 Jan 2024 \*Talamantes, D., and Wallace, J. **Tall Fescue Genetics Changes the Toxicity of Epichloë Endophytes**. Plant & Animal Genome 31 (San Diego, California).
- 13 Dec 2023 Corut, K., & Wallace, J. G. **kGWASflow: A Modular, Flexible and Reproducible Snakemake Pipeline for k-Mers Based GWAS**. UGA Plant Center Retreat 2023 (Young Harris, Georgia).
- 13 Dec 2023 Bozic, M, Ignjatovic Micic, D., Nikolic, A., and Wallace, J. **Genes involved in cold response in early developmental stages of maize**. UGA Plant Center Retreat 2023 (Young Harris, Georgia).
- 13 Dec 2023 Talamantes, D., and Wallace, J. G. **Tall Fescue Genetics Changes the Toxicity of Epichloë Endophytes**. UGA Plant Center Retreat 2023 (Young Harris, Georgia).
- 13 Dec 2023 Laspisa, D., Gibson, K., Venado, R., Wilker, J., Infante, V., Calderon, C., Ane, J-M., and Wallace, J. **Genetic Determinants of Aerial Root Formation in Maize: Prospects for Harnessing Biological Nitrogen Fixation**. UGA Plant Center Retreat 2023 (Young Harris, Georgia).
- 29 Oct 2023 \*Knoll, J. E., Cuevas, H. E., Shultz, C. R., & Wallace, J. G. **Development and validation of markers for anthracnose resistance in sorghum**. 2023 ASA-CSSA-SSSA International Annual Meeting (Saint Louis, Missouri).
- 07 Sep 2023 Wallace, J. G., & Schardl, C., **ECA-PGR: Identifying Host Factors that Influence the Association of Tall Fescue (*Festuca arundinacea*) with Beneficial Epichloë Endophytes**. Plant Genome Research Program 26th Annual Awardee Meeting (Washington, D.C.).
- 31 Aug 2023 \*Venado, R., Pyne, S., Wilker, J., Pankievicz, V., Fernandes, P., Robbins, F., Wolf, E., Vela, S., Laspisa, D., Pereira, W., Dervinis, C., Wallace, J., Vermerris, W., Kirst, M., Roy, S., and Ane, J-M. **Biological Nitrogen Fixation on the Aerial Roots of Maize and Sorghum for Sustainable Agriculture**. 15th European Nitrogen Fixation Conference (Naples, Italy).
- 13 Aug 2023 \*Corut, K., & Wallace, J. G. **kGWASflow: A Modular, Flexible and Reproducible Snakemake Pipeline for k-Mers Based GWAS**. Plant Biology 2023: ASPB 2023 Worldwide Summit (Savannah, Georgia).
- 06 Jun 2023 \*Punnuri, S. M., Boatwright, L., Coffin, A., Tadesse, H., Knoll, J., Harris, K., and Wallace, J. **Identification of sorghum aphid resistance loci and other related traits using cornerstone genomic resources**. Global Sorghum Conference (Montpellier, France).
- 16 Mar 2023 \*Laspisa, D., Phillips, C., Griffis, H., and Wallace, J. **Mapping maize brace root traits associated with nitrogen-fixing bacterial symbiosis**. 65th Annual Maize Genetics Conference (Saint Louis, Missouri).
- 16 Jan 2023 \*Wilker, J. L., Infante, V., McLimans, C. E., Murray, A., Robbins, F. A., Calderon, C. I., Wallace, J. G., & Ané, J-M. **Aerial Root Formation Persists into the Adult Phase and Is Nitrogen-Level Dependent in Sierra Mixe Corn Landraces**. Plant & Animal Genome 30 (San Diego, California).
- 16 Jan 2023 \*Corut, K., & Wallace, J. G. **kGWASflow: A Modular, Flexible and Reproducible Snakemake Pipeline for k-Mers Based GWAS**. Plant & Animal Genome 30 (San Diego, California).
- 12 Dec 2022 Talamantes, D., & Wallace, J. G. **Tall Fescue Genetics Affecting Epichloë Phenotypes**. UGA Plant Center Retreat (Brasstown Bald, Georgia).
- 12 Dec 2022 Kirkpatrick, C., & Wallace, J. G. **Vertical transmission of seed-borne endophytes over multiple generations in maize**. UGA Plant Center Retreat (Brasstown Bald, Georgia).
- 07 Nov 2022 \*Xie, L., Burrridge, J., Kengana, J., Wallace, J. G., Hanlon, M., Lynch, J., Bucksch, A. **Pheotypic Spectrum: a novel framework to study the root architecture diversity of crop roots at the population level**. 2022 ASA-CSSA-SSSA International Annual Meeting (Baltimore, Maryland).
- 09 Sep 2022 Talamantes, D., Corut, K., Nagabhyru, P., Schardl, C., & Wallace, J. G. **We are using Tall Fescue to understand how plants work with beneficial microbes**. Plant Genome Research Program 23rd Annual Awardee Meeting (Washington, D.C.).
- 14 Aug 2022 \*Li, Hanxia, & Wallace, J. G. **Gene-by-environment Interaction is the Largest Effect on Maize Endophyte Variability**. International Society for Microbial Ecology (Lausanne, Switzerland).

- 15 Apr 2022 Punhuri, S., Ayele, A., Harris-Schultz, K., Knoll, J., Coffin, A., Tadesse, H., Li, H., & Wallace, J. G. **Assessing sugarcane aphid resistance in sorghum in relation to plant maturity and morphology.** Georgia Entomological Society (Jekyll Island, Georgia).
- 04 Apr 2022 Ayele, A., Punhuri, S., Wiggins, T., Harris-Schultz, K., Knoll, J., Coffin, A., Tadesse, H., Armstrong, S., Li, H., Sattler, S., & Wallace, J. G. **Genome-Wide Association Study detected potential markers and genes associated with sugarcane aphid resistance in sorghum bicolor.** USDA ARD Research Symposium 2022 (Atlanta, Georgia).
- 11 Jan 2022 \*Punnuri, S., Ayele, A., Harris-Schultz, K., Knoll, J., Coffin, A., Tadesse, H., Armstrong, S., Wiggins, T., Li, H., Sattler, S., & Wallace, J. G. **GWAS Analysis for Understanding Sugarcane Aphid Resistance in Sorghum.** Plant & Animal Genome XXIX (Virtual).
- 11 Jan 2022 \*Corut, K., & Wallace, J. G. **kGWASflow: A Snakemake Pipeline for k-Mers-Based GWAS and Its Application to Maize Leaf Microbiome Traits.** Plant & Animal Genome XXIX (Virtual).
- 11 Jan 2022 \*Li, Hanxia, & Wallace, J. G. **Living Mulch Fosters a More Diverse and Balanced Bacterial Community in Corn Production.** Plant & Animal Genome XXIX (Virtual).
- 11 Jan 2022 \*Schultz, C. & Wallace, J. G. **Maize Genetic Diversity and Microbial Interactions.** Plant & Animal Genome XXIX (Virtual).
- 02 Jan 2022 \*Li, Hanxia, & Wallace, J. G. **The effect of maize genotypes, environments, and GxE interactions on maize endophytes.** 64th Annual Maize Genetics Conference (Saint Louis, Missouri).
- 02 Jan 2022 \*Schultz, C. & Wallace, J. G. **Maize genetic diversity and microbial interactions.** 64th Annual Maize Genetics Conference (Saint Louis, Missouri).
- 02 Jan 2022 \*Wilker, J. L., Wallace, J. G., de Leon, N., Calderon, C., Ane, J-M. **Genetic control of maize aerial node root number and diameter.** 64th Annual Maize Genetics Conference (Saint Louis, Missouri).
- 10 Nov 2021 Punhuri, S., Ayele, A., Harris-Schultz, K., Knoll, J., Coffin, A., Tadesse, H., Armstrong, S., Li, H., & Wallace, J. G. **Understanding Genetic Diversity and Genome- Wide Association Mapping of Resistance to Sugarcane Aphid in Sorghum Bicolor.** 2021 ASA-CSSA-SSSA International Annual Meeting (Salt Lake City, Utah).
- 01 Oct 2021 \*Ane, J-M., Khokhani, D., Maeda, J., Mus, F., Infante, V., Calderon, C., Wallace, J. G., Vermerris, W., Voigt, C., Peters, J., Pankievicz, V. C. S. **Associative nitrogen-fixation for cereal crops: old challenges and new opportunities.** 14th European Nitrogen Fixation Conference (Virtual).
- 21 Jul 2021 Diepenbrock, C., Ilut, D., Magallanes-Lundback, M., et. al. **Genetic basis of natural variation for carotenoid and tocopherol levels in maize grain.** Plant Biology 2021: ASPB 2021 Worldwide Summit (Virtual).
- 07 Jun 2021 Park, J., Kovar, L., LaFayette, P., Parrot, W., & Wallace, J. G. **Bladderwort Insulator Elements for Crop Biotechnology.** In Vitro Biology Meeting 2021 (Virtual).
- 03 Mar 2021 Schultz, C., Brantley, K., & Wallace, J. G. **Quantifying Maize Genotype by Endophyte Interaction.** Microbiome for Agriculture Congress 2021 (Virtual).
- 12 Aug 2020 Flanagan, A., Lawrence, K., Wallace, J. G., Talbott, C., Poore, M., Hardin, F., & Young, C. A. **Empowering a strong STEM and agricultural workforce: Exploring the inconspicuous symbiotic relationship of fungal endophytes in grasses.** Plant Health 2020 (Virtual).
- 12 Jan 2020 \*Wallace, J. G. **Livia: Teaching Evolution with Images.** Plant & Animal Genome XXVIII (San Diego, California).
- 15 Mar 2019 \*Kovar, L., Johnson, M. S., Griffis, H. K., & Wallace, J. G. **A survey of the maize-associated microbiota in georgia.** 62nd Annual Maize Genetics Conference (Saint Louis, Missouri).

#### Assistant Professor (14)

- 05 Sep 2019 Wallace, J. G. and Young, C. A. **We are using Tall Fescue to understand how plants work with beneficial microbes.** Plant Genome Research Program 22nd Annual Awardee Meeting (Washington, D.C.).
- 05 Sep 2019 Parrott, W. A. and Wallace, J. G. **The small Bladderwort genome is a promising source of regulatory elements for genetic engineering.** Plant Genome Research Program 22nd Annual Awardee Meeting (Washington, D.C.).
- 13 May 2019 Johnson, M., Coolong, T., & Wallace, J. G. **Bringing Hemp to Georgia: A project to Develop Hemp Varieties for Georgia.** UGA Institute of Plant Breeding, Genetics & Genomics annual retreat (Amicalola Falls, Georgia).
- 26 Sep 2018 Kovar, L., & Wallace, J. G. **Leaf microbiome community structure, co-abundance analysis, and correlation with phenotype across 270 diverse maize lines.** UGA Plant Center Retreat (Helen, Georgia).
- 06 Sep 2018 Wallace, J. G. and Young, C. A. **ECA-PGR: Identifying Host Factors that Influence the Association of Tall Fescue (*Festuca arundinacea*) with beneficial *Epichloë* endophytes.** Plant Genome Research Program 21st Annual Awardee Meeting (Washington, D.C.).

- 06 Sep 2018 Parrott, W. A. and Wallace, J. G. **TRANSFORM-PGR: Mining the compact *Utricularia* genome as source of novel regulatory elements for crop biotechnology**. Plant Genome Research Program 21st Annual Awardee Meeting (Washington, D.C.).
- 20 Jun 2018 Wallace, J. G., Kremling, K. A., Chen, S. Y., Su, M. H., Pardo, J., Lepak, N. K., Budka, J. S., Buckler, E. S. **The Effect of Host and Environment on the Maize microbiome**. 21st Annual Penn State Plant Biology Symposium: Wild and Tame Phytobiomes (State College, Pennsylvania).
- 10 May 2018 Kovar, L., & Wallace, J. G. **Untangling bacterial interactions in the maize leaf microbiome - A co-abundance network approach**. UGA Institute of Plant Breeding, Genetics & Genomics annual retreat (Pine Mountain, Georgia).
- 22 Mar 2018 \*Wallace, J. G., Kremling, K. A., Chen, S. Y., Su, M. H., Pardo, J., Lepak, N. K., Budka, J. S., Buckler, E. S. **The Effect of Host and Environment on the Maize microbiome**. 60th Annual Maize Genetics Conference (Saint-Malo, France).
- 26 Oct 2017 Johnson, M., Rodriguez, D., Upadhyaya, H., Wallace, J.G. **First Population Genetic Analysis of Three Minor Millets**. UGA Plant Center Retreat (Helen, Georgia).
- 10 Mar 2017 \*Wallace, J. G., Kremling, K. A., Chen, S. Y., Su, M. H., Pardo, J., Lepak, N. K., Budka, J. S., Buckler, E. S. **Quantitative Analysis of the Maize Leaf Microbiome**. 59th Annual Maize Genetics Conference (St. Louis, Missouri).
- 10 Jan 2017 \*Wallace, J. G., Kremling, K. A., Chen, S. Y., Su, M. H., Pardo, J., Lepak, N. K., Budka, J. S., Buckler, E. S. **Analyzing the Leaf Microbiome across 270 Diverse Maize Lines**. Plant and Animal Genome XXIV (San Diego, California).
- 01 Nov 2016 \*Wallace, J. G., Kremling, K. A., Chen, S. Y., Su, M. H., Pardo, J., Lepak, N. K., Budka, J. S., Buckler, E. S. **The Effect of Host Genetics on the Maize Leaf Microbiome across 270 Diverse Inbred Lines**. Phytobiomes: From Microbes to Plant Ecosystems (Santa Fe, New Mexico).
- 01 Mar 2015 \*Wallace, J. G., Beyene, Y., Semagn, K., Zhang, X., & Buckler, E. S. **Combined mapping of height and flowering time across 15 biparental populations using both traditional and Bayesian association mapping**. 57th Annual Maize Genetics Conference (St. Charles, Illinois).

### Other Creative Contributions

- 27 Aug 2024 Hein, Treena **Crops that Fertilize Themselves** Magazine Article
- 13 Aug 2020 Wallace, J.G., Gimode, D., and Wright, H. **Introduction to R Webinar Videos (1-6)** Video
- 11 Jun 2019 Li, H., Van Katwyk, R., and Wallace, J. G. **Genomes to Fields Endophyte Sampling Protocol**. Video
- 19 Dec 2018 Melancon, M., Goldberg, S., and Wallace, J. G. **UGA professor receives 2018 New Innovator Award**. Press release
- 03 Dec 2018 Melancon, M. and Wallace, J. G. **University of Georgia researchers look to increase the pace of sustainable crop innovation with the help of the lowly bladderwort**. Press release
- 15 Nov 2018 Melancon, M. and Wallace, J. G. **UGA College of Agricultural and Environmental Sciences researchers secure over \$1 million to understand how microbes help grass thrive**. Press release
- 30 Dec 2017 Wallace, J.G. **Microbiome Research Community at UGA**. Website
- 22 Sep 2017 Melancon, M. and Wallace, J. G. **Live from the Lab: The Pearl Millet Genome**. Interview (Livestream)
- 19 Sep 2017 Melancon, M. **Code breakers unlock pearl millet's heat tolerance to fight climate chaos**. Press release
- 10 Apr 2015 Brown, David O. **Corn Genetics** Interview (video)

### Research Grants

	PI		Co-PI		Totals	
	Total	Wallace Lab	Total	Wallace Lab	Total	Wallace Lab
Assistant Professor	\$2,133,122	\$2,119,236	\$2,617,358	\$473,726	<b>\$4,750,480</b>	<b>\$2,592,962</b>
Associate Professor	\$289,797	\$276,797	\$1,918,999	\$657,500	<b>\$2,208,796</b>	<b>\$934,297</b>
<b>Totals</b>	<b>\$2,422,919</b>	<b>\$2,396,033</b>	<b>\$4,536,357</b>	<b>\$1,131,226</b>	<b>\$6,959,276</b>	<b>\$3,527,259</b>

### Pending

- Co-PI \$9,000,000 **N2Cereals: Delivering Nitrogen to Cereal Crops through Biological Nitrogen Fixation for Sustainable Bioenergy Production** (DOE ARPA-E; \$1,000,000 to Wallace). Mar 2025-Feb 2029.



Co-PI	\$649,915	<b>Breeding Turf-Type Tall Fescue To Address Future Challenges Associated With Global Warming And Climate Change</b> (USDA-AFRI; \$50,228 to Wallace). Sep 2025-Aug 2029.
PI	\$847,582	<b>SeedCom: A synthetic community to understand bacterial endophytes of maize seeds</b> (USDA-AFRI; \$425,000 to Wallace). Apr 2025-Mar 2028.
Co-PI		<b>Recovery of Evolutionary Lineages from Ice Cores (RELIC)</b> (DOE JGI Community Sequencing Project). Jan 2025-Jun 2026.

## Funded

### Associate Professor

PI	\$39,000	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2025</b> (Georgia Corn Commission; \$34,500 to Wallace). Mar 2025-Dec 2025.
PI	\$35,000	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2024</b> (Georgia Corn Commission; \$31,500 to Wallace). Mar 2024-Dec 2024.
Co-PI	\$850,000	<b>Introgression of Efficient Aerial Root nitrogen-fixation from tropical maize landraces into selected elite materials</b> (USDA-AFRI; \$199,842 to Wallace). May 2024-Apr 2027.
PI	\$35,000	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2023</b> (Georgia Corn Commission; \$30,000 to Wallace). Jan 2023-Dec 2023.
PI	\$34,535	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2022</b> (Georgia Corn Commission; \$34,535 to Wallace). Jan 2022-Dec 2022.
PI	\$14,813	<b>Hitchhiking on Inheritance: Finding the Microbes that make Seeds their Homes</b> (UGA Faculty Seed Grants; \$14,813 to Wallace). Jul 2021-Jun 2022.
PI	\$32,881	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2021</b> (Georgia Corn Commission; \$32,881 to Wallace). Jan 2021-Dec 2021.
PI	\$67,500	<b>Scaling Up Clonal Hemp Production</b> (GaXtracts; \$67,500 to Wallace). Apr 2020-Dec 2020.
PI	\$31,068	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2020</b> (Georgia Corn Commission; \$31,068 to Wallace). Jan 2020-Dec 2020.
Co-PI	\$1,068,999	<b>Biological nitrogen fixation in the mucilage of maize aerial roots</b> (USDA-NIFA; \$457,658 to Wallace). Jan 2021-Dec 2024.

### Assistant Professor

PI	\$44,475	<b>Breeding Hemp Varieties Adapted to Georgia Growing Conditions</b> (UGA Cultivar Development Research Program; \$44,475 to Wallace). Jul 2019-Dec 2019.
Co-PI	\$32,750	<b>Request for Initiating Breeding of Industrial Hemp for Georgia</b> (Georgia Seed Development Program; \$9,000 to Wallace). May 2019-Dec 2019.
PI	\$25,530	<b>Evaluating the Natural Corn Microbiome in Georgia</b> (Georgia Corn Commission; \$25,530 to Wallace). Mar 2018-Dec 2018.
PI	\$29,946	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2019</b> (Georgia Corn Commission; \$29,946 to Wallace). Jan 2019-Dec 2019.
Co-PI	\$499,997	<b>Developing high-throughput phenotyping capacity at Fort Valley State University for genetic enhancement of sugarcane aphid resistance in sorghum</b> (USDA-NIFA; \$30,585 to Wallace). Feb 2019-Feb 2023.
PI	\$584,461	<b>Harnessing Endophytes to Improve Crop Efficiency and Production</b> (FFAR; \$584,461 to Wallace). Jan 2019-Dec 2022.
Co-PI	\$1,054,463	<b>Uncovering novel sources of anthracnose resistance in populations of genetically diverse sorghums [<i>Sorghum bicolor</i> (L.) Moench]</b> (DOE; \$135,997 to Wallace). Oct 2018-Sep 2022.
PI	\$1,500	<b>International Travel Funds to present at the 60th Annual Maize Genetics Conference</b> (UGA Office of the Provost; \$1,500 to Wallace). Mar 2018-Jun 2018.
PI	\$2,000	<b>International travel award to present at the 60th Annual Maize Genetics Conference</b> (UGA CAES; \$2,000 to Wallace). Jan 2018-Jun 2018.
PI	\$26,014	<b>Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative</b> (Georgia Corn Commission; \$26,014 to Wallace). Mar 2018-Dec 2018.
Co-PI	\$4,800	<b>Study on microbiome of soil and microorganisms in plants under implementing the biological products functioned on tolerance to low temperature and enhance in maize yield</b> (UGA and Chinese Agriculture University; \$4,800 to Wallace). Mar 2018-Sep 2018.
PI	\$6,252	<b>Catalyzing new research partnerships in maize microbiomes</b> (CRDF global; \$6,252 to Wallace). Dec 2017-Jun 2018.
PI	\$1,344,038	<b>ECA-PGR: Identifying Host Factors that Modulate the Association of Tall Fescue (<i>Festuca arundinacea</i>) with an Obligate Fungal Endophyte</b> (National Science Foundation; \$1,330,152 to Wallace). Apr 2018-Dec 2024.



Co-PI	\$487,811	<b>TRANSFORM-PGR Mining the compact <i>Utricularia</i> genome as source of novel regulatory elements for crop biotechnology</b> (National Science Foundation; \$215,400 to Wallace). Mar 2018-Dec 2022.
Co-PI	\$39,356	<b>BFP 2017 Asia &amp; LA: CSA and GRA Bangladesh</b> (USDA Foreign Ag Service; \$39,356 to Wallace). Jan 2018-Dec 2019.
Co-PI	\$498,181	<b>Building soil health with living mulch cultivation</b> (USDA-NIFA; \$38,588 to Wallace). Jan 2018-Dec 2021.
PI	\$15,000	<b>Genomic Selection for Aflatoxin and Drought Resistance in Peanut</b> (Georgia Peanut Commission; \$15,000 to Wallace). Apr 2017-Jun 2018.
PI	\$19,840	<b>A Comparison of Corn Biological Seed Treatments for use in Georgia</b> (Georgia Corn Commission; \$19,840 to Wallace). Jan 2017-Dec 2017.
PI	\$24,260	<b>Support for Georgia Locations in the US-wide Genomes to Fields (G2F) initiative</b> (Georgia Corn Commission; \$24,260 to Wallace). Jan 2017-Dec 2017.
PI	\$9,806	<b>Genomic Comparison of Toxic and Non-toxic Endophytes of Tall Fescue</b> (UGA OVPR; \$9,806 to Wallace). May 2016-Dec 2016.

### Submitted but unfunded

#### Associate Professor

PI	\$21,970	<b>Isolating and Characterizing Native Rhizobia to Improve Peanut Production</b> (National Peanut Board; \$21,970 to Wallace). Mar 2025-Dec 2025.
PI	\$24,480	<b>Developing a Streamlined Genotyping Platform for Commercial Peanut Breeding</b> (The Peanut Research Foundation; \$20,040 to Wallace). Mar 2025-Dec 2025.
PI	\$749,979	<b>Impacts of Cover Crop Termination and Fertilizer Formulation on Soil Ecosystem Functions</b> (USDA-AFRI; \$249,979 to Wallace). May 2025-Apr 2029.
PI	\$985,322	<b>Improved industrial hemp production for chicken bedding in the Southeast United States.</b> (USDA-AFRI; \$741,216 to Wallace). May 2025-Apr 2029.
Co-PI	\$1,178,254	<b>Capsicum-HAPMAP: Mining sweet pepper (<i>Capsicum annuum</i> L.) genetic diversity for resistance to Phytophthora blight and anthracnose resistance.</b> (USDA-NIFA; \$160,579 to Wallace). Jan 2025-Dec 2028.
PI	\$14,000	<b>Screening of cultivated peanut and its wild relatives for differential nodulation capacity</b> (Georgia Peanut Commission; \$14,000 to Wallace). May 2024-Dec 2024.
Co-PI	\$850,000	<b>Harnessing Soil Microbes for Improving Crop Resiliency to Climatic Perturbations</b> (USDA-AFRI; \$89,341 to Wallace). May 2024-Apr 2027.
PI	\$840,539	<b>Creating predictive models for beneficial plant-microbe interactions in controlled environment agriculture</b> (USDA-AFRI; \$529,289 to Wallace). May 2024-Apr 2027.
PI	\$23,978	<b>Small-Scale Seed Treatment System for Corn Pre-Breeding</b> (Georgia Cultivar Development; \$23,978 to Wallace). Jan 2024-Dec 2024.
PI	\$749,750	<b>Impacts of Cover Crop Termination and Fertilizer Formulation on Soil Ecosystem Functions</b> (USDA-AFRI; \$245,125 to Wallace). Jul 2024-Jun 2028.
PI	\$776,735	<b>Hitchhiking on Inheritance: Understanding how Seed-Transmitted Bacteria Interact with their Host</b> (NSF-BIO-PBI; \$453,948 to Wallace). Apr 2024-Mar 2027.
PI	\$14,577	<b>Genetic Survey of the Endangered Plant, Fringed Campion</b> (National Geographic; \$14,577 to Wallace). Jan 2024-Dec 2024.
PI		<b>Long-read sequencing of the endangered Georgia flower, Fringed Campion (<i>Silene catesbaei</i>)</b> (ORG.one (Oxford Nanopore)). May 2023-Dec 2023.
PI	\$13,979	<b>Genomic Population Diversity of the Endangered Fringed Campion (<i>Silene catesbaei</i>)</b> (Mohamed bin Zayed Species Conservation Fund; \$13,979 to Wallace). Jul 2023-Jun 2024.
PI	\$428,933	<b>Mining Public Diversity Data for Plant-Microbe Interactions</b> (NSF-BIO-PBI). Jun 2023-May 2026.
PI	\$849,185	<b>The Hidden Half: A Soil Microbiome Approach To Understanding The Impact Of Living Mulch And Cover Crops On Greenhouse Gas Emissions And The Weed Seed Bank</b> (USDA-AFRI; \$307,530 to Wallace). Apr 2023-Mar 2026.
PI		<b>PacBio Better Future sequencing grant</b> (Pacific Biosciences). Jan 2023-Dec 2023.
PI		<b>West African Research Association Residency Fellowship</b> (West African Research Association). Sep 2022-Jan 2023.
Co-PI	\$799,776	<b>Plant breeding partnership: introgression of efficient aerial root nitrogen-fixation from tropical maize landraces to selected elite materials</b> (USDA-AFRI; \$299,428 to Wallace). Jan 2022-Dec 2024.
Co-PI	\$999,990	<b>An integrated approach to increase thermotolerance in sorghum and pearl millet</b> (FFAR; \$158,460 to Wallace). Jun 2021-May 2025.
Co-PI	\$2,999,997	<b>NRT-URoL: PlantSciFI: Cultivating Careers in the Plant Sciences and Fields that Intersect</b> (National Science Foundation). Jan 2021-Dec 2025.

**Assistant Professor**

Co-PI	\$3,970,338	<b>RESEARCH-PGR: Bridging the gap between genomic clues and improved (cotton) plants</b> (NSF; \$325,950 to Wallace). Apr 2020-Mar 2024.
PI	\$1,089,800	<b>CAREER: Understanding Crop-Microbiome Interactions and Engaging with the Public through the Visual Arts</b> (NSF-BIO-PBI; \$1,089,800 to Wallace). Jan 2020-Dec 2024.
Co-PI	\$378,038	<b>Quantifying the Effect of Organic Poultry Litter and Local Effective Microorganisms on Plant Production and Nutrient Content</b> (USDA-NIFA; \$189,019 to Wallace). Jan 2019-Dec 2020.
Co-PI	\$3,472,863	<b>GEPR: Bridging the gap between genomics clues and improved (cotton) plants</b> (NSF-PGRP; \$257,468 to Wallace). Jan 2019-Dec 2022.
PI		<b>Genome sequencing of root endophytes that affect biomass accumulation and stress tolerance of bioenergy crops</b> (DOE JGI). Jun 2018-Dec 2018.
Co-PI	\$314,662	<b>Space-based seedling vigor indicators for improved cotton production sustainability on Earth</b> (NASA; \$121,750 to Wallace). Apr 2018-Apr 2020.
PI	\$13,670	<b>Comparing Traditional and Genomic Selection for Georgia Peanuts</b> (Georgia Peanut Commission; \$10,670 to Wallace). Mar 2018-Dec 2018.
PI	\$7,825	<b>Understanding the Impact of Salt Stress on Maize and Its Interactions with Beneficial Microbes</b> (UGA Global Research Collaborations; \$7,825 to Wallace). Jan 2018-Dec 2018.
PI	\$1,124,365	<b>CAREER: Understanding the basis of maize-microbe interactions</b> (NSF-BIO-PBI; \$1,124,365 to Wallace). Jul 2018-Jun 2023.
Co-PI	\$499,431	<b>Defining the relative contributions of cold tolerance and avoidance mechanisms to seed and seedling vigor under cold temperatures</b> (USDA-NIFA; \$116,370 to Wallace). Jan 2018-Dec 2020.
PI	\$6,845	<b>Analysis of the urban landscape microbiome surrounding the UGA Science Learning Center</b> (UGA CAES Seed Grants; \$6,845 to Wallace). Jul 2017-Jun 2018.
PI	\$524,118	<b>Harnessing Microbes to Improve Crop Efficiency and Production</b> (FFAR; \$524,118 to Wallace). Jan 2018-Dec 2020.
Co-PI	\$3,472,863	<b>GEPR: Bridging the gap between genomics clues and improved (cotton) plants</b> (NSF-PGRP; \$244,358 to Wallace). Jan 2018-Dec 2021.
Co-PI	\$299,992	<b>Ecosystems Underfoot: Using undergraduate research on the urban microbiome to assess the impact of research participation on STEM recruitment and retention</b> (NSF; \$25,000 to Wallace). Jul 2017-Jun 2020.
PI	\$949,353	<b>The Role of the Maize Microbiome on Biomass Production under Field Conditions</b> (DOE; \$949,353 to Wallace). Jul 2016-Jul 2021.
Co-PI	\$61,442	<b>Induction of Nitrogen stress tolerance in Maize using biological seed treatment products</b> (USDA-NIFA; \$59,190 to Wallace). Jun 2016-Jan 2017.

**Professional Development**

06 Jan 2016	<b>Tucson Plant Breeding Institute 2016.</b> Workshop on applied plant breeding statistical analysis. (The University of Arizona, Tucson, Arizona)
31 Mar 2016	<b>Why Flipping Flops: Perfecting the Practice.</b> Training program in techniques for flipping classroom instruction. (University of Georgia, Athens)
04 Apr 2016	<b>Flipping the Classroom: Perfecting the Practice.</b> Training program in techniques for flipping classroom instruction. (University of Georgia, Athens)
29 Sep 2016	<b>Mid-Semester Formative Evaluation (CRSS 8010).</b> Evaluation and recommendations related to new course (CRSS 8010). (University of Georgia, Athens)
13 Sep 2018	<b>Mid-Semester Formative Evaluation (CRSS 8010).</b> Evaluation and recommendations related to second teaching of CRSS 8010. (University of Georgia, Athens)
26 Sep 2018	<b>Faculty Learning Series: Project Management.</b> Panel training in how to manage research labs and multiresearcher projects. (University of Georgia, Athens)
26 Sep 2018	<b>Faculty Learning Series: Research Strategies 101.</b> Panel training in design and implement research strategies. (University of Georgia, Athens)
12 Dec 2018	<b>Faculty Learning Series: Taking Mentoring to the Next Level.</b> Workshop training in how to better mentor graduate students. (University of Georgia, Athens)
26 Feb 2019	<b>Leadership is not a Solo Act.</b> Workshop training in better leadership skills and dealing with different personality types among team members. (University of Georgia, Athens)
04 Mar 2019	<b>Hogan Assessment.</b> Three-part questionnaire followed by one-on-one counselling about personality traits and how they impact leadership style. (University of Georgia, Athens)

- 15 May 2022 **Faculty Coaching (monthly).**  
Regular meetings with UGA faculty coach to improve personal engagement and productivity. (University of Georgia, Athens)
- 01 Sep 2022 **Faculty Learning Series: Ungrading.**  
Focus on using “ungrading” style assessments to improve student engagement and learning. (University of Georgia, Athens)
- 01 Jan 2023 **Faculty Coaching (monthly).**  
Regular meetings with UGA faculty coach to improve personal engagement and productivity. (University of Georgia, Athens)
- 21 Feb 2023 **Diversity through Dance.**  
Diversity & inclusion training, using dance as a cultural lens. (University of Georgia, Athens)
- 21 Apr 2023 **Diversity at UGA: Beyond the Numbers.**  
Diversity & inclusion training introductory course. (University of Georgia, Athens)
- 05 Jul 2023 **True Colors - Engaging Your Personality Style to Embrace Diversity.**  
Diversity & inclusion training, with focus on differences among personality types. (University of Georgia, Athens)
- 26 Oct 2023 **Emotional Intelligence and Diversity.**  
Diversity & inclusion training, with focus on emotional intelligence. (University of Georgia, Athens)
- 01 Jan 2024 **Faculty Coaching (monthly).**  
Regular meetings with UGA faculty coach to improve personal engagement and productivity. (University of Georgia, Athens)

## Academic Service

### Service to the University

#### University Organizational Membership

- 2015 – Present **Graduate Faculty**
- 2015 – Present **Institute of Bioinformatics**
- 2015 – Present **Institute of Plant Breeding, Genetics, and Genomics**
- 2015 – Present **The Plant Center**
- 2015 – 2017 **New Materials Institute**

#### University Leadership & Administration

- |          |            |                       |   |
|----------|------------|-----------------------|---|
| Dec 2022 | – Present  | <b>Member</b>         | <b>Promotion &amp; Tenure Committee for Leonardo Bastos</b> , Crop & Soil Sciences                |
| Jan 2022 | – Present  | <b>Chair</b>          | <b>Committee on Diversity, Equity, and Inclusion</b> , Institute of Bioinformatics                |
| May 2018 | – Present  | <b>Faculty Mentor</b> | <b>Journal Club faculty mentor</b> , Institute of Plant Breeding, Genetics, and Genomics          |
| Apr 2017 | – Present  | <b>Coordinator</b>    | <b>Microbiome Group</b> , University of Georgia   |
| Feb 2016 | – Present  | <b>Faculty Mentor</b> | <b>Athens Science Café</b> , Athens Science Cafe  |
| Dec 2022 | – Dec 2024 | <b>Faculty Mentor</b> | <b>Boerma Plant Breeding Lecture Series</b> , Institute of Plant Breeding, Genetics, and Genomics |
| Aug 2019 | – Jan 2022 | <b>Chair</b>          | <b>Outreach Committee</b> , Institute of Bioinformatics   |
| May 2017 | – Dec 2021 | <b>Member</b>         | <b>Undergraduate Committee</b> , The Plant Center   |
| Jun 2017 | – Dec 2019 | <b>Member</b>         | <b>Executive Committee</b> , Integrated Plant Sciences  |
| Sep 2018 | – Mar 2019 | <b>Member</b>         | <b>Faculty Search committee</b> , Institute of Bioinformatics                                     |
| Sep 2016 | – Dec 2017 | <b>Member</b>         | <b>Symposium Committee</b> , Institute of Bioinformatics  |
| Sep 2015 | – May 2016 | <b>Member</b>         | <b>Curriculum Committee</b> , Institute of Plant Breeding, Genetics, and Genomics                 |

### Service to the Scientific Community

#### Editorships

- Feb 2017 – May 2020 **Associate Editor**, *The Crop Journal*
- Apr 2017 – Nov 2018 **Review Editor**, *Frontiers in Microbiology and Plant Science*
- Dec 2016 – Nov 2017 **Editorial Board**, *Maize Genetics Database*

#### Invited External Review

#### Associate Professor

- Grant Proposal (8) Dutch Research Council, Foundation for Food and Agriculture Research (2), National Science Foundation (3), UGA IPBGG, US Department of Energy

- Manuscript (10) Agriculture, Applied and Environmental Microbiology, Crop Science, Frontiers in Bioengineering, Frontiers in Microbiology, Microorganisms, Phytobiomes, The Crop Journal, Theoretical and Applied Genetics, Trends in Genetics
- Thesis (1) University of Guelph

### Assistant Professor

- Grant Proposal (6) National Science Foundation (3), US Department of Agriculture (3)
- Manuscript (21) Applied and Environmental Microbiology, BMC Plant Biology (2), Borlaug Leadership Enhancement in Agriculture Program, CAB International, Crop Science, Genetics, Gigascience, Journal of Open Source Education, Molecular Ecology, New Phytologist (2), Phytobiomes (2), PloS Genetics (2), The Crop Journal, The Plant Genome (3), Theoretical and Applied Genetics
- Thesis (1) University of KwaZulu-Natal

### Society memberships

- American Association for the Advancement of Science** (2015-Present)
- American Society of Plant Biologists** (2015-2016; 2022-Present)
- International Society for Microbial Ecology** (2015-2016; 2022-Present)
- Maize Genetics Cooperation** (2022-Present)

### Other Service

- Jan 2022 – Present **Microbiome Lead** **Coordinating Committee**, International Phytobiomes Alliance
- Sep 2021 – May 2023 **Member** **Athens Clarke County Agricultural Advisory Committee**, Cedar Shoals High School
- Jan 2023 – Apr 2023 **Faculty Mentor** **MAGnet mentor**, Maize Genetics Meeting

### Public Outreach

- 02 Sep 2024 **DragonCon 2024** (>3000 participants; Atlanta, Georgia)  
Panelist for “Plants that want to kill you”, “Convergent Evolution Run Amok”, & “Dirt!”, plus support for 11 other panels
- 19 Apr 2024 **Thinking Green: Botany, B-Movies, & Body-ody-doy** (21 participants; Athens, Georgia) ([link](#))  
Panel discussion of different aspects of “Little Shop of Horrors”. (Wallace covered carnivorous plants.)
- 11 Sep 2023 **FFAR Fly-In Advocacy Event** (30 participants; Washington, DC)  
Talk with congressional staff about science funded by FFAR and impact it has made
- 03 Sep 2023 **DragonCon 2023** (500 participants; Atlanta, Georgia)  
Panelist for “Fungus Among Us”, “The Science of Dungeon & Dragon Monsters”, & “What Scientific Retraction Means”, plus support for 4 other panels
- 21 Sep 2022 **Presentation at Cedar Shoals High School** (20 participants; Athens, Georgia)  
Discuss crops and genetics with high school students in Environmental Science at Cedar Shoals High School
- 04 Sep 2022 **DragonCon 2022** (500 participants; Atlanta, Georgia)  
Panelist for “Tending the Tree of Life”, “COVID19 vs the Zombie Apocalypse”, & “Sex is the Minority”
- 23 May 2022 **Skype-A-Scientist** (20 participants; Virtual)  
Zoom call with 3rd-grade Spanish immersion class, Liberty Bell Elementary School, Coopersberg, PA
- 20 Jan 2021 **Youth Coding Night** (10 participants; Athens, Georgia)  
Introduction to coding to church youth group (ages 11-18)
- 28 Mar 2019 **Whit Davis Career Fair** (300 participants; Athens, Georgia)  
Career fair for children in grades 3-5 at Whit Davis elementary
- 09 Mar 2018 **Whit Davis Career Fair** (300 participants; Athens, Georgia)  
Career fair for children in grades 3-5 at Whit Davis elementary
- 11 Dec 2017 **Hilsman Middle School Science Fair** (100 participants; Athens, Georgia)  
Served as volunteer judge for a middle school science fair at Hilsman Middle School
- 22 Sep 2017 **Live from the Lab: The Pearl Millet Genome** (Athens, Georgia) ([link](#))  
Facebook Live stream explaining the significance of the pearl millet genome publication
- 19 May 2017 **1st Grade Presentation: Genes and Food** (50 participants; Athens, Georgia)  
Presentation to Whit Davis Elementary School 1st Grade
- 25 Apr 2017 **Whit Davis Career Fair** (330 participants; Athens, Georgia)  
Career fair for children in grades 3-5 at Whit Davis elementary
- 29 Jan 2016 **Whit Davis Career Fair** (300 participants; Athens, Georgia)  
Career fair for children in grades 3-5 at Whit Davis elementary