

Jason G. Wallace

Associate Professor

Curriculum Vitae

August 2023

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

Present Rank	Associate Professor
Recommended Rank	Full Professor
Proportion Time Assignment	80% research, 20% teaching
Tenure Status	Tenured
Graduate Faculty	2015-Present

Education

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

Professional Experience

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

Awards

March 2019	Nomination - 40 under 40	Georgia Trend Magazine
November 2018	New Innovator in Food and Agriculture Research Award	Foundation for Food and Agriculture Research
July 2015	Travel Awards for Early Career Professionals	Phytobiomes Conference 2015
2010–2011	Annie Le Memorial Fellowship	Yale University
September 2010	Poster award for “Most Creative Project”	Yale University MCDB Departmental Retreat
2000–2001, 2003–2006	Gordon B. Hinckley Presidential Scholarship	Brigham Young University

Instruction

Instructor of Record

CRSS 8010	Research Methods and Design in Crop Science	3 credits
	<ul style="list-style-type: none">Fall 2016Fall 2018Fall 2020Fall 2022	
PBGG 8860	PBGG Student Communication Seminar	1 credit
	<ul style="list-style-type: none">Spring 2022	
PBGG 8861	PBGG Student Research Seminar	1 credit
	<ul style="list-style-type: none">Spring 2022	
PBGG 8874	Genomic selection	1 credit
	<ul style="list-style-type: none">Spring 2017Spring 2019Spring 2021	
PBGG 8875	Genome-wide association in plants	1 credit
	<ul style="list-style-type: none">Spring 2017Spring 2019Spring 2021	

Guest Lectures

Spring 2021	PBGG Student Research Seminar (PBGG 8861)
Spring 2021	PBGG Student Communication Seminar (PBGG 8860)
6 July 2022	Plant Breeding Practicum – Maize (PBGG 6000)
30 Jun 2022	Rigor and Reproducibility in Research (CTEGD Lunch & Learn)

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

Workshop Instructor

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

Student Mentorship

Chair (Current)

PhD 2023-present	Aduragbemi, Amo	UGA Institute of Plant Breeding, Genetics, and Genomics
PhD 2020-present	Talamantes, Darrian	UGA Institute of Bioinformatics
PhD 2019-present	Corut, Kivanc	UGA Institute of Bioinformatics
PhD 2019-present	Li, Hanxia	UGA Institute of Bioinformatics
PhD 2019-present	Schultz, Corey	UGA Institute of Bioinformatics

Chair (Prior)

MS 2022	Griffis, Holly	UGA Department of Genetics
MS 2021	Rodman, Naomi	UGA Department of Crop & Soil Sciences (incomplete)
PhD 2020	Johnson, Matthew	UGA Institute of Plant Breeding, Genetics, and Genomics
MS 2020	Kovar, Lynsey	UGA Institute of Bioinformatics

Co-Chair (Prior)

PhD 2021	Voghoei, Sahar	UGA Department of Computer Science
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Committee Member (Current)

PhD 2022-present	Fleming, Zachary	UGA Institute of Plant Breeding, Genetics, and Genomics (Esther van der Knaap lab)
PhD 2022-present	Maharjan, Namrata	UGA Institute of Plant Breeding, Genetics, and Genomics (Soraya Bertoli Lab)
PhD 2022-present	Ployaram, Wiriyanat	UGA Department of Crop & Soil Sciences (Andrew Patterson lab)
PhD 2021-present	Pinchi Davila, Xiomy	UGA Department of Plant Pathology (Annie Chung lab)
PhD 2021-present	Zhang, Shufan	UGA Institute of Bioinformatics (Jonathan Arnold lab)
PhD 2020-present	Kwon, Kheeman	UGA Department of Plant Pathology (Melissa Mitchum lab)
MS 2020-present	Wang, Li	UGA Department of Plant Pathology (Pingsheng Ji lab)
PhD 2019-present	Bhattarai, Guarab	UGA Institute of Plant Breeding, Genetics, and Genomics (Patrick Connor lab)
PhD 2019-present	Fernandez-Canela, Josue	UGA Department of Plant Biology (Jeff Bennetzen Lab)
PhD 2019-present	Miller, Mark	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
PhD 2019-present	Piri, Rebecca	UGA Institute of Bioinformatics (Kelly Dawe lab)
PhD 2018-present	Liu, Jianing	UGA Department of Genetics (Kelly Dawe lab)
PhD 2018-present	Sapkota, Manoj	UGA Institute of Plant Breeding, Genetics, and Genomics (Esther van der Knap lab)

PhD 2018-present **Wright, Hallie** UGA Institute of Plant Breeding, Genetics, and Genomics (Katrien Devos lab)

Committee Member (Prior)

PhD 2022	Adhikari, Jeevan	UGA Plant Genome Mapping Laboratory (Andy Paterson lab)
PhD 2022	Choi, Soyeon	UGA Department of Genetics (Katrien Devos lab)
MS 2021	Meinecke, Colton	UGA Warnell School of Forestry (Caterina Villari lab)
MS 2021	Park, Jubilee	UGA Institute of Plant Breeding, Genetics, and Genomics (Wayne Parrott lab)
MS 2021	Pathania, Sakshi	UGA Department of Horticulture (Dario Chavez lab)
PhD 2021	Singh, Lovepreet	UGA Department of Crop & Soil Sciences (Joann Connor / Peggy Ozias-Akins lab)
MS 2021	Spruell, Chandler	UGA Institute of Plant Breeding, Genetics, and Genomics (Peggy Ozias-Akins lab)
PhD 2021	Tran, Dung("Ivy")	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
MS 2020	Conway, Tara	UGA Plant Genome Mapping Laboratory (Andrew Paterson lab)
MS 2020	Moore, Bryshal("Bri")	Fort Valley State University Department of Plant Biotechnology (Som Punnuri lab)
PhD 2020	Taitano, Nathan	UGA Institute of Plant Breeding, Genetics, and Genomics (Esther van der Knaap lab)
PhD 2019	Gimode, Davis	UGA Institute of Plant Breeding, Genetics, and Genomics (Peggy Ozias-Akins lab)
PhD 2019	Taborda, Carolina	UGA Institute of Plant Breeding, Genetics, and Genomics (Scott Jackson lab)
PhD 2018	Steketee, Clint	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
PhD 2018	Sumabat, Leilani	UGA Department of Plant Pathology (Marin Brewer lab)

Visiting Scientists

Spring 2016 **Yuan, Yibing** Graduate student Sichuan Agricultural University, China

Undergraduate Mentoring

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

High School Students

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

Scholarly Activities

Publications

	Research Article	Review	Book Chapter
Associate Professor	18	1	0
Assistant Professor	16	3	1
Postdoc	1	1	0
PhD	3	0	0
<i>Total</i>	38	5	1

Associate Professor (19)

1. Lima, D.C., Aviles, A.C., Alpers, R.T., McFarland, B.A., Kaeppler, S., Ertl, D., Romay, M.C., Gage, J.L., Holland, J., Beissinger, T., et al. (2023). 2018/2019 field seasons of the maize genomes to fields (G2F) g x e project. BMC Genomic Data 24. [10.1186/s12863-023-01129-2](https://doi.org/10.1186/s12863-023-01129-2).
2. Adak, A., Murray, S.C., Calderón, C.I., Infante, V., Wilker, J., Varela, J.I., Subramanian, N., Isakeit, T., Ané, J.-M., Wallace, J., et al. (2023). Genetic mapping and prediction for novel lesion mimic in maize demonstrates quantitative effects from genetic background, environment and epistasis. Theoretical and Applied Genetics 136. [10.1007/s00122-023-04394-y](https://doi.org/10.1007/s00122-023-04394-y).
3. Schultz, C.R., Johnson, M., and Wallace, J.G. (2023). Effects of inbreeding on microbial community diversity of ze mays. Microorganisms 11, 879. [10.3390/microorganisms11040879](https://doi.org/10.3390/microorganisms11040879).
4. Kick, D.R., Wallace, J.G., Schnable, J.C., Kolkman, J.M., Alaca, B., Beissinger, T.M., Edwards, J., Ertl, D., Flint-Garcia, S., Gage, J.L., et al. (2023). Yield prediction through integration of genetic, environment, and management data through deep learning. G3 Genes|Genomes|Genetics 13. [10.1093/g3journal/jkad006](https://doi.org/10.1093/g3journal/jkad006).
5. Wallace, J.G. (2022). Maize seed endophytes. Molecular Plant Pathology 24, 801–810. [10.1111/mpp.13278](https://doi.org/10.1111/mpp.13278).
6. Chandnani, R., Kim, C., Patel, J.D., Guo, H., Shehzad, T., Wallace, J.G., He, D., Zhang, Z., Adhikari, J., Khanal, S., et al. (2022). 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 13. [10.3389/fpls.2022.981682](https://doi.org/10.3389/fpls.2022.981682).
7. Punhuri, S.M., Ayele, A.G., Harris-Shultz, K.R., Knoll, J.E., Coffin, A.W., Tadesse, H.K., Armstrong, J.S., Wiggins, T.K., Li, H., Sattler, S., et al. (2022). Genome-wide association mapping of resistance to the sorghum aphid in sorghum bicolor. Genomics 114, 110408. [10.1016/j.ygeno.2022.110408](https://doi.org/10.1016/j.ygeno.2022.110408).
8. Schultz, C.R., Brantley, K.M., and Wallace, J.G. (2022). The role of genetic variation in ze mays response to beneficial endophytes. Plant Growth Regulation 98, 167–177. [10.1007/s10725-022-00842-9](https://doi.org/10.1007/s10725-022-00842-9).
9. Park, J.Y., Kovar, L., LaFayette, P.R., Wallace, J.G., and Parrott, W.A. (2021). Plant-derived insulator-like sequences for control of transgene expression. [10.1101/2021.11.04.467280](https://doi.org/10.1101/2021.11.04.467280).
10. Brown, N., Branch, W.D., Johnson, M., and Wallace, J. (2021). Genetic diversity assessment of georgia peanut cultivars developed during ninety years of breeding. The Plant Genome 14. [10.1002/tpg2.20141](https://doi.org/10.1002/tpg2.20141).
11. Johnson, M.S., and Wallace, J.G. (2021). Genomic and chemical diversity of commercially available high-CBD industrial hemp accessions. Frontiers in Genetics 12. [10.3389/fgene.2021.682475](https://doi.org/10.3389/fgene.2021.682475).
12. Hill, N.S., Levi, M., Basinger, N., Thompson, A., Cabrera, M., Wallace, J., Saikawa, E., Avramov, A., and Mulligan, J. (2021). White clover living mulch enhances soil health vs. Annual cover crops. Agronomy Journal 113, 3697–3707. [10.1002/agj2.20768](https://doi.org/10.1002/agj2.20768).
13. Wang, X., Chen, S., Ma, X., Yssel, A.E.J., Chaluvadi, S.R., Johnson, M.S., Gangashetty, P., Hamidou, F., Sanogo, M.D., Zwaenepoel, A., et al. (2021). Genome sequence and genetic diversity analysis of an under-domesticated orphan crop, white fonio (digitaria exilis). GigaScience 10. [10.1093/gigascience/giab013](https://doi.org/10.1093/gigascience/giab013).
14. Giangacomo, C., Mohseni, M., Kovar, L., and Wallace, J.G. (2021). Comparing DNA extraction and 16S rRNA gene amplification methods for plant-associated bacterial communities. Phytobiomes Journal 5, 190–201. [10.1094/pbiomes-07-20-0055-r](https://doi.org/10.1094/pbiomes-07-20-0055-r).
15. Rogers, A.R., Dunne, J.C., Romay, C., Bohn, M., Buckler, E.S., Ciampitti, I.A., Edwards, J., Ertl, D., Flint-Garcia, S., Gore, M.A., et al. (2021). 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 11. [10.1093/g3journal/jkaa050](https://doi.org/10.1093/g3journal/jkaa050).

16. Diepenbrock, C.H., Ilut, D.C., Magallanes-Lundback, M., Kandianis, C.B., Lipka, A.E., Bradbury, P.J., Holland, J.B., Hamilton, J.P., Wooldridge, E., Vaillancourt, B., et al. (2020). Eleven biosynthetic genes explain the majority of natural variation in carotenoid levels in maize grain. *The Plant Cell* 33, 882–900. [10.1093/plcell/koab032](https://doi.org/10.1093/plcell/koab032).
17. McFarland, B.A., AlKhalifah, N., Bohn, M., Bubert, J., Buckler, E.S., Ciampitti, I., Edwards, J., Ertl, D., Gage, J.L., Falcon, C.M., et al. (2020). Maize genomes to fields (G2F): 2014/2017 field seasons: Genotype, phenotype, climatic, soil, and inbred ear image datasets. *BMC Research Notes* 13. [10.1186/s13104-020-4922-8](https://doi.org/10.1186/s13104-020-4922-8).
18. Kusmec, A., Yeh, C.-T. “Eddy”, Fields Initiative, T.G. to, and Schnable, P.S. (2020). Data-driven identification of environmental variables influencing phenotypic plasticity to facilitate breeding for future climates: A case study involving grain yield of hybrid maize. *SSRN Electronic Journal*. [10.2139/ssrn.3684755](https://doi.org/10.2139/ssrn.3684755).

Assistant Professor (20)

1. Johnson, M., Deshpande, S., Vetriventhan, M., Upadhyaya, H.D., and Wallace, J.G. (2019). Genome-wide population structure analyses of three minor millets: Kodo millet, little millet, and proso millet. *The Plant Genome* 12, 190021. [10.3835/plantgenome2019.03.0021](https://doi.org/10.3835/plantgenome2019.03.0021).
2. Harris-Shultz, K.R., Davis, R.F., Wallace, J., Knoll, J.E., and Wang, H. (2019). A novel QTL for root-knot nematode resistance is identified from a south african sweet sorghum line. *Phytopathology* 109, 1011–1017. [10.1094/phyto-11-18-0433-r](https://doi.org/10.1094/phyto-11-18-0433-r).
3. Voghoei, S., Tonekaboni, N.H., Wallace, J.G., and Arabnia, H.R. (2018). Deep learning at the edge. 2018 international conference on computational science and computational intelligence (CSCI). [10.1109/csci46756.2018.00177](https://doi.org/10.1109/csci46756.2018.00177).
4. Wallace, J.G., and May, G. (2018). Endophytes: The other maize genome. *Compendium of plant genomes*, 213–246. [10.1007/978-3-319-97427-9_14](https://doi.org/10.1007/978-3-319-97427-9_14).
5. Walters, W.A., Jin, Z., Youngblut, N., Wallace, J.G., Sutter, J., Zhang, W., González-Peña, A., Peiffer, J., Koren, O., Shi, Q., et al. (2018). Large-scale replicated field study of maize rhizosphere identifies heritable microbes. *Proceedings of the National Academy of Sciences* 115, 7368–7373. [10.1073/pnas.1800918115](https://doi.org/10.1073/pnas.1800918115).
6. Dawe, R.K., Lowry, E.G., Gent, J.I., Stitzer, M.C., Swentowsky, K.W., Higgins, D.M., Ross-Ibarra, J., Wallace, J.G., Kanizay, L.B., Alabady, M., et al. (2018). A kinesin-14 motor activates neocentromeres to promote meiotic drive in maize. *Cell* 173, 839–850.e18. [10.1016/j.cell.2018.03.009](https://doi.org/10.1016/j.cell.2018.03.009).
7. Pucher, A., Hash, C.T., Wallace, J.G., Han, S., Leiser, W.L., and Haussmann, B.I.G. (2018). 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* 18. [10.1186/s12870-018-1267-8](https://doi.org/10.1186/s12870-018-1267-8).
8. Chandnani, R., Kim, C., Guo, H., Shehzad, T., Wallace, J.G., He, D., Zhang, Z., Patel, J.D., Adhikari, J., Khanal, S., et al. (2018). Genetic analysis of gossypium fiber quality traits in reciprocal advanced backcross populations. *The Plant Genome* 11. [10.3835/plantgenome2017.06.0057](https://doi.org/10.3835/plantgenome2017.06.0057).
9. Diepenbrock, C.H., Kandianis, C.B., Lipka, A.E., Magallanes-Lundback, M., Vaillancourt, B., Góngora-Castillo, E., Wallace, J.G., Cepela, J., Mesberg, A., Bradbury, P.J., et al. (2017). Novel loci underlie natural variation in vitamin E levels in maize grain. *The Plant Cell* 29, 2374–2392. [10.1105/tpc.17.00475](https://doi.org/10.1105/tpc.17.00475).
10. Varshney, R.K., Shi, C., Thudi, M., Mariac, C., Wallace, J., Qi, P., Zhang, H., Zhao, Y., Wang, X., Rathore, A., et al. (2017). Pearl millet genome sequence provides a resource to improve agronomic traits in arid environments. *Nature Biotechnology* 35, 969–976. [10.1038/nbt.3943](https://doi.org/10.1038/nbt.3943).
11. Strable, J., Wallace, J.G., Unger-Wallace, E., Briggs, S., Bradbury, P.J., Buckler, E.S., and Vollbrecht, E. (2017). Maize YABBY genes drooping leaf1 and drooping leaf2 regulate plant architecture. *The Plant Cell* 29, 1622–1641. [10.1105/tpc.16.00477](https://doi.org/10.1105/tpc.16.00477).
12. Wallace, J.G., and Mitchell, S.E. (2017). Genotyping-by-sequencing. *Current Protocols in Plant Biology* 2, 64–77. [10.1002/cppb.20042](https://doi.org/10.1002/cppb.20042).
13. McCaw, M.E., Wallace, J.G., Albert, P.S., Buckler, E.S., and Birchler, J.A. (2016). Fast-flowering mini-maize: Seed to seed in 60 days. *Genetics* 204, 35–42. [10.1534/genetics.116.191726](https://doi.org/10.1534/genetics.116.191726).
14. Wallace, J.G., Zhang, X., Beyene, Y., Semagn, K., Olsen, M., Prasanna, B.M., and Buckler, E.S. (2016). 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* 56, 2365–2378. [10.2135/cropsci2015.10.0632](https://doi.org/10.2135/cropsci2015.10.0632).
15. Punhuri, S.M., Wallace, J.G., Knoll, J.E., Hyma, K.E., Mitchell, S.E., Buckler, E.S., Varshney, R.K., and Singh, B.P. (2016). Development of a high-density linkage map and tagging leaf spot resistance in pearl millet using genotyping-by-sequencing markers. *The Plant Genome* 9. [10.3835/plantgenome2015.10.0106](https://doi.org/10.3835/plantgenome2015.10.0106).
16. Upadhyaya, H.D., Vetriventhan, M., Deshpande, S.P., Sivasubramani, S., Wallace, J.G., Buckler, E.S., Hash, C.T., and Ramu, P. (2015). Population genetics and structure of a global foxtail millet germplasm collection. *The Plant Genome* 8. [10.3835/plantgenome2015.07.0054](https://doi.org/10.3835/plantgenome2015.07.0054).

17. Zhang, N., Gibon, Y., Wallace, J.G., Lepak, N., Li, P., Dedow, L., Chen, C., So, Y.-S., Kremling, K., Bradbury, P.J., et al. (2015). Genome-wide association of carbon and nitrogen metabolism in the maize nested association mapping population. *Plant Physiology* 168, 575–583. [10.1104/pp.15.00025](https://doi.org/10.1104/pp.15.00025).
18. Wallace, J.G., Upadhyaya, H.D., Vetriventhan, M., Buckler, E.S., Hash, C.T., and Ramu, P. (2015). The genetic makeup of a global barnyard millet germplasm collection. *The Plant Genome* 8. [10.3835/plantgenome2014.10.0067](https://doi.org/10.3835/plantgenome2014.10.0067).

Postdoc (2)

1. Wallace, J.G., Bradbury, P.J., Zhang, N., Gibon, Y., Stitt, M., and Buckler, E.S. (2014). Association mapping across numerous traits reveals patterns of functional variation in maize. *PLoS Genetics* 10, e1004845. [10.1371/journal.pgen.1004845](https://doi.org/10.1371/journal.pgen.1004845).
2. Wallace, J.G., Larsson, S.J., and Buckler, E.S. (2013). Entering the second century of maize quantitative genetics. *Heredity* 112, 30–38. [10.1038/hdy.2013.6](https://doi.org/10.1038/hdy.2013.6).

PhD (3)

1. Wallace, J.G., Zhou, Z., and Breaker, R.R. (2012). OLE RNA protects extremophilic bacteria from alcohol toxicity. *Nucleic Acids Research* 40, 6898–6907. [10.1093/nar/gks352](https://doi.org/10.1093/nar/gks352).
2. Wallace, J.G., and Breaker, R.R. (2011). Improved genetic transformation methods for the model alkaliphile *Bacillus halodurans* c-125. *Letters in Applied Microbiology* 52, 430–432. [10.1111/j.1472-765x.2011.03017.x](https://doi.org/10.1111/j.1472-765x.2011.03017.x).
3. Block, K.F., Puerta-Fernandez, E., Wallace, J.G., and Breaker, R.R. (2010). Association of OLE RNA with bacterial membranes via an RNA-protein interaction. *Molecular Microbiology* 79, 21–34. [10.1111/j.1365-2958.2010.07439.x](https://doi.org/10.1111/j.1365-2958.2010.07439.x).

Meetings attended

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

Associate Professor (19)

2022 (4)

- †§ **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 (12)

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 (23)

- 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).
- 12 Dec 2022 Talamantes, D., & Wallace, J. G. **Tall Fescue Genetics Affecting Epichloe 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., Burridge, 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 Punhuri, 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., Pankiewicz, 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 tocochromanol 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

- 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	\$4,750,480	\$2,592,962
Associate Professor	\$219,882	\$219,882	\$1,068,999	\$457,658	\$1,288,881	\$677,540
Totals	\$2,353,004	\$2,339,118	\$3,686,357	\$931,384	\$6,039,361	\$3,270,502

Pending

- PI \$428,933 **Mining Public Diversity Data for Plant-Microbe Interactions (NSF-BIO-PBI).** Jun 2023-May 2026.
- PI \$14,577 **Genetic Survey of the Endangered Plant, Fringed Campion (National Geographic; \$14,577 to Wallace).** Jan 2024-Dec 2024.
- PI **Long-read sequencing of the endangered Georgia flower, Fringed Campion (*Silene catesbaei*) (ORG.one (Oxford Nanopore)).** May 2023-Dec 2023.
- PI \$13,979 **Genomic Population Diversity of the Endangered Fringed Campion (*Silene catesbaei*) (Mohamed bin Zayed Species Conservation Fund; \$13,979 to Wallace).** Jul 2023-Jun 2024.

Funded

Associate Professor

- PI \$39,085 **Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2023** (Georgia Corn Commission; \$39,085 to Wallace). Jan 2023-Dec 2023.
- PI \$34,535 **Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2022** (Georgia Corn Commission; \$34,535 to Wallace). Jan 2022-Dec 2022.
- PI \$14,813 **Hitchhiking on Inheritance: Finding the Microbes that make Seeds their Homes** (UGA Faculty Seed Grants; \$14,813 to Wallace). Jul 2021-Jun 2022.
- PI \$32,881 **Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2021** (Georgia Corn Commission; \$32,881 to Wallace). Jan 2021-Dec 2021.
- PI \$67,500 **Scaling Up Clonal Hemp Production** (GaXtracts; \$67,500 to Wallace). Apr 2020-Dec 2020.
- PI \$31,068 **Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2020** (Georgia Corn Commission; \$31,068 to Wallace). Jan 2020-Dec 2020.
- Co-PI \$1,068,999 **Biological nitrogen fixation in the mucilage of maize aerial roots** (USDA-NIFA; \$457,658 to Wallace). Jan 2021-Dec 2024.

Assistant Professor

- PI \$44,475 **Breeding Hemp Varieties Adapted to Georgia Growing Conditions** (UGA Cultivar Development Research Program; \$44,475 to Wallace). Jul 2019-Dec 2019.
- Co-PI \$32,750 **Request for Initiating Breeding of Industrial Hemp for Georgia** (Georgia Seed Development Program; \$9,000 to Wallace). May 2019-Dec 2019.
- PI \$25,530 **Evaluating the Natural Corn Microbiome in Georgia** (Georgia Corn Commission; \$25,530 to Wallace). Mar 2018-Dec 2018.
- PI \$29,946 **Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative in 2019** (Georgia Corn Commission; \$29,946 to Wallace). Jan 2019-Dec 2019.
- Co-PI \$499,997 **Developing high-throughput phenotyping capacity at Fort Valley State University for genetic enhancement of sugarcane aphid resistance in sorghum** (USDA-NIFA; \$30,585 to Wallace). Feb 2019-Feb 2023.
- PI \$584,461 **Harnessing Endophytes to Improve Crop Efficiency and Production** (FFAR; \$584,461 to Wallace). Jan 2019-Dec 2022.
- Co-PI \$1,054,463 **Uncovering novel sources of anthracnose resistance in populations of genetically diverse sorghums [*Sorghum bicolor* (L.) Moench]** (DOE; \$135,997 to Wallace). Oct 2018-Sep 2022.
- PI \$1,500 **International Travel Funds to present at the 60th Annual Maize Genetics Conference** (UGA Office of the Provost; \$1,500 to Wallace). Mar 2018-Jun 2018.
- PI \$2,000 **International travel award to present at the 60th Annual Maize Genetics Conference** (UGA CAES; \$2,000 to Wallace). Jan 2018-Jun 2018.
- PI \$26,014 **Continuing Support for Georgia Locations in the Genomes to Fields (G2F) Initiative** (Georgia Corn Commission; \$26,014 to Wallace). Mar 2018-Dec 2018.
- Co-PI \$4,800 **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** (UGA and Chinese Agriculture University; \$4,800 to Wallace). Mar 2018-Sep 2018.
- PI \$6,252 **Catalyzing new research partnerships in maize microbiomes** (CRDF global; \$6,252 to Wallace). Dec 2017-Jun 2018.

PI	\$1,344,038	ECA-PGR: Identifying Host Factors that Modulate the Association of Tall Fescue (<i>Festuca arundinacea</i>) with an Obligate Fungal Endophyte (National Science Foundation; \$1,330,152 to Wallace). Apr 2018-Dec 2024.
Co-PI	\$487,811	TRANSFORM-PGR Mining the compact <i>Utricularia</i> genome as source of novel regulatory elements for crop biotechnology (National Science Foundation; \$215,400 to Wallace). Mar 2018-Dec 2022.
Co-PI	\$39,356	BFP 2017 Asia & LA: CSA and GRA Bangladesh (USDA Foreign Ag Service; \$39,356 to Wallace). Jan 2018-Dec 2019.
Co-PI	\$498,181	Building soil health with living mulch cultivation (USDA-NIFA; \$38,588 to Wallace). Jan 2018-Dec 2021.
PI	\$15,000	Genomic Selection for Aflatoxin and Drought Resistance in Peanut (Georgia Peanut Commission; \$15,000 to Wallace). Apr 2017-Jun 2018.
PI	\$19,840	A Comparison of Corn Biological Seed Treatments for use in Georgia (Georgia Corn Commission; \$19,840 to Wallace). Jan 2017-Dec 2017.
PI	\$24,260	Support for Georgia Locations in the US-wide Genomes to Fields (G2F) initiative (Georgia Corn Commission; \$24,260 to Wallace). Jan 2017-Dec 2017.
PI	\$9,806	Genomic Comparison of Toxic and Non-toxic Endophytes of Tall Fescue (UGA OVPR; \$9,806 to Wallace). May 2016-Dec 2016.

Submitted but unfunded

Associate Professor

PI	\$849,185	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 (USDA-AFRI; \$307,530 to Wallace). Apr 2023-Mar 2026.
PI		PacBio Better Future sequencing grant (Pacific Biosciences). Jan 2023-Dec 2023.
PI		West African Research Association Residency Fellowship (West African Research Association). Sep 2022-Jan 2023.
Co-PI	\$799,776	Plant breeding partnership: introgression of efficient aerial root nitrogen-fixation from tropical maize landraces to selected elite materials (USDA-AFRI; \$299,428 to Wallace). Jan 2022-Dec 2024.
Co-PI	\$999,990	An integrated approach to increase thermotolerance in sorghum and pearl millet (FFAR; \$158,460 to Wallace). Jun 2021-May 2025.
Co-PI	\$2,999,997	NRT-URoL: PlantSciFI: Cultivating Careers in the Plant Sciences and Fields that Intersect (National Science Foundation). Jan 2021-Dec 2025.

Assistant Professor

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

Co-PI	\$299,992	Ecosystems Underfoot: Using undergraduate research on the urban microbiome to assess the impact of research participation on STEM recruitment and retention (NSF; \$25,000 to Wallace). Jul 2017-Jun 2020.
PI	\$949,353	The Role of the Maize Microbiome on Biomass Production under Field Conditions (DOE; \$949,353 to Wallace). Jul 2016-Jul 2021.
Co-PI	\$61,442	Induction of Nitrogen stress tolerance in Maize using biological seed treatment products (USDA-NIFA; \$59,190 to Wallace). Jun 2016-Jan 2017.

Professional Development

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

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	Member	Promotion & Tenure Committee for Leonardo Bastos , Crop & Soil Sciences
Jan 2022	- Present	Chair	Committee on Diversity, Equity, and Inclusion , Institute of Bioinformatics
May 2018	- Present	Faculty Mentor	Journal Club faculty mentor , Institute of Plant Breeding, Genetics, and Genomics
Apr 2017	- Present	Coordinator	Microbiome Group , University of Georgia
Feb 2016	- Present	Faculty Mentor	Athens Science Café , Athens Science Cafe
Dec 2022	- Dec 2024	Faculty Mentor	Boerma Plant Breeding Lecture Series , Institute of Plant Breeding, Genetics, and Genomics
Aug 2019	- Jan 2022	Chair	Outreach Committee , Institute of Bioinformatics
May 2017	- Dec 2021	Member	Undergraduate Committee , The Plant Center
Jun 2017	- Dec 2019	Member	Executive Committee , Integrated Plant Sciences
Sep 2018	- Mar 2019	Member	Faculty Search committee , Institute of Bioinformatics
Sep 2016	- Dec 2017	Member	Symposium Committee , Institute of Bioinformatics
Sep 2015	- May 2016	Member	Curriculum Committee , 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 (3) Frontiers in Bioengineering, Microorganisms, The Crop Journal

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)

Public Outreach and Service

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
 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