Jason G. Wallace

Associate Professor

Curriculum Vitae
May 2022

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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
- Fall 2022
- Fall 2020
- Fall 2018
- Fall 2016

PBGG 8860 **PBGG Student Communication Seminar** — 1 credit
- Spring 2022

PBGG 8861 **PBGG Student Research Seminar** — 1 credit
- Spring 2022

PBGG 8874 **Genomic selection** — 1 credit
- Spring 2021
- Spring 2019
- Spring 2017

PBGG 8875 **Genome-wide association in plants** — 1 credit
- Spring 2021
- Spring 2019
- Spring 2017

Guest Lectures

Spring 2021	**PBGG Student Communication Seminar** (PBGG 8860)
Spring 2021	**PBGG Student Research Seminar** (PBGG 8861)
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)

Student Mentorship

Chair (Current)

PhD	2020-present	**Talamantes, Darrian "Roy"**	UGA Institute of Bioinformatics
PhD	2019-present	**Corut, Kivanc**	UGA Institute of Bioinformatics
PhD	2019-present	**Li, Hanxia "Roy"**	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

Committee Member (Current)

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)
MS	2019-present	**Meinecke, Colton**	UGA Warnell School of Forestry (Caterina Villari lab)
PhD	2019-present	**Miller, Mark**	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
MS	2019-present	**Pathania, Sakshi**	UGA Department of Horticulture (Dario Chavez lab)
PhD	2019-present	**Piri, Rebecca**	UGA Institute of Bioinformatics (Kelly Dawe lab)
PhD	2019-present	**Singh, Lovepreet**	UGA Department of Crop & Soil Sciences (Andy Paterson lab)
PhD	2018-present	**Choi, Soyeon**	UGA Department of Genetics (Katrien Devos 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	**Tran, Dung("Ivy")**	UGA Institute of Plant Breeding, Genetics, and Genomics (Zenglu Li lab)
PhD	2018-present	**Wright, Hallie**	UGA Institute of Plant Breeding, Genetics, and Genomics (Katrien Devos lab)
PhD	2017-present	**Adhikari, Jeevan**	UGA Plant Genome Mapping Laboratory (Andy Paterson lab)

Committee Member (Prior)

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)
Fall 2018-present	**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	**### TODO: Summer 2020 undergrads ###**	TODO HERE (UGA)
2019-present	**Wideman, Kya**	Undergraduate researcher (UGA)
2020-present	**Kirkpatrick, Caitlin**	Undergraduate researcher (UGA)

High School Students

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

Scholarly Activities

Publications

	Research Article	Review	Book Chapter
Associate Professor	5	0	0
Assistant Professor	16	2	1
Postdoc	1	1	0
PhD	3	0	0
Total	*25*	*3*	*1*

Associate Professor (5)

1. 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., Wallace, J., Peer, Y. V. de, Bennetzen, J. L., & Deynze, A. V. (2021). Genome sequence and genetic diversity analysis of an under-domesticated orphan crop, white fonio (digitaria exilis). In *GigaScience* (Vol. 10, Issue 3). Oxford University Press (OUP). https://doi.org/10.1093/gigascience/giab013
2. Giangacomo, C., Mohseni, M., Kovar, L., & Wallace, J. G. (2021). Comparing DNA extraction and 16S rRNA gene amplification methods for plant-associated bacterial communities. In *Phytobiomes Journal* (Vol. 5, Issue 2, pp. 190–201). Scientific Societies. https://doi.org/10.1094/pbiomes-07-20-0055-r
3. 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., Góngora-Castillo, E., Wallace, J. G., Cepela, J., Mateos-Hernandez, M., Owens, B. F., Tiede, T., Buckler, E. S., Rocheford, T., Buell, C. R., … DellaPenna, D. (2020). Eleven biosynthetic genes explain the majority of natural variation in carotenoid levels in maize grain. In *The Plant Cell* (Vol. 33, Issue 4, pp. 882–900). Oxford University Press (OUP). https://doi.org/10.1093/plcell/koab032
4. McFarland, B. A., AlKhalifah, N., Bohn, M., Bubert, J., Buckler, E. S., Ciampitti, I., Edwards, J., Ertl, D., Gage, J. L., Falcon, C. M., Flint-Garcia, S., Gore, M. A., Graham, C., Hirsch, C. N., Holland, J. B., Hood, E., Hooker, D., Jarquin, D., Kaeppler, S. M., … Leon, N. de. (2020). Maize genomes to fields (G2F): 20142017 field seasons: Genotype, phenotype, climatic, soil, and inbred ear image datasets. In *BMC Research Notes* (Vol. 13, Issue 1). Springer Science; Business Media LLC. https://doi.org/10.1186/s13104-020-4922-8
5. Kusmec, A., Yeh, C.-T. “Eddy”, Fields Initiative, T. G. to, & 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. In *SSRN Electronic Journal*. Elsevier BV. https://doi.org/10.2139/ssrn.3684755

Assistant Professor (19)

1. Johnson, M., Deshpande, S., Vetriventhan, M., Upadhyaya, H. D., & Wallace, J. G. (2019). Genome-wide population structure analyses of three minor millets: Kodo millet, little millet, and proso millet. In *The Plant Genome* (Vol. 12, Issue 3, p. 190021). Wiley. https://doi.org/10.3835/plantgenome2019.03.0021

2. Harris-Shultz, K. R., Davis, R. F., Wallace, J., Knoll, J. E., & Wang, H. (2019). A novel QTL for root-knot nematode resistance is identified from a south african sweet sorghum line. In *Phytopathology* (Vol. 109, Issue 6, pp. 1011–1017). Scientific Societies. https://doi.org/10.1094/phyto-11-18-0433-r
3. Wallace, J. G., & May, G. (2018). Endophytes: The other maize genome. In *Compendium of plant genomes* (pp. 213–246). Springer International Publishing. https://doi.org/10.1007/978-3-319-97427-9_14
4. Walters, W. A., Jin, Z., Youngblut, N., Wallace, J. G., Sutter, J., Zhang, W., González-Peña, A., Peiffer, J., Koren, O., Shi, Q., Knight, R., Rio, T. G. del, Tringe, S. G., Buckler, E. S., Dangl, J. L., & Ley, R. E. (2018). Large-scale replicated field study of maize rhizosphere identifies heritable microbes. In *Proceedings of the National Academy of Sciences* (Vol. 115, Issue 28, pp. 7368–7373). Proceedings of the National Academy of Sciences. https://doi.org/10.1073/pnas.1800918115
5. 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., Qiu, W., Tseng, K.-F., Wang, N., Gao, Z., Birchler, J. A., Harkess, A. E., Hodges, A. L., & Hiatt, E. N. (2018). A kinesin-14 motor activates neocentromeres to promote meiotic drive in maize. In *Cell* (Vol. 173, Issue 4, pp. 839–850.e18). Elsevier BV. https://doi.org/10.1016/j.cell.2018.03.009
6. Pucher, A., Hash, C. T., Wallace, J. G., Han, S., Leiser, W. L., & 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. In *BMC Plant Biology* (Vol. 18, Issue 1). Springer Science; Business Media LLC. https://doi.org/10.1186/s12870-018-1267-8
7. Chandnani, R., Kim, C., Guo, H., Shehzad, T., Wallace, J. G., He, D., Zhang, Z., Patel, J. D., Adhikari, J., Khanal, S., & Paterson, A. H. (2018). Genetic analysis of gossypium fiber quality traits in reciprocal advanced backcross populations. In *The Plant Genome* (Vol. 11, Issue 1, p. 170057). Wiley. https://doi.org/10.3835/plantgenome2017.06.0057
8. 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., Ilut, D. C., Mateos-Hernandez, M., Hamilton, J., Owens, B. F., Tiede, T., Buckler, E. S., Rocheford, T., Buell, C. R., Gore, M. A., & DellaPenna, D. (2017). Novel loci underlie natural variation in vitamin e levels in maize grain. In *The Plant Cell* (Vol. 29, Issue 10, pp. 2374–2392). Oxford University Press (OUP). https://doi.org/10.1105/tpc.17.00475
9. Varshney, R. K., Shi, C., Thudi, M., Mariac, C., Wallace, J., Qi, P., Zhang, H., Zhao, Y., Wang, X., Rathore, A., Srivastava, R. K., Chitikineni, A., Fan, G., Bajaj, P., Punnuri, S., Gupta, S. K., Wang, H., Jiang, Y., Couderc, M., … Xu, X. (2017). Pearl millet genome sequence provides a resource to improve agronomic traits in arid environments. In *Nature Biotechnology* (Vol. 35, Issue 10, pp. 969–976). Springer Science; Business Media LLC. https://doi.org/10.1038/nbt.3943
10. Strable, J., Wallace, J. G., Unger-Wallace, E., Briggs, S., Bradbury, P. J., Buckler, E. S., & Vollbrecht, E. (2017). Maize YABBY genes drooping leaf1 and drooping leaf2 regulate plant architecture. In *The Plant Cell* (Vol. 29, Issue 7, pp. 1622–1641). Oxford University Press (OUP). https://doi.org/10.1105/tpc.16.00477
11. Wallace, J. G., & Mitchell, S. E. (2017). Genotyping-by-sequencing [Review of *Genotyping-by-sequencing*]. *Current Protocols in Plant Biology*, *2*(1), 64–77. Wiley. https://doi.org/10.1002/cppb.20042
12. McCaw, M. E., Wallace, J. G., Albert, P. S., Buckler, E. S., & Birchler, J. A. (2016). Fast-flowering mini-maize: Seed to seed in 60 days. In *Genetics* (Vol. 204, Issue 1, pp. 35–42). Oxford University Press (OUP). https://doi.org/10.1534/genetics.116.191726
13. Wallace, J. G., Zhang, X., Beyene, Y., Semagn, K., Olsen, M., Prasanna, B. M., & 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. In *Crop Science* (Vol. 56, Issue 5, pp. 2365–2378). Wiley. https://doi.org/10.2135/cropsci2015.10.0632
14. Punnuri, S. M., Wallace, J. G., Knoll, J. E., Hyma, K. E., Mitchell, S. E., Buckler, E. S., Varshney, R. K., & Singh, B. P. (2016). Development of a high-density linkage map and tagging leaf spot resistance in pearl millet using genotyping-by-sequencing markers. In *The Plant Genome* (Vol. 9, Issue 2). Wiley. https://doi.org/10.3835/plantgenome2015.10.0106
15. Upadhyaya, H. D., Vetriventhan, M., Deshpande, S. P., Sivasubramani, S., Wallace, J. G., Buckler, E. S., Hash, C. T., & Ramu, P. (2015). Population genetics and structure of a global foxtail millet germplasm collection. In *The Plant Genome* (Vol. 8, Issue 3). Wiley. https://doi.org/10.3835/plantgenome2015.07.0054
16. Zhang, N., Gibon, Y., Wallace, J. G., Lepak, N., Li, P., Dedow, L., Chen, C., So, Y.-S., Kremling, K., Bradbury, P. J., Brutnell, T., Stitt, M., & Buckler, E. S. (2015). Genome-wide association of carbon and nitrogen metabolism in the maize nested association mapping population. In *Plant Physiology* (Vol. 168, Issue 2, pp. 575–583). Oxford University Press (OUP). https://doi.org/10.1104/pp.15.00025
17. Wallace, J. G., Upadhyaya, H. D., Vetriventhan, M., Buckler, E. S., Hash, C. T., & Ramu, P. (2015). The genetic makeup of a global barnyard millet germplasm collection. In *The Plant Genome* (Vol. 8, Issue 1). Wiley. https://doi.org/10.3835/plantgenome2014.10.0067

Postdoc (2)

1. Wallace, J. G., Bradbury, P. J., Zhang, N., Gibon, Y., Stitt, M., & Buckler, E. S. (2014). Association mapping across numerous traits reveals patterns of functional variation in maize. In J. O. Borevitz (Ed.), *PLoS Genetics* (Vol. 10, Issue 12, p. e1004845). Public Library of Science (PLoS). https://doi.org/10.1371/journal.pgen.1004845
2. Wallace, J. G., Larsson, S. J., & Buckler, E. S. (2013). Entering the second century of maize quantitative genetics [Review of *Entering the second century of maize quantitative genetics*]. *Heredity*, *112*(1), 30–38. Springer Science; Business Media LLC. https://doi.org/10.1038/hdy.2013.6

PhD (3)

1. Wallace, J. G., Zhou, Z., & Breaker, R. R. (2012). OLE RNA protects extremophilic bacteria from alcohol toxicity. In *Nucleic Acids Research* (Vol. 40, Issue 14, pp. 6898–6907). Oxford University Press (OUP). https://doi.org/10.1093/nar/gks352
2. Wallace, J. G., & Breaker, R. R. (2011). Improved genetic transformation methods for the model alkaliphile bacillus halodurans c-125. In *Letters in Applied Microbiology* (Vol. 52, Issue 4, pp. 430–432). Wiley. https://doi.org/10.1111/j.1472-765x.2011.03017.x
3. Block, K. F., Puerta-Fernandez, E., Wallace, J. G., & Breaker, R. R. (2010). Association of OLE RNA with bacterial membranes via an RNA-protein interaction. In *Molecular Microbiology* (Vol. 79, Issue 1, pp. 21–34). Wiley. https://doi.org/10.1111/j.1365-2958.2010.07439.x

Meetings attended

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

Assistant Professor (31)

2019 (5)

* **ASA-CSSA-SSSA Annual Meeting**; Tampa, Florida (November 2019)
† **Plant Genome Research Program 21st 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 Fall 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**; Washginton, D.C. (July 2015)
†§ **57th Annual Maize Genetics Conference**; St. Charles, Illinois (March 2015)

Invited Presentations

§ = international scope

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

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

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	$180,797	$180,797	$1,068,999	$457,658	***$1,249,796***	***$638,455***
Totals	*$2,313,919*	*$2,300,033*	*$3,686,357*	*$931,384*	**$6,000,276**	**$3,231,417**

Pending

[None currently]

Funded

Associate Professor

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 (Festuca arundinacea) with an Obligate Fungal Endophyte** (National Science Foundation; $1,330,152 to Wallace). Apr 2018-Mar 2022.
Co-PI	$487,811	**TRANSFORM-PGR Mining the compact Utricularia 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

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

May 2018	–	Present	**Journal Club faculty mentor**, Institute of Plant Breeding, Genetics, and Genomics
Apr 2017	–	Present	**Microbiome Group coordinator**, University of Georgia
Feb 2016	–	Present	**Athens Science Café faculty advisor**, Athens Science Cafe
May 2017	–	Dec 2021	**Undergraduate Committee member**, The Plant Center
Jun 2017	–	Dec 2019	**Executive Committee member**, Integrated Plant Sciences
Sep 2018	–	Mar 2019	**Search committee member**, Institute of Bioinformatics
Sep 2016	–	Dec 2017	**Symposium Committee member**, Institute of Bioinformatics
Sep 2015	–	May 2016	**Curriculum Committee member**, 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

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

Associate Professor

Grant Proposal (7)	Foundation for Food and Agriculture Research (2), National Science Foundation (3), UGA IPBGG, US Department of Energy
Manuscript (2)	Frontiers in Bioengineering, The Crop Journal

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

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