Jason G. Wallace

Associate Professor

Curriculum Vitae
March 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

TODO Presentations

TODO Posters & Abstracts

TODO: Other Creative Contributions

Research Grants

TODO: Grants (inc. summary table)

TODO: Professional Development

TODO: Academic Service

TODO: University Service

TODO: Service to the wider field (rename)

TODO: Public Outreach and Service

Other

TODO: Meetings attendede

TODO: Society memberships

TODO: Major Accomplishments