

CURRICULUM VITAE

GUANGCHAO SUN

Quantitative Life Sciences Initiative
Center for Plant Science Innovation
Department of Agronomy & Horticulture
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Employment

December, 2017-present: NSF Supported Postdoctoral Researcher, James Schnable Lab, University of Nebraska Lincoln;

August, 2019-present: Adjunct instructor for Microbiology Lab at Southeast Community College;

August, 2017-December, 2018: NSF Supported Postdoctoral Researcher, Richard Wilson Lab, University of Nebraska Lincoln;

Education

August, 2013-August, 2017: PhD Plant pathology(with Richard Wilson), University of Nebraska Lincoln

August, 2009-July, 2013: BA Agronomy, Northwest A&F University

Honors and Awards

August 2016-May 2017, Milton E. Mohr Fellowship;

October 2016, Poster award in Plant science retreat;

July 2016, David H. & Anne E. Larrick Memorial Student Travel Funds;

September 2015-May 2016, Widaman Trust Distinguished Graduate Assistant Award;

August 2013-August 2017, Chinese scholar council graduate fellowship.

Peer Reviewed Publications

[Google Scholar](#)

1. Li, G., Qi, X., **Sun, G.**, Rocha, R. O., Segal, L. M., Downey, K. S., ... & Wilson, R. A. (2019). Terminating rice innate immunity induction requires a network of antagonistic and redox-responsive E3 ubiquitin ligases targeting a fungal sirtuin. *New Phytologist* doi:[nph.16365](#).
2. **Sun, G.**, Qi, X., & Wilson, R. A. (2018). A feed-forward subnetwork emerging from integrated TOR- and cAMP/PKA-signaling architecture reinforces *Magnaporthe oryzae* appressorium morphogenesis. *Molecular Plant-Microbe Interactions* doi:[10.11094/MPMI-10-18-0287-R](#).
3. **Sun, G.**, Elowsky, C., Li, G., & Wilson, R. A. (2018). TOR-autophagy branch signaling via Imp1 dictates plant-microbe biotrophic interface longevity. *PLoS genetics*, 14(11).e1007814 doi:[Genetics 15\(2\): e1008016](#).

4. Zhang, C., Song, L., Choudhary, M. K., Zhou, B., **Sun, G.**, Broderick, K., ... & Zeng, L. (2018). Genome-wide analysis of genes encoding core components of the ubiquitin system in soybean (*Glycine max*) reveals a potential role for ubiquitination in host immunity against soybean cyst nematode. *BMC plant biology*, 18(1).149 doi:[10.1186/s12870-018-1365-7](https://doi.org/10.1186/s12870-018-1365-7).
5. Marroquin-Guzman, M*, **Sun, G***, & Wilson, R. A. (2017). Glucose-ABL1-TOR Signaling Modulates Cell Cycle Tuning to Control Terminal Appressorial Cell Differentiation. *PLoS genetics*, 13(1). doi:[10.1371/journal.pgen.1006557](https://doi.org/10.1371/journal.pgen.1006557) (*Contributed equally).
6. Huang, D., Hu, Y., **Sun G.**, & Huang, L. (2014); Phenotype and pathogenicity of *Valsa mali* T-DNA insertion mutants. *Journal of Northwest A&F University, Nature science edition*, 42(7), 113-121.

Presentations

Oral Presentations

1. Genomic, Metabolic, and Transcriptomic Responses of the Extremophile Grass *Paspalum vaginatum* to Nutrient Deficit Stress, Plant & Animal Genome Conference XVIII, Jan, 2020;
2. Quantitative Genetic Analysis of Gene Expression in Maize Roots, CRRRI group meeting, Jan, 2019;
3. Investigating Novel Regulators of Appressorial Development by the Rice Blast Fungus *Magnaporthe oryzae* (Oral presentation), UNL Plant pathology graduate student seminar, April, 2016.

Poster Presentations

1. Genomic, Metabolic, and Transcriptomic Responses of the Extremophile Grass *Paspalum vaginatum* to Nutrient Deficit Stress, Plant & Animal Genome Conference XVIII, Jan, 2020;
2. Exploring the Genetics of Alternation of Nutrient Stress Resilience during the Domestication of Grass Crops, UNL Plant Science Symposium, October, 2019;
3. Quantitative Genetic Analysis of Genetic Regulation of Variation in Gene Expression Across the Roots of a Maize Diversity Panel, Maize Genetics Conference, March, 2019;
4. Quantitative Genetic Analysis of Genetic Regulation of Variation in Gene Expression Across the Roots of a Maize Diversity Panel, 2018 UNL Plant Science Retreat, Nebraska City, October 12-13, 2018;
5. A novel integral membrane protein (Imp1) mediates TOR signaling in *Magnaporthe oryzae* and is required for deterministic (non-random) appressorium formation and biotrophic growth in rice cells, 29th Fungal genetics Conference, Pacific Grove, California, March 14-19, 2017;
6. Glucose-TOR signaling regulates cell cycle progression and autophagy during appressorium development by the rice blast fungus *Magnaporthe oryzae*, 2016 IS-MPMI XVII Congress, July, 2016;