Curriculum Vitae

Jennifer H. Wisecaver

Associate Professor

School of Biological Sciences
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ACADEMIC APPOINTMENTS

2025 – present	Associate Professor, School of Biological Sciences, Washington State University
2025 – present	Adjunct Associate Professor, Department of Biochemistry, Purdue University
2022 – 2024	Associate Professor, Department of Biochemistry, Purdue University
2017 – 2024	Assistant Professor, Department of Biochemistry, Purdue University
2017 – present	Member, Purdue Center for Plant Biology, Purdue University
2013 – 2017	NSF Plant Genome Postdoctoral Research Fellow, Vanderbilt University

EDUCATION

2012	Ph.D. Ecology & Evolutionary Biology	University of Arizona, Tucson, Arizona
2007	B.S. Biology	Humboldt State University, Arcata, California

HONORS AND AWARDS

2023	University Faculty Scholar, Purdue University
2018	Arthur C. Neish Young Investigator Award, Phytochemical Society of North America
2017	Postdoc of the Year, Vanderbilt University
2016	DeLill Nasser Travel Award, Genetics Society of America
2012	Harold C. Bold Award, Phycological Society of America
2012	Judges' Choice for excellent video and poster presentation, NSF IGERT PI meeting
2011	Robert W. Hoshaw Scholarship, Ecology and Evolutionary Biology, University of Arizona
2011	Outstanding Scholarship Award, College of Science, University of Arizona
2010	Galileo Circle Scholarship, University of Arizona College of Science
2010	Graduate and Professional Student Council travel grant, University of Arizona
2009	Honorable Mention, National Science Foundation Graduate Research Fellowship
2005	Malcolm Oliphant Marine Science Scholarship, Humboldt State University

FUNDING

National Science Foundation	PI, 2023-2024, MCB-2326865: Conference: Leveraging Innovations from Evolution Scoping Session, $216,786
National Science Foundation	PI, 2018-2024, DEB-1831493: Dimensions: Eco-Evolutionary Drivers of Diversity in Toxic Algal Blooms, $1,999,208
Purdue Center for Plant Biology	PI, 2023, Identification of the genes that control sexual identity in vascular plants, $30,000
Purdue Agriculture	Co-PI, 2022-2023, AgSEED: Investigating chloroplast thievery in photosynthetic sea slugs to understand the "rules of life" for endosymbiosis and to guide next-generation synthetic biology, $50,000

National Science Foundation	Sponsoring scientist for R. S. Abrahams, 2021-2024, IOS-2109877: NSF Postdoctoral Fellowship in Biology: The evolution and characterization of C4 and C3-C4 phenotypes, $216,000
National Science Foundation	Sponsoring scientist for J. Trujillo, 2020-2023, IOS-2010527: NSF Postdoctoral Fellowship in Biology: Evolution of glucosinolate innovation among non-Arabidopsis Brassicaceae species, $216,000
National Science Foundation	Co-PI, 2020-2023, OAC-2018926: CC* Compute: Private Campus Cloud for Data Analytics and Machine Learning, $392,205
National Science Foundation	PI, 2021-2022, NSF REPS Research Experience for Post-Baccalaureate Student Supplement, $34,700
DARPA Advanced Plant Technologies	Co-PI, 2018-2021, Development of advanced plant technologies for the detection of environmental threats, $10,000,000
Purdue Center for Plant Biology	Co-PI, 2018, Center for Plant Biology seed: Enhancing Ceratopteris as a model system for plant evo/devo/physio research, $50,000
National Science Foundation	PI, 2014-2017, IOS-1401682: NSF Postdoctoral Fellowship in Biology: The Evolution of Secondary Metabolic Gene Clusters in Plants, $216,000
National Science Foundation	2010-2012, DEB-1010661: Dissertation Research: Determining the role of horizontal gene transfer in plastid acquisition and endosymbiosis, $14,969

OTHER RESEARCH SUPPORT

Joint Genome Institute	PI, 2024, JGI New Investigator Community Sequencing Project: Transcriptional characterization of toxin biosynthesis pathways in *Prymnesium parvum*, a growing algal threat to freshwater ecosystems, Scope of work: transcriptome sequencing of *P. parvum* under 30 different culture conditions for the purpose of constructing gene co-expression networks for toxin pathway discovery
Joint Genome Institute	Co-PI, 2018, JGI Community Sequencing Project: Comparative and Population Genomics of Xylariaceae, Scope of work: de novo genome and transcriptome sequencing and annotation of 100 Xylariaceae, one of the largest and most diverse families of fungi made up of endophytic, pathogenic, and saprotrophic (including wood degrading) species

PROFESSIONAL AFFILIATIONS

American Society of Plant Biologists, American Fern Society, International Society for Evolutionary Protistology, Phycological Society of America, Genetics Society of America, Society for the Study of Evolution

PUBLICATIONS

Google Scholar (4/22/2025): citation=4,185; h-index=30; i10=41
https://scholar.google.com/citations?user=2lrO8j8AAAAJ&hl=en

51 total publications; 11 as corresponding author

In bold are Wisecaver lab members; graduate students are indicated by a (g),
undergraduates by (u), postbaccalaureate students by (b), and postdoctoral scholars by (p)
* indicate publication corresponded by Dr. Wisecaver
[1] indicate co-first authors

51. **Burow, K**, X Yang, Y Zhou, BP Dilkes, & **JH Wisecaver**. 2025. A BRASSINOSTEROID INSENSISTIVE 1 receptor kinase ortholog is required for sex determination in the homosporous fern *Ceratopteris richardii*. The Plant Cell. *In Press.*
50. Fallon, TR, VV Shende, IH Wierzbicki, **AL Pendleton**[p], **NF Watervoort**[g], **RP Auber**[g], DJ Conzalez, **JH Wisecaver**, & BS Moore. 2024. Giant polyketise synthase enzymes in the biosynthesis of giant marine polyether toxins. Science. 385: 671-678.
49. Saha, D, JB Gregor, S Hoda, **Eastman, KE**[g], M Navarrete, **JH Wisecaver** & SD Briggs. 2024. *Candida glabrata* maintains two Hap1 homologs, Zcf27 and Zcf4, for distinct roles in ergosterol gene regulation to mediate sterol homeostasis under azole and hypoxic conditions. mSphere. 9: e00524-24.
48. **Eastman, KE**[g], **AL Pendleton**[p], MA Shaikh, T Suttiyut, **R Ogas**[u], **P Tomko**[u], **G Gavelis**[p], JR Widhalm* & **JH Wisecaver***. A reference genome for the long-term kleptoplast-retaining sea slug *Elysia crispata* morphotype clarki. G3: Genes, Genomes, Genetics. 13: jkad234.
47. **Wisecaver, JH***, **RP Auber**[g], **AL Pendleton**[p], **NF Watervoort**[b], TR Fallon, **OL Riedling**[u], SR Manning, BS Moore, & WW Driscoll. 2023. Extreme genome diversity and cryptic speciation in a harmful algal bloom forming eukaryote. Current Biology. 33: 2246-2259
46. Davidi, L, SD Gallaher, E Ben-David, SO Purvine, TL Filmore, CD Nicora, RJ Craig, S Schmollinger, S Roje, CE Blaby-Haas, **RP Auber**[g], **JH Wisecaver**, & SS Merchant. 2023. Pumping iron: A multi-omics analysis of two extremophilic algae reveals mechanisms of iron economy. Proceedings of the National Academy of Sciences U.S.A. 120: e2305495120
45. Driscoll, WW, **JH Wisecaver**, J Hackett, N Espinosa, J Padway, J Engers, & J Bower. 2023. Behavioral differences underlie toxicity and predation variation in blooms of *Prymnesium parvum*. Ecology Letters. 26: 677-691
44. **Trujillo, JT**[p], J Long, E Aboelnour, J Ogas & **JH Wisecaver***. 2022. Evolutionary history of chromodomain helicase DNA-binding chromatin remodelers reveals timing of diversification in land plants and animals. Genome Biology and Evolution.14: evac066
43. Suttiyut, T[1], **R Auber**[1g], JW Crook, E Yakubova, **JH Wisecaver*** & JR Widhalm*. 2022. Global coexpression network analysis reveals the extraplastidal origin of the geranyl diphosphate precursor of shikonin. Horticulture Research. 9: uhab087
42. Franco, MEE, **JH Wisecaver**, AE Arnold, Y Ju, JC Slot, S Arhendt, LP Moore, **KE Eastman**[g], K Scott, SJ Mondo, A Kuo, R Hayes, S Haridas, B Andreopoulos, R Riley, K LaButti, J Pangilinan, A Lipzen, V Ng, E Drula, B Henrissat, K Youens-Clark, F Lutzoni, J Miadlikowska, DC Eastwood, R Hamelin, IV Grigoriev, & JM U'Ren. 2022. Secondary metabolism drives ecological breadth in the Xylariaceae. New Phytologist. 233: 1317-1330
41. Kwon, MJ, C Steiniger, TC Cairns, **JH Wisecaver**, A Lind, C Pohl, C Regner, A Rokas & V Meyer. 2021. Beyond the biosynthetic gene cluster paradigm: Genome-wide co-expression networks connect clustered and unclustered transcription factors to secondary metabolic pathways. Microbiology spectrum. 9: e00898-21
40. Geng, Y, C Cai, SAM McAdam, JA Banks, **JH Wisecaver*** & Y Zhou*. 2021. A de novo transcriptome assembly of *Ceratopteris richardii* provides insights into the evolutionary dynamics of complex gene families in land plants. Genome Biology and Evolution. 13: evab042

39. Geng, Y, L Guo, H Han, X Liu, JA Banks, **JH Wisecaver**, & Y Zhou. 2021. Conservation and diversification of HAIRY MERISTEM gene family in land plants. The Plant Journal. 106: 366-378
38. Smith, PM, E Gough, A Younts, B Werts, TJ Hacker, N Neumeister, & **JH Wisecaver**. 2020. The "Geddes" Composable Platform-An Evolution of Community Clusters for a Composable World. IEEE/ACM International Workshop on Interoperability of Supercomputing and Cloud Technologies (SuperCompCloud). 2020: 33-38
37. Thielen, PM[1], **AL Pendleton**[1p], RA Player, KV Bowden, TJ Lawton & **JH Wisecaver***. 2020. Reference genome for the highly transformable *Setaria viridis* ME034V. G3: Genes, Genomes, Genetics. 10: 3467–3478
36. **Auber, RP**[g], T Suttiyut, RM McCoy, M Ghaste, JW Crook, **AL Pendleton**[p], JR Widhalm* & **JH Wisecaver***. 2020. Hybrid de novo genome assembly of red gromwell (*Lithospermum erythrorhizon*) reveals evolutionary insight into shikonin biosynthesis. Horticulture Research. 7:1-15
35. DeMarco, AG, KL Milholland, **AL Pendleton**[p], JJ Whitney, P Zhu, DT Wesenberg, M Nambiar, A Pepe, S Paula, J Chmielewski, **JH Wisecaver**, WA Tao, & MC Hall. 2020. Conservation of Cdc14 phosphatase specificity in plant fungal pathogens: implications for antifungal development. Scientific Reports. 10:12973
34. Verster, K, **JH Wisecaver**, RP Duncan, M Karageorgi, AD Gloss, E Armstrong, DK Price, AR Menon, ZA Ali, & NK Whiteman. 2019. Horizontal transfer of prokaryotic cytolethal distending toxin B genes to eukaryotes. Molecular Biology and Evolution. 36:2105-2110
33. Gao, S, SE Golde, **JH Wisecaver**, Y Zhang, L Guo, L-J Ma, A Rokas, & AE Glenn. 2019. Genome-wide analysis of *Fusarium verticillioides* reveals potential contribution of horizontal gene transfer to the expansion of metabolism. Fungal Genetics and Biology. 128:60-73
32. Colle, M, CP Leisner, CM Wai, S Ou, KA Bird, J Wang, **JH Wisecaver**, AE Yocca, P Callow, G Ben-Zvi, A Brodt, K Baruch, T Swale, L Shiue, G Song, KL Childs, A Schilmiller, N Vorsa, CR Buell, R VanBuren, N Jiang, & PP Edger. 2019. Haplotype-phased genome and evolution of phytonutrient pathways of tetraploid highbush blueberry. Nature Plants. 8: giz012
31. Smith, SD, R Angelovici, K Heyduk, HA Maeda, GD Moghe, JC Pires, JR Widhalm, & **JH Wisecaver**. 2019. The renaissance of comparative biochemistry. American Journal of Botany. 106:3-13
30. Eidem, HR, J Steenwyk, **JH Wisecaver**, JA Capra, P Abbot, & A Rokas. integRATE: a desirability-based data integration framework for the prioritization of candidate genes across heterogeneous 'omics and its application to preterm birth. 2018. BMC Medical Genomics. 11: 107
29. Shen, X-X, DA Opulenta, J Kominek, X Zhou, J Steenwyk, KV Buh, MAB Haase, **JH Wisecaver**, M Wang, JT Boudouris, RM Schneider, QK Landon, M Ohkuma, R Endoh, M Takashima, R Manabe, N Cadex, D Libkind, CA Rosa, J DeVirgilio, AB Hulfachor, M Groenewalk, CP Kurtzman, CT Hittinger, & A Rokas. The tempo and mode of genome evolution across the budding yeast subphylum. 2018. Cell. 175: 1533-1545
28. Gonçalves, C, **JH Wisecaver**, M Salema-Oom, M José Leandro, X-X Shen, D Peris, CT Hittinger, A Rokas, & P Gonçalves. 2018. Evidence for loss and adaptive reacquisition of alcoholic fermentation in an early-derived fructophilic yeast lineage. eLife. 7: e33034
27. Lim, FY, TH Won, JA Baccile, **JH Wisecaver**, A Rokas, FC Schroeder, & NP Keller. 2018. Fungal isocyanide synthases: an unexplored resource in eukaryotic secondary metabolism. mBio. 9: 10.1128/mbio. 00785-18
26. Zhang, N, G Cai, DC Price, JA Crouch, P Gladieux, B Hillman, CH Khang, M-H LeBrun, Y-H Lee, J Luo, H Qiu, D Veltri, **JH Wisecaver**, J Zhu & D Bhattacharya. 2018. Genome wide analysis of the transition to pathogenic lifestyles in Magnaporthales fungi. Scientific Reports. 8: 5862
25. Rokas, A, **JH Wisecaver**, & AL Lind. 2018. The birth, evolution, and death of metabolic gene clusters in fungi. Nature Reviews Microbiology. 16: 731-744

24. Lind, AL, **JH Wisecaver**, C Lameiras, P Wiemann, JM Palmer, NP Keller, F Rodrigues, GH Goldman, & A Rokas. 2017. Drivers of genetic diversity in secondary metabolic gene clusters in a fungal population. PLoS Biology. 15: e2003583
23. **Wisecaver, JH**, AT Borowsky, V Tzin, G Jander, D Kliebenstein & A Rokas. 2017. A global co-expression approach for connecting genes to specialized metabolic pathways in plants. The Plant Cell. 29: 944–959
    - *Highlighted in Plant Cell In Brief, "Chasing Scattered Genes: Identifying Specialized Metabolite Pathway Genes through Global Coexpression Analysis"*
    - *Highlighted in Research News @ Vanderbilt, "New method for tapping vast plant pharmacopeia to make more effective drugs"*
22. Lojek, LJ, AJ Farrand, **JH Wisecaver**, CE Blaby-Haas, SS Merchant, A Rokas, & EP Skaar. 2017. *Chlamydomonas reinhardtii* cMO is an IsdG family heme oxygenase. mSphere. 2: e00176-17
21. Ohkura M, RR Fitak, **JH Wisecaver**, D DeBlasio, F Niazi, M Egholm, SD Rounsley, CD Kodira, and MJ Orbach. 2017. Genome sequence of *Ophidiomyces ophiodiicola*, an emerging fungal pathogen of snakes. Genome Announcements. 5: e00677-17
20. **Wisecaver, JH**, WG Alexander, SB King, CT Hittinger, & A Rokas. 2016. Dynamic evolution of nitric oxide detoxifying flavohemoglobins, a family of single-protein metabolic modules in bacteria and eukaryotes. Molecular Biology and Evolution. 33: 1979-1987
19. Alexander, WG, **JH Wisecaver**, A Rokas, & CT Hittinger. 2016. Horizontally acquired genes in early-diverging pathogenic fungi enable the use of host nucleosides and nucleotides. Proceedings of the National Academy of Sciences U.S.A. 113: 4116-4121
18. Riley, R and 37 other authors including **JH Wisecaver**. 2016. Comparative genomics of biotechnologically important yeasts. Proceedings of the National Academy of Sciences U.S.A. 113: 9882–9887
17. DeBlasio, DF, & **JH Wisecaver***. 2016. SICLE: A high-throughput tool for extracting evolutionary relationships from phylogenetic trees. PeerJ. 4: e2359
16. Lasek-Nesselquist, E, **JH Wisecaver**, JD Hackett, & MD Johnson. 2015. Insights into transcriptional changes that accompany organelle sequestration from the stolen nucleus of *Mesodinium rubrum*. BMC Genomics. 16: 805
15. U'Ren, JM, **JH Wisecaver**, AL Paek, BL Dunn, & BL Hurwitz. 2015. Draft genome sequence of the ale-fermenting *Saccharomyces cerevisiae* strain GSY2239. Genome Announcements. 3: e00776-15
14. Lind, AL, **JH Wisecaver**, TD Smith, X Feng, AM Calvo, & A Rokas. 2015. Examining the evolution of the regulatory circuit controlling secondary metabolism and development in the fungal genus Aspergillus. PLoS Genetics. 11: e1005096
13. Elmore, MH, KL McGary, **JH Wisecaver**, JC Slot, DM Geiser, S Sink, K O'Donnell, & A Rokas. 2015. Clustering of two genes putatively involved in cyanate detoxification evolved recently and independently in multiple fungal lineages. Genome Biology and Evolution. 7: 789-800
12. **Wisecaver, JH** & A Rokas. 2015. Fungal metabolic gene clusters – caravans traveling across genomes and environments. Frontiers in Microbiology. 6: 161
11. **Wisecaver, JH**[1], JC Slot[1], & A Rokas. 2014. The evolution of fungal metabolic pathways. PLoS Genetics. 10(12): e1004816
10. Gusev, O and 27 other authors including **JH Wisecaver**. 2014. Comparative genome sequencing reveals genomic signature of extreme desiccation tolerance in the anhydrobiotic midge. Nature Communications. 5: 4784
9. **Wisecaver, JH***, & JD Hackett. 2014. The impact of automated filtering of BLAST-determined homologs in the phylogenetic detection of horizontal gene transfer from a transcriptome assembly. Molecular Phylogenetics and Evolution. 71: 184-192

8. **Wisecaver, JH***, ML Brosnahan, & JD Hackett. 2013. Horizontal gene transfer is a significant driver of gene innovation in dinoflagellates. Genome Biology and Evolution. 12: 2368-2381.
7. Hackett, JD, **JH Wisecaver**, ML Brosnahan, DM Kulis, DM Anderson, D Bhattacharya, FG Plumley, & DL Erdner. 2012. Evolution of saxitoxin synthesis in cyanobacteria and dinoflagellates. Molecular Biology and Evolution. 30: 70-78
6. Molnar, I, D Lopez, **JH Wisecaver**, M Pellegrini, & JD Hackett. 2012. Bio-crude transcriptomics: Gene discovery and metabolic network reconstruction for the biosynthesis of the terpenome of the hydrocarbon oil-producing green alga, *Botryococcus braunii* race B (Showa). BMC Genomics. 13: 576
5. Chan, CX, M Soares, M Bonaldo, **JH Wisecaver**, JD Hackett, DM Anderson, DL Erdner, & D Bhattacharya. 2012. Analysis of *Alexandrium tamarense* (Dinophyceae) genes reveals the complex evolutionary history of a microbial eukaryote. Journal of Phycology. 48: 1130-1142
4. **Wisecaver, JH** & JD Hackett. 2011. Dinoflagellate genome evolution. Annual Reviews of Microbiology. 65: 369-387
3. **Wisecaver, JH** & JD Hackett. 2010. Transcriptome analysis reveals nuclear-encoded proteins for the maintenance of temporary plastids in the dinoflagellate *Dinophysis acuminata*. BMC Genomics. 11: 366
   - *Highlighted in BMC Biology Commentary, "Plastid evolution: gene transfer and the maintenance of 'stolen' organelles"*
2. Sullivan, MB, B Krastins, **JL Hughes**, L Kelly, M Chase, D Sarracino, & SW Chisholm. 2009. The genome and structural proteome of an ocean siphovirus: a new window into the cyanobacterial 'mobilome'. Environmental Microbiology. 11: 2935-2951
1. **Hughes, JL**, & ME Siddall. 2007. A new species of leech from the New York Metropolitan Area. American Museum Novitates. 3578: 1-6

INVITED TALKS

24. Fungal Genetics Conference. Pacific Grove, California, USA, 2022
23. Plant Molecular Biology Gordon Conference. Holderness, New Hampshire, 2022
22. Plant Biology Graduate Seminars, University of California Davis, 2022
21. #PhytochemTalks, virtual symposium, 2022
20. International Conference on Arabidopsis Research, virtual symposium, 2021
19. Crop Sciences and Plant Biology, University of Illinois, Urbana, 2021
18. Division of Plant and Soil Sciences, West Virginia University, 2021
17. Plant and Microbial Biology Colloquium Series, University of Minnesota, 2021
16. Department of Environmental and Plant Biology, Ohio University, 2020
15. Department of Biochemistry, Michigan State University, 2020
14. Biological Sciences Seminar Series, Bowling Green State University, Ohio, 2019
13. Ecosystem Genomics Seminar Series, University of Arizona, 2019
12. Plant Genome Evolution Conference. Sitges, Spain, 2019
11. Phytochemical Society of North America, San Luis Potosí, Mexico, 2018
10. Evolution of Plant Chemical Diversity Symposium, Botany, Rochester, Minnesota, 2018
9. Interdisciplinary Plant Group annual symposium, University of Missouri, 2018
8. Fungal Genetics Conference. Pacific Grove, California, 2017
7. Kavli Institute for Theoretical Physics, University of California Santa Barbara, 2017
6. Department of Biology, University of Oregon, 2017
5. Department of Biochemistry and Molecular Biology, University of Nevada Reno, 2017
4. Interdisciplinary Plant Group, University of Missouri, 2017
3. Department of Biochemistry and Molecular Biology, University of Massachusetts Amherst, 2017
2. Department of Integrative Biology, University of Texas at Austin, 2017

1. Department of Biochemistry, Purdue University, Indiana, 2016

OTHER ORAL PRESENTATIONS

14. Phycological Society of America, Seattle, Washington, 2024
13. Botany, Boise, Idaho, 2023
12. International Society for Evolutionary Protistology, virtual meeting, 2023
11. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, 2022
10. Phycological Society of America, Fort Lauderdale, Florida, 2019
9. Plant Genome Evolution Conference, Sitges, Spain, 2017
8. Evolution, Austin, Texas, 2016
7. Plant Genome Research Program Awardees Meeting, National Science Foundation, Arlington, Virginia, 2016
6. Mycological Society of America, East Lansing, Michigan, 2014
5. International Symbiosis Society Congress, Krakow, Poland, 2012
4. Phycological Society of America, Charleston, South Carolina, 2012
3. Phycological Society of America, Seattle, Washington, 2011
2. Ocean Sciences Meeting, Portland, Oregon, 2010
1. International Conference on Harmful Algae, Hersonissos, Crete, Greece, 2010

POSTER PRESENTATIONS

14. Society for Molecular Biology and Evolution, Manchester, United Kingdom, 2019
13. Evolution, Portland, Oregon, 2017
12. Plant & Animal Genome Conference, San Diego, California, 2017
11. Genomics of Energy and Environment Meeting, Joint Genome Institute, Walnut Creek, California, 2017
10. Microbial and Plant Systems Modulated by Secondary Metabolites Meeting, Joint Genome Institute, Walnut Creek, California, 2016
9. Plant & Animal Genome Conference, San Diego, California, 2016
8. Plant Genome Research Program Awardees Meeting, National Science Foundation, Arlington, Virginia, 2015
7. Fungal Genetics Conference, Pacific Grove, California, 2015
6. University of Arizona IGERT Program in Genomics, Tucson, Arizona, 2014
5. Cellular & Molecular Fungal Biology Gordon Research Conference, Holderness, New Hampshire, 2014
4. National Science Foundation IGERT Annual Meeting, Washington DC, 2012
3. Society of Molecular Biology and Evolution, Lyon, France, 2010
2. Phycological Society of America, Honolulu, Hawaii, 2009
1. Oceans & Human Health Gordon Research Conference, Tilton, New Hampshire, 2008

ORAL PRESENTATIONS BY OTHER MEMBERS OF THE WISECAVER LAB

12. **Watervoort, NF**[g] & **JH Wisecaver**. Phycological Society of America, Seattle, Washington, 2024
11. **Burow, K**[g] & **JH Wisecaver**. Plant Biology, Honolulu, Hawaii, 2024
10. **Burow, K**[g], J Banks & **JH Wisecaver**. Botany, Boise, Idaho, 2023
    - *Edgar T. Wherry Award for best student talk – Pteridology Section*
9. **Eastman, KE**[g], M Mirzaei, SH Chung, G Jander, & **JH Wisecaver**. Botany, Boise, Idaho, 2023
8. **Watervoort, NF**[g] & **JH Wisecaver**. Phycological Society of America, Providence, Rhode Island, 2023
7. **Auber, RP**[g], **AL Pendleton**[p], T Fallon, B Moore, WW Driscoll & **JH Wisecaver**. Phycological Society of America, virtual meeting, 2021

6. **Pendleton, AL**[p], R Tanaka, U Ikeogu, L Acosta-Gamboa, MA Gore & **JH Wisecaver**. Plant Biology Worldwide Summit, 2021
5. **Eastman, K**[g] & **JH Wisecaver**. Plant Biology Worldwide Summit, 2021
4. **Gavelis, G**[p]. Biochemical Horizons Symposium, Purdue University, Indiana, 2020
3. **Gavelis, G**[p] & **JH Wisecaver**. Phycological Society of America. Fort Lauderdale, Florida, 2019
2. **Pendleton, AL**[p] & **JH Wisecaver**. Phycological Society of America. Fort Lauderdale, Florida, 2019
1. **Auber, RP**[g], & **JH Wisecaver**. Phycological Society of America, Fort Lauderdale, Florida, 2019

POSTER PRESENTATIONS BY OTHER MEMBERS OF THE WISECAVER LAB

11. **Jeje, T**[g] & **JH Wisecaver**. Phycological Society of America, Seattle, Washington, 2024
10. **Watervoort, NF**[g] & **JH Wisecaver**. Botany, Boise, Idaho, 2023
9. **Trujillo, J**[p], & **JH Wisecaver**. Plant and Animal Genome, San Diego, California, 2023
8. **Burow, K**[g], **G Estep**[u], J Banks & **JH Wisecaver**. Plant Biology, Portland, Oregon, 2022
7. **Eastman, KE**[g], M Mirzaei, SH Chung, G Jander, & **JH Wisecaver**. Plant Biology, Portland, Oregon, 2022
6. **Trujillo, JT**[p] & **JH Wisecaver**. Plant Molecular Biology Gordon Conference, Holderness, New Hampshire, 2022
5. **Watervoort, NF**[b], **O Riedling**[u], **RP Auber**[g], **& JH Wisecaver**. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, 2022
4. **Riedling, O**[u], **NF Watervoort**[g], **RP Auber**[g] & **JH Wisecaver**. Joint Aquatic Sciences Meeting, Grand Rapids, Michigan, 2022
3. **Auber, RP**[g], T Suttiyut, JR Widhalm & **JH Wisecaver**. Plant Biology Worldwide Summit, 2021
2. **Trujillo, JT**[p], G Conant, JC Pires & **JH Wisecaver**. Plant Biology Worldwide Summit, 2021
1. **Auber, RP**[g], & **JH Wisecaver**. Botany, Rochester, Minnesota. 2018
   - *Best Student Poster – Genetics Section*

TEACHING

Courses Taught

1. BCHM 52100 Comparative Genomics, Purdue University, 2019 – 2024

Guest Lectures

5. BTNY 30500 Plant Evolution and Taxonomy, Purdue, three lecture minimodule on phylogenetics cotaught with postdoc Dr. Josh Trujillo, 2022
4. BCHM 60500 Macromolecules, Purdue, two lectures on Bioinformatics and Genomics, 2018
3. BCHM 61000 Regulation of Euk Gene Expr, Purdue, lecture on Comparative Genomics, 2018, 2019
2. BTNY 30500 Plant Taxonomy, Purdue, lecture on Plant Phylogenomics, 2017, 2020, 2021
1. BSCI 3272 Genome Science, Vanderbilt, lectures on Eukaryotic Genome Diversity and Genome Visualization Practical, 2013

STUDENT AND POSTDOCTORAL RESEARCH ADVISING

Post-Doctorial Scientists

3. Joshua Trujillo (2019 – 2023, now Scientist at Bayer Crop Science, Saint Louis, Missouri)
2. Greg Gavelis (2019 – 2020, now Bioinformatician at Bigelow Laboratory for Ocean Sciences, East Boothbay, Maine)
1. Amanda Pendleton (2018 – 2024, now Research Data Analyst, Purdue University, Indiana)

Graduate Students

5. Timilehin Jeje (Biology, current)
4. Nathan Watervoort (Purdue University Interdisciplinary Life Science Program, current)
3. Katelin Burow (Purdue University Interdisciplinary Life Science Program, current)
2. Katharine Eastman (Biochemistry, PhD 2024, now Postdoctoral Scientist, University of Missouri)
1. Robert Auber (Biochemistry, PhD 2022, now Assistant Director of Bioinformatics, Pathgroup, Nashville, Tennessee)

Post-Baccalaureate Scientists

1. Nathan Watervoort, NSF Research Experience for Post-Baccalaureate Students (2021 – 2022, now Graduate Student, Purdue University, Indiana)

Undergraduate Students (Purdue University)

8. José Colon-Miranda, NSF REU student from University of Puerto Rico (2023)
7. Grace Estep (2021 – 2024)
6. Raeya Ogas, co-op student from Northeastern University (2020 – 2022, now graduate student, University of Bremen, Germany)
5. Olivia Riedling (2020 – 2022, now graduate student, Vanderbilt University)
4. Madeline Powers (2019 – 2020, now BRFSS Data Analyst, Indiana Department of Health)
3. Huijia Gong (2019 – 2021, now graduate student, Michigan State University)
2. Tim Petzel, exchange student from Heinrich Heine University, Germany (2018, MS University of Düsseldorf, now Consultant, d-fine, Düsseldorf, Germany)
1. Paige Lippens (2018 – 2019, now Production Technician, Corteva Agriscience, Indiana)

Undergraduate Students (mentored as postdoc at Vanderbilt University)

4. Alexander Borowsky (2015 – 2017, now NIFA Predoctoral Fellow at UC Riverside)
3. Sean King (2014 – 2016; PhD Princeton University, now consultant at Bain & Company, Texas)
2. Roland Zonai (2014; Vanderbilt International Summer Research Academy student, MS Karolinska Institutet, now BioEntrepreneur, Budapest, Hungary)
1. George Greene (2014, PhD Duke University, now Chief Scientific Officer at Upstream Biotechnology, North Carolina)

Graduate Thesis Committees

12. Emilia Tugolukova, Biological Sciences, Purdue, 2023 – Present
11. Frederick Mildenhall, PULSe, Purdue, 2022 – 2024
10. Emily Kuhn, Horticulture, Purdue, 2022 – 2023
9. Zhiwei Luo, Biochemistry, Purdue, 2020 – Present
8. Jacob Olsen, Biochemistry, Purdue, 2020 – Present
7. Thiti Suttiyut, Horticulture, Purdue, 2019 – 2023
6. Lizhi Cheng, Biochemistry, Purdue, 2019 – Present
5. Alyssa Nestor, Biochemistry, Purdue, 2019 – 2021
4. Juan Pablo Jauregui, Biochemistry, Purdue, 2018 – 2021
3. Yuan Geng, Botany and Plant Pathology, Purdue, 2018 – 2021
2. Ryan Benke, Biochemistry, Purdue, 2018 – 2022
1. Longyun Guo, Biochemistry, Purdue, 2018 – 2019

Graduate Thesis Committees External

2. Sarah Shah (University of Queensland), External examiner 2023

1. Roxanne Bantay (University of Arizona), 2022 – Present

NATIONAL AND INTERNATIONAL ACADEMIC SERVICE ACTIVITIES

Conference Organizer

1. 2023, NSF LIFE: Leveraging Innovations from Evolution Scoping Session, August 14-16, Indianapolis, Indiana

Grant Reviewer

3. National Science Foundation, Genetic Mechanisms, 2022 (Ad hoc)
2. Swiss National Science Foundation Spark Program, 2020 (Ad hoc)
1. National Science Foundation, Plant Genome Research Program, 2018, 2025 (Ad hoc)

Ad Hoc Reviewer for Professional Journals

Science, PNAS, eLife, The Plant Cell, The ISME Journal, New Phytologist, Nature Communications, Current Microbiology, Evolution Letters, Biological Reviews, G3: Genes Genomes Genetics, Molecular Biology and Evolution, Genome Biology and Evolution, Eukaryotic Cell, Evolution, PeerJ, PLOS One, Fungal Genetics and Biology, BMC Genomics, BMC Evolutionary Biology, BMC Research Notes, Science Advances, Plant Breeding Reviews

ADMINISTRATIVE, COMMITTEE, AND OTHER SERVICE

To University

8. Director, Purdue University Interdisciplinary Life Science Graduate Program, Plant Biology training group (2023 – 2024)
7. Member, Purdue University Interdisciplinary Life Science Graduate Program, Executive Committee (2023 – 2024)
6. Member, Center for Plant Biology, Faculty Search Committee, Purdue (2021 – 2022)
5. Chair, Center for Plant Biology, Graduate Curriculum Committee, Purdue (2022 – 2023)
4. Member, Center for Plant Biology, Graduate Curriculum Committee, Purdue (2021 – 2022)
3. Chair, Center for Plant Biology, Graduate Admissions Committee, Purdue (2020 – 2021)
2. Member, Center for Plant Biology, Graduate Admissions Committee, Purdue (2018 – 2020)
1. Member, Faculty Advisory Committee for the Bindley Flow Cytometry Facility, Purdue (2019 – 2020)

To College

1. Member, Agricultural Faculty Agenda and Policy Committee, Purdue (2018 – 2021)

To Department

4. Member, Graduate Program Committee, Biological Sciences, WSU (2025 – Present)
3. Member, Awards Committee, Biochemistry, Purdue (2023 – 2024)
2. Member, Seminar Committee, Biochemistry, Purdue (2020 – 2024)
1. Member, Graduate Admissions & Recruitment Committee, Biochemistry, Purdue (2017 – 2019)