

Ning Zhang
Professor

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Education

Ph.D. Biological Sciences, Louisiana State University.
M.S. Chinese Academy of Sciences.
B.S. Shandong University

Academic Positions

Professor, 2020-present, Department of Plant Biology and Department of Biochemistry & Microbiology, **Rutgers University**.

Associate Professor, 2015-2020, Department of Plant Biology and Department of Biochemistry & Microbiology, **Rutgers University**.

Assistant Professor, 2009-2015, Department of Plant Biology & Pathology and Department of Biochemistry & Microbiology, **Rutgers University**.

Research Associate, 2004-2008, Department of Plant Pathology, **Cornell University**,

Postdoctoral Research Associate, 2002-2004, *Fusarium* Research Center, Department of Plant Pathology, **The Pennsylvania State University**.

Honors and Awards

Research Awards

1. Outstanding Editorial Board Member (Mycology), **2024**
2. CSSA Division Outstanding Paper Award, **2024**
3. Rutgers **Patent Award**, Office of Research Commercialization, **2026, 2023, 2017**.
4. **Chancellor's Scholar**, Rutgers University, **2016**.
5. **National Science Foundation CAREER Award**. **2015**.
6. **The Board of Trustees Research Fellowship for Scholarly Excellence**, Rutgers University, **2015**.
7. **Young Investigator Award**, Theobald Smith Society, New Jersey Branch of the American Society for Microbiology. **2013**.
8. **Northeast Award for Excellence in Multistate Research**, Northeastern Regional Association (NERA) of State Agricultural Experiment Station Directors. Participant of the project NE1025 "Biology, Ecology and Management of Emerging Pests of Annual Bluegrass on Golf Courses". **2011**.
9. **"Best of the Best" Team Award**, Rutgers Cooperative Extension, participant of the project: "Integrated Program for Management of Emerging Pests of Annual Bluegrass on Golf Courses". **2011**.

10. **Fungal Environmental Sampling and Informatics Network Travel Award** (an NSF funded research network project). **2010**.
11. **C. W. Edgerton Honor Award**, Louisiana State University. **2002**.
12. **E. S. Luttrell Travel Award**, Mycological Society of America. **2001**.
13. **Uecker Travel Award**, Mycological Society of America. **2000**.
14. **Graduate School Special Achievement Award**, Louisiana State University Graduate Student Association. **2000**.
15. **McDaniel Scholarship**, Louisiana State University. **2000**.
16. **Graduate Research Prize**, Mycological Society of America. **1999**.
17. **Sigma Xi Grant-in-Aid of Research**, Honorable Mention Award. **1999**.

Teaching Awards

1. **William J. Luke Award**. Given annually to a teaching assistant in the plant biology program for outstanding instruction, Louisiana State University. **2001**.
2. **Freshman Biology Award**. Given annually to a teaching assistant in the biological sciences for outstanding instruction in freshman biology laboratories, Louisiana State University. **2001**.

Awards Won by Mentored Students

1. Megan Mauriello, Rutgers, Eveleigh Graduate Student Travel Award (2026), \$800
2. Alexis Faulborn, Rutgers Department of Plant Biology Student Travel Award (2024), \$1,000
3. Alexis Faulborn, Rutgers Department of Plant Biology Student Travel Award (2023), \$1,000
4. Alexis Faulborn, Rutgers Climate Institute Travel Award (2023), \$400
5. Glen Groben, Spencer Davis Award (2022): \$2,000
6. Glen Groben, 1st place oral presentation award, Northeastern Division of APS annual meeting (2021).
7. Peninah Engel, Plant Biology Graduate Student Travel Award (2019): \$250
8. Glen Groben, Plant Biology Graduate Student Travel Award (2018): \$200
9. Peninah Engel, Plant Biology Graduate Student Travel Award (2018): \$200
10. Glen Groben, Peter S. Loft Memorial Scholarship, Rutgers Center for Turfgrass Science (2017): \$1,000
11. Molly Bindell, Caroline Thorn Kissel Summer Environmental Studies Scholarship, Garden Club of America (2016): Awarded \$3,000
12. Molly Bindell, Military Spouse Scholarship, National Military Family Association (2016, 2017): Awarded \$2,000
13. Molly Bindell, Fall 2015 Professional Development Fund (2015): Awarded \$693
14. Molly Bindell, Summer 2015 Professional Development Fund (2015): Awarded \$2,000
15. Stephen Miller (lab PhD student), Clark T. Rogerson Student Research Award (\$1000), Mycological Society of America. 2013.
16. Stephen Miller, New Jersey Mycological Society Scholarship (\$1200). 2012.
17. Stephen Miller, National Science Foundation FESIN Travel Award (\$1000). 2011.
18. Stephen Miller, Graduate Travel Award Rutgers University (\$500). 2011

SCHOLARSHIP

PUBLICATIONS

* Corresponding author

† student/postdoc/staff in N. Zhang lab

Peer-Reviewed Journal Papers (published/in press)

2026

1. Luo J†, Bentivenga S, Levner J, Walsh E†, Mauriello M†, **Zhang N***. 2026. Two new genera of *Magnaporthaceae* (*Magnaporthales*, *Sordariomycetes*) associated with switchgrass from the serpentine barrens ecosystem. *Mycologia* 118: 1064-1073. <https://doi.org/10.1080/00275514.2026.2663716>
2. Groben G†, Clarke BB, Murphy J, **Zhang N**. 2026. Optimizing a sampling method for qPCR detection of dollar spot pathogens from creeping bentgrass. *Grass Research* 6: e019. <https://www.maxapress.com/article/doi/10.48130/grares-0026-0008>
3. Luo J†, Faulborn A†, David AS, Dosdall J, Walsh E†, Rumora A†, White J, **Zhang N***. 2026. *Pleoscrubiaceae*, a new family in *Pleosporales* (*Dothideomycetes*) from the Florida scrub ecosystem. *Mycologia* 118: 392–403. <https://doi.org/10.1080/00275514.2025.2602414>

2025

4. Groben G†, Clarke BB, Murphy J, Purdon P, **Zhang N**. 2025. Quantifying *Clarireedia* spp. in asymptomatic and symptomatic creeping bentgrass cultivars to track pathogen development during the growing season. *Plant Disease* 110 (5), 1975-1983. 10.1094/PDIS-02-25-0348-RE

2024

5. Luo J†, Walsh E†, Faulborn A†, Gao K†, White J, **Zhang N***. 2024. *Pinibarreniales*, a new order of *Sordariomycetes* from pine barrens ecosystem. *Mycologia* 116: 835-847. DOI: 10.1080/00275514.2024.2363084
6. Andrey Yurkov, Cobus M. Visagie, Pedro W. Crous, Akira Hashimoto, Christiane Baschien, Dominik Begerow, Martin Kemler, Nathan Schoutteten, Marc Stadler, Nalin N. Wijayawardene, Kevin D. Hyde, **Ning Zhang**, Teun Boekhout, ICTF Yeast Working group, Tom W. May, Marco Thines, David L Hawksworth. 2024. Cultures as types and the utility of viable specimens for fungal nomenclature. *IMA Fungus* 15: 1-12. <https://doi.org/10.1186/s43008-024-00155-8>
7. Groben G†, Schaefer B, Clarke BB, Murphy J, Purdon P, Koch P, **Zhang N**. 2024. Horizontal and vertical distribution of *Clarireedia* spp. in asymptomatic and symptomatic creeping bentgrass cultivars. *Plant Disease* 108: 3352-3360. <https://doi.org/10.1094/PDIS-08-23-1570-RE>
8. Cohan AB, Cai G, Price DC, Molnar TJ, **Zhang N**, Hillman BI. 2024. The massive 340 megabase genome of *Anisogramma anomala*, a biotrophic ascomycete that causes

eastern filbert blight of hazelnut. **BMC Genomics** 25: 347. DOI: 10.1186/s12864-024-10198-1

9. Patrick Fardella, Glen Groben†, Pingyuan Zhang, Kyle Genova, **Ning Zhang**, James Murphy, Bruce Clarke, Ming-Yi Chou. First Report of *Phialocephala bamuru* causing root rot on hard fescue (*Festuca brevipila*) in the United States. **Plant Disease**. <https://doi.org/10.1094/PDIS-12-23-2771-PDN>

2023

10. Luo J†, Walsh E†, Groben G†, Justiniano B†, **Zhang N***. 2023. Larger presence of ectomycorrhizae detected from pygmy pine ecotype in the fire-frequent pine barrens ecosystem. **Mycologia** 115: 602-613. DOI: 10.1080/00275514.2023.2234269
11. Groben G†, Clarke BB, Kerkhof L, Bonos SA, Meyer WA, Qu Y, Luo J†, Walsh E†, **Zhang N***. 2023. Mycobiome analysis of tall fescue grass under drought stress using the Illumina MiSeq and Oxford nanopore technology MinION. **Phytobiomes Journal** 7: 413-423. <https://doi.org/10.1094/PBIOMES-10-22-0071-R>
12. Errickson W, **Zhang N**, Huang B. 2023. Promotive effects of endophytic rhizobacteria on tiller and root growth in creeping bentgrass during drought stress and post-stress recovery involving regulation of hormone and sugar metabolism. **Crop Science** 63: 2583-2593. DOI: 10.1002/csc2.21017

2022

13. Chou M, Luo J†, Clarke BB, Murphy J, **Zhang N**, Vines PL, Koch P. 2022. Rapid detection of the recently identified turfgrass pathogen *Magnaporthiopsis meyeri-festuca* using recombinase polymerase amplification. **Plant Disease** 106: 2441-2446. DOI: 10.1094/PDIS-08-21-1732-RE
14. Vines PL, Daddio RM, Luo J†, Wang R, **Zhang N**, Clarke BB, Meyer WA, Bonos SA. *Pyricularia oryzae* incites gray leaf spot disease on hard fescue (*Festuca brevipila*). 2022. **International Turfgrass Society Research Journal** 14: 997-1002. DOI: 10.1002/its2.17

2021

15. Walsh E†, Luo J†, Khiste W†, Scalera A†, Sajjad S†, **Zhang N***. 2021. *Pygmaeomycetaceae*, a new root associated family in *Mucoromycotina* from the pygmy pine plains. **Mycologia** 113:134-145. DOI: 10.1080/00275514.2020.1803649
16. Lücking R, Aime MC, Robbertse B, Miller AN, Ariyawansa HA, Aoki T, Cardinali G, Crous PW, Druzhinina IS, Geiser DM, Hawksworth DL, Hyde KD, Irinyi L, Jeewon R, Johnston PR, Kirk PM, Malosso E, May TW, Meyer W, Öpik M, Robert V, Seifert KA, Stadler M, Thines M, Vu D, Yurkov AM, **Zhang N**, Schoch CL. 2021. Fungal taxonomy and sequence-based nomenclature. **Nature Microbiology** 6: 540-548. DOI: 10.1038/s41564-021-00888-x

17. Dighton J, Walsh E†, Groben G†, **Zhang N. 2021.** Influence of southern pine beetle on fungal communities of wood and bark decomposition of coarse woody debris in the New Jersey pine barrens. *Forestry Research* 1:17. Pages 1-8. DOI: 10.48130/FR-2021-0017
18. Aime MC, Miller A, Aoki, T, Bensch K, Cai L, Crous P, Hawksworth DL, Hyde K, Kirk P, Lucking R, May T, Malosso E, Redhead SA, Rossman A Stadler M, Thines M, Yurkov A, **Zhang N**, Schoch C. **2021.** How to publish a new fungal species, or name, version 3.0. *IMA Fungus* 12: 11. Pages 1-15. DOI: 10.1186/s43008-021-00063-1
19. Bindell M†, Luo J†, Walsh E†, Wagner NE, Miller SJ†, Cai G, Bonos SA, **Zhang N***. Arbuscular mycorrhizal fungal communities associated with switchgrass (*Panicum virgatum* L.) in the acidic, oligotrophic pine barrens ecosystem. **2021.** *Grass Research* 1:2, pages 1-10. DOI: 10.48130/GR-2021-0002
20. David M. Geiser, Abdullah M. S. Al-Hatmi, Takayuki Aoki, Tsutomu Arie, Virgilio Balmas, Irene Barnes, Gary C. Bergstrom, Madan K. Bhattacharyya, Cheryl L. Blomquist, Robert L. Bowden, Balázs Brankovics, Daren W. Brown, Lester W. Burgess, Kathryn Bushley, Mark Busman, José F. Cano-Lira, Joseph D. Carrillo, Hao-Xun Chang, Chi-Yu Chen, Wanquan Chen, Martin Chilvers, Sofia Chulze, Jeffrey J. Coleman, Christina A. Cuomo, Z. Wilhelm de Beer, G. Sybren de Hoog, Johanna Del Castillo-Múnera, Emerson M. Del Ponte, Javier Diéguez-Urbeondo, Antonio Di Pietro, Véronique Edel-Hermann, Wade H. Elmer, Lynn Epstein, Akif Eskalen, Maria Carmela Esposto, Kathryne L. Everts, Sylvia P. Fernández-Pavía, Gilvan Ferreira da Silva, Nora A. Foroud, Gerda Fourie, Rasmus J. N. Frandsen, Stanley Freeman, Michael Freitag, Omer Frenkel, Kevin K. Fuller, Tatiana Gagkaeva, Donald M. Gardiner, Anthony E. Glenn, Scott E. Gold, Thomas R. Gordon, Nancy F. Gregory, Marieka Gryzenhout, Josep Guarro, Beth K. Gugino, Santiago Gutierrez, Kim E. Hammond-Kosack, Linda J. Harris, Mónica Homa, Cheng-Fang Hong, László Hornok, Jenn-Wen Huang, Macit Ilkit, Adriaana Jacobs, Karin Jacobs, Cong Jiang, María del Mar Jiménez-Gasco, Seogchan Kang, Matthew T. Kasson, Kemal Kazan, John C. Kennell, Hye-Seon Kim, H. Corby Kistler, Gretchen A. Kuldau, Tomasz Kulik, Oliver Kurzai, Imane Laraba, Matthew H. Laurence, Theresa Lee, Yin-Won Lee, Yong-Hwan Lee, John F. Leslie, Edward C.Y. Liew, Lily W. Lofton, Antonio F. Logrieco, Manuel S. López-Berges, Alicia G. Luque, Erik Lysøe, Li-Jun Ma, Robert E. Marra, Frank N. Martin, Sara R. May, Susan P. McCormick, Chyanna McGee, Jacques F. Meis, Quirico Migheli, N. M. I. Mohamed Nor, Michel Monod, Antonio Moretti, Diane Mostert, Giuseppina Mule', Françoise Munaut, Gary P. Munkvold, Paul Nicholson, Marcio Nucci, Kerry O'Donnell, Matias Pasquali, Ludwig H. Pfenning, Anna Prigitano, Robert H. Proctor, Stéphane Ranque, Stephen A. Rehner, Martijn Rep, Gerardo Rodríguez-Alvarado, Lindy Joy Rose, Mitchell G. Roth, Carmen Ruiz-Roldán, Amgad A. Saleh, Baharuddin Salleh, Hyunkyu Sang, María Mercedes Scandiani, Jonathan Scaufaire, David G. Schmale III, Dylan P. G. Short, Adnan Šišić, Jason A. Smith, Christopher W. Smyth, Ellie Spahr, Jason E. Stajich, Emma Steenkamp, Christian Steinberg, Rajagopal Subramaniam, Haruhisa Suga, Brett A. Summerell, Antonella Susca, Cassandra L. Swett, Christopher Toomajian, Terry J. Torres-Cruz, Anna M. Tortorano, Martin Urban, Lisa J. Vaillancourt, Gary E. Vallad, Theo A. J. van der Lee, Dan Vanderpool, Anne D. van Diepeningen, Martha M. Vaughan, Eduard Venter, Marcelle Vermeulen, Paul E. Verweij, Altus Viljoen, Cees Waalwijk, Emma C. Wallace, Grit Walther, Jie Wang, Todd J. Ward, Brian L. Wickes, Nathan P. Wiederhold, Michael J. Wingfield, Ana K. M. Wood, Jin-Rong Xu, Xiao-Bing Yang, Tapani Yli-Mattila, Sung-Hwan Yun, Latiffah Zakaria, Hao Zhang, **Ning Zhang**, Sean X. Zhang, Xue Zhang. **2021.** Phylogenomic analysis of a 55.1 kb 19-gene dataset resolves a monophyletic *Fusarium* that includes the *Fusarium solani*

species complex. **Phytopathology** 111: 1064-1079. DOI: 10.1094/PHYTO-08-20-0330-LE

2020

21. Groben G†, Clarke BB, Murphy J, Koch P, Crouch J, Lee S, **Zhang N***. **2020**. Real-time PCR detection of *Clavireedia* spp., the causal agent of dollar spot in turfgrasses. **Plant Disease** 104: 3118–3123. DOI: 10.1094/PDIS-04-20-0726-RE
22. Lücking R, Aime MC, Robbertse B, Miller AN, Ariyawansa HA, Aoki T, Cardinali G, Crous PW, Druzhinina IS, Geiser DM, Hawksworth DL, Hyde KD, Irinyi L, Jeewon R, Johnston PR, Kirk PM, Malosso E, May TW, Meyer W, Öpik M, Robert V, Seifert KA, Stadler M, Thines M, Vu D, Yurkov AM, **Zhang N**, Schoch CL. **2020**. Unambiguous identification of fungi: where do we stand and how accurate and precise is fungal barcoding? **IMA Fungus** 11:14 (pages 1-32). DOI: 10.1186/s43008-020-00033-z
23. Vines PL, Hoffmann FG, Meyer F, Allen TW, Luo J†, **Zhang N**, Tomaso-Peterson M. **2020**. *Magnaporthiopsis cynodontis*, a novel turfgrass pathogen with wide distribution in the United States. **Mycologia** 112: 51-63. DOI:10.1080/00275514.2019.1676614
24. Kerry O'Donnell, Abdullah M. S. Al-Hatmi, Takayuki Aoki, Jeffrey J. Coleman, Christina A. Cuomo, G. Sybren de Hoog, Antonio Di Pietro, Rasmus J. Frandsen, Donald M. Gardiner, David M. Geiser, Igor V. Grigoriev, Josep Guarro, Gert Kema, Hye-Seon Kim, H. Corby Kistler, Imane Laraba, John F. Leslie, Erik Lysøe, Li-Jun Ma, Jacques F. Meis, Wieland Meyer, Robert H. Proctor, Martijn Rep, Jason E. Stajich, Emma Steenkamp, v Richard C. Summerbell, Brett A. Summerell, Theo A. J. van der Lee, Anne D. van Diepeningen, Paul E. Verweij, y Cees Waalwijk, m Todd J. Ward, Brian L. Wickes, Nathan P. Wiederhold, Michael J. Wingfield, **Ning Zhang**, Sean X. Zhang. **2020**. No to *Neocosmospora*: Phylogenomic and practical reasons for continued inclusion of the *Fusarium solani* species complex in the genus *Fusarium*. **mSphere** 5:e00810-20 (pages 1-7). DOI:10.1128/mSphere.00810-20

2019

25. Valent B, Farman M, Tosa Y, Begerow D, Fournier E, Gladieux P, Kamoun S, Kemler M, Lebrun MH, Stajich J, Talbot NJ, Terauchi R, Tharreau D, **Zhang N**. **2019**. *Pyricularia graminis-tritici* is not the correct species name for the wheat blast fungus: Response to Ceresini et al. (MPP 20:2). **Molecular Plant Pathology** 20: 173-179. DOI:10.1111/mpp.12778
26. Cai G, Fleury T, **Zhang N**. **2019**. Comparative genomics approach to build a genome-wide database of high quality, informative microsatellite markers: application on *Phytophthora sojae*, a soybean pathogen. **Scientific Reports** 9: 7969, pages 1-6. DOI: <https://doi.org/10.1038/s41598-019-44411-z>
27. Meuhlbauer MF, Tobia J, Honig JA, **Zhang N**, Hillman BI, Gold MK, Molnar TJ. **2019**. Population differentiation within *Anisogramma anomala* in North America. **Phytopathology** 109: 1074-1082. DOI: <https://doi.org/10.1094/PHYTO-06-18-0209-R>

28. Menon RR, Luo J†, Chen X, Zhou H, Liu Z, Zhou G, **Zhang N***, Jin C. **2019**. Screening of fungi for potential application of self-healing concrete. **Scientific Reports** 9: 2075, pages 1-12. DOI: <https://doi.org/10.1038/s41598-019-39156-8>

2018

29. Walsh E†, Duan W†, Mehdi M†, Naphri K†, Khiste S†, Scalera A†, **Zhang N***. **2018**. *Cadophora meredithiae* and *C. interclivum*, new species from roots of sedge and spruce in a Western Canada subalpine forest. **Mycologia** 110: 201-214. DOI: <http://dx.doi.org/10.1080/00275514.2017.1406748>
30. **Zhang N***, Cai G, Price D, Crouch J, Gladieux P, Hillman B, Khang CH, LeBrun M-H, Lee Y-H, Luo J†, Qiu H, Veltri D, Wisecaver, JH, Zhu J, Bhattacharya D. **2018**. Genome wide analysis of the transition to pathogenic lifestyles in *Magnaporthales* fungi. **Scientific Reports** 8:5862 (pages 1-13). DOI:10.1038/s41598-018-24301-6
31. Luo J†, Chen X, Crump J, Zhou H, Davies GD, Zhou G, **Zhang N***, Jin C. **2018**. Interactions of fungi with concrete: significant importance for bio-based self-healing concrete. **Construction and Building Materials** 164: 275-285. DOI: <https://doi.org/10.1016/j.conbuildmat.2017.12.233>
32. Thines M, Crous P, Aime MC, Aoki T, Cai L, Hyde K, Miller AN, **Zhang N**, Stadler M. **2018**. Ten reasons why a sequence-based nomenclature is not useful for fungi anytime soon. **IMA Fungus** 9: 177-183. DOI: 10.5598/ima fungus.2018.09.01.11
33. Tariq A, Naz F, Altaf R, Jabeen Z, Rauf CA, Irshad G, Raja MU, Shaheen FA, Sultana T, Aslam M, Bennett JW, **Zhang N**. **2018**. First report of fruit rot of bell pepper caused by *Fusarium incarnatum* in Pakistan. **Plant Disease** 102: 2645-2646. DOI: 10.1094/PDIS-02-18-0221-PDN
34. Trigiano RN, Hadziabdic D, Mantooth K, Windham MT, Ownley BH, Staton ME, Miller S†, **Zhang N**. **2018**. Dogwood anthracnose: the story continues. **Acta Horticulturae** 1191. DOI: 10.17660/ActaHortic.2018.1191.11
35. Naz F, Tariq A†, Rauf A, Abbas MF, Walsh E†, Luo J†, Kingskey K, **Zhang N**, Bennett JW. **2018**. First report of *Botrytis cinerea* causing gray mold of bell pepper in Pakistan. **Plant Disease** 102: 1449-1450. DOI: <https://doi.org/10.1094/PDIS-10-17-1632-PDN>

2017

36. Tripp E, **Zhang N**, Schneider H, Huang Y, Mueller GM, Hu Z, Häggblom M, Bhattacharya D. **2017**. Reshaping Darwin's Tree: Impact of the Symbiome. **Trends in Ecology and Evolution** 32: 552-555. <http://dx.doi.org/10.1016/j.tree.2017.05.002>
37. Luo J†, Walsh E†, Miller S†, Blystone D†, Dighton J, **Zhang N***. **2017**. Root endophytic fungal communities associated with pitch pine, switchgrass, and rosette grass in the pine barrens ecosystem. **Fungal Biology** 121:478-487. DOI: 10.1016/j.funbio.2017.01.005
38. Luo J†, Vines PL, Grimshaw A, Hoffman L, Walsh E†, Bonos S, Clarke BB, Murphy JA, Meyer WA, **Zhang N***. **2017**. *Magnaporthiopsis meyeri-festuca* sp. nov. associated with

a summer patch-like disease of fine fescue turfgrasses. *Mycologia* 109: 780-789. DOI: <http://dx.doi.org/10.1080/00275514.2017.1400306>

39. Mantooth K, Hadziabdic D, Boggess S, Windham M, Miller S†, Cai G, Spatafora J, **Zhang N**, Staton M, Ownley B, Trigiano R. **2017**. Confirmation of independent introductions of an exotic plant pathogen of *Cornus* species, *Discula destructiva*, on the east and west coasts of North America. *PLoS ONE* 12(7): e0180345. <https://doi.org/10.1371/journal.pone.0180345>
40. Schoch CL, Aime MC, de Beer W, Crous P, Hyde KD, Penev L, Seifert KA, Stadler M, **Zhang N**, Miller AN. **2017**. Using standard keywords in publications to facilitate updates of new fungal taxonomic names. *IMA Fungus* 8(2): 70-73
41. Zhao G†, Yin G, Inamdar A, Luo J†, **Zhang N**, Yang I, Buckley B, Bennett JW. **2017**. Volatile organic compounds emitted by filamentous fungi isolated from flooded homes after Hurricane Sandy show toxicity in a *Drosophila* bioassay. *Indoor Air* 27: 518-528. DOI: 10.1111/ina.12350

2016

42. Qiu H†, Cai G, Luo J†, Bhattacharya D, **Zhang N***. **2016**. Extensive horizontal gene transfers between plant pathogenic fungi. *BMC Biology* 14:41, pg 1-11. DOI: 10.1186/s12915-016-0264-3
43. **Zhang N***, Luo J, Rossman A, Aoki T, Chuma I, Crous PW, Dean R, de Vries RP, Donofrio N, Hyde KD, Lebrun M, Talbot NJ, Tharreau D, Tosa Y, Valent B, Wang Z, Xu J. **2016**. Generic Names in Magnaporthales. *IMA Fungus* 7(1): 155-159. DOI: 10.5598/ima fungus.2016.07.01.09
44. Miller SJ†, Masuya H, Zhang J, Walsh E†, **Zhang N***. **2016**. Real-time PCR detection of dogwood anthracnose fungus in historical herbarium specimens from Asia. *PLoS ONE* 11(4):e0154030, pg 1-9. DOI:10.1371/journal.pone.0154030
45. Schroers HJ, Samuels GJ, **Zhang N**, Short D, Juba J, Geiser DM. **2016**. Epitypification of *Fusisporium* (*Fusarium*) *solani* and its assignment to a common phylogenetic species in the *F. solani* species complex. *Mycologia* 108: 806-819. DOI:10.3852/15-255
46. Cheng L†, **Zhang N**, Huang B. **2016**. Effects of ACC-deaminase Producing Bacteria on Perennial Ryegrass Growth and Physiological Responses to Salinity Stress. *Journal of the American Society for Horticultural Science* 141:233-241

2015

47. Walsh E†, Luo J†, Naik A†, Preteroti T†, **Zhang N***. **2015**. *Barrenia*, a new genus associated with roots of switchgrass and pine in the oligotrophic pine barrens. *Fungal Biology* 119: 1216-1225. DOI: 10.1016/j.funbio.2015.09.010
48. Luo J†, Walsh E†, Blystone D†, **Zhang N***. **2015**. Five new *Pseudophialophora* species from grass roots in the oligotrophic pine barrens ecosystem. *Fungal Biology* 119: 1205-1215. DOI: 10.1016/j.funbio.2015.08.016

49. Luo J†, Qiu H, Cai G, Wagner NE, Bhattacharya D, **Zhang N***. 2015. Phylogenomic analysis uncovers the evolutionary history of nutrition and infection mode in rice blast fungus and other Magnaporthales. **Scientific Reports** 5:9448. DOI: 10.1038/srep09448
50. Luo J†, Walsh E†, **Zhang N***. 2015. Toward monophyletic generic concepts in Magnaporthales: species with *Harpophora* asexual states. **Mycologia** 107: 641-646. DOI:10.3852/14-302
51. Zhou N, Chen Q, Carroll G, **Zhang N**, Shivas RG, Cai L. 2015. Polyphasic characterization of four new plant pathogenic *Phyllosticta* species from China, Japan, and the United States. **Fungal Biology** 119: 433-446. DOI: 10.1016/j.funbio.2014.08.006
52. Beck A, Divakar PK, **Zhang N**, Molina MC, Struwe L. 2015. Evidence of ancient horizontal gene transfer between fungi and the terrestrial alga *Trebouxia*. **Organisms Diversity and Evolution** 15: 235-248. DOI: 10.1007/s13127-014-0199-x
53. Li S, Darwish O, Alkharouf, N, Matthews, B, Ji P, Domier LL, **Zhang N**, Blum BH. 2015. Draft genome sequence of *Phomopsis longicolla* isolate MSPL 10-6. **Genomics Data** 3: 55-56. DOI: <http://dx.doi.org/10.1016/j.gdata.2014.11.007>

2014

54. Walsh E†, Luo J†, **Zhang N***. 2014. *Acidomelania panicicola* gen. et. sp. nov. from switchgrass roots in acidic New Jersey Pine Barrens. **Mycologia** 106:856-864. DOI: 10.3852/13-377
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1. **Zhang N. 2022.** Fungal biodiversity and functions in the pine barrens ecosystem. Pinelands Commission Speaker Series (Oct. 6, 2022 presentation). <https://www.youtube.com/watch?v=oDojxtcKfJY>
2. **Zhang N, Luo J. 2022.** A monograph of the fungal order *Magnaporthales*. <https://lowinputturf.umn.edu/monograph-fungal-order-magnaporthales>
3. Luo J, **Zhang N. 2021.** Two common summer patch pathogens on fine fescues. <https://lowinputturf.umn.edu/two-common-summer-patch-pathogens-fine-fescues>
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Other Journal Publications

1. Jin C, **Zhang N.** 2018. Fungi-mediated self-healing concrete for sustainable and resilient infrastructure. *HDIAC Journal* 5: 16-20.
2. Spatafora J, Aime MC, **Zhang N**, Seifert K. 2018. A festschrift in honor of Meredith Blackwell. *Mycologia* 110: 1-3.
3. **Zhang N. 2016.** Magnaporthales genome symposium and workshop at Rutgers. *Inoculum* 67: 6-7.
4. **Zhang N***, Rossman AY, Seifert K, Bennett JW, Cai G, Cai L, Hillman B, Hyde KD, Luo J†, Manamgoda D, Meyer WA, Molnar T, Schoch C, Tadych M, White JF Jr. **2013.** Impacts of the International Code of Nomenclature for algae, fungi and plants (Melbourne Code) on the scientific names of plant pathogenic fungi. Online. **APSnet Feature**. American Phytopathological Society, St. Paul, MN.
5. **Zhang N. 2009.** Leaf-inhabiting genera of the *Gnomoniaceae*, *Diaporthales*, a book review. *Inoculum* 60:61.

Books

1. Luo J†, **Zhang N*. 2022.** The Rice Blast Fungus and Allied Species: A Monograph of the Fungal Order *Magnaporthales*. **APS Press**. 164 pp. ISBN: 978-0-89054-682-6

Electronic Monograph:

1. Luo J†, **Zhang N*. 2022.** An E-monograph of the Fungal Order *Magnaporthales*:

Taxonomy, Molecular Phylogeny, and Biogeography.
<https://magnaporthales.sebs.rutgers.edu/>

Book Chapters

1. **Zhang N***, Luo J†, Bhattacharya D. **2017**. Advances in fungal phylogenomics and their impact on fungal systematics. ***Advances in Genetics*** 100: 309-328.
<https://doi.org/10.1016/bs.adgen.2017.09.004>
2. **Zhang N***, Baird RE, Trigiano RN. **2016**. Plant Pathogenic Species of the *Ascomycota*: *Pezizomycotina*. Pp. 205-220. In ***Plant Pathology: Concepts and Laboratory Exercises***. 3rd edition. Eds. Ownley BH, Trigiano RN. CRC Press.
3. **Zhang N***, Wang Z. **2015**. *Sordariomycetes* and *Leotiomyces*. Systematics and Evolution. Pp. 57-88. In ***The Mycota*** VII 2nd edition, Eds. McLaughlin DJ, Spatafora JW. Springer-Verlag. Berlin Heidelberg.
4. Turgeon BG, Condon B, Liu J, **Zhang N**. **2010**. Protoplast Transformation of Filamentous Fungi. Pp. 3-20. In ***Molecular and Cell Biology Methods for Fungi***, Methods in Molecular Biology series. Ed. Amir Sharon. Humana Press.

Patents

1. **Zhang N**. "DIMERIC DIAGNOSTIC ARRAYS" Patent number: US 9,222,125 B2. Date of Patent: Dec. 29, **2015**
2. **Zhang N**. "Compositions and Methods thereof Increasing Plant Growth and Resistance to Environmental Stress" US Patent No.: 10,526,255, Date of Patent: Jan. 7, **2020**
3. Huang B. and **Zhang N**. "Bacteria with 1-aminocyclopropane-1-carboxylic acid (ACC) deaminase for promoting turfgrass growth" US patent no: 10,932,468, Date of Patent: March 2, **2021**
4. Huang B, Errickson W, and Zhang N. Compositions and methods for improving plant growth and abiotic stress tolerance. US patent no: 12590043, Date of Patent: March 31, **2026**.

TEACHING

Courses Taught

Molecular Genetics Lab
Advanced Mycology
Introduction to Plant Biology

Guest Lectures

Microbial Life
Fungi in the Environment
Fungi and Human Health

Microbial Biology Seminar
Microbial Ecology and Diversity
Plant Pathogenesis

SERVICE

Professional Service

1. **Chair of the Editorial Advisory Committee, Mycological Society of America, 2026-**
2. **Endowment Committee, Mycological Society of America, 2026-2029**
3. **Program Committee, Mycological Society of America, 2020-2024 (Chair in 2024).**
4. **Advisory Board member of The International Commission of Fungal Taxonomy, 2022-present.**
5. **Editorial Board of *Mycology*, 2023-present**
6. **Associate Editor of *Mycologia*, 2013-2018.**
7. **Co-organizer** of the symposium “Expanding the taxonomic context of genome sampled fungi” for the International Mycological Conference, 2018.
8. **Organizer** of the NSF supported international workshop on “Comparative genomic approaches to understanding the evolution of *Magnaporthales*” at Rutgers University in January 2016.
9. **Co-organizer** of the NSF supported “A Workshop to Explore Enhancing Collaboration Between US and Chinese Researchers in Systematic Biology” held in Guangzhou, China. Feb. 2016.
10. Local Arrangement **Committee member** of the 13th International Turfgrass Research Conference, 2017.
11. Elected as **committee member** of The **International Commission of Fungal Taxonomy**, 2011-2022.
12. **Co-organizer of the symposium** “What can Next Generation Fungal Genome Sequencing do for you?” in Botany 2015 conference, Edmonton, Canada, 2015.
13. Elected as **Councilor** of **Mycological Society of America** (Systematics and Evolution), 2011-2013.
14. **Member** (2010-2014) and **chair** (2014) of the **Research Committee**, Mycological Society of America.

15. **Member** (2014-present) of the **Program Planning Committee**, International Turfgrass Research Conference.
16. **Member** of the **International *Rhizoctonia* Subject Matter Committee**. 2013.
17. **Chair** of the **ad hoc session**, “One name = one fungus” at the 27th Fungal Genetics Conference. 2013.
18. **Moderator** for the Ecology and Pathology session at the Botanical Society America/Mycological Society of America 2009 meeting (Snowbird, UT), July 25-August 1, 2009.
19. **Editorial Board** of *Mycology*, 2012-2014.
20. **Organizer** of a **symposium** “The fungal DNA Barcode and Beyond”, one of the seven symposia selected for the 2012 Mycological Society of America Meeting.
21. **Moderator** for the **Fungal Biology session** at the American Phytopathological Society Annual meeting. 2011. Honolulu. August 6-10.
22. **Chair** of the Ecology and Pathology session at the Mycological Society of America 2011 meeting (Fairbanks, Alaska) August 1-5, 2011.

Referee Service

Peer Review: Scientific Journals and book

Mycologia, *American Journal of Botany*, *Microbial Ecology*, *Plant Disease*, *European Journal of Plant Pathology*, *Soil Science Society of American Journal*, *Fungal Biology*, *Fungal Diversity*, *Fungal Ecology*, *Mycology*, *The Plant Pathology Journal*, *International Turfgrass Society Research Journal*, *Mycological Progress*, *Phytotaxa*, *Plant Disease*, *Molecular Plant Pathology*, *IMA Fungus*, *Studies in Mycology*, *MycoKeys* etc.

review for book: *Diversity and evolution of fungal parasites and pathogens*, published by Elsevier.

Peer Review: Funding Agencies

NSF, USDA, Rutgers Global Grants

University Service

1. **Advisory Committee on Appointments and Promotions (A&P)**, SEBS, Rutgers University, 2022-2025
2. **Plant Biology Graduate Program Admissions Committee**, Rutgers University, 2024-present
3. **Planning and Priority Steering Committee**, Department of Plant Biology, Rutgers University, 2024-present

4. **Organizing Committee and Editor** of 2024 **Rutgers Center for Turfgrass Science Symposium**
5. **Reading Committee**, Department of Plant Biology, Rutgers University
6. **Mentoring Committee**, Department of Plant Biology, Rutgers University,
7. **Search Committee** of Turfgrass Pathologist, Department of Plant Biology, Rutgers, 2022-2023.
8. Department of Plant Biology, **NTT Committee**, 2020-present.
9. **Search Committee** of the Henry Rutgers Professor in Microbiomes and Health. Department of Biochemistry and Microbiology. Rutgers, 2016
10. **Member** of the **Membership and Nominations Committee** of the Microbial Biology Graduate Program, Rutgers University
11. **Search Committee** of the Funk Endowed Chair Professor. Department of Plant Biology and Pathology, Rutgers, 2015
12. **Member** of the 2012 **Rutgers Center for Turfgrass Science Symposium** Organization Committee.
13. **Chair** of the 2011 **Rutgers Center for Turfgrass Science Symposium** Organization Committee.
14. **Rutgers Scholastic Standing and Admissions committee**: 2010-2011.
15. **Editor** of 2010 **Rutgers Center for Turfgrass Science Symposium**.
16. **Organizer**/host for two seminars given by outside speakers supported by RU-FAIR Minigrant. October 2, 2009 and December 4, 2009.