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EDUCATION HISTORY

Ph.D. in Biological Sciences

Sept. 2006 – 2011 University of California, Irvine Irvine, California

Bachelor of Arts Magna Cum Laude in Chemistry with Honors and Distinction

Sept. 2000 – May 2004 Boston University Boston, Massachusetts

EMPLOYMENT RECORD

Assistant Professor

July. 2014– Present Boston University Boston,
Massachusetts

Postdoctoral Research Fellow

Sept. 2013– July 2014 Department of Biology, Stanford University Stanford, California

NOAA Climate and Global Change Postdoctoral Research Fellow

Sept. 2012– Sept. 2013 Department of Biology, Stanford University Stanford, California
Sept. 2011– Sept. 2012 Department of Plant Pathology, University of Minnesota Minneapolis,
Minnesota

PUBLICATIONS: [HTTPS://BIT.LY/2H9TAN9](https://bit.ly/2H9TAN9)

Summary Statistics (Google Scholar):

Citation indices All Since 2015

[Citations](#) 2479 1946

[h-index](#) 20 19

[i10-index](#) 27 26

PEER REVIEWED PUBLICATIONS

36. Stephen Nayfach, Simon Roux, Rekha Seshadri, Daniel Udway, Neha Varghese, Frederik Schulz, Dongying Wu, David Paez-Espino, I-Min Chen, Marcel Huntemann, Krishna Palaniappan, Joshua Ladau, Supratim Mukherjee, T.B.K. Reddy, Torben Nielsen, Edward Kirton, José P. Faria, Janaka N. Edirisinghe, Christopher S. Henry, Sean P. Jungbluth, Dylan Chivian, Paramvir Dehal, Elisha M. Wood-Charlson, Adam P. Arkin, Susannah Tringe, Axel Visel, **IMG/M Data Consortium**, Tanja Woyke, Nigel J. Mouncey, Natalia N. Ivanova, Nikos C. Kyrpides, Emiley A. Elie-Fadrosh^{***}. Accepted. A Genomic Catalogue of Earth's Microbiomes.
35. Policelli N^{†*}, TR Horton, AT Hudon, T Patterson, and **JM Bhatnagar^{**}**. Accepted. Back to roots: the role of ectomycorrhizal fungi in forest restoration. *Frontiers in Forests And Global Change*.
34. Hoeksema, J, C Averill[†], **JM Bhatnagar**, E Brzostek, E Buscardo, K-H Chen, H-L Liao, L Nagy, N Policelli[†], J Ridgeway, and R Vilgalys. 2020. Ectomycorrhizal plant-fungal co-invasions as natural experiments for connecting plant and fungal traits to their ecosystem consequences. *Frontiers in Forests And Global Change* 3: 84. [DOI 10.3389/ffgc.2020.00084](https://doi.org/10.3389/ffgc.2020.00084)
33. Van Nuland ME, DP Smith, **JM Bhatnagar**, A stefanski, SE Hobbie, PB Reich, and KG Peay. 2020. Warming and disturbance alter soil microbiome diversity and function in a northern forest ecotone. *FEMS Microbiology Ecology* 96(7): fiae108. [DOI 10.1093/femsec/fiae108](https://doi.org/10.1093/femsec/fiae108)
32. Garcia MO, PH Templer, PO Sorensen, R Sanders-Demott, PM Groffman, and **JM Bhatnagar^{***}**. 2020. Soil microbes trade-off biogeochemical cycling for stress tolerance traits in response to year-round climate change. *Frontiers in Microbiology* 11:616. [DOI 10.3389/fmicb.2020.00616](https://doi.org/10.3389/fmicb.2020.00616)
31. Steidinger B, **JM Bhatnagar**, R Vilgalys, J Taylor, TD Bruns, and KG Peay. 2020. Ectomycorrhizal fungal diversity predicted to substantially decline due to climate changes in North American Pinaceae forests. *Journal of Biogeography* 00:1– 11. [DOI 10.1111/jbi.13802](https://doi.org/10.1111/jbi.13802)
30. Zanne A, K Abarenkov, M Afkhami, C Aguilar-Trigueros, S Bates, P Busby, N Christiansen, W Cornwell, T Crowther, H Flores-Moreno, D Foudas, R Gazis, D Hibbett, P Kennedy, D Lindner, D Maynard, A Milo, R Nilsson, J Powell, M Schildhouer, J Schilling, **JM Bhatnagar**, and K Treseder. 2019. Fungal functional ecology: Bringing a trait-based approach to plant-associated fungi. *Biological Reviews*. [DOI 10.1111/brv.12570](https://doi.org/10.1111/brv.12570)
29. Averill C^{†*}, **JM Bhatnagar**, MC Dietze, WD Pearse, and SN Kivlin. 2019. Global imprint of plant mycorrhizal association on plant nutrient use efficiency traits. *PNAS* 116 (46):23163-23168. [DOI 10.1073/pnas.1906655116](https://doi.org/10.1073/pnas.1906655116)
28. Vivelo A^{‡*} and **JM Bhatnagar^{**}**. 2019. Meta-analysis of fungal succession during plant litter decay. *FEMS Microbiology Ecology* 95: fiz145. [DOI 10.1093/femsec/fiz145](https://doi.org/10.1093/femsec/fiz145)
27. Saifuddin M, D Segré, **JM Bhatnagar**, and AC Finzi. 2019. Microbial carbon use efficiency predicted from genome-scale metabolic models. *Nature Communications* 10:3568. [DOI 10.1038/s41467-019-11488-z](https://doi.org/10.1038/s41467-019-11488-z)
26. Sorensen PO, **JM Bhatnagar**, L Christianson, Jorge Duran, T Fahey, MC Fisk, AC Finzi, PM Groffman, JL Morse, and PH Templer. 2019. Roots mediate the Effects of Snowpack Decline on Soil Bacteria, Fungi, and Nitrogen Cycling in a Northern Hardwood Forest. *Frontiers in Microbiology* 10:926. [DOI 10.3389/fmicb.2019.00926](https://doi.org/10.3389/fmicb.2019.00926)

25. **Averill C^{†*}**, **L Cates[§]**, MC Dietze, and **JM Bhatnagar^{**}**. 2019. Spatial vs. temporal controls over soil fungal community similarity at continental and global scales. *ISME Journal* 13:2082–2093. [DOI:10.1038/s41396-019-0420-1](https://doi.org/10.1038/s41396-019-0420-1)
24. Zak D, P Pellitier, W Argiroff, B Castillo, T James, L Nave, C Averill, K Beidler, **JM Bhatnagar**, Blesh, Jennifer; A Classen, M Craig, C Fernandez, P Gundersen, R Johansen, R Koide, E Lilleskov, B Lindahl, K Nadelhoffer, R Phillips, A Tunlid. 2019. Exploring the function of ectomycorrhizal fungi in soil organic matter dynamics. *New Phytologist* 223:33-39. [DOI:10.1111/nph.15679](https://doi.org/10.1111/nph.15679)
23. **Bhatnagar JM^{*}**, Sabat, G, and D Cullen^{***}. 2019. The foliar endphyte *Phialocephala scopiformis* DAOMC 229536 proteome when grown on wood as sole carbon source. *Microbiology Resource Announcements* 8:e01280-18. [DOI: 10.1128/MRA.01280-18](https://doi.org/10.1128/MRA.01280-18)
22. Hori C, J Gaskell, D Cullen, G Sabat, P Stewart, K Lail, Y Peng, K Barry, I Grigoriev, A Kohler, L Fauchery, F Martin, CA Zeiner[†], and **JM Bhatnagar**. 2018. Multi-omic analyses of extensively decayed *Pinus contorta* reveal expression of diverse array of lignocellulose degrading enzymes. *Applied and Environmental Microbiology* 84 (20) e01133-18. [DOI: 10.1128/AEM.01133-18](https://doi.org/10.1128/AEM.01133-18)
21. **Averill C^{†*}**, MC Dietze, and **JM Bhatnagar^{**}**. 2018. Continental scale nitrogen pollution has shifted forest mycorrhizal associations, driving losses of soil carbon. *Global Change Biology* 00: 1-10. [DOI: 10.1111/gcb.14368](https://doi.org/10.1111/gcb.14368)
20. **Bhatnagar JM^{***}**, KG Peay, and KK Treseder. 2018. Litter chemistry influences decomposition through activity of specific microbial functional guilds. *Ecological Monographs* 88: 429-444. [DOI: 10.1002/ecm.1303](https://doi.org/10.1002/ecm.1303)
19. Ramirez KS, CG Knight, M de Hollander, FQ Brearley, B Constantinides, A Cotton, S Creer, TW Crowther, J Davison, M Delgado-Baquerizo, E Dorrepaal, DR Elliott, G Fox, RI Griffiths, C Hale, K Hartman, A Houlden, DL Jones, EJ Krab, FT Maestre, KL McGuire, S Monteux, CH Orr, WH van der Putten, IS Roberts, DA Robinson, JD Rocca, J Rowntree, K Schlaeppli, M Shepherd, BK Singh, AL Straathof, **JM Bhatnagar**, C Thion, MGA van der Heijden, FT de Vries. 2017. Detecting macroecological patterns in bacterial communities across independent studies of global soils. *Nature Microbiology* 113: 285-293. [DOI: 10.1038/s41564-017-0062-x](https://doi.org/10.1038/s41564-017-0062-x)
18. **Siletti C[§]**, **CA Zeiner[†]**, and **JM Bhatnagar^{***}**. 2017. Distributions of fungal melanin across species and soil. *Soil Biology and Biochemistry* 113: 285-293. [DOI: 10.1016/j.soilbio.2017.05.030](https://doi.org/10.1016/j.soilbio.2017.05.030)
17. Rosenthal L*, S Branco, J Chung, S Glassman, H-L Liao, *KG Peay*, DP Smith, **JM Talbot**, JW Taylor, E Vellinga, R Vilgalys, TD Bruns^{**}. 2017. Survey of athelioid corticoid fungi in North American pinaceous forests reveals hyperdiversity, underpopulated sequence databases, and species that are potentially ectomycorrhizal. *Mycologia*: 1-13. [DOI: 10.1080/00275514.2017.1281677](https://doi.org/10.1080/00275514.2017.1281677)
16. Peay KG^{***}, P Kennedy, **JM Talbot**. 2016. Dimensions of biodiversity in the Earth mycobiome. *Nature Reviews Microbiology* 14: 434-447. [DOI: 10.1038/nrmicro.2016.59](https://doi.org/10.1038/nrmicro.2016.59)
15. Sinsabaugh RL^{***}, BL Turner, **JM Talbot**, BG Waring, JS Powers, CR Kuske, DL Moorhead, JJ Folstad Shah. 2016. Stoichiometry of microbial carbon use efficiency in soils. *Ecological monographs* 86(2): 172-189. [DOI: 10.1890/15-2110.1](https://doi.org/10.1890/15-2110.1)

14. **Talbot JM***, F Martin, A Kohler, B Henrissat, and KG Peay**. 2015. Functional guild predicts the enzymatic role of fungi in litter and soil biogeochemistry. *Soil Biology and Biochemistry* 88: 441-456. DOI: [10.1016/j.soilbio.2015.05.006](https://doi.org/10.1016/j.soilbio.2015.05.006)
13. Glassman SI*, KG Peay, **JM Talbot**, DP Smith, JA Chung, JW Taylor, R Vilgalys, and TD Bruns**. 2015. A continental view of pine-associated ectomycorrhizal spore banks: a quiescent functional guild with a strong biogeographic pattern. *New Phytologist* 205: 1619-1631. DOI: [10.1111/nph.13240](https://doi.org/10.1111/nph.13240)
12. Liao H-L*, Y Chen, TD Bruns, KG Peay, JW Taylor, S Branco, **JM Talbot**, and R Vilgalys**. Metatranscriptomic analysis of ectomycorrhizal roots reveals genes associated with *Piloderma-Pinus* symbiosis: improved methodologies for assessing gene expression *in situ*. *Environmental Microbiology* 16: 3730-3742. DOI: [10.1111/1462-2920.12619](https://doi.org/10.1111/1462-2920.12619)
11. Huggins JA*, **JM Talbot**, M Gardes, and PG Kennedy**. 2014. Unlocking the environmental keys to host specificity: differential tolerance of acidity and nitrate by *Alnus*-associated ectomycorrhizal fungi. *Fungal Ecology* 12: 53-61. DOI: [10.1016/j.funeco.2014.04.003](https://doi.org/10.1016/j.funeco.2014.04.003)
10. **Talbot JM**, TD Bruns, JW Taylor, DP Smith, S Branco, SI Glassman, S Erlandson, R Vilgalys, H-L Liao, ME Smith, and KG Peay***. 2014. Endemism and functional convergence across the North American soil mycobiome. *Proceedings of the National Academy of Sciences* 111: 6341-6346. DOI: [10.1073/pnas.1402584111](https://doi.org/10.1073/pnas.1402584111)
9. **Talbot JM***, TD Bruns, DP Smith, S Branco, SI Glassman, S Erlandson, R Vilgalys, and KG Peay**. 2013. Independent roles of ectomycorrhizal and saprotrophic communities in soil organic matter decay. *Soil Biology and Biochemistry* 57: 282-291. DOI: [10.1016/j.soilbio.2012.10.004](https://doi.org/10.1016/j.soilbio.2012.10.004)
8. **Talbot JM***, KK Treseder**. 2012. Interactions between lignin, cellulose, and N drive litter chemistry-decay relationships. *Ecology* 93: 345-354 (Featured on journal cover). DOI: [10.1890/11-0843.1](https://doi.org/10.1890/11-0843.1) Reviewed by Faculty of 1000 Biology, Jan 9, 2012, <http://f1000.com/13445963>.
7. Todd-Brown KEO*, FM Hopkins, SN Kivlin, **JM Talbot**, and SD Allison**. 2012. A framework for representing microbial decomposition in coupled climate models. *Biogeochemistry* 109: 19-33.
6. **Talbot, JM***, JS Nowick, DJ Yelle, and KK Treseder**. 2012. Litter decay rates are determined by lignin chemistry. *Biogeochemistry* 108: 279-295. DOI: [10.1007/s10533-011-9635-6](https://doi.org/10.1007/s10533-011-9635-6)
5. **Talbot JM***, KK Treseder**. 2010. Controls over mycorrhizal uptake of organic N. *Pedobiologia* 53: 169-179. DOI: [10.1016/j.pedobi.2009.12.001](https://doi.org/10.1016/j.pedobi.2009.12.001)
4. Gallet-Budynek A*, E Brzostek, VL Rodgers, **JM Talbot**, S Hyzy, and AC Finzi**. 2009. Intact amino acid uptake by northern hardwood – conifer forest trees. *Oecologia* 160: 129-138. DOI: [10.1007/s00442-009-1284-2](https://doi.org/10.1007/s00442-009-1284-2)
3. **Talbot JM***, SD Allison, and KK Treseder**. 2008. Decomposers in disguise: mycorrhizal fungi as regulators of soil carbon dynamics in ecosystems under global change. *Functional Ecology* 22: 955-963 (Featured on journal cover). DOI: [10.1111/j.1365-2435.2008.01402.x](https://doi.org/10.1111/j.1365-2435.2008.01402.x)
2. **Talbot JM***, AC Finzi**. 2008. Differential effects of sugar maple, red oak, and hemlock tannins on carbon and nitrogen cycling in temperate forest soils. *Oecologia* 155: 583–592. DOI: [10.1007/s00442-007-0940-7](https://doi.org/10.1007/s00442-007-0940-7)

1. **Talbot JM**, KD Kroger, A Rago, MC Allen, and MA Charette***. 2003. Nitrogen flux and speciation through the subterranean estuary of Waquoit Bay, Massachusetts. *Biological Bulletin*. 205: 244-245.
[DOI: 10.2307/1543276](https://doi.org/10.2307/1543276)
-

Underline: student mentee

§Undergraduate researcher in my lab

†Postdoctoral researcher in my lab

*Corresponding author

**Senior author

***Senior and corresponding author

BOOK CHAPTERS

- Talbot, JM**. 2017. Fungal communities and climate change. In: *The Fungal Community: Its Organization and Role in the Ecosystem*, 4th edition. J. Dighton and P. Oudemans, eds. Marcel Dekker.

EDITED BOOKS

- Co E, **JM Talbot**, S Oppelt, M Freeman. 2018. *Biology 114/311 Microbiology Laboratory Manual*, Winter 2017 Edition, Hayden-McNeil, New York, NY, pp. 1-201. (*Laboratory Manual*)

OTHER PUBLICATIONS

White papers

- Wieder***, W, MA Bradford, SA Grandy and **JM Talbot**. 2016. Turning uncertainty into opportunity by advancing theory and models. White paper, Department of Energy Office of Science, Biological and Environmental Research, Washington, DC.

Commentaries

- Talbot, JM***, KK Treseder**. 2011. Dishing the dirt on carbon cycling. *Nature Climate Change* 1: 144-146.

Op-Ed Articles

- Søgaard Jørgensen P*, F Barraquand, V Bonhomme, TJ Curran, E Cieraad, TG Ezard, LA Gheradi, RA Hayes, T Poisot, R Salguero-Gómez, L DeSoto, B Swartz, **JM Talbot**, B Wee, and N Zimmerman. 2015. Connecting people and ideas from around the world: global innovation platforms for next-generation ecology and beyond. *Ecosphere* 6: 1-11.

- Salguero R*, M Whiteside, and **JM Talbot**. 2009. After “eco” comes “service”. Guest editorial in: *Frontiers in Ecology and the Environment* 7: 277-278

- Talbot, JM***, A Miller-Rushing. 2008. An era of opportunity for students. Guest editorial in: *Frontiers in Ecology and the Environment* 6: 59-59.

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MEDIA COVERAGE

- WBUR Morning Edition, “Lowly in stature, fungi play a big role in regulating the climate”, September 18, 2018
(<https://www.wbur.org/news/2018/09/18/mushrooms-fungi-climate>)

BU Daily Free Press, “BU Researchers unveil underground world where fungi fight climate change”, September 8, 2018 (<https://dailyfreepress.com/blog/2018/09/06/bu-researchers-unveil-underground-world-where-fungi-fight-climate-change/>)

Atlas Obscura, “There is a whole world inside every plant”, May 29, 2018 (<https://www.atlasobscura.com/articles/do-plants-have-microbiomes>)

BU Research News, “Why Fungi Rule the World”, November 17, 2016 (<https://www.bu.edu/research/articles/soil-fungus/>)
- Featured by Department of Energy, Office of Science (<http://science.energy.gov/>), November 17, 2016
- Featured on BU Today (<https://www.bu.edu/>) November 28, 2016

BU Today, “Four Junior Faculty Awarded Peter Paul Professorships”, September 17, 2015 (<http://www.bu.edu/today/2015/four-junior-faculty-awarded-peter-paul-professorships/>)

Stanford News Report, “Stanford biologists help solve fungal mysteries”, April 15, 2014 (<http://news.stanford.edu/news/2014/april/soil-fungi-map-041514.html>)

Quoted in Lubchenco, J. 2012. Reflections on the Sustainable Biosphere Initiative. Bulletin of the Ecological Society of America 93:260-267

“ESA in the wake of three waves of feminism”, C. Susannah Tysor (poster presentation), Annual meeting of the Ecological Society of America, August 2012

Focus on Ecologists; profiles of professional ecologists, June 2011, <http://www.esa.org/ecologist/members/jtalbot/profile/>

INVITED CONFERENCE PRESENTATIONS

- 2020 Averill, C^{†*}, **JM Bhatnagar**, MC Dietze, AM Raiho, and Z Werbin[‡]. Forecasting the forest mycobiome. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019
- 2020 **JM Bhatnagar*****. The biology of fungal communities, succession, and decay: leveraging the 1000 Fungal Genomes Project. Cell Press LabLinks Symposia, The Broad Institute, Cambridge, MA, February 2020.
- 2019 Averill, C^{†*}, **JM Bhatnagar**, MC Dietze, AM Raiho, and Z Werbin[‡]. Forecasting the forest mycobiome. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019
- 2019 Averill, C^{†*}, **JM Bhatnagar**, MC Dietze, and Z Werbin[‡]. Prediction and scale of the temperate forest mycobiome. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019
- 2019 MC Dietze, KI Wheeler, Averill, C[†], **JM Bhatnagar**, JR Foster, SL LaDeau, K Weathers, ZR Werbin[‡], and KA Zarada. Linking iterative forecasting to hypothesis testing: a case study for how to do this in practice. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019
- 2019 Z Werbin^{**}, Averill, C[†], MC Dietze, and **JM Bhatnagar****. Ecological forecasting of soil bacteria: Predicting taxonomic and functional groups across the United States. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019
- 2019 Zeiner, CA^{†*}, E MacDonald, D Cullen, and **JM Bhatnagar****. Community assembly among decomposer fungi is driven by growth rate and specific resource utilization ability. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019
- 2019 Z Werbin^{**}, Averill, C[†], **JM Bhatnagar**, and MC Dietze. Near Term Ecological Forecasting Initiative. NSF Macrosystems Biology PI Meeting, Boulder, CO, May 2019

- 2019 Averill, C^{†*}, Z Werbin[‡], MC Dietze, and **JM Bhatnagar^{**}**. Predictability and Scale of the Soil Microbiome. SSSA International Soils Meeting, San Diego, CA, January 2019
- 2018 **JM Bhatnagar^{***}**. Co-limitation of microbes in northern hardwood forests. Committee of Scientists Meeting, Hubbard Brook Experimental Forest, North Woodstock, NH, October 2018
- 2018 Averill, C^{†*}, H-L Liao, K-H Chen, R Vilvalys, R Bandy[‡], and **JM Bhatnagar^{**}**. The ectomycorrhizal fungus *Suillus cothurnatus* and nitrogen fertilization have strong and interactive effects on ecosystem processes. Annual meeting of the Ecological Society of America, New Orleans, LA, August 2018
- 2017 **JM Talbot^{***}**. Systems Biology of the Earth Microbiome. BU Microbiome Day, Boston University, Boston, MA, February 2017
- 2016 Averill, C^{†*}, MC Dietze, and **JM Talbot^{**}**. Continental-scale nitrogen pollution has shifted forest mycorrhizal associations and driven losses of soil carbon. Annual meeting of the Ecological Society of America, Fort Lauderdale, FL, August 2016.
- 2016 Garcia, MO*, PH Templer, P Sorensen, R Sanders-Demott, AC Finzi, PM Groffman, J Campbell, and **JM Talbot^{**}**. Effects of climate change across seasons on mycorrhizal community composition at Hubbard Brook Experimental Forest. Annual meeting of the Ecological Society of America, Fort Lauderdale, FL, August 2016.
- 2016 **Talbot, JM^{***}**, MO Garcia, P Sorensen, AC Finzi, PM Groffman, J Campbell, and PH Templer. Effects of climate change across seasons on northern soil microbial communities. HBEF Cooperator's Meeting, Hubbard Brook Experimental Forest, Thornton, NH, July 2016.
- 2016 **Talbot, JM^{***}**, MO Garcia, P Sorensen, AC Finzi, PM Groffman, J Campbell, and PH Templer. Microbial communities at the CCASE experiment. Hubbard Brook Cooperator's Meeting. Cary Institute for Ecosystem Studies, NY, April 2016.
- 2015 **Talbot, JM^{***}**. Fungal biodiversity, cooperation, and combat: Effects on soil biogeochemistry (Invited). Ignite session, "When Tiny Things Rule the World", Annual meeting of the Ecological Society of America, Baltimore, MD, August 2015.
- 2015 **Talbot, JM^{***}**. Unearthing the mycobiome: a genes-to-ecosystems look at form and function of soil fungal communities (Invited). Soil Ecology Society (SES) Keynote Presentation, Biannual meeting of SES, Colorado Springs, CO, June 2015
- 2015 **Talbot, JM^{***}**. A genes-to-ecosystems look at form and function of ectomycorrhizal communities (Invited). KNAW/Royal Netherlands Academy of Arts and Sciences, Amsterdam, Netherlands, Colloquium on "Climate models revisited: the biogeochemical consequences of mycorrhizal dynamics", April 2015.
- 2014 **Talbot, JM^{***}**. Biological insights into fungal-driven ecosystem processes. Keynote address, Biennial MassMyco meeting, Harvard Forest, Petersham, MA, October 2014.
- 2014 Treseder, KK^{***} and **JM Talbot**. Do mycorrhizal fungi sequester or release soil carbon? Biennial meeting of the International Society of Microbial Ecology (ISME), Seoul, Korea, August 2014.

Underline: student mentee

[‡]Graduate student in my lab

[†]Postdoctoral researcher in my lab

*Speaker

**Senior author

***Senior author and speaker

INVITED SEMINARS

Fungal communities and climate change. Department of Ecology, Evolution, and Environmental Biology, Columbia University, October 23, 2018

Fungal communities and climate change. Seminar at Department of Biology, Rhode Island College, October 4, 2018

Mushrooms and Climate Change, Boston Mycological Club, Boston, MA, April 2017

The community interactome: how fungal species interactions shape soil biogeochemistry. Seminar at the Harvard Herbarium, Harvard University, Cambridge, MA, November 2016

Climate change and community function: bacterial and fungal communities that respond to cascading climate changes in New England. Environmental Science Seminar Series, Department of Biology, University of New Hampshire, Durham, NH, September 2016

The community interactome: how fungal species interactions shape soil biogeochemistry. Departmental Seminar, Department of Biology, Clark University, Worcester, MA, March 2016

Cooperation and combat: fungal species interactions and their role in soil biogeochemistry. Departmental Seminar, Department of Biology, West Virginia University, Morgantown, WV, February 2016

Fungal biodiversity, cooperation, and combat: effects on soil biogeochemistry. Systems Biology Seminar, Department of Biology, Boston University, Boston, MA, October 2015

Microbial diversity and the carbon cycle: insights from soil fungal communities. Departmental Seminar, Department of Soil Science, University of Saskatoon, Saskatoon, CAN, October 2015

Back to the future: science and discovery as a former student and new faculty at Boston University: BU Alumni Weekend event, Department of Biology, Boston University, Boston, MA, September 2015

Fungal biodiversity, cooperation, and combat: effects on soil biogeochemistry. Parsons Microbial Systems Seminar, MIT, Cambridge, MA, September 2015

Biological diversity and the soil carbon cycle: a genes-to-ecosystems look at form and function of soil fungal communities. Ecology group seminar, University of Manchester, Manchester, UK, May 2015

Biological diversity and the soil carbon cycle: a genes-to-ecosystems look at form and function of soil fungal communities. Department of Microbiology Seminar, University of Massachusetts, Amherst, MA, April 2015

Biological diversity and the soil carbon cycle: a genes-to-ecosystems look at form and function of soil fungal communities. Biogeosciences Seminar, Boston University, Boston, MA, February 2015

Biological insights into fungal-driven ecosystem processes. Keynote address, MassMyco meeting, Harvard Forest, Petersham, MA, October 2014

Fungal processes in soils: mechanisms, patterns, and biogeochemical consequences. University of Tennessee, Knoxville, TN, Department of Biology Seminar, January 2014

Modeling fungal decomposition pathways across scales. Annual meeting of the Mycological Society of America, Austin, TX, August 2013.

Microbial processes in soils: mechanisms, patterns, and biogeochemical consequences. University of Wisconsin, Madison, Soil Science Seminar, May 2013

From hyphae to biomes: a continental-scale look at form and function of soil fungal communities. USGS, Menlo Park, May 2013

Breaking open the black box: microbial mechanisms of biogeochemical cycling through soils. University of California, Berkeley, ESPM Department Seminar, Berkeley, CA, January 2013

Unearthing the role of fungal communities in the soil carbon cycle. Duke University, Department of Biology University Program in Ecology Seminar Series, Durham, NC, January 2013

Unearthing microbial mechanisms of biogeochemical cycling in ecosystems. University of Texas at Austin, Section of Integrative Biology Population Biology Seminar Series, Austin, TX, October 2012

Linking fungal genetics to ecological function: an analytical and computational chemistry approach. Annual meeting of the Joint Genome Institute (JGI), Walnut Creek, CA, April 2012

Dishing the dirt on decomposition: how soil fungi shape the ecosystem carbon cycle, Bay Area Mycological Society monthly meetings, Santa Rosa, CA, April 2012

Dishing the dirt on decomposition: how soil fungi shape the ecosystem carbon cycle, Bay Area Mycological Association monthly meetings, Santa Cruz, CA, April 2012

Dishing the dirt on decomposition: how soil fungi shape the ecosystem carbon cycle, Bay Area Mycological Association monthly meetings, Berkeley, CA, April 2012

Breaking open the black box: how feedbacks between plants and microbes control the soil C cycle. Iowa State University, Ecology, Evolution and Organismal Biology Departmental Seminar Series, Ames, Iowa, March 2011

Decomposers in Disguise: mycorrhizal fungi as regulators of soil C dynamics in ecosystems under global change? European Ecological Federation Congress, Avila, Spain, September 2011

Nitrogen flux and speciation through the subterranean estuary of Waquoit Bay, Department Seminar, Woods Hole Oceanographic Institution, Woods Hole, MA, August 2003

OTHER INVITED PRESENTATIONS

Speaker, "Sustainable Biosphere Initiative at 20 Years: The View Forward" Reception, Annual meeting of the Ecological Society of America, Portland, OR, August 2012

Speaker, Closing Plenary, Annual meeting of the Ecological Society of America, Austin, TX, August 2011.

CONTRIBUTED PRESENTATIONS (ORAL AND POSTER)

2019 Hackos, B[§], Z Werbin^{†*}, **JM Bhatnagar^{**}**. An Automated Pipeline for Nitrogen-cycling Gene Abundance Analysis. Annual Biomedical Research Conference for Minority Students. Anaheim, CA, November 2019.

2019 Dietze, MC, KI Wheeler, C Averill^{†*}, **JM Bhatnagar**, JR Foster, SL LaDeau, K Weathers, ZR Werbin[‡], and KA Zarada. Linking iterative forecasting to hypothesis testing a case study for how to do this in practice. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019

2019 Werbin, Z[‡], C Averill^{†*}, MC Dietze, and **JM Bhatnagar**. Ecological forecasting of soil bacteria: Predicting taxonomic and functional groups across the United States. Annual meeting of the Ecological Society of America, Louisville, KY, August 2019

2019 Werbin, Z[‡], C Averill^{†*}, MC Dietze, and **JM Bhatnagar**. Spatial forecasting of the soil microbiome. BU Bioinformatics Student Organized Symposium, Boston, MA, June 2019

- 2018 Walsh, J[§], A Vivel^{‡*}, **JM Bhatnagar^{**}**. Fungal Decomposer Growth Rate and Succession. Annual Biomedical Research Conference for Minority Students. Indianapolis, IN, November 2018.
- 2018 Atherton, K[§], C Averill^{†*}, MC Dietze, **JM Bhatnagar^{**}**. Which Soils are Reservoirs of Pathogenic Bacteria? Annual Biomedical Research Conference for Minority Students. Phoenix, AZ, November 2017.
- 2018 Bandy, RN^{‡*} and **JM Talbot^{***}**. Chemical communication in soil microbes. Biennial MassMyco meeting, Cambridge, MA, October 2018.
- 2018 Vivelo, A^{‡*}, **JM Bhatnagar^{**}**. Comparative genomics of decomposer fungi during succession. Biennial MassMyco meeting, Cambridge, MA, October 2018.
- 2018 Vivelo, A^{‡*}, **JM Bhatnagar^{**}**. Comparative genomics of decomposer fungi during succession. Annual meeting of the Ecological Society of America, New Orleans, LA, August 2018.
- 2018 Saifuddin, M, **JM Bhatnagar**, D Segre, and AC Finzi. Bacterial carbon-use-efficiency predicted from genome-scale metabolic models is phylogenetically structured and declines with genome size and GC content. Annual meeting of the Ecological Society of America, New Orleans, LA, August 2018.
- 2017 Cruz-Ramirez, S[§], MO Garcia, PH Templer, **JM Bhatnagar^{**}**. Functional Traits of Fungi that Persist under Summer and Winter Climate Change. Annual Biomedical Research Conference for Minority Students. Phoenix, AZ, November 2017.
- 2016 Todd-Brown, K*, M Mayes, N Hess, J Jastrow, and S Manzoni, T Scheibe, J Schimel, M Smith, **JM Talbot**, W. Wieder, J Zucker, V Bailey. Next-generation soil decomposition models: representing ecological process complexity across scales. Annual meeting of the American Geophysical Union, San Francisco, CA, December 2016.
- 2016 Cates, L[§], C Averill^{†*}, and **JM Talbot^{**}**. Understanding variation in microbial communities across time and space (poster presentation). Annual Biomedical Research Conference for Minority Students, Tampa, FL, November 2016.
- 2016 Zeiner, CA^{†*}, CF Yates[§], SC Avanesian[§], SR Rainsford[§], D Segrè, D Cullen, and **JM Talbot^{***}**. Cooperation, combat, (and cheating): Microbial species interactions drive plant litter decomposition. Biennial MassMyco meeting, Amherst, MA, September 2016.
- 2016 Vivelo, A^{‡*}, and **JM Talbot^{***}**. Understanding variation in microbial communities across time and space. Biennial MassMyco meeting, Amherst, MA, September 2016.
- 2016 Bandy, RN^{‡*}, J Diaz[§], CA Zeiner[†], SR Rainsford[§], and **JM Talbot^{***}**. Chemical communication in soil microbes (poster presentation). Biennial MassMyco meeting, Amherst, MA, September 2016.
- 2016 **Talbot, JM^{***}**, MO Garcia, P Sorensen, AC Finzi, PM Groffman, J Campbell, and PH Templer. Effects of climate change across seasons on northern soil fungal communities. Annual meeting of the Mycological Society of America, Berkeley, CA, August 2016.
- 2016 Zeiner, CA^{†*}, CE Siletti[§], **JM Talbot^{**}**. Melanin Production across Species: A Fungal Comparative Genomics Case Study. JGI User Meeting, Walnut Creek, CA. March, 2016.
- 2016 Garcia, MO*, PH Templer, P Sorensen, R Sanders-Demott, AC Finzi, PM Groffman, J Campbell, and **JM Talbot^{**}**. Effects of climate change across seasons on mycorrhizal community composition at Hubbard Brook Experimental Forest. HBEF Cooperator's Meeting, Hubbard Brook Experimental Forest, Thornton, NH, July 2016.
- 2015 B Waitman^{***} and **Talbot, JM**. Ectomycorrhizal enzyme production is largely resilient to N-deposition in a Mediterranean forest system (poster presentation). Annual meeting of the Ecological Society of America, Baltimore, MD, August 2015.
- 2015 **Talbot, JM***, KG Peay^{**}. Modeling fungal decomposition pathways across scales. Annual meeting of the Ecological Society of America, Minneapolis, MN, August 2013.
- 2012 **Talbot, JM***, TD Bruns, DP Smith, S Branco, SI Glassman, S Erlandson, R Vilgalys, and KG Peay^{**}. Independent roles of ectomycorrhizal and saprotrophic communities in soil organic matter decay. Annual Argonne Soil Metagenomics Meeting, Chicago, IL, September 2012.
- 2012 **Talbot, JM***, TD Bruns, DP Smith, S Branco, SI Glassman, S Erlandson, R Vilgalys, and KG Peay^{**}. Functional differences among decomposer communities explain litter chemistry controls over decay. Annual meeting of the Ecological Society of America, Portland, OR, August 2012.
- 2012 **Talbot, JM***, KG Peay^{**}. Unearthing the role of fungal communities in the soil carbon cycle. NOAA

- Summer Institute, Steamboat Springs, CO, July 2012.
- 2011 **Talbot, JM***, KK Treseder**. Interactions between lignin, cellulose, and nitrogen control litter chemistry-decay relationships. Annual meeting of the Ecological Society of America, Austin, TX, August 2011.
- 2011 **Talbot, JM***, KK Treseder**. Lignin, cellulose, and nitrogen interactions control the activity of decomposer fungi. Annual meeting of the Mycological Society of America, Fairbanks, AK, August 2011.
- 2010 **Talbot, JM***, KG Peay**. Does lignin chemistry control litter decomposition rates? Annual meeting of the Ecological Society of America, Pittsburgh, PA, August 2010.
- 2010 **Talbot, JM***. Testing the guild-based decomposition model: *Arabidopsis thaliana* as a model system (poster presentation). Meeting of the International Society of Microbial Ecology (ISME), Seattle, WA, August 2010.
- 2010 **Talbot, JM***, JS Nowick, DJ Yelle, and KK Treseder**. Does lignin chemistry control litter decomposition rates? Graduate Student Symposium, UCI, January 2010.
- 2008 **Talbot, JM***, KK Treseder**. *Arabidopsis thaliana* as a model plant to study ecosystem processes. Annual meeting of the Ecological Society of America, Milwaukee, WI, August 2008.
- 2008 **Talbot, JM***, KK Treseder**. *Arabidopsis thaliana* as a model plant to study ecosystem processes. Graduate Student Symposium, UCI, January 2008.
- 2007 **Talbot, JM***, KK Treseder**. Bridging the gap: the role of mycorrhizal fungi in plant uptake of organic N. Annual meeting of the Ecological Society of America, San Jose, CA, August 2007.
- 2006 **Talbot, JM***, AC Finzi**. Tannin influences on carbon and nitrogen dynamics in temperate forest soils. Annual meeting of the Ecological Society of America, Memphis, TN, August 2006.
- 2006 **Talbot, JM***, KD Kroger, A Rago, MC Allen, and MA Charette**. Nitrogen flux and speciation through the subterranean estuary of Waquoit Bay, General Scientific Meeting, Marine Biological Laboratory, Woods Hole, August 2003.

Underline: student mentee

‡Graduate student in my lab

§Undergraduate researcher in my lab

†Postdoctoral researcher in my lab

*Speaker

**Senior author

***Senior author and speaker

AWARDS & HONORS

- 2017 Patricia McLellan Leavitt Research Award (\$8000)
- 2016 One of the top 50 most successful graduate alumni, University of California, Irvine
- 2015 Peter Paul Career Development Professorship, Boston University
- 2015 Outstanding Mentor Award, Undergraduate Research Opportunities Program, Boston University (\$100)
- 2015 Soil Ecology Society Early Career Award (\$500)
- 2011-2013 NOAA Climate and Global Change Postdoctoral Fellowship (\$118,758)
- 2011 NSF Postdoctoral Research Fellowship in Biology (\$123,000), awarded but declined
- 2011 Murray F. Buell Award for Most Outstanding Student Oral Paper presented at the 2010 Ecological Society of America meeting (\$1,200)
- 2010 P.E.O. International Scholar Award (\$15,000)
- 2009 NSF Doctoral Dissertation Improvement Grant (\$15,000)
- 2009 Newport Bay Naturalists and Friends Research Grant (\$1,000)
- 2009 Graduate course, "Functioning of Boreal Forest Ecosystems", Swedish University of Agricultural Sciences, Umeå, Sweden (\$1500)
- 2008 FESIN (Fungal Environmental Sampling and Informatics Network) travel award to ESA

meeting, Milwaukee, WI (\$1500)
 2008 Sonoran Joint Venture Award/U.S. Fish & Wildlife Service (\$9,974)
 2008 Lewis and Clark Fund for Exploration and Field Research Scholar (\$3,000)
 2006-2010 NSF GRFP Fellow (\$126,000 total awarded over 3 years)
 2004 Boston University Undergraduate Work for Distinction recipient
 2003 NSF REU Fellow at Woods Hole Oceanographic Institution (\$3000)

EXTERNAL RESEARCH FUNDING

2019-2022 DOE, BER, Systems Biology Enabled Research on the roles of Microbiomes in Nutrient Cycling Processes: *Molecular mechanisms of mycorrhizal-decomposer interactions and impacts on terrestrial biogeochemistry*, \$2M total costs [JM Bhatnagar (Boston University, \$1,012,702 total costs; One year direct costs 2019-2020: \$352,644); co-PIs: C Averill, ETH Zurich; R Vilgalys, Duke University; H-L Liao, UFL; Edward Brzostek, UWV]

2019-2022 DOE, Bioimaging Research and Approaches for Bioenergy and the Environment: *Development of a Full-Field X-ray Fluorescence Imaging System for Near Real-Time Trace Element Microanalysis in Complex Biological Systems*, \$2M total costs [PI: R Tappero (Brookhaven National Lab); co-PIs: JM Bhatnagar (\$227,980 total; One year direct costs 2019-2020: \$40,496), BU; R Vilgalys, Duke University; H-L Liao, UFL]

2017-2021 NSF, Macrosystems, MSB-ENSA: *The near-term ecological forecasting initiative*, \$1,704,922 total costs [PI: M Dietze (Boston University); co-PIs: JM Bhatnagar (\$228,637 total costs; One year direct costs 2018-2019: \$29,461), BU; S LaDeau, Cary Institute; K Weathers, Cary Institute; PC Hanson, UW Madison]

2015-2019 NSF, Division of Environmental Biology, *Molecular mechanisms and biogeochemical consequences of decomposer species interactions during succession in ecosystems*, \$794,869 total costs [PI: JM Talbot (Boston University, \$661,373 total costs; One year direct costs 2018-2019: \$76,816), co-PIs: D Segrè, BU; D Cullen, UW Madison]

EXTERNAL INSTRUMENTATION GRANTS

- 2019-2022 DOE, JGI/EMSL CSP, *Discover ectomycorrhizal fungi-triggered macro- and micronutrient reactions and movements: From cell to ecosystem function*, [PI: Hui-Ling Liao (UFL), co-PIs: **JM Bhatnagar**, BU; R Vilgalys, Duke University; S Branco, MSU; Edward Brzostek, UWV; Colin Averill, ETH; R Tappero, BNL]
- 2018-2021 DOE, JGI CSP, *Genetic, community, and ecosystem consequences of co-introduction of mycorrhizal fungi with exotic pines*, [PI: Hui-Ling Liao (UFL), co-PIs: **JM Bhatnagar**, BU; R Vilgalys, Duke University; J Hoeksema, UMISS; Edward Brzostek, UWV; Laszlo Nagy, BRC; Erika Buscardo, U Coimbra; J Brewer, UMISS]
- 2017-2020 DOE, JGI/EMSL CSP, *Scaling molecular mechanisms of mycorrhizal-decomposer interactions to emergent ecosystem carbon balance*, equivalent of \$95,500 worth of instrument time [PI: **JM Bhatnagar** (BU), co-PIs: C Averill, BU; H-L Liao, UFL; R Vilgalys, Duke University]
- 2017-2029 DOE, JGI CSP, *Molecular mechanisms of ectomycorrhizal interactions that stabilize soil carbon*, [PI: Colin Averill (BU), co-PIs: **JM Bhatnagar**, BU; H-L Liao, UFL; R Vilgalys, Duke University]
- 2016-2018 DOE, JGI CSP, *A genome atlas of the ectomycorrhizal genus Suillus: Phylogenetic diversity and population genomics of a keystone guild of symbiotic forest fungi*, [PI: Nhu Nguyen (UH Hilo), co-PIs: **JM Talbot**, BU; S Branco, MSU; H-L Liao, UFL; KG Peay, Stanford U; PG Kennedy, UMN; R Vilgalys, Duke University; HVT Cotter, Duke University; JW Taylor, UC Berkeley; TD Bruns, UC Berkeley; J Colpaert, Hasselt U]
- 2016-2018 DOE, JGI CSP, *Metatranscriptome analysis of fungal decay of Pinus contorta*, [PI: Daniel Cullen (UW Madison), co-PIs: **JM Talbot**, BU; J Schilling, UMN; R Blanchette, UMN; DJ Yelle, UW Madison]
- 2014-2018 DOE, JGI CSP, *Resistance and resilience of microbial guilds and biogeochemical functions to rapid climate change in the cold biome*, [PI: **JM Talbot** (Boston University), co-PIs: P Templer, BU; L Rustad, USFS; J Campbell, USFS; P Groffman, Cary Institute]
- 2014-2018 DOE, JGI/EMSL CSP, *Integrated genomic/transcriptomic/metabolomic study of symbiotic plant-fungal interactions and their role in carbon cycling: The interactomes of pines and their host-specific ectomycorrhizal fungi in the mushroom genus Suillus*, [PI: R Vilgalys (Duke University), co-PIs: **JM Talbot**, Boston University, H-L Liao, Duke University]

TEACHING EXPERIENCE

- 2019-Present Primary instructor for BI582 A1: Community Ecology, Boston University
- 2015-Present Instructor for BI579/580: Ecology, Behavior, and Evolution Graduate Seminar, Boston University
- 2014-Present Primary lecturer for BI311: General Microbiology, Boston University
- 2010-2011 Guest lecturer for E205: Special Topics in Ecology, University of California, Irvine and 5203: Biology and Ecology of Fungi, University of Minnesota
- 2008 Teaching assistant for BIO100LW: Lab for Experimental Biology; BIO9K/ESS13: Global Change Biology; BIO191CW/ESS190CW/SOCECOL186CW: Global Sustainability; BIO179: Limnology and Freshwater Ecology; BIO179L: Field Freshwater Ecology, University of California Irvine, *Teaching Assistant*
- 2001-2003 Teaching assistant for CH111/112: Intensive General and Quantitative Analytical Chemistry and CH351: Physical Chemistry 1 (Quantum Theory, molecular spectroscopy), Boston University

PROFESSIONAL SERVICE

- 2018-Present Member, ESA Buell/Braun Award Selection Committee

2017-Present Chair/VC/Secretary, ESA Microbial Ecology Section
 2017-2018 Member, Award Selection Committee, Soil Ecology Society
 2016-Present Member, Committee of Scientists, Hubbard Brook Experimental Forest, NH
 2015-Present Steering committee member, NOAA Climate and Global Change Postdoctoral Fellowship Program
 2015-Present Editor, Rhizosphere
 2015-2016 ESA representative to the International Network of Next Generation Ecologists (INNGE)
 2014-Present Member, Ecological Society of America's Publications Committee
 2014-2017 Editor, Microbial Ecology
 2013 Principal organizer of "The Forest Microbiome: how microbes shape forest responses to global change", symposium at the INTECOL meeting in London, England, August 2013
 2013-2015 Working group member, International Network of Next Generation Ecologists (INNGE)
 2008-2011 Awards coordinator for the Ecological Society of America, Student Section
 2007-Present Principal organizer of "Show me the money", a student grantsmanship workshop at the annual ESA meeting
 2007-2011 Chief Financial Officer and research co-chair for the Society for Conservation Biology, Orange County chapter
 2007-2008 Chair of the Student Section of the Ecological Society of America
 2006-Present Reviewer for *Nature Climate Change*, *Ecology Letters*, *Ecology*, *Global Change Biology*, *Functional Ecology*, *New Phytologist*, *Microbial Ecology*, *Microbiome*, *mBio*, *Ecosystems*, *Biogeochemistry*, *Journal of Ecology*, *Soil Biology and Biochemistry*, *Environmental Microbiology*, *Soil Science Society of America Journal*, *Plant and Soil*, *European Journal of Forest Research*, *Environmental Monitoring and Assessment*, *Molecules*, *NSF Ecosystem Studies Program*, *DOE BER ESS Program*, and *Fonds de recherche du Québec - Nature et technologies*.

ACADEMIC SERVICE

2018-Present *Faculty member*, ARROWS Assistant Professor Programming Committee, Boston University
 2017-Present *Coordinator*, Department Seminar Speaker Series, Department of Biology, Boston University
 2017-Present *Faculty member*, Bioinformatics Ph.D. Program, Boston University
 2017 *Presentation Judge*, BGSA symposium, Department of Biology, Boston University
 2016-Present *Presentation Judge*, Biogeoscience symposium, Boston University
 2016-Present *Committee Member*, Graduate Committee, Department of Biology, Boston University
 2016-Present *Committee Member*, Microbiome Initiative, Boston University
 2016-Present *Steering Committee Member*, Biogeosciences Program, Boston University
 2016 *Senior thesis committee member* for 1 undergraduate in Biology at Boston University.
 2016 *Committee member*, Goldwater Scholarship Committee, Boston University
 2016-Present *Faculty member*, Beckman Scholars program, Boston University
 2016-Present *Faculty member*, Biochemistry and Molecular Biology (BMB) concentration, Boston University
 2015-Present *Faculty member*, SURF program, Boston University
 2015-Present *Faculty member*, NSF Bioinformatics Research and Interdisciplinary Training Experience (BRITE) Summer Research program, Boston University
 2015-2016 *Faculty presenter*, CM/MCBB Recruitment Weekend, Department of Biology
 2015 *Volunteer Instructor*, Progress in Ecology, Behavior, Evolution, and Marine Biology (BI 579), Department of Biology
 2014-Present *Guest lecturer* in (1) MB 697 A Bridge to Knowledge: A Practical Seminar for First-Year Graduate Students, September 10, 2015 and (2) BI 411/BI 611 (Microbiome), April 4, 2015
 2014-Present *Undergraduate advisor* (n=34), Department of Biology
 2015-Present *Research Advisor* to 2 Ph.D. students, 2 postdoctoral researchers at Boston University.
 2015-Present *Ph.D. committee member* for an additional 12 Ph.D. students in EBE (7), Bioinformatics (3), MCBB (2) at Boston University.

- 2009-2010 *Graduate Student Representative*, Ecology and Evolutionary Biology Dept, UCI
 2007-2010 *Founder* and principal organizer of Microbial Reading Group in the Department of Ecology and Evolutionary Biology at UCI
 2006-Present *Research Mentor* to 46 undergraduate research assistants, 6 high school students, and 1 middle school student while at UCI, UMN, Stanford University, and Boston University.

OUTREACH

- 2015-2016 *Lunch Panelist*, BIOBUGS, Boston University, MA.
 2015 *Panelist*, Fellowship Panel, GWISE @ Boston University, MA.
 2015 *Presenter*, WISE @ Warren, Boston University, MA.
 2014-Present *Panelist*, Biology Inquiry and Outreach with Bio Grad Students (BioBUGS)
 2012 *Curriculum developer* for the Rot-O-Rama 5th grade summer camp at the UMN Bell Museum, Minneapolis MN
 2010 *Volunteer judge* for school science fair, Irvine Unified School District
 2009-2011 *Volunteer* with UCI/CLEAN Global Climate Change Education
 2009-2011 *Volunteer* for Ask a Scientist Night, Irvine Unified School District

MENTORING EXPERIENCE (2014-PRESENT)

Ph.D. students

1. Zoey Werbin (EBE)
 - ❖ Microbiome Fellowship (2020-2021, approx. \$31,500)
2. Alexandra (Sasha) Viveló (EBE)
 - ❖ MSA Graduate Research Fellowship (2018; \$2000)
 - ❖ Biogeoscience Travel Award, Boston University (2018; \$500)
 - ❖ Boston University Writing fellowship (2016-Present; stipend for 2 semesters, approx. \$31,500 per year)
 - ❖ Pardee Summer Graduate Student Fellowship (2016; \$6000)

Postdoctoral Research Fellows

1. Colin Averill
 - ❖ Outstanding Postdoc Presentation Award, Biogeoscience Program, Boston University (2017; \$100)
 - ❖ NOAA Climate and Global Change Postdoctoral Research Fellowship (2015-2017; \$120,000)
2. Carolyn Zeiner
 - ❖ PDPA Travel Award (2016; \$500)
 - ❖ Best Oral Presentation Award, biennial meeting of the Massachusetts Mycological Association (MassMyco) (2016)

MS students

1. Reagan Bandy (2016-2018)
 - ❖ Best Poster Presentation BU Microbiome Day

BA/MA Biotechnology students

1. Shayan Avanesian (2016/2017)
2. Shannon Rainsford (2016/2017)
3. Lake Murphy (2019/2020)

Biology/BMB undergraduate students (research for credit)

1. Jack McCullough (Spring 2015)
2. Jonathan Pyun (Spring 2015)
3. Aine Russell (Spring 2017)
4. Jamie Afghani (Spring 2018)

UROP students

1. Cheta Siletti (Summer 2015/Fall 2015/Spring 2016)

2. Aine Russell (Summer 2015/Fall 2015)
3. Shayan Avanesian (Summer 2015/Fall 2015/Summer 2016)
4. Christina Sanchez (Spring 2016)
5. Shannon Rainsford (Summer 2016)
6. Chao Wu (Fall 2016/Spring 2016)
7. Azanta Thakur (Summer 2018)
8. Julia Finestone (Summer 2018)
9. Bayan Alsairafi (Summer 2019)

NSF-REU students

1. Lidi-Marie Trujillo (2015); University of Puerto Rico
 - ❖ Accepted into the Ph.D. program at the University of Florida in the Department of Microbiology and Cell Sciences
2. Christopher Thomas (2015); Whitworth University
 - ❖ Accepted into the Ph.D. program in Cell and Molecular Biology at Boston University in the Department of Biology
 - ❖ Martin Luther King Jr. Fellowship (stipend for 3 calendar years, approx. \$94,500)
3. Vanessa Ford (2015); Roxybury Community College
 - ❖ Accepted into the B.S. program at UMass Amherst
4. Jonathan Lopez-Duran (2016); University of Puerto Rico
5. Jose Diaz (2016); College of the Desert
 - ❖ Accepted into the B.S. program at UC Santa Barbara
6. Elizabeth Diaz (2017); San Joaquin Delta College
7. Stacey Cruz-Ramirez (2017); University of Puerto Rico
8. Jasmine Walsh (2018); Oakwood University

Science without Borders students

1. Nayara Pessoa de Oliveira (2016); Biotechnology at Universidade de Brasilia, Brazil

RISE students

1. Anna Yang (2015)
 - ❖ Accepted into the undergraduate degree program at Stanford University
2. Esther Plotnick (2016)
 - ❖ Accepted into the undergraduate program at Harvard University

GROW students

1. Ameerah Giadat (2016)

PROFESSIONAL MEMBERSHIPS

Mycological Society of America (2011-Present)
 Ecological Society of America (2005-Present)
 Committee of Scientists at Hubbard Brook Experimental Forest (2016-present).

COLLABORATORS AND OTHER AFFILIATIONS

Steven D. Allison (University of California, Irvine), Edward Brzostek (University of West Virginia), Thomas D. Bruns (University of California, Berkeley), Daniel Cullen (University of Wisconsin, Madison), Michael Dietze (Boston University), Adrien C. Finzi (Boston University), Peter Groffman (CUNY), Peter Kennedy (University of Minnesota), Annagret Kohler (INRA Nancy), Hui-Ling Liao (UFL), Daniel Segrè (Boston University), Robert L. Sinsabaugh (University of New Mexico), Matthew E. Smith (University of Florida), John W. Taylor (University of California, Berkeley), Pamela Templer (Boston University), Ritas Vilgalys (Duke University).