

# Kevin Richard Cope

🏠 Brookings, South Dakota, USA 57006 | 📞 (801) 400-6660 | ✉️ Kevin.Cope@sdstate.edu  
🌐 <https://www.linkedin.com/in/kevin-r-cope/> | 🐦 <https://twitter.com/KevinCope18/>

## EDUCATIONAL BACKGROUND

---

- 2018**      **Ph.D. in Cellular and Molecular Biology**  
*Cellular & Molecular Biology Program, University of Wisconsin–Madison*  
Dissertation: “Molecular mechanisms regulating the establishment and maintenance of mycorrhizal associations in woody plants”
- 2013**      **B.Sci. in Plant Science & Biology**; Minors: Chemistry, Crop Biotechnology  
*Department of Plant, Soils & Climate and Department of Biology, Utah State University*  
Honors Senior Thesis: “Developing an optimized light spectrum for plant growth and development”

## RESEARCH EXPERIENCE

---

- 2021–Present**    **Post-Doctoral Research Associate**  
Plant Systems Biology Group, Bioscience Division, Oak Ridge National Lab, Oak Ridge, TN
- 2018–2021**    **Post-Doctoral Research Associate**  
Department of Biology & Microbiology, South Dakota State University, Brookings, SD
- 2013–2018**    **Graduate Research Assistant**  
Depts. of Agronomy and Bacteriology, University of Wisconsin–Madison, Madison, WI
- 2010–2013**    **Undergraduate Research Assistant**  
Department of Plants, Soils and Climate, Utah State University, Logan, UT

## EXTRAMURAL FUNDING

---

- 2015–2018**    **Graduate Research Fellowship, National Science Foundation, Graduate Research Fellowship Program (\$138,000)**  
Project: “The symbiosis of poplar and mycorrhizal fungi: A solution for sustainable biofuel production”
- 2017**      **D. C. Smith Wisconsin Distinguished Graduate Fellowship (deferred), College of Agriculture and Life Sciences, UW–Madison (\$25,000)**  
Project: “Poplar–mycorrhizal symbioses: A solution for sustainable biofuel production”

## PUBLICATIONS (\*Indicates undergraduate mentee, †Indicates co-first author; [Google Scholar Profile](#))

---

### Peer Reviewed

1. Thilakarathna M, **KR Cope**. Split-root assays for studying legume-rhizobia symbioses, rhizodeposition, and belowground nitrogen transfer in legumes. *Journal of Experimental Botany*. doi: [10.1093/jxb/erab198](https://doi.org/10.1093/jxb/erab198)
2. **Cope KR**, TB Irving, S Chakraborty, JM Ané. 2021. Perception of lipo-chitooligosaccharides by the bioenergy crop *Populus* sp. *Plant Signaling & Behavior*, 16(6):1903758. doi: [10.1080/15592324.2021.1903758](https://doi.org/10.1080/15592324.2021.1903758)
3. Rush, TA, V Puech-Pagès, A Bascaules, P Jargeat, F Maillet, A Haouy, A QuyManh Maès, CC Carriel, D Khokhani, M Keller-Pearson, J Tannous, **KR Cope**, ... J-M Ané. 2020. Lipo-chitooligosaccharides as regulatory signals of fungal growth and development. *Nature Communications*, 11:3897. doi: [10.1038/s41467-020-17615-5](https://doi.org/10.1038/s41467-020-17615-5)

4. **Cope KR**, A Bascaules, TB Irving, M Venkateshwaran, J Maeda, K Garcia, TA Rush, C Ma, J Labbé, S Jawdy, E Steigerwald\*, J Setzke\*, E Fung\*, KG Schnell\*, Y Wang\*, N Schlieff\*, H Bücking, SH Strauss, F Maillat, P Jargeat, G Bécard, V Puech-Pagès, J-M Ané. 2019. The ectomycorrhizal fungus *Laccaria bicolor* produces lipochitooligosaccharides and uses the common symbiosis pathway to colonize *Populus*. **The Plant Cell**, 31:2386-2410. doi: [10.1105/tpc.18.00676](https://doi.org/10.1105/tpc.18.00676).
  - Cover image, October 2019 issue: <http://www.plantcell.org/content/31/10.cover-expansion>
  - Featured in the *In Brief* section of the October 2019 issue: doi: [10.1105/tpc.19.00621](https://doi.org/10.1105/tpc.19.00621)
5. Labbé J, ... , **KR Cope**, LGS Maia, J-M Ané, R Mewalal, SS Jawdy, LE Gunter, W Schackwitz, J Martin, F Le Tacon, T Li, Z Zhang, P Ranjan, E Lindquist, X Yang, DA Jacobson, TJ Tschaplinski, K Barry, J Schmutz, J-G Chen, GA Tuskan. 2019. Mediation of plant–mycorrhizal interaction by a lectin receptor-like kinase. **Nature Plants**, 5:676–680. doi: [10.1038/s41477-019-0469-x](https://doi.org/10.1038/s41477-019-0469-x)
6. Kafle A†, **KR Cope**†, R Raths, JK Yakha, S Subramanian, H Bücking and K Garcia. 2019. Harnessing soil microbes to improve plant phosphate efficiency in cropping systems. **Agronomy**, 9(3):127. doi: [10.3390/agronomy9030127](https://doi.org/10.3390/agronomy9030127)
7. **Cope KR**, M Paries, A Greenspan, A Akamatsu, C Ibe, M Harrison. 2016. XVII Congress on Molecular Plant-Microbe Interactions Meeting Report: Concurrent Sessions 1 and 13. **Molecular Plant-Microbe Interactions**, 29(12S):S1-S22. doi: [10.1094/MPMI-29-12-S1](https://doi.org/10.1094/MPMI-29-12-S1)
8. Snowden MC, **KR Cope**, B Bugbee. 2016. Sensitivity of seven diverse species to blue and green light: Interactions with photon flux. **PLoS ONE**, 11(10): e0163121. doi: [10.1371/journal.pone.0163121](https://doi.org/10.1371/journal.pone.0163121)
9. Garcia K, PM Delaux, **KR Cope**, J-M Ané. 2015. Molecular signals required for the establishment and maintenance of ectomycorrhizal symbioses. **New Phytologist**, 208(1):79-87. doi: [10.1111/nph.13423](https://doi.org/10.1111/nph.13423)
10. **Cope KR**, MC Snowden, and B Bugbee. 2014. Photobiological interactions of blue light and photosynthetic photon flux: Effects of monochromatic and broad-spectrum light sources. **Photochemistry and Photobiology**, 90(3):574-584. doi: [10.1111/php.12233](https://doi.org/10.1111/php.12233)
11. **Cope KR** and LA Rupp. 2013. Vegetative propagation of *Juniperus osteosperma* (Utah juniper) by cuttings. **Native Plants Journal**, 14(2):77-84. doi: [10.3368/npj.14.2.76](https://doi.org/10.3368/npj.14.2.76)
12. **Cope KR** and B Bugbee. 2013. Spectral effects of three types of white light-emitting diodes on plant growth and development: Absolute versus relative amounts of blue light. **HortScience**, 48(4):504-509. doi: [10.21273/HORTSCI.48.4.504](https://doi.org/10.21273/HORTSCI.48.4.504)

#### In Revision

13. **Cope KR**, JK Yakha, K Garcia, A Kafle, PE Pfeffer, GD Strahan, S Subramanian, and H Bücking. Physiological and transcriptomic response of *Medicago truncatula* to high and low benefit arbuscular mycorrhizal fungi. **Plant, Cell & Environment**, in revision. bioRxiv: [10.1101/2020.12.11.421693](https://doi.org/10.1101/2020.12.11.421693)

#### In Preparation

14. **Cope KR**, C Ketelsen\*, J Yahka, W Wang, PE Pfeffer, GD Strahan, S Subramanian, H Bücking. Autoregulation in soybean controls the selection of efficient nitrogen-fixing strains of rhizobia. **Nature Plants**, in preparation.
15. Yakha JK, **KR Cope**, A Kafle, PE Pfeffer, GD Strahan, S Subramanian, and H Bücking. Carbon allocation in legume-tripartite interactions is controlled by microbial access to nitrogen. **New Phytologist**, in preparation
16. Kafle A, **KR Cope**, K Garcia, H Bücking. The beneficial effect of tripartite interactions in *Medicago truncatula* depends on nutrient status and carbon transport. **Mycorrhiza**, in preparation.

**MENTORING EXPERIENCE** (\*publication co-author, †presented research poster)

<b>Duration</b>	<b>Graduate</b>	<b>Major/Program</b>	<b>Current Position</b>
2020–Present	Bhawandeep Kaur†	M.S. Biology	M.S. Student (SDSU)
2018–Present	Jaya Yakha*†	Ph.D. Microbiology	Ph.D. Student (SDSU)
2018–2020	Jeffery Bartel	M.S. Plant Science	M.S. Student (SDSU)
2017–2018	Emmeline Fung*	M.S. Microbiology	D.H.Sc. student (MCPHS–Boston)
2016	Tristan Wang*	M.S. Biotechnology	M.S. Student (Heidelberg University)
<b>Duration</b>	<b>Undergraduate</b>	<b>Major/Program</b>	<b>Current Position</b>
2020–2021	Sarah Anglin	B.S. Microbiology	Undergraduate student (SDSU)
2020–2021	Hailey Axemaker†	B.S. Biotechnology	Analytical Lab Tech (SGS Seed Testing)
2019–2020	Corbin Ketelsen	B.S. Microbiology	Lab Technician II (Integrated DNA Tech)
2019	Dylan Blomme	B.S. Human Biology	D.O. student (Kansas City University)
2019	Cora Hirst†	USDA REU	Undergraduate student (Emory Univ.)
2019	Tanya Li†	USDA REU	Undergraduate student (Emory Univ.)
2017–2018	Kenneth Jackson†	B.S. Microbiology	Clinical Lab Scientist (Exact Sciences)
2016–2018	Angad Dhariwal†	B.S. Biology	Volunteer (Isha Foundation)
2016–2018	Edward Steigerwald*†	B.S. Biology	Production Tech (Stratatech)
2016–2018	Jonathan Setzke*†	B.S. Biology	Lab Manager (UW-Madison)
2014–2017	Emmeline Fung*	B.S. Genetics	D.H.Sc. student (MCPHS–Boston)
2017	Mark Horton†	NSF REU	Ph.D. student (UW-Madison)
2016–2017	Jack Kwan†	B.S. Kinesiology	Undergraduate student (UW–Madison)
2015–2016	Marissa Cortopassi†	B.S. Biochemistry	Research Tech (Weill-Cornell Medical)
2016	Ian Midgordin	B.S. Botany	Research Intern (Illinois Foundation)
2015–2016	Nathanial Schleif*†	B.S. Biochemistry	Ph.D. Student (UW-Madison)
2014–2016	Kimberly Schnell*†	B.S. Botany	Research Specialist (AgraFilms)
2014	Chester Zara	B.S. Biochemistry	Software Developer (Epic Systems)
2014	Amber Chasteen†	B.S. Biochemistry	Lab Technician (Northland Labs)
2014	Sara Degrave†	B.S. Microbiology	Dentist (Degrave Dentistry)
2013–2014	Emily Halter-Lindquist†	B.S. Genetics	Technician (Biotechnology Application)
2014	Maizah Tariq	PEOPLE program	Intern (Child Development Lab)

**Mentoring Development**

- 2019 **Biology Graduate Student Seminar Mentoring Workshop** – I organized a two hour training for 18 graduate students at SDSU on aligning expectations, maintaining effective communication, and preparing mentoring philosophies.
- 2018 **WISCIENCE Mentoring Fellow** – I organized one-hour mentoring workshops for fellow graduate students on aligning expectations and preparing mentoring philosophies.
- 2017 **Culturally Aware Mentor Training, Participant (six-hour training)** – Learned about a variety of topics related to diversity, equity, and inclusion and both discussed and practiced culturally sensitive mentoring strategies.
- 2017 **Research Mentor Training (INTEGSCI 660), Co-facilitator** – Organized and led eight discussions with a group of ten graduate students using the [Entering Mentoring](#) curriculum.

## TEACHING EXPERIENCE

---

### Certifications

- 2019 **Delta Certificate in Research, Teaching and Learning**, *Delta Program, UW–Madison*  
I completed two teaching courses (Scientific Teaching and The College Classroom), contributed to a learning community (Research Mentor Training), and completed a teaching-as-research project entitled: “Using Physical Models to Teach Undergraduate Students about CRISPR/Cas9 Technology”
- 2019 **Teaching Certification of Highest Excellence**, *CETL, South Dakota State University*  
I participated in eight teaching workshops, completed two teaching observations, and prepared a teaching philosophy, mentoring philosophy, and diversity statement.

### Teaching Appointments

- 2019 **Molecular Plant Physiology** (PS 664, SDSU), *Invited Lecturer*  
I developed interactive lectures on molecular aspects of mycorrhizal associations and implemented them with eight graduate students. Based on our discussions, I formulated a summative assessment to evaluate the students’ comprehension of the material.
- 2017 **Plant Biotechnology** (AGRO 339, UW-Madison), *Teaching-As-Research Intern*  
I compared the use of two-dimensional physical models of CRISPR/Cas9 components versus digital models/resources to teach 20 undergraduate students in Plant Biotechnology about CRISPR/Cas9 technology.
- 2014 **Plant Biotechnology** (AGRO 339, UW-Madison), *Teaching Assistant*  
I taught laboratory techniques in plant biotechnology and graded weekly lab reports for 24 undergraduate students in two lab sections for one semester.
- 2011 **Plant Propagation** (PSC 3700, USU), *Teaching Assistant*  
I demonstrated plant propagation techniques and administered/graded quizzes weekly for 20 undergraduate students from two lab sections for one semester.

### Volunteer Teaching Opportunities

- 2013 **Plant Breeding** (PSC 5700, USU), *Peer Tutor*  
I tutored ten classmates on plant breeding problem sets for 2 hours each week.
- 2012 **Plant Physiology** (BIOL 4400, USU), *Peer Tutor*  
I tutored two students on key concepts in plant physiology for 3 hours each week.

## AWARDS

---

- 2021 Science as Art Competition (SDSU, College of Science), 2<sup>nd</sup> place
- 2017 Agronomy Outstanding Graduate Student Award (UW–Madison)
- 2017 O.N. Allen Scholarship (UW–Madison)
- 2017 Graduate Student Peer Mentor Award (Graduate School, UW–Madison)
- 2017 Young Scientist Grant (3rd International Molecular Mycorrhiza Meeting)
- 2016, 2017 Conference Presentation Funds (Graduate School, UW–Madison)
- 2016 Shimamoto Travel Award (XVII Congress of the IS-MPMI)
- 2015, 2017 Department of Bacteriology Travel Award (UW–Madison)
- 2015, 2017 Cellular & Molecular Biology Program Travel Award (UW–Madison)

## PROFESSIONAL ASSOCIATIONS

---

2016–Present International Society of Molecular Plant–Microbe Interactions (IS-MPMI)

2015–Present International Mycorrhiza Society (IMS)

2012–Present American Society of Plant Biologists (ASPB)

## ORAL PRESENTATIONS

---

### Conference Talks

1. **Cope KR**, JK Yakha, A Kafle, K Garcia, X Wang, PE Pfeffer, GD Strahan, H Bücking. “Bidirectional nutrient fluxes in tripartite interactions of *Medicago truncatula* are controlled by plant nutrient demand.” *Rhizosphere 5*, Saskatoon, Saskatchewan, Canada, July 11, 2019.
2. Bücking H, **KR Cope**, K Garcia, A Kafle. “Establishment and functionality of arbuscular mycorrhizal communities in the root rhizosphere.” *Rhizosphere5*, Saskatoon, SK, Canada, July 11, 2019.
3. Bücking H, **KR Cope**, K Garcia, A Kafle. “Friend or foe – how does a host plant distinguish among high and low benefit AM fungi?” *10<sup>th</sup> Int Conference on Mycorrhiza*, Merida, Mexico, July 2, 2019.
4. Yakha JK, **KR Cope**, A Kafle, K Garcia, X Wang, PE Pfeffer, GD Strahan, H Bücking. “How do arbuscular mycorrhizal fungi and rhizobia compete for host carbon resources in tripartite interactions of *Medicago truncatula*?” *10<sup>th</sup> Intl. Conference on Mycorrhiza*, Merida, Mexico, July 2, 2019.
5. **Cope KR** and J-M Ané. “Ectomycorrhizal fungi use the common symbiosis pathway to colonize poplar.” *Midwest Plant Cell Dynamics meeting*, Madison, WI, USA, June 1, 2018.
6. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané. “Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?” *9<sup>th</sup> International Conference on Mycorrhiza*, Prague, Czech Republic, August 3, 2017.
7. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané. “Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?” *3<sup>rd</sup> International Molecular Mycorrhiza meeting*, Toulouse, France, July 27, 2017.
8. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, SH Strauss, and J-M Ané. “Poplar as a model for dissecting early mycorrhizal signaling in woody perennials.” *American Society of Plant Biologists – Western Section Meeting*, Provo, UT, USA, May 20, 2016.

### Seminars (\* indicates virtual)

1. **\*Cope KR**. Physiological and transcriptional response of legumes to variable benefit microbial symbionts. *University of Warwick – Plant and Crop Theme Seminar Series*. Jun. 30, 2021.
2. **\*Cope KR**. Molecular Mechanisms Controlling the Establishment and Maintenance of Plant Mutualistic Associations with Mycorrhizal Fungi and Rhizobia. *Donald Danforth Plant Science Center*, St. Louis, MO, USA, Jun. 7, 2021.
3. **\*Cope KR**. Molecular Mechanisms Controlling the Establishment and Maintenance of Plant Symbiotic Associations with Mycorrhizal Fungi and Rhizobia. *Environmental Molecular Sciences Division, Pacific Northwest National Lab*. Richland, WA, USA, Jun. 2, 2021.
4. **\*Cope KR**. Physiological and transcriptomic response of *Medicago truncatula* to high and low benefit arbuscular mycorrhizal fungi. *Plant Postdoc Seminar Series*. May 25, 2021.
5. **\*Cope KR**. Molecular Mechanisms Controlling the Establishment and Maintenance of Plant Symbiotic Associations with Mycorrhizal Fungi and Rhizobia. *Biosciences Division, Oak Ridge National Lab*. Oak Ridge, TN, USA, Apr. 29, 2021.

6. **\*Cope KR.** “Molecular Mechanisms Controlling the Establishment and Maintenance of Beneficial Plant-Microbe Interactions.” *Dept. of Biology, Utah Valley University.* Orem, UT, USA, Feb. 11, 2021.
7. **\*Cope KR.** “Physiological and Transcriptomic Response of Legumes to High and Low-Benefit Symbiotic Partners.” *USDA-ARS North Central Agricultural Research Lab.* Brookings, SD, USA, Nov. 3, 2020.
8. **Cope KR.** “Molecular Mechanisms Controlling the Establishment and Maintenance of Beneficial Plant-Microbe Interactions.” *Dept. of Biology, Utah State University.* Logan, UT, USA, Nov. 21, 2019.
9. **Cope KR.** “Common Symbiosis Signaling Mechanisms in *Populus*–Mycorrhiza Associations.” *Department of Plants, Soils and Climate, Utah State University.* Logan, UT, USA, August 14, 2019.
10. **Cope KR and J-M Ané.** “Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?” *Plant-Microbe Interface meeting at DOE Oak Ridge National Laboratories.* Broadcasted from Madison, WI, Sept. 20, 2017.
11. **Cope KR and Ané, J-M.** “Sweet Talk Between Poplar Trees and Their Fungal Symbionts.” *Plant-Microbe Interface meeting at DOE Oak Ridge National Laboratories.* Broadcasted from Madison, WI, Nov. 30, 2016.

## POSTER PRESENTATIONS

---

### Conferences

1. **Cope KR, JK Yakha, C Ketelsen, W Huang, S Subramanian, H Bücking.** “Physiological and transcriptomic response of soybean to strains of *Bradyrhizobium diazoefficiens* with high and low nitrogen fixation efficiencies.” *Plant Biology 2021 (virtual), July 19-23, 2021.*
2. **Cope KR.** “A high-impact plant science workshop enhances youth interest in pursuing a career in plant science”. *Plant Biology 2021 (virtual), July 19-23, 2021.*
3. **Cope KR, A Kafle, JK Yakha, PE Pfeffer, GD Strahan, K Garcia, S Subramanian, H Bücking.** “Physiological and transcriptomic response of *Medicago truncatula* to colonization with high and low benefit arbuscular mycorrhizal fungi.” *11<sup>th</sup> Symposium of the International Society of Root Research (virtual), May 24–28, 2021.*
4. **Cope KR, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané.** “Ectomycorrhizal Fungi Produce Lipochitooligosaccharides and Utilize the Common Symbiosis Pathway to Colonize Plants.” *Gordon Research Conference – Plant Molecular Biology, Holderness, NH, June 10–15, 2018.*
5. **Cope KR, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané.** “Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?” *9<sup>th</sup> International Conference on Mycorrhiza, Prague, Czech Republic, July 30–August 4, 2017.*
6. **Cope KR, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané.** “Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?” *3<sup>rd</sup> International Molecular Mycorrhiza meeting, Toulouse, France, July 27–28, 2017.*
7. **Cope KR, M Venkateshwaran, J Maeda, C Ma, SH Strauss, and J-M Ané.** “Poplar As a Model for Dissecting Early Mycorrhizal Signaling in Woody Perennials.” *XVII Congress of the International Society of Molecular Plant–Microbe Interactions, Portland, OR, July 16–21, 2016.*
8. **Cope KR, D Marburger.** “Utilizing a Plant Science Workshop as a Means for Recruiting Youth into Plant Science.” *American Soc. of Plant Biologists – Western Sec. Meeting, Provo, UT, May 20, 2016.*
9. **Cope KR, M Venkateshwaran, J Maeda, K Garcia, C Ma, SH Strauss, and J-M Ané.** “Poplar as a model for dissecting early mycorrhizal signaling in woody perennials.” *8<sup>th</sup> International Conference on Mycorrhiza, Flagstaff, AZ, August 4, 2015.*



10. **Cope KR**, J Maeda, M Venkateshwaran, J-M Ané. "Poplar as a model for dissecting mycorrhizal symbiotic signaling in woody perennials." *American Phytopathological Society North-Central Division meeting*, Madison, WI, June 12, 2014
11. **Cope KR** and B Bugbee. "Is supplemental green light important for plant growth and development?" *NCERA-101 annual meeting*, West Lafayette, IN, March 2013.
12. **Cope KR** and LA Rupp. "Cutting propagation of *Juniperus osteosperma*." *International Plant Propagator's Society – Western Region Meeting*, Ventura, CA, September 2012.
13. **Cope KR** and B Bugbee. "On the importance of blue and green light in plant development and whole plant photosynthesis," *American Society of Plant Biologist annual meeting*, Austin, TX, July 2012.
14. **Cope KR** and B Bugbee. "Spectral effects of LEDs on plant growth and development: The importance of green and blue light," *American Geophysical Union*, San Francisco, CA, Dec.7, 2011.
15. **Cope KR** and LA Rupp. "Cutting Propagation of *Juniperus osteosperma*," *American Society for Horticultural Science annual meeting*, Waikaloa, HI, September 25, 2011.

### Symposia

1. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané. "Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?" *7<sup>th</sup> Annual Plant Sciences Symposium*, Madison, WI, Nov. 17, 2017.
2. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, S Strauss, J-M Ané. "Unlocking the Door for Mycorrhizal Symbioses: Do Endo- and Ecto-mycorrhizal Fungi Use the Same Key?" *Raper Symposium*, Madison, WI, Sept. 5, 2017.
3. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, SH Strauss, and J-M Ané. "Poplar as a model for dissecting early mycorrhizal signaling in woody perennials." *6<sup>th</sup> Annual Plant Sciences Symposium*, Madison, WI, Nov. 4, 2016.
4. **Cope KR** and D Marburger. "Utilizing a Plant Science Workshop as a Means for Recruiting Youth into Plant Science." *6<sup>th</sup> Annual Plant Sciences Symposium*, Madison, WI, November 4, 2016.
5. **Cope KR**, M Venkateshwaran, J Maeda, C Ma, SH Strauss, and J-M Ané. "Poplar as a model for dissecting mycorrhizal signaling in woody perennials." *Raper Symposia*, Madison, WI, Sep. 2, 2016.
6. **Cope KR**, M Venkateshwaran, J Maeda, K Garcia, C Ma, SH Strauss, and J-M Ané. "Poplar as a model for dissecting early mycorrhizal signaling in woody perennials." *5<sup>th</sup> Annual Plant Sciences Symposium*, Madison, WI, Nov. 5, 2015.
7. **Cope KR**, M Venkateshwaran, J Maeda, K Garcia, C Ma, SH Strauss, and J-M Ané. "Poplar as a model for dissecting early mycorrhizal signaling in woody perennials." *Raper Symposium*, Madison, WI, Sep. 1, 2015.

### LEADERSHIP EXPERIENCE

---

2020–2021	<p><b>Tiger Den Leader</b>, Pack 1, Sioux Council (Scouts BSA)</p> <p>I planned and carried out bi-weekly activities with five cub scouts (ages 6-7) designed to promote character development, citizenship training, personal fitness, and leadership.</p>
2017–2018	<p><b>Crew Advisor</b>, Crew 301, Glaciers Edge Council (Boy Scouts of America)</p> <p>I planned and carried out weekly activities with 10+ young men to help them develop physically and socially, learn about career opportunities, and experience the real world as they prepare for their future as adults.</p>

- 2016 **Vice President, Plant Sciences Graduate Student Council (UW–Madison)**  
I served as a mediator between students and faculty, helped plan educational/recreational events for fellow students, and maintained the council website and social media presence.
- 2014–2016 **Scoutmaster, Troop 301, Glaciers Edge Council (Boy Scouts of America)**  
Planned and carried out weekly activities with 10+ young men to help them develop outdoor skills and awareness, learn about different hobbies, and perform service within the local community.
- 2011–2013 **President, Plant Science Club (Utah State University)**  
Served as a mediator between students and faculty and helped plan monthly events designed to foster fellowship among plant science students/enthusiasts and to provide educational opportunities outside of the classroom.

### Leadership Training

- 2015 **Wood Badge Training for Leaders (Boy Scouts of America), Participant**  
I completed a six-day leadership course and an 18-month self-directed project to accomplish five goals: 1) assign and train youth leaders; 2) enforce up-to-date training among adult leaders; 3) promote diversity in troop membership/leadership, 4) establish a protocol for cub scout transition to boy scouts; and 5) develop a plant science merit badge workshop for the scouting community.

### COMMUNITY SERVICE

---

#### American Society of Plant Biologists (ASPB)

- 2021-Present **ASPB Equity, Diversity and Inclusion Committee, Early Career Representative**
- 2021-Present **ASPB Ambassador Program, Ambassador**
- 2021 **Plant Biology 2021, Moderator**  
Concurrent Symposium 10: “Microbes Playing Nicely with Plants”

#### International Society for Molecular Plant-Microbe Interactions (IS-MPMI)

- 2017 **IS-MPMI Interactions, Issue 3, Contributor**  
Article: [“Featured InterView: Dr. Maria Harrison”](#)

#### South Dakota State University

- 2021 **Eastern South Dakota Science Fair, Judge – Plant Science Division**
- 2020-Present **Frontiers in Microbiology: Plant-Microbe Interactions, Review Editor**
- 2019 **SDSU Department of Agronomy, Horticulture & Plant Science Research Day, Judge**

#### University of Wisconsin–Madison

- 2018 **Undergraduate Mentoring Award Committee, Graduate Student Rep**
- 2016-18 **CMB Coordinating Committee, Graduate Student Rep**
- 2017 **CMB Alumni Newsletter, Contributing Author**  
Article: [“Mentoring Undergraduate Students – It is Really Worth It”](#)

#### Utah State University

- 2016-Present **Honors Alumni Mentoring Program, Mentor**
- 2012-13 **Department Teaching Excellence Award Committee, Student Rep**
- 2011-13 **Undergraduate Research Advisory Board, Student Rep**



## Journal Peer Review ([Publons Reviewer Profile](#))

Nature Review Microbiology	Plant Physiology (2)	Scientia Horticulturae
Scientific Reports	Plant & Cell Physiology	Agronomy (2)
Molecular Plant-Microbe Interactions	Physiologia Plantarum	Life
Photochemical & Photobiological Sciences	Soil Biology & Biochemistry	Plant & Soils
Frontiers in Plant Science	New Phytologist	Agronomy Journal
Plant, Cell and Environment		

## OUTREACH EXPERIENCE

---

### **Plant Science Merit Badge Workshop, Organizer**

I designed, organized, and implemented an annual [Plant Science Merit Badge Workshop](#) to introduce Boy Scouts to plant science and expanded it from a 3-hour presentation by two volunteers into one, 8-hour interactive experience using UW–Madison plant science facilities and the support of 15 fellow graduate student volunteers that I recruited and trained. In four years, nearly 200 boy scouts earned the merit badge and the workshop remains as a fully functioning outreach program in my absence.

### **Plant Sciences Symposium, Co-Organizer**

Along with other member of the 2016 Plant Sciences Graduate Student Council, I contributed to the organization, development, and execution of the [6<sup>th</sup> Annual DuPont Plant Sciences Symposium](#) which highlighted five speakers from across the United States, two visiting graduate student speakers, and a poster session all focused on our selected theme: “Turning a New Leaf on Plant Evolution and Ecology”.

### **“Teaming with Microbes” Outreach Group (Ané Lab, Department of Bacteriology, UW–Madison)**

Presented information on beneficial plant-microbe interactions to children through hands-on activities.

<u>Date</u>	<u>Event</u>	<u>Location</u>
Feb 12, 2018	Darwin Day	Wisconsin Institute of Discovery
Oct 21, 2016	Wisconsin Science Festival	Wisconsin Institute of Discovery
Feb 8, 2016	Darwin Day	Wisconsin Institute of Discovery

### **“What’s eating my plants?” Outreach Group (Department of Plant Pathology, UW–Madison)**

Awarded \$3,000 from the American Phytopathological Society through the Mathre Education Fund to support scientific outreach efforts at the following venues:

<u>Date</u>	<u>Event</u>	<u>Location</u>
Jan 18, 2016	MLK, Jr. Day of Service	Wisconsin Institute of Discovery
Mar 26, 2015	Family Science Night	Goodman Center
Jun 7, 2014	Saturday Science	Wisconsin Institute of Discovery
Apr 22, 2014	Family Science Night	Emerson Elementary School
Apr 16, 2014	Latino Youth Summit	Memorial Union, UW–Madison
Jan 20, 2014	MLK, Jr. Day of Service	Wisconsin Institute of Discovery

### **“DeBary Tones” Parody Band (Department of Plant Pathology, UW-Madison)**

Percussionist for the DeBary Tones Department of Plant Pathology Band at UW–Madison which was awarded \$2,500 from the American Phytopathological Society to record the eight track parody album [“Faster than the Speed of Blight”](#).

## **NSF-GRFP Application Workshop** (Cellular and Molecular Biology Program, UW–Madison)

I organized a two-part workshop for graduate students in the Cellular & Molecular Biology program to inform them about and help them prepare applications for the NSF-GRFP. Successful applicants within the program continue to offer the workshop annually. After four successful iterations of the workshop, seven students have been awarded the fellowship so far.

## **REFERENCES**

---

### **Oak Ridge National Lab Postdoctoral Research Advisors**

Dr. Timothy Tschaplinski

Section Head

Biodesign and Systems Biology Section

Oak Ridge National Lab

Email: [tschaplinstj@ornl.gov](mailto:tschaplinstj@ornl.gov)

Phone: 865-574-4597

Dr. Udaya Kalluri

Senior Staff Scientist

Plant Systems Biology Group

Oak Ridge National Lab

Email: [kalluriudayc@ornl.gov](mailto:kalluriudayc@ornl.gov)

Phone: 865-576-9495

### **South Dakota State University Postdoctoral Research Advisors**

Dr. Heike Bücking

Division Director & Professor

Plant Sciences Division

University of Columbia–Missouri

Email: [heike.buecking@missouri.edu](mailto:heike.buecking@missouri.edu)

Phone: 573-882-3001

Dr. Senthil Subramanian

Professor

Agronomy, Horticulture, and Plant Sciences Department

South Dakota State University

Email: [Senthil.Subramanian@sdstate.edu](mailto:Senthil.Subramanian@sdstate.edu)

Phone: 605-688-5623

### **Ph.D. Advisor**

Dr. Jean-Michel Ané

Professor

Departments of Bacteriology and Agronomy

University of Wisconsin–Madison

Email: [jeanmichel.ane@wisc.edu](mailto:jeanmichel.ane@wisc.edu)

Phone: 608-262-6457

### **Undergraduate Research Advisor**

Dr. Bruce Bugbee

Professor

Department of Plants, Soil and Climate

Utah State University

Email: [bruce.bugbee@usu.edu](mailto:bruce.bugbee@usu.edu)

Phone: 435-797-2765