Curriculum Vitae

Clare L. Casteel
Associate Professor
Plant Pathology and Plant-Microbe Biology Section
School of Integrated Plant Science
236 Tower Rd
Ithaca, NY 14850
cccasteel@cornell.edu

Research and Professional Experience

2019-present	Associate Professor, Plant Pathology and Plant-Microbe Biology Section, School of Integrated Plant Science, Cornell University
2014-2019	Assistant Professor, Dept. of Plant Pathology, University of California - Davis
2010-2014	Postdoctoral Associate, Boyce Thompson Institute for Plant Research

Education and Training

2010 PhD, Plant Biology, University of Illinois - Urbana/Champaign, IL

2005 MS, Entomology, University of California - Riverside, CA

2003 BS, General Biology with Honors, University of Missouri - Columbia, MO

Honors

2018 Early Career Award, Plant Genome Research Program, National Science Foundation

2017 The American Society of Plant Biologists Women's Young Investigator Travel Award

2016 Neish Young Investigator Award of the Phytochemical Society of North America

2014 The International Society of Molecular Plant-Microbe Interactions Young Investigator Travel Grant

Grant Support ($3,572,689 total to Casteel lab since Assistant Professor appointment)

1. "Effects of soil management on processing tomato associations with mycorrhizal fungi." The California Tomato Research Institute. 2019. Co-PIs - Casteel, Gaudin, Vannette, UCD. **$33,998** ($2000 to Casteel).
2. "ECA-PGR: Transcriptional regulation and gene networks underlying viral recognition of insect vectors in host plants." National Science Foundation Early Career Award Plant Genome Research Program. 2018- 2023. PI - Casteel. **$1,475,427**.
3. "Integrating fertility and pest management of potato pests and vectors." The California Potato Research Advisory Board. 2017-2019. PI - Casteel. **$23,500.**
4. "VIPER: Viruses and insects as plant enhancement resources." DARPA, Department of Defense. 2017- 2021. UCD PI - Casteel; Co-PIs - Falk and Dinesh-Kumar. **$4,184,391** to UCD. ($1,469,762 to Casteel).
5. "Exploring mechanisms mediating plant-virus-herbivore interactions in legume crops." USDA-NIFA, Agriculture and Food Research Initiative Foundational Program. 2017- 2020. Co-PIs - Crowder WSU and Casteel, UCD. **$500,000.** ($250,000 to Casteel).

6. "Identifying genetic resources for management of Liberibacter solanacearum." The California Tomato Research Institute. 2016-2017. Co-PIs - Casteel and Coaker, UCD. **$20,000.** ($10,000 to Casteel).
7. "Integrated fertility and pest management of processing tomato." The California Tomato Research Institute. 2016-2018. Co-PIs - Casteel, Gaudin, Vannette, UCD. **$65,783**. ($24,488 to Casteel).
8. "Developing new management techniques for vector-borne diseases of tomato." The California Tomato Research Institute. 2015-2017. PI - Casteel. **$69,000**.
9. "Examining safe application of next generation insect control using genomics and bioinformatics." BGI Signature Research in Genomics Grant. 2014-2015. Co-PIs – Casteel and Falk, UCD. **$38,500**.
10. "Epidemiology and control of insect vectored diseases of potato". The California Potato Research Advisory Board. 2014-2017. PI - Casteel. **$72,500**.
11. "Influence of potato leaf roll virus infection on *Myzus persicae*-potato interactions". NIFA-USDA, Agriculture and Food Research Initiative Foundational Program. 2013-2017. PI - Casteel. **$150,000**.

Publications

1. **Casteel CL,** Ranger CM, Backus EA, Ellersieck EA, Johnson DW. (2006). Influence of plant ontogeny and abiotic factors on resistance of glandular-haired alfalfa to the potato leafhopper (Hemiptera: Cicadellidae). Journal of Economic Entomology, 99 (2): 537-543.
2. **Casteel CL**, Walling LL, Paine TD. (2006). Behavior and biology of the tomato psyllid *Bactericerca cockerelli* (Sulc) (Hemiptera: Psyllidae) in response to the *Mi-1.2* gene. Entomologia Experimentalis et Applicata, 121 (1): 67-72.
3. **Casteel CL**, Walling LL, Paine TD. (2006). Effect of *Mi-1.2* gene in natal host plants on behavior and biology of the tomato psyllid *Bactericerca cockerelli* (Sulc) (Hemiptera: Psyllidae). The Entomological Journal, 42(2): 155-162.
4. Zavala J, **Casteel CL**, DeLucia EH, Berenbaum MR. (2008) Anthropogenic increase in carbon dioxide compromises plant defense against invasive insects. Proceedings of the National Academy of Sciences, 105: 5129-5133.
5. DeLucia EH, **Casteel CL**, Nabity PD, O'Neill BF. (2008) Insects take a bigger bite out of plants in a warmer, higher carbon dioxide world. Proceedings of the National Academy of Sciences, 105 (6): 1781-1782.
6. Casteel CL, O'Neill BF, Zavala J, Bilgin DD, Berenbaum MR, DeLucia EH. (2008) Transcriptional profiling reveals elevated CO_2 and elevated O_3 alter resistance of soybean (*Glycine max*) to Japanese beetles (*Popillia japonica*). Plant, Cell & Environment, 31: 419-434.
7. O'Neill BF, Zangerl A, **Casteel CL**, Zavala J, DeLucia EH, Berenbaum MR. (2008) Larval development and mortality of the painted lady butterfly, *Vanessa cardui* (Lepidoptera: Nymphalidae), on foliage grown under elevated carbon dioxide. The Great Lakes Entomologist, 41: 103-110.
8. Zavala J, **Casteel CL**, Nabity PD, Berenbaum MR, DeLucia EH. (2009) Role of cysteine proteinase inhibitors in preference of Japanese beetles (*Popillia japonica*) for soybean (*Glycine max*) leaves of different ages and grown under elevated CO_2. Oecologia, 61 (1): 35-41.

9. O'Neill BF, Zangerl A, Dermody O, Bilgin DD, **Casteel CL**, Zavala J, DeLucia EH, Berenbaum MR. (2010) Impact of elevated levels of atmospheric CO_2 and herbivory on flavonoids of soybean (*Glycine max* L.). Journal of Chemical Ecology, 36 (1): 35-45.
10. O'Neill BF, Zangerl A, DeLucia EH, **Casteel CL**, Zavala J, Berenbaum MR. (2011) Leaf temperature of soybean grown under elevated CO_2 increases *Aphis glycines* (Hemiptera: Aphididae) population growth. Insect Science, 18: 419-425.
11. Rasmann S, De Vos M, **Casteel CL**, Tian D, Halitschke R, Sun JY, Agrawal AA, Felton GW, Jander G. (2012) Transgenerational resistance against insect herbivory requires jasmonates and siRNA synthesis. Plant Physiology, 158: 854-863.
12. Adio AM, **Casteel CL**, De Vos M, Kim JH, Joshi V, Li B, Juéry C, Daron J, Kliebenstein DJ, Jander G. (2012) Biosynthesis and defensive function of N^{δ}-acetylornithine, a jasmonate-induced *Arabidopsis thaliana* metabolite. Plant Cell, 23: 3303-3318.
13. **Casteel CL**, Niziolek OK, Berenbaum MR, DeLucia EH. (2012) Effects of elevated CO_2 and soil water content on phytohormone transcript induction in *Glycine max* after *Popillia japonica* feeding. Arthropod-Plant Interactions, 6 (3): 439-447.
14. **Casteel CL***, Hansen AH*, Paine TD, Walling LL. (2012) The tomato psyllid (*Bactericerca cockerelli* (Sulc)) circumvents plant defense responses by vectoring its bacterial symbiont, *Liberibacter psyllaurous*, into its host plant. PLoS One, 7 (4). ***contributed equally***
15. **Casteel CL**, Segal L, Niziolek OK, Zavala J, Berenbaum MR, DeLucia EH. (2012) Elevated carbon dioxide increases salicylic acid in *Glycine max.* Ecological Entomology, 41 (6): 1435-1442.
16. **Casteel CL**, Jander G. (2013) New synthesis: Investigating mutualisms in virus-vector interactions. Journal of Chemical Ecology, 39 (7): 809.
17. **Casteel CL**, Yang C, Nanduri AC, De Jong HD, Whitham SA, Jander G. (2014). The NIa-Pro protein of Turnip mosaic virus improves growth and reproduction of the aphid vector, *Myzus persicae* (green peach aphid). The Plant Journal, 77 (4): 653-663.
18. **Casteel* CL,** Hansen AK**.** (2014). Evaluating insect-microbiomes at the plant-insect interface. Journal of Chemical Ecology, 40 (7): 836-847. *** Corresponding Author.**
19. **Casteel* CL**, De Alwis M, Bak A, Dong H, Whitham SA, Jander G. (2015) Disruption of ethylene responses by Turnip mosaic virus mediates suppression of plant defense against the green peach aphid vector. Plant Physiology, 169 (1): 209-218. *** Corresponding Author.**
20. Hillwig M, Chiozza M, **Casteel CL,** Lau S, Hohenstein J, Hernández E, Jander G, MacIntosh G. (2016) Abscisic acid-mediated suppression of effective defense responses against *Myzus persicae* in Arabidopsis. Molecular Plant Pathology, 17 (2): 225-235.
21. Teixeira M, Sela N, Ng J, **Casteel CL**, Bekal S, Girke T, Ghanim M, Kaloshian I. (2016) A novel virus from *Macrosiphum euphorbiae* with similarities to members of the family Flaviviridae. Journal of General Virology, 97 (5): 1261-1271.
22. Henao LMP, **Casteel CL**. (2016) Hemipteran insects as vectors of bacterial plant pathogens. Frontiers in Plant Science, 7: 1163.
23. **Casteel CL**, Falk BW. (2016). Plant virus-vector interactions: More than just for virus transmission. In *Current Research Topics in Plant Virology*, Wang A, Wang X, editors; Springer. pp. 217 - 240.
24. Bak A, Cheung AL, Yang C, Whitham SA, **Casteel CL**. (2017) A viral protease relocalizes in the

presence of the vector to promote vector performance. Nature Communications, 16 (8): 14493.

25. Patton MF, Arena G, Salminen J-P, Steinbauer MJ, **Casteel CL.** (2017) Transcriptome and defence response in *Eucalyptus camaldulensis* leaves to feeding *Glycaspis* (*Glycaspis*) *brimblecombei* Moore (Hemiptera: Aphalaridae) nymphs: a stealthy psyllid does not go unnoticed. Austral Entomology, 57: 247–254. doi: 10.1111/aen.12319.
26. Lal NK, Hurlburt N, Nagalakshmi U, Flores R, Bak A, Sone P, Ma X, Song G, Walley J, Shan L, He P, **Casteel CL**, Fisher AJ, Dinesh-Kumar SP. (2018) The receptor-like cytoplasmic kinase BIK1 localizes to the nucleus and regulates defense hormone expression during plant innate immunity. Cell Host & Microbe, 23 (4): 485 – 497.
27. Chisholm PJ, Sertsuvalkul N, **Casteel CL**, Crowder DW. (2018) Reciprocal plant-mediated interactions between a plant virus and a non-vector herbivore. Ecology, 99 (10): 2139-2144.
28. Arena GD, Ramos-González PL, Ribeiro-Alves M, **Casteel CL**, Falk BW, Freitas-Astúaand J, Machado MA. (2018) Making a better home: modulation of plant defensive response by *Brevipalpus* mites. Frontiers in Plant Science, 9: 1147.
29. Nozue K, Devisetty UK, Saradadevi L, Mueller-Moulé P, Bak A, **Casteel CL**, Maloof JN. Network perturbation reveals a role for salicylic acid pathway components in shade avoidance. (2018) Plant Physiology, 178 (4) 1720-1732.
30. Bak A, Patton MF, Muriki M, Mende A, Henao LMP, Antichera T, **Casteel CL.** (2019) Ethylene signaling mediates Potyvirus spread by aphid vectors. Oecologia, 190: 139-148.
31. Schmidt J, Vannette RL, Igwe A, Blundell B, **Casteel CL**, Gaudin A. (2019) Effects of agricultural management on rhizosphere microbial structure and function in processing tomato. Applied and Environmental Microbiology. 85 (16): e01064-1.
32. Patton MF, Bak A, Sayre J, Heck M, **Casteel CL**. (2019) A polerovirus, Potato leafroll virus, manipulates plant-vector interactions using three proteins. Plant, Cell & Environment. epub ahead of print, doi: 10.1111/pce.13684.

<u>SUMBITTED</u>

33. Pottinger SE, Bak A, Tang L, Helm M, **Casteel CL**, Innes RW. (2019) Better bait and faster traps: Optimizing the RPS5/PBS1 decoy system to enhance immune responses to Turnip mosaic virus. Molecular Plant-Microbe Interactions. SUBMITTED.
34. Blundell R, Vannette R, Gaudin A, **Casteel CL.** Organic management practices increase plant resistance to vector-borne pathogens. Nature Plants. SUBMITTED.
35. Kumimoto RW, Anver S, Ellison CT, Toruño TY, Bak B, **Casteel CL**, Coaker GL, Harmer SL. XAP5 CIRCADIAN TIMEKEEPER, a protein conserved across eukaryotes, plays roles in immune signaling and DNA damage responses in Arabidopsis. The Plant Journal. SUBMITTED.
36. Saumik B, Clark RE, Blundell R, **Casteel CL**, Crowder DW. Reciprocal antagonism between a plant virus and rhizobial bacteria. Functional Ecology. SUBMITTED.
37. Bera S, Blundell R, Liang D, Crowder DW**, Casteel CL**. Pea enation mosaic virus targets the oxylipin signaling pathway to increase aphid attraction and retention on infected plants. Journal of Chemical Ecology. SUBMITTED.

Invited Presentations

1. **Casteel CL,** Zavala J, Berenbaum MR, DeLucia EH. (2008) Impacts of CO_2 pollution on plant-insect interactions: A transcriptional and biochemical analysis of soybean defense signaling. International Congress of Entomology, Durban, South Africa.
2. **Casteel CL,** Berenbaum MR, DeLucia EH. (2010) Impacts of climate change on herbivore induced plant signaling and defenses. University of Illinois, Champaign-Urbana, IL, USA.
3. **Casteel CL,** Berenbaum MR, DeLucia EH. (2010) Impacts of climate change on herbivore induced plant signaling and defenses. Western Illinois University, Macomb, IL, USA.
4. **Casteel CL,** Berenbaum MR, DeLucia EH. (2010) Impact of elevated CO_2 on plant-insect interactions in a soybean-agro ecosystem. Cornell University, Ithaca, NY, USA.
5. **Casteel CL,** Berenbaum MR, DeLucia EH. (2010) Elevated CO_2 alters hormone signaling in a soybean-agro ecosystem. University of Michigan, East Lansing, MI, USA.
6. **Casteel CL,** DeJong H, Jander G. (2011) *Turnip mosaic virus* increases *Myzus persicae* fecundity on host plants by decreasing plant defenses. 14th Symposium on Insect-Plant Interactions, Wageningen, The Netherlands.
7. **Casteel CL,** DeJong H, Jander G. (2012) *Turnip mosaic virus* increases plant palatability for *Myzus persicae.* American Society of Plant Biologist National Meeting, Austin, TX, USA.
8. **Casteel CL**. (2012) Investigating the role of microbes in plant-insect interactions. University of Memphis, Memphis, TN, USA.
9. **Casteel CL**. (2012) The NIa protease of *Turnip mosaic virus* improves growth and reproduction of its aphid vector, *Myzus persicae* (green peach aphid). University of Ohio, Wooster, OH, USA.
10. **Casteel CL**. (2013) Investigating mutualisms in virus-vector interactions. University of Nebraska, Lincoln, NE, USA.
11. **Casteel CL**. (2013) Manipulation of plant metabolism by an insect vector virus. Brooklyn College, New York, NY, USA.
12. **Casteel CL**. (2013) Manipulation of plant metabolism by an insect vector virus. Virginia Tech, Blacksburg, VA, USA.
13. **Casteel CL**. (2013) Investigating mutualisms in virus-vector interactions. University of California, Davis, CA, USA.
14. **Casteel CL**. (2014) The role of ethylene in virus-vector-interactions. 2nd International Hemipteran-Plant Interaction Symposium, University of California, Riverside, CA, USA.
15. **Casteel CL.** (2014) Disruption of ethylene signaling by *Turnip mosaic virus* mediates suppression of plant defense against the aphid vector, *Myzus persicae*. Entomological Society of America Major Symposium, Portland, OR, USA.
16. **Casteel CL.** (2014) Disruption of ethylene signaling by *Turnip mosaic virus* mediates suppression of plant defense against the aphid vector, *Myzus persicae*. Department of Plant Biology, University of Illinois, Champaign- Urbana, IL, USA.
17. **Casteel CL.** (2015) Disruption of ethylene signaling by *Turnip mosaic virus* mediates suppression of plant defense against the aphid vector, *Myzus persicae*. Department of Plant Sciences, University of California, Davis, CA, USA.
18. **Casteel CL.** (2015) Impact of Potato leafroll virus on aphid-plant interactions. United States Department of Agriculture, Washington, D.C., USA.

19. **Casteel CL.** (2015) Relocalization of a virus protease in the presence of the insect vector is essential to promoting vector performance. UC Davis Retreat on Host-Microbe Interactions, Granlibakken, Tahoe City, CA, USA.
20. **Casteel CL.** (2015) Epidemiology and control of insect vectors and the diseases they transmit. California Department of Food and Agriculture, Sacramento, CA, USA.
21. **Casteel CL,** Bak A, Whitham SA. (2015). Disruption of ethylene signaling by Turnip mosaic virus mediates suppression of plant defense against the aphid vector, *Myzus persicae*. Entomological Society of America Pacific Branch Meeting, Coeur d'Alene, Idaho, USA.
22. **Casteel CL,** Bak A, Whitham SA. (2016) Investigating how microbes modulate plant-insect interactions. University of California, Riverside, CA, USA.
23. **Casteel CL**, Bak A, Whitham SA. (2016) The role of insect-associated microbes in altering host plant defenses. American Society of Plant Pathology, Tampa, FL, USA.
24. **Casteel CL**, Bak A, Whitham SA. (2016) Investigating how microbes modulate plant-insect interactions. Washington University, Pullman, WA, USA.
25. **Casteel CL**, Bak A, Whitham SA. (2016) Investigating how microbes modulate plant-insect interactions. Penn State University, College Station, PA, USA.
26. Bak A, Whitham SA, **Casteel CL**. (2016) Relocalization of a virus protease in the presence of the insect vector is essential to promoting vector performance. International Society for Molecular Plant-Microbe Interactions Congress. Portland, OR, USA.
27. Bak A, Whitham SA, **Casteel CL**. (2016) Relocalization of a virus protease in the presence of the insect vector is essential to promoting vector performance. University of Helsinki, Helsinki, Finland.
28. Bak A, Whitham SA, **Casteel CL**. (2016) Relocalization of a virus protease in the presence of the insect vector is essential to promoting vector performance. Keynote Speaker. Australian Entomological Society of America. Sydney, Australia.
29. **Casteel CL**, Bak A, Whitham SA. (2017) Vector Borne plant pathogens and next generation host plant resistance. Entomological Society of America Pacific Branch Meeting, Portland, Oregon, USA.
30. **Casteel CL**, Bak A, Whitham SA. (2017) Investigating how microbes modulate plant-insect interactions. University of Missouri, Columbia, MO, USA.
31. **Casteel CL**, Bak A, Whitham SA. (2017) Relocalization of a virus protease in the presence of the insect vector is essential to promoting vector performance. Purdue University, West Lafayette, IN, USA.
32. **Casteel CL**. (2018) Aphids, pathogens and next generation control. BBSRC UK-US International Partnering Award Meeting. Vector-borne diseases in the UK & US: common threats and shared solutions. University of California, Davis, CA, USA.
33. **Casteel CL**, Bak A, Whitham SA. (2018) Relocalization of a virus protease in the presence of the insect vector is essential to promoting vector performance. American Society of Plant Biologist National Meeting, Montreal, Canada
34. **Casteel CL**. (2018) Ethylene signaling mediates Potyvirus spread by aphid vectors. International Society of Chemical Ecology - Major Symposium, Budapest, Hungary.
35. **Casteel CL**. (2018) Viruses, aphids and next generation control. Donald Danforth Plant Science Center, St. Louis, MO, USA.

36. **Casteel CL**. (2018) Ethylene signaling mediates Potyvirus spread by aphid vectors. Entomological Society of America - Major Symposium, Vancouver, Canada.
37. **Casteel CL.** (2018) Investigating how microbes modulate plant-insect interactions. United States Department of Agriculture, Plant Gene Expression Center, Albany, CA, USA.
38. **Casteel CL**. (2018) Investigating how microbes modulate plant-insect interactions. University of California – Riverside, CA, USA.
39. **Casteel CL**. (2019) Investigating how microbes modulate plant-insect interactions. Plenary Talk, Colombian Society of Entomology National Meeting, Medillin, Colombia.
40. **Casteel CL**. (2019) Ethylene signaling mediates Potyvirus spread by aphid vectors. Colombian Society of Entomology National Meeting, Medillin, Colombia.
41. **Casteel CL**. (2019) Organic management practices increase plant resistance to vector-borne pathogen. – International Society of Chemical Ecology - Major Symposium, Atlanta, GA, USA.
42. **Casteel CL**. (2019) Investigating how microbes modulate plant-insect interactions. Mid-Atlantic Plant Molecular Biology Society Annual Meeting, College Park, MD, USA.
43. **Casteel CL**. (2019) Organic management practices increase plant resistance to vector-borne pathogen. – Entomological Society of America – St. Louis, MO, USA.

Teaching and Mentoring

Courses

PBI 291: *Graduate Student Seminar in Botany*. UC Davis

GDB 90: *Introduction to Global Disease.* UC Davis

PLP 120*: Introduction to Plant Pathology.* UC Davis

BIS 2C: *Tree of Life.* UC Davis ** High enrollment course with 700+ students

BIO101: *Introduction to Biology.* Tompkins Cortland Community College

Postdoctoral Scholars

2015-2018 Aurelie Bak (PhD 2013, INRA Montpellier, France)

2017-2019 Jun Jiang (PhD 2016, University of Quebec, Canada)

2018-2019 Suresh Varsani (PhD 2010, University of Nebraska)

2018-Present Sayanta Bera (PhD 2018, Universidad Politécnica de Madrid)

Graduate Students

2015-2019 MacKenzie Patton (MS Plant Pathology) "*Mechanisms mediating potato-insect-virus interactions."*

2016-present Nyd Sertsuvalkul (PhD Plant Biology) "*Characterizing NIa-Pro interactions with plant proteins."*

Rotation Graduate Student Training

2015 Jordan Sayre, Microbiology Graduate Group (Winter)

*2015 Rachel Fordyce, Plant Biology Graduate Group (Spring)

*2016 Nyd Sertsuvalkul, Plant Biology Graduate Group (Spring)

*2017 Nate Meier, Plant Biology Graduate Group (Fall)

2017 Cameron Hatch, Plant Biology Graduate Group (Fall)

*2017 Karolina Czarnecki, Plant Biology Graduate Group (Fall)

*2018 Amber Flores, Plant Biology Graduate Group (Summer/Fall – Extended Rotation)

** asked to join my research group after rotation*

Undergraduate Researchers

2014 - 2015	Pyae Sone
2014 - 2015	Andrea Chueng
2015	Sophia Chen
2015 - 2017	Laura Baldwin
2016	Viva Parsa
2016 - 2017	Sarai Acosta
2016 - 2016	Britany Lucas
2017 - 2017	Sarah Boyles Muehleck
2017 - 2017	Abigail Mende
2017 - Present	Maneesha Muriki
2018	Ben Goodmin
2018 - 2019	Eric Yu
2018 - Present	Leilani Jones
2019 - Present	Daisy Liang
2019 - Present	Eve Banas

High School Researchers

2015 UC Davis Young Scholars Program	Sopie Walton
2016 UC Davis Young Scholars Program	Alex Kuang
2017 UC Davis Young Scholars Program	Victoria Yang
2018 UC Davis Young Scholars Program	Aaron Lin
2019 UC Davis Young Scholars Program	Elizabeth Krolick

Service

Editorial and Advisory Boards

2019	Guest Review Editor, Journal of Chemical Ecology
2015-present	Review Editor, Frontiers in Ecology. Subgroup Chemical Ecology
2016-present	Review Editor, Frontiers in Virology
2016-present	Subject Editor, Molecular Plant-Microbe Interactions

University of California, Davis

2014 - 2015	Alternate Representative for Plant Pathology, Academic Senate
2014 - Present	Member, Plant Pathology Graduate Group
2014 - Present	Member, Entomology and Nematology Graduate Group
2014 - Present	Member, Plant Biology Graduate Group
2015	Member, Search Committee for Vegetable Crops/CE Specialist
2015	Ad hoc Review Committee, Project Scientist Associate to Full, University of California, Davis.
2015	Member, Plant Pathology Oral Examination Committee, Candidate: Carrie Teikan
2015	Member, Plant Pathology Oral Examination Committee, Candidate: Kari Arnold
2015 - 2017	Member, Safety Committee, Department of Plant Pathology
2015 - 2017	Member, Executive Committee of the UC Davis Center for Vector Borne Disease
2015 - Present	Member, Computing and Website Committee, Department of Plant Pathology
2015 - Present	Mentor for High School Intern Each Summer. Young Scholars Program, UC Davis
2016	Member, Entomology Oral Examination Committee, Candidate: Xianhui Liu
2017	Member, Entomology Oral Examination Committee, Candidate: Nick Booster
2017	Member, Plant Pathology Oral Examination Committee, Candidate: Minor Maliano
2017	Member, Plant Biology Oral Examination Committee, Candidate: Katherine Murphy
2017	Member, Microbiology Oral Examination Committee, Candidate: Laurynne Chetelat Coates
2017	Chair, Fall Party Organizing Committee
2017 - 2019	Member, Academic Senate, Department of Plant Pathology Representative
2017	Ad hoc Review, Hatch Project, Department of Entomology, University of California, Davis.
2017	Ad hoc Review, Hatch Project, Department of Plant Pathology, University of

	California, Davis.
2017 - 2019	Member, Executive Committee of the Plant Biology Graduate Group
2017 - 2019	Member, Executive Committee of the Designated Emphasis in Vector Borne Disease
2018	Member, Plant Pathology Oral Examination Committee, Candidate: Norma Ordez
2018	Member, Microbiology Oral Examination Committee, Candidate: Huibin Yu
2018 - 2019	Representative for Plant Pathology, Academic Senate
2019	Member, Plant Pathology Oral Examination Committee, Candidate: Domonique Lewis
2019	Member, Plant Pathology Oral Examination Committee, Candidate: Paola Reyes
2019	Member, Plant Pathology Oral Examination Committee, Candidate: Anna Erickson
2019	Member, Plant Biology Master's Thesis Committee, Candidate: Isaiah Mohr

Cornell University

2019 - Present	Member, Advising Committee, PPPMB Section, Candidate: Alex Clarke

Other Universities

2015	External Reviewer, Associate to Full Promotion, Boyce Thompson Institute, Ithaca, NY
2015	External Reviewer, Agricultural Research Center Hatch Proposal, Washington State University, Pullman, WA
2015	External Reviewer, Promotion, University of California, Riverside, CA

Other Non-University

2014	Organizing Committee, Symposium on Plant-Insect-Microbe Interactions Entomological Society of America Meeting
2014	Panel Member, National Science Foundation, IOS
2015	Mentor for Davis High School Biotechnology Intern for 6 months.
2015	Panel Member, CDFA's Pierce's Disease and Glassy-winged Sharpshooter Board Grant Panel
2016	Organizing Committee, International Society of Molecular Plant-Microbe Interactions Congress
2017	Panel Member, National Science Foundation IEP Grant Panel
2017	External Reviewer, French National Research Agency (ANR)
2017	External Reviewer, French National Research Agency (ANR)

2018	External Reviewer, Natural Sciences and Engineering Research Council of Canada (NSERC)
2018	External Reviewer, German Research Foundation (DFG)
2018	External Reviewer, National Science Foundation, IOS
2018	Panel Member, National Science Foundation, IOS

External Manuscript Reviews (July 1st 2014 to January 1st 2019)

Total number of invitations: 109
Number of invitations accepted: 39

Journals:

Nature Plants, Nature Communications, Plant, Cell, & Environment, Proceedings of the National Academy of Sciences, Scientific Reports, PLOS Genetics, PLOS Pathogens, elife, Plant Physiology, Plant Cell, New Phytologist, Frontiers in Physiology, Frontiers in Plant Science, BMC Plant Biology, Plant Science, BMC Genomics, Phytobiomes, International Journal of Molecular Sciences, European Journal of Entomology, Environmental Entomology, Journal of Chemical Ecology, PLoS One, Journal of Insect Science, Oecologia, Functional Ecology, BMC Ecology, Frontiers in Ecology, Molecular Ecology, Journal of Virology, Virus Genes, Phytopathology, Virus Research, Plant Protection Science, Frontiers in Microbiology, Crop Protection, Infection, Genetics and Evolution, Molecular Plant Pathology, Molecular Plant-Microbe Interactions

Outreach Presentations/Extending Knowledge

1. Epidemiology and control of insect vectors and the diseases they transmit. (2015) California Research Advisory Board Meeting, Fresno, CA, USA. Invited Speaker.
2. Epidemiology and control of insect vectors and the diseases they transmit. (2016) California Research Advisory Board Meeting, Fresno, CA, USA. Invited Speaker.
3. Can ethylene inhibitors be used to control vectors and the viruses they transmit. (2016) Annual Cooperative Extension Tomato Growers Meeting, Napa Valley, CA, USA. Invited Speaker.
4. Epidemiology and control of insect vectors and the diseases they transmit. (2016) Dean's Advisory Council Meeting, College of Agricultural and Environmental Sciences, University of California, Davis, CA, USA. Invited Speaker.
5. Epidemiology and control of insect vectors and the diseases they transmit. (2017) California Research Advisory Board Meeting, Fresno, CA, USA. Invited Speaker.