

CURRICULUM VITAE

NAME

Leach, Jan E

ADDRESS

Bioagricultural Sciences and Pest Management
College of Agricultural Sciences

Plant Sciences

PHONE

(970) 491-2924

EDUCATION

1981 Ph D, University of Wisconsin, Madison

1977 MS, UNIVERSITY OF NEBRASKA, LINCOLN

1975 BS, UNIVERSITY OF NEBRASKA, LINCOLN

ACADEMIC POSITIONS

2015 - Present Research Associate Dean for CAS, Colorado State University.

2015 - 2018 Member, GRiSP-OC.

OTHER POSITIONS

2007 - Present University Distinguished Professor, Colorado State University.

2004 - Present Professor, Colorado State University.

1998 - 2004 University Distinguished Professor, Kansas State University.

1995 - 2004 Professor, Kansas State University.

1990 - 1995 Associate Professor, Kansas State University.

PUBLISHED WORKS

Books

Van Alfen, N., Leach, J. E., Lindow, S. (2015). *Annual Review of Phytopathology* (vol. 52). Palo Alto: Annual Review of Phytopathology.

van Alfen, N., Leach, J. E., Lindow, S. (2014). *Annual Review of Phytopathology* (vol. 51). Palo Alto, CA: Annual Reviews.

Refereed Journal Articles

Tanger, P., Vega-Sánchez, M. E., Fleming, M. B., Tran, K., Singh, S., Abrahamson, J. B., Jahn, C. E., Santoro,

- N., Naredo, E. B., Baraoidan, M., Danku, J. M.C., Salt, D. E., McNally, K. L., Simmons, B. A., Ronald, P. C., Leung, H., Bush, D. R., McKay, J. K., Leach, J. E. (2015). Cell Wall Composition and Bioenergy Potential of Rice Straw Tissues Are Influenced by Environment, Tissue Type, and Genotype. *BioEnergy Research*, 1-18.
- Wiersma, A.T., Gaines, T., Preston, C., Hamilton, J.P., Giacomini, D., Buell, C. R., Leach, J. E., Westra, P. (2015). Gene amplification of 5-enol-pyruvylshikimate-3-phosphate synthase in glyphosate-resistant *Kochia scoparia*. *Planta*, 241, 463-474.
- Tanger, P., Vega-Sánchez, M., Fleming, M., Tran, K., Singh, S., Abrahamson, J., Jahn, C. E., Santoro, N., Naredo, E., Baraoidan, M., Danku, J., Salt, D., McNally, K., Leung, H., Ronald, P., Bush, D., McKay, J. K., Leach, J. E. (2015). Cell wall composition of rice straw varies among environments, varieties, and tissue types: impacts on bioenergy potential. *BioEnergy Research*.
- Fory, P. A., Triplett, L. R., Ballen, C., Abello, J., Duitama, J., Aricapa, G., Prado, G. A., Correa, F., Hamilton, J., Leach, J. E., Tohme, J., Mosquera, G. M. (2014). Comparative analysis of two emerging rice seed bacterial pathogens. *Phytopathology*, 104, 436-44. dx.doi.org/10.1094/PHYTO-07-13-0186-R
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- Ash, G. J., Lang, J. M., Triplett, L. R., Stodart, B. J., Verdier, V., Vera Cruz, C., Rott, P., Leach, J. E. (2014). Development of a genomics-based LAMP (Loop-1 mediated isothermal amplification) assay for detection of *Pseudomonas fuscovaginae* from rice. *Plant Disease/APS Press*, 98, 909-915.
- Liu, W., Liu, L., Triplett, L. R., Leach, J. E., Wang, G. L. (2014). Novel insights into rice innate immunity against bacterial and fungal pathogens. *Annual Reviews of Phytopathology*, 52, 213-241.
- vanEck, L., Davidson, R., Wu, S., Zhao, B., Botha, A., Leach, J. E., Lapitan, N. L. (2014). The transcriptional network of WRKY53 in cereals links oxidative responses to biotic and abiotic stress inputs. *Funct & Integr Genom*, 14(2), 351-362.
- Yu, C., Chen, H., Tian, F., Leach, J. E., He, C. (2014). Differentially-expressed genes in rice infected by *Xanthomonas oryzae* pv. *oryzae* relative to a flagellin-deficient mutant reveal potential functions of flagellin in host-pathogen interactions. *Rice (New York, N.Y.)*, 7(1), 20.
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- (1987). *Pseudomonas-Avenae*, the Causal Agent of Bacterial Leaf Stripe of Pearl-Millet in Nigeria. *Phytopathology*, 77, 1766-1766.
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Refereed Chapters in Books

- Leach, J. E., Leung, H., Tisserat, N. A. (2014). *Disease and Resistance* (vol. 4, pp. 360-374). Elsevier, New York: Encyclopedia of Agriculture and Food Systems.

Non-Refereed Journal Articles

- Booher, N. J., Carpenter, S., Sebra, R., Wang, L., Salzberg, S., Leach, J. E., Bogdanove, A. J. (2015). SMRT sequencing of *Xanthomonas oryzae* genomes reveals a dynamic structure and complex TAL effector gene relationships. *Microbial Genomics*.
mgen.microbiologyresearch.org/content/journal/mgen/10.1099/mgen.0.000032
- Han, Q., Zhou, C., Wu, S., Liu, Y., Triplett, L., Miao, J., Tokuhisa, J., Deblais, L., Robinson, H., Leach, J. E., Li, J., Zhao, B. Y. (2015). Crystal structure of the complex between *Xanthomonas AvrRxo1-ORF1*, a type III effector with a polynucleotide kinase domain, and its interactor *AvrRxo1-ORF2*. *Structure*.

Triplett, L. R., Verdier, V., Campillo, T., Van Malderghem, C., Cleenwerck, I., Maes, M., Deblais, L., Corral, R., Koita, O., Cottyn, B., Leach, J. E. (2015). Characterization of a novel clade of *Xanthomonas* isolated from rice leaves in Mali and proposal of *Xanthomonas maliensis* sp. nov. *Antonie van Leeuwenhoek*, in press. link.springer.com/journal/10482/onlineFirst/page/1

Campillo, T., Luna, E., Portier, P., Fishcer-LeSaux, M., Lapitan, N., Tisserat, N. A., Leach, J. E. (2015). *Erwinia iniecta* asp. Nov. is released into plant tissues while Russian wheat aphids (*Diuraphis noxiai*) feed. *International Journal of Systematic and Evolutionary Microbiology*.

Victoria, V., Haley, S. D., Peairs, F. B., Leach, J. E., Lapitan, N. L. (2014). Virus-induced gene silencing suggests that (1,3;1,4)- β -glucanase is a susceptibility factor in the compatible Russian wheat aphid-wheat interaction. *Mol. Plant-Microbe Int*, 27, 913-922.

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Jahn, C. E., McKay, J. K., Mauleon, R., Stephens, J., McNally, K. L., Bush, D. R., Leung, H., Leach, J. E. (2011). Genetic variation in biomass traits among 20 diverse rice varieties. *Plant physiology*, 155(1), 157-68.

Non-Refereed Chapters in Books

Vera Cruz, C. M., Cottyn, B., Nguyen, M. H., Lang, J., Mew, T. W., Leach, J. E. (2015). Detection of *Xanthomonas oryzae* pv. *oryzae*, and *X. oryzae* pv. *oryzicola* in rice. *APS Manual on Detection of Plant Pathogenic Bacteria in Seed and Planting Material*. APS Manual on Detection of Plant Pathogenic Bacteria in Seed and Planting Material.

Vera Cruz, C. M., Cottyn, B., Nguyen, M. H., Lang, J., Mew, T. W., Leach, J. E. (2014). Detection of *Xanthomonas oryzae* pv. *oryzae*, and *X. oryzae* pv. *oryzicola* in rice. *APS Manual on Detection of Plant Pathogenic Bacteria in Seed and Planting Material* (pp. Chapter 8). Minneapolis, MN: APS Press.

vanEck, L., Davidson, R., Wu, S., Zhao, B., Botha, A. M., Leach, J. E., Lapitan, N. L. *A WRKY53 transcriptional network in wheat revealed by genomics tools in rice*. N/A.

Hupalo, D., Frazier, T., Zhao, B., bush, D., McKay, J. K., Leach, J. E., Kern, A. *Expression Differences within the Transcriptomes of the Switchgrass Cultivars Dacotah and Alamo*. N/A.

Zhao, J., Zhang, S., Yang, T., Zeng, Z., Huang, Z., Liu, Q., Wang, X., Leach, J. E., Leung, H., Liu, B. (2015). *Global transcriptional profiling of a cold-tolerant rice variety under moderate cold stress reveals different cold stress response mechanisms*. *Physiologia Plantarum*.

Wiersma, A., Gaines, T., Preston, C., Hamilton, J., Giacomini, D., Buell, C., Leach, J. E., Westra, P. (2015). *Gene amplification of 5-eno-pyruvylshikimate-3-phosphate synthase in glyphosate-resistant Kochia scoparia*. *Planta*.

Wiersma, A. T., Gaines, T. A., Preston, C., Hamilton, J. P., Giacomini, D., Buell, C. R., Leach, J. E., Westra, P. (2015). *Gene amplification of 5-eno-pyruvylshikimate-3-phosphate synthase in glyphosate-resistant Kochia scoparia*. *Planta*.

Tonessen, B., Manosalva, P., Lang, J. M., Baraoidan, M., Bordeos, A., Mauleon, R., Oard, J., Hulbert, S., Leung, H., Leach, J. E. (2015). *Rice phenylalanine ammonia-lyase gene OsPAL4 is associated with broad spectrum disease resistance*. *Plant Mol Biol*.

- Tanger, P., Vega-Sánchez, M. E., Fleming, M., Tran, K., Singh, S., Abrahamson, J. B., Jahn, C. E., Santoro, N., Naredo, E. B., Baraoidan, M., Danku, J. M., Salt, D. E., McNally, K. L., Leung, H., Ronald, P. C., Bush, D. R., McKay, J. K., Leach, J. E. (2015). *Cell wall composition of rice straw varies among environments, varieties, and tissue types: impacts on bioenergy potential*. BioEnergy Research. link.springer.com/article/10.1007%2Fs12155-014-9573-y
- Triplett, L., Verdier, V., Campillo, T., Van Malderghem, C., Maes, M., Deblais, L., Corral, R., Koita, O., Cottyn, B., Leach, J. E. (2015). *Characterization of a novel clade of Xanthomonas isolated from rice leaves in Mali and proposal of Xanthomonas maliensis sp. nov.* Antonie van Leeuwenhoek. link.springer.com/journal/10482/onlineFirst/page/1
- Lang, J. M., Langlois, P., Nguyen, M., Purdie, L., Holton, T., Djikeng, A., Vera Cruz, C., Verdier, V., Leach, J. E. (2014). *Sensitive detection of Xanthomonas oryzae pv. oryzae and X. oryzae pv. oryzicola by Loop Mediated Isothermal Amplification* (vol. 80, pp. 4519-4530). Applied and Environmental Microbiology.
- Triplett, L. R., Koebnik, R., Verdier, V., Leach, J. E. (2014). The Genomics of Xanthomonas oryzae. In DC Gross, A Lichens-Park, and C Kole, Springer-Verlag Berlin Heidelberg (Ed.), *Genomics of Plant-Associated Bacteria* (pp. 127-150). Genomics of Plant-Associated Bacteria.
- Yu, C., Chen, H., Tian, F., Bi, Y. M., Rothstein, S. J., Leach, J. E., He, C. (2014). *Transcriptomic analysis of overlapping responses to Xanthomonas oryzae pv. oryzae infection and nitrogen deficiency revealed co-regulatory components in rice*. N/A.
- Valdez, V. A., Harley, S. D., Peairs, F. B., vanEck, L., Leach, J. E., Lapitan, N. (2014). *Virus-induced gene silencing suggests that (1,3;1,4)-beta-glucanase is a susceptibility factor in compatible Russian wheat aphid-wheat interactions* (pp. 913-922). Molecular Plant-Microbe Interact.
- Tonnessen, B., Manosalva, P., Lang, J. M., Baraoidan, M., Bordeos, A., Mauleon, R., Oard, J., Hulbert, S., Leung, H., Leach, J. E. (2014). *Rice phenylalanine ammonia-lyase gene OsPAL4 is associated with broad spectrum disease resistance* (pp. 273-286). Plant Molecular Biology.
- Wang, G. L., Leach, J. E., Ronald, P., Leung, H. (2013). *Loving Memories of Dr. Ko Shimamoto*. Rice.
- (2011). *Genome analyses to understand durable disease resistance in rice* (pp. 73-79). Genome-Enabled Integration of Research in Plant Pathogen Systems, T Wolpert, T Shiraiishi, J Glazebrook,(eds), APS Press, Minneapolis, MN.
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- (2010). *Bioinformatic strategies for predicting candidate genes under disease resistance QTL* (vol. 100, pp. S164). Phytopathology.
- (2010). *Dissecting QTL: The genes that contribute to disease resistance revealed* (vol. 100, pp. S157). Phytopathology.
- (2010). *Genetic Variation In Biomass Traits Among 20 Diverse Rice Varieties*. Plant and Animal Genome XVIII San Diego, CA January 9-13 http://www.intl-pag.org/18/abstracts/P05b_PAGXVIII_241.html.
- Leach, J. E., Davidson, R., Mauleon, R., Carillo, G., Jahn, C., Snelling, J., Bruce, M., Heuberger, A., Ishihara, H., Tanger, P., Stephens, J., Vera Cruz, C., Leung, H. (2010). Genome analyses to understand durable disease resistance in rice. In T. Wolpert, T. Shiraiishi, J. Glazebrook (Ed.), *Genome-enabled Integration of Research*

in Plant Pathogen Systems (pp. 73-79). Minneapolis, MN: APS Press.

(2010). *Genomewide SNP Patterns In Rice Reveal Historical And Recent Introgressions*. Plant and Animal Genome XVIII San Diego, CA January 9-13 http://www.intl-pagorg/18/abstracts/W18_PAGXVIII_140.html.

(2010). *Genomics-based diagnostic marker development for bacterial plant pathogens*. Symposium presentation at the 12th International Conference on Plant Pathogenic Bacteria, St Denis, La Reunion, France June 7- 11 <http://www.icppb2010.org/>.

(2010). *Looking ahead in genomics of plant-associated microbes* (vol. 100, pp. S167). *Phytopathology*.

Heuberger, A. L., Lewis, M. R., Chen, M. H., Brick, M. A., Leach, J. E., Ryan, E. P. *Metabolic and functional genomic analyses reveal varietal differences in bioactive compounds of cooked rice*. *PLoS One*. www.plosone.org/article/info:doi/10.1371/journal.pone.0012915

(2010). *Screening a diverse set of rice varieties for variation in biomass and resistance to plant disease*. Poster presentation at the 10th Japan- US Seminar: Genome-Enabled Integration of Research in Plant Pathogen Systems January 24- 28, Corvallis, OR.

(2010). *Sequence data of Xanthomonas strains isolated from US rice fields reveals substantial divergence from Xanthomonas oryzae pvs oryzae and oryzicola* (vol. 100, pp. S127). *Phytopathology*.

(2010). *Understanding The Genetic Architecture Of Broad-Spectrum Disease Resistance Through Genome Scans Of Rice Mutants*. Plant and Animal Genome XVIII San Diego, CA January 9-13 http://www.intl-pagorg/18/abstracts/W36_PAGXVIII_282.html.

Qu, S., Bellizzi, M., Jeon, J.-S., Ouwkerk, P., Leach, J. E., Ronald, P., Wang, G. *Construction and application of efficient Ac-Ds transposon tagging vectors in rice* (vol. 51, pp. 982-992). *Journal Integrated Plant Biology*.

Carrillo, M. G., Goodwin, P. H., Leach, J. E., Leung, H., Vera Cruz, C. M. *Phylogenomic relationships of rice oxalate oxidases to the cupin superfamily and their association with disease resistance QTL* (vol. 2, pp. 67-79). *RICE*.

Bin, L., Zhu, X. Y., Zhang, S., Wu, J., Han, S. S., Cho, Y. C., Roh, J. H., Leach, J. E., Liu, Y., Madamba, S., Bordeos, A., Baraoidan, M., Ona, I., Vera Cruz, C., Leung, H. (2009). What it takes to achieve durable resistance to rice blast? In G.-L. Wang, B. Valent (Ed.), *Advances in Genetics, Genomics and Control of Rice Blast Disease* (pp. 385-402). Springer Science+Business Media.

Abstract

Tanger, P., Vega-Sanchez, M., Jahn, C. E., Santoro, N., Ronald, P., McKay, J. K., Bush, D., Leach, J. E. (2013). *Environmental variation in plant cell wall composition and implications for bioenergy*. Colorado Center for Biorefining and Biofuels.

Book Editor

Leach, J. E. (2013). In N. Van Alfen, J.E.Leach, S. Lindow (Ed.), *Annual Review of Phytopathology* (vol. 51). Annual Reviews of Phytopathology.

Leach, J. E. (2012). In N. Van Alfen, J.E.Leach, S. Lindow (Ed.), *Annual Review of Phytopathology* (vol. 50). Annual Reviews of Phytopathology.

Leach, J. E. (2011). In N. Van Alfen, J.E.Leach, S. Lindow (Ed.), *Annual Review of Phytopathology* (49th ed.).

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Leach, J. E. (2010). In N. Van Alfen, J.E.Leach, S. Lindow (Ed.), *Annual Review of Phytopathology* (vol. 48). Annual Reviews of Phytopathology.

Manuscript

Goodyear, A., Kumar, A., Ehrhart, E. J., Swanson, K. S., Grusak, M. A., Leach, J. E., Dow, S. W., McClung, A., Ryan, E. P. (2015). *Dietary rice bran supplementation prevents Salmonella colonization differentially across varieties and by priming intestinal immunity* (A ed., vol. 18, pp. 653-664). *Journal of Functional Foods*. http://ac.els-cdn.com/S1756464615004120/1-s2.0-S1756464615004120-main.pdf?_tid=3299e9b8-af4b-11e5-9fb4-00000aab0f02&acdnat=1451517501_17bcfd5bd070bf5870a8c57e88786027

Synopsis

Leach, J. E., Tsuyumu, S. (2010). In T. Wolpert, T. Shiraishi, J. Glazebrook (Ed.), *Genome-Enabled Integration of Research in Plant Pathogen Systems* (pp. 257-259). Minneapolis, MN: APS Press.

Web Publication

Leach, J. E., Gold, S., Tolin, S., Eversole, K. *A Plant-Associated Microbe Genome Initiative: ISMPMI Newsletter*. www.apsnet.org. www.ismpminet.org/pubs/pdf/aug02.pdf

Leach, J. E., Gold, S., Tolin, S., Eversole, K. *A Plant-Associated Microbe Genome Initiative: What is it and why do we need it?*. www.apsnet.org. www.apsnet.org/online/feature/microbe/

comment, news

McKay, J. K., Leach, J. E. (2011). *Linkage illuminates a complex genome*. (8th ed., vol. 29, pp. 717-8). *Nature biotechnology*.

PERFORMANCES, EXHIBITS, PRODUCTIONS (Visual/Performing Arts):

Harnessing pathogen genomics to protect world grain supplies

iPLANT Workshop

January 11, 2014 - Present, Responsible Gene Stewardship for Disease Resistance at the Plant and Animal Genome Meetings

2013 - Present, The Genetic Landscapes of Wheat Rusts

February 2012 - Present, Human Pathogens on Plants-A Multidisciplinary Strategy for Research

November 2003 - Present, 9th Japan-US Seminar, Genomic and genetic analysis of plant parasitism and defense

March 8, 2015 - March 13, 2015, 2015 Gordon Research Conference and Seminar on Chemical and Biological Terrorism Defense

August 12, 2014, Understanding Phytobiomes to Improve Agricultural Productivity

July 28, 2014 - August 1, 2014, Workshop on Burkholderia glumae and other important bacterial diseases of rice

April 6, 2014 - April 12, 2014, Ecosystem Services Modeling to Manage the Emerging Infectious Plant Diseases of Africa

January 2014, A complete Harvest: the future of rice as a bioenergy crop

June 30, 2013, Video Note | Jan Leach of Colorado State University on Rice Pathology

July 13, 2009 - July 15, 2009, 3rd International Conference on Xanthomonas Genomics

September 16, 2002 - September 20, 2002, Symposium on Durable Resistance

April 9, 2002 - April 11, 2002, Workshop on Genomic Analysis of Plant-Associated Microbes

June 19, 1999 - June 23, 1999, 8th Japan-US Seminar

PAPERS PRESENTED/SYMPOSIA/INVITED LECTURES/PROFESSIONAL MEETINGS/WORKSHOPS

November 16, 2015, "Phytobiomes and Plant Health: Research and Policy", Soil Science Society of America, peer-reviewed/refereed.

November 13, 2015, "The Untapped Potential of Plant Microbiomes in Agriculture", Congressional Lunch & Learn Seminar, NCFAR, ASPB, APS, peer-reviewed/refereed.

November 13, 2015, "The Untapped Potential of Plant Microbiomes in Agriculture", Senate Seminar, NCFAR, ASPB, APS, peer-reviewed/refereed.

November 11, 2015, "Phytobiomes Roadmap Drafting Workshop", Nobel Foundation.

August 10, 2015, "Rice Research to Production Training Course", IRRI.

July 23, 2015, "Understanding Phytobiomes for Phytosequestration", ARPA-E Phytosequestration Workshop, peer-reviewed/refereed.

July 8, 2015, "Coping with combined stresses: Global warming and plant disease", 5th International Xanthomonas Genomics Conference, peer-reviewed/refereed.

July 6, 2015, "The plant side: plant responses to pathogens", Pre-conference Course in Molecular Plant-Microbe Interactions, Universidad de los Andes, peer-reviewed/refereed.

June 30, 2015, "Phytobiomes 2015: Designing a new paradigm for crop improvement".

June 20, 2015, "Phytobiomes: what are they and why do we care?", , Phytobiomes 2015: Designing a new paradigm for crop improvement, peer-reviewed/refereed.

June 11, 2015, "Global Grand Challenges: Nourishing the Future. CSU Research and Translation.", Colorado State University Research Program and Alumni Reception, peer-reviewed/refereed.

April 22, 2015, "Understanding non-host resistance in plants", Department of Plant Pathology, Texas A&M University, peer-reviewed/refereed.

April 14, 2015, "Understanding durable disease resistance in rice", , Department of Plant Pathology, Louisiana State University, peer-reviewed/refereed.

March 8, 2015, "2015 Gordon Research Conference and Seminar on Chemical and Biological Terrorism Defense".

February 23, 2015, "Field-scale high throughput phenotyping for biomass QTL", U.S. Department of Energy's Genomic Sciences Research Program PI meeting, DOE, peer-reviewed/refereed.

January 12, 2015, "Phytobiomes and Plant Health: Science and Policy", Exploring Phytobiomes Workshop, XXIII Plant and Animal Genome meetings, San Diego, CA.

January 12, 2015, "Phytobiomes and Plant Health: Science and Policy", Exploring Phytobiomes Workshop, XXIII Plant and Animal Genome meetings, peer-reviewed/refereed.

January 11, 2015, "Exploring Phytobiomes Workshop", Plant and Animal Genome Meeting, peer-reviewed/refereed.

January 11, 2015, "Understanding the Phytobiome for Improved Crop Productivity", The National Plant Genome Initiative -- Research Challenges and Resource Needs in Phenotyping, Cyberinfrastructure & Bioinformatics, and the Microbiome Workshop Speaker, XXIII Plant and Animal Genome meetings, San Diego, CA, peer-reviewed/refereed.

January 11, 2015, "Understanding the Phytobiome for Improved Crop Productivity. The National Plant Genome Initiative -- Research Challenges and Resource Needs in Phenotyping, Cyberinfrastructure & Bioinformatics, and the Microbiome Workshop", XXIII Plant and Animal Genome meetings, peer-reviewed/refereed.

January 10, 2015, "The Phytobiomes Initiative: Understanding Phytobiomes for improved crop productivity", Arthropod Genomics Workshop, XXIII Plant and Animal Genome meeting, peer-reviewed/refereed.

January 10, 2015, "The Phytobiomes Initiative: Understanding Phytobiomes for improved crop productivity", Arthropod Genomics Workshop, XXIII Plant and Animal Genome meetings, San Diego, CA, peer-reviewed/refereed.

January 10, 2015, "New Approaches for Developing Disease Resistance in Cereals", Plant and Animal Genome Meeting, peer-reviewed/refereed.

2014, "Understanding genome-wide defense gene regulation to improve crop disease resistance", 2014 APS Annual Meetings, Minneapolis, MN.

2014, "A novel rice resistance phenotype to *Xanthomonas oryzae* TAL effectors does not require the effector transcriptional activation domain", APS Annual Meetings, APS, Minneapolis, MN, peer-reviewed/refereed.

2014, "OsVOZ transcription factors negatively regulate defense responses in rice and impact RXO1-mediated immunity", International Society for Molecular Plant-Microbe Interactions Meetings, ISMPMI, Rhodes, Greece, peer-reviewed/refereed.

November 26, 2014, "Connecting Phytobiomes and Plant Health: Science and Policy", IRD, Montpellier, France.

November 24, 2014, "Introduction to bacterial diseases due to *Xanthomonas* and control strategies", Rice Disease Workshop: Improving epidemiology and disease diagnosis for sustainable management, IRD, IRD-CIRAD Montpellier, France, peer-reviewed/refereed.

November 16, 2014, "Rice genome-enabled insights into plant biology and agriculture", International Symposium on Rice Functional Genomics, IRFGC, Tucson, AZ.

November 16, 2014, "Traditional and field scale high throughput phenotyping reveal multiple QTL from a large mapping population", International Symposium on Rice Functional Genomics, IRFGC, Tucson, AZ.

November 16, 2014, "Understanding genome-wide defense response gene regulation to improve crop disease resistance", International Symposium on Rice Functional Genomics, IRFGC, Tucson, AZ.

November 12, 2014, "Connecting Phytobiomes and Plant Health", Soil: It's Alive Webinar, USDA-ARS, Webinar.

October 28, 2014, "Field Scale High Throughput Phenotyping (HTP) for Gene Discovery and Agronomic Improvement", International Rice Congress, Bangkok, Thailand.

October 27, 2014, "Connecting Phytobiomes and Plant Health", International Rice Conference 2014, Bangkok, Thailand.

October 20, 2014, "Connecting Phytobiomes and Plant Health", DOW Agrochemical, Indianapolis, IN.

October 6, 2014, "Coping with combined stresses: Rice bacterial blight disease and global warming", Dept Plant Pathology, Michigan State University.

October 2, 2014, "Phytobiomes Initiative", Agricultural Experiment Station Directors Mtg, Jekyll Island, GA.

August 8, 2014, "Connecting Phytobiomes and Plant Health", Annual Meetings of the American Phytopathological Society, APS, Minneapolis, MN.

July 28, 2014, "Relevance of modern diagnostic tools for plant protection", Workshop on Burkholderia glumae and other important bacterial diseases of rice, CIAT, Cali, Colombia.

July 10, 2014, "Genome-Genome Interactions: Deciphering Plant-Pathogen Interactions", APS Pacific Division Meetings, Bozeman, MT.

July 9, 2014, "Loop mediated isothermal amplification (LAMP) for detection and identification of Xanthomonas translucens and its pathovars cerealis, poae, translucens and undulosa", 2014 APS Pacific Division Meetings, Bozeman, MT.

June 16, 2014, "The Xanthomonas secreted effector AvrRxo1 and its chaperone Arc1 act as a toxin-antitoxin system in bacteria", IPP, CAAS, Institute of Plant Protection, Chinese Academy of Agricultural Sciences.

June 11, 2014, "Translation of molecular biology and physiology to improve bioenergy traits in rice and sorghum", North Central Division American Phytopathological Society Mtg, Madison, WI.

June 9, 2014, "The Xanthomonas secreted effector AvrRxo1 and its chaperone Arc1 act as a toxin-antitoxin system in bacteria", 13th International Congress on Plant Pathogenic Bacteria, ICPP, Shanghai, China.

April 23, 2014, "Coping with combined stresses: Rice, global warming, and bacterial blight disease", Loomis Symposium, Iowa State University, Iowa State University.

April 8, 2014, "Bacterial diseases of rice in Africa: Resistance and Diagnosis", Emerging Infectious Plant Diseases of Africa in the Context of Ecosystem Services, Keck Foundation, Bellagio, Italy.

January 14, 2014, "The APS Phytobiomes Initiative", USDA-CSREE Listening Session, USDA, Omaha, NE.

January 10, 2014, "Straw composition variation between varieties, tissue types and environments and impacts on

bioenergy performance", USDA/DOE Plant Feedstocks Genomics for Bioenergy PI/PD Meeting, DOE, Plant and Animal Genome Meetings, San Diego, CA.

2013, "How to be a great graduate student".

2013, "Two Tales:
TAL Effectors & TAL-Deficient X.
oryzae: Tools to Identify Novel Sources
of BB Disease Resistance

Environmental Impacts on Rice Disease
and Immunity".

December 12, 2013, "Are the *Xanthomonas oryzae* pathovars present in Mexico?", International Congress of Bacterial Blight, Hyderabad, India, peer-reviewed/refereed.

December 12, 2013, "Bacterial Blight of Rice: From Connections to Solutions", International Congress of Bacterial Blight, Hyderabad, India, peer-reviewed/refereed.

December 12, 2013, "Inverse responses of two major resistance genes against bacterial blight of rice and drought at different temperature regimes", International Congress of Bacterial Blight, Hyderabad, India, peer-reviewed/refereed.

December 12, 2013, "*X. oryzae*-USXo X11-5A: a tool to study TAL effector function and disease resistance", International Congress of Bacterial Blight, Hyderabad, India, peer-reviewed/refereed.

November 6, 2013, "Identification of novel resistance sources for bacterial diseases in rice using a multi-parent recombinant population", 7th International Rice Genetics Symposium, (Presenter) Raghavan, C., Manila, Philippines.

November 5, 2013, "14-3-3 proteins (GF14b and GF14e) function in panicle blast resistance in rice", 7th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 5, 2013, "Impacts of rising temperatures on R-gene-mediated resistance in rice", 7th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 5, 2013, "Impacts of rising temperatures on R-gene-mediated resistance in rice", 7th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 3, 2013, "Tractor Based Precision Phenotyping of Diverse Rice Populations in the Field.", Annual Meeting Crop Science Society of America, Crop Science Society of America, (Presenter) Klassen, S., Tampa, FL.

October 17, 2013, "Environmental variation in plant cell wall composition and implications for bioenergy", Colorado Center for Biorefining and Biofuels Spring Semi-Annual Meeting, Colorado Center for Biorefining and Biofuels, (Presenter) Tanger, P., Fort Collins, CO.

August 25, 2013, "Detection of *Pseudomonas fuscovaginae* with LAMP", International Congress of Plant Pathology, Beijing, China, peer-reviewed/refereed.

August 25, 2013, "Influence on gene expression and a direct R gene interaction by OsVOZ1/2 in rice.", International Congress of Plant Pathology, (Presenter) Lang, J., Beijing, China.

August 25, 2013, "Plant pathology in a globalized economy", International Congress of Plant Pathology, (Presenter) Leach, J. E., Beijing, China.

August 25, 2013, "The Potential for Mis-Use of Scientific Research: Ethical Conundrums & Global Solutions", International Congress of Plant Pathology, Beijing, China, peer-reviewed/refereed.

August 24, 2013, "Characterizing OsVOZ1/2 in rice by a direct R gene interaction and transcriptome analysis", 2nd Beijing International Symposium on Molecular Plant Pathology, (Presenter) Lang, J., Beijing, China.

August 24, 2013, "Impacts of rising temperatures on R-gene-mediated resistance to rice bacterial blight", 2nd Beijing International Symposium on Molecular Plant Pathology, Beijing China, peer-reviewed/refereed.

August 10, 2013, ". Detection of *Xanthomonas oryzae* by loop-mediated isothermal amplification", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "Detection of *Xanthomonas oryzae* pathovars from rice seeds: An assay potentially viable for use in seed trade and germplasm exchange", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "Loop-mediated isothermal amplification for the detection of *Pseudomonas fuscovaginae*", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "Novel species of Enterobacteriaceae isolated from Russian wheat aphid (*Diuraphis noxia*)", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "'A pipeline for automated diagnostic primer design based on genomic sequence alignment of target and non-target genomes.'", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "'AvrRxo1 is a virulence factor that suppresses growth of eukaryotic and prokaryotic cells.'", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "'Synthetic detection circuits targeting *Xylella* diffusible signal factor in bacteria and plants.'", 2013 Annual Meeting of the American Phytopathological Society, Austin, TX, peer-reviewed/refereed.

August 10, 2013, "Rice phenylalanine ammonia lyase 4 gene (OsPAL4) is associated with broad spectrum disease resistance", 2013 Annual Meeting of the American Phytopathological Society., Austin, TX, peer-reviewed/refereed.

August 10, 2013, "Identifying novel bacterial disease resistance sources for rice", Annual Meeting of the American Phytopathological Society, APS, (Presenter) Bossa-Castro, A., Austin, TX.

August 10, 2013, "Impacts of temperature on expression of TAL effector-activated susceptibility genes in rice", Annual Meeting of the American Phytopathological Society, (Presenter) Corral, R., Austin, TX.

April 24, 2013, "Tomorrow's Rice", US-AID, Washington, DC.

April 15, 2013, "A recovery plan for *Xanthomonas oryzae* pathovars", National Plant Disease Recovery System Program, USDA-ARS, Falls Church, VA.

March 6, 2013, "Tapping genetic variation to improve biomass traits", Director's Colloquium Series: Los Alamos Natl Lab, Los Alamos Natl Lab, Los Alamos, NM.

January 29, 2013, "Two Tales: TAL effectors and disease resistance and Environmental impacts on disease resistance", Invited Seminar, Universidad de los Andes, Bogata, Colombia.

January 14, 2013, "High Throughput Phenotyping for Bioenergy Traits: Measuring Natural Variation Using a Rice Mapping Population", Plant and Animal Genome XXI, San Diego, CA, peer-reviewed/refereed.

January 12, 2013, "Rice genomics tools reveal a WRKY53 transcriptional network in wheat", Plant and Animal Genome meeting, NSF, San Diego.

2012, "2012 How to succeed in science: Tips for graduate school and beyond. Invited Seminar, Graduate School, Chinese Academy of Agricultural Sciences, Beijing, China, December 10."

2012, "2012 Comparative Genomics: a tool for development of diagnostic primers (plus more!). Training Workshop on Harmonizing Detection of *Xanthomonas oryzae* pathovars. International Rice Research Institute, Los Banos, Philippines. May 21-26, 2012".

2012, "2012 Environmental impacts on plant immunity. Invited Workshop Speaker, International Society of Plant-Microbe Interactions Congress. Kyoto, Japan. July 29-August 2."

2012, "2012 Environmental impacts on rice disease and immunity. Invited Seminar, Dept Plant Pathology and Microbiology, National Taiwan University, December 4."

2012, "2012 Food for a Hungry Planet: Challenges and Perspectives. <http://scisoc.confex.com/scisoc/2012am/w ebprogram/Paper76420.html>. CSSA Plenary Lecture (Betty Klepper Endowed Lectureship), ASA, CSSA, SSSA International Annual Meetings, Cincinnati, OH, Oct 23".

2012, "2012 TAL Effectors & TAL-deficient *X. oryzae*: Tools to identify novel sources of bacterial blight disease resistance. Plenary Speaker, 10th International Symposium on Rice Functional Genomics, Chiang Mai, Nov 26-29th."

2012, "2012 Two TALES: (1) TAL effectors & TAL deficient *X. oryzae*: Tools to

identify novel sources of BB resistance, and (2) Environmental impacts on rice disease and immunity. Institute of Plant Protection, Chinese Academy of Agricultural Sciences, Beijing, China December 7."

2012, "2012 Understanding broad spectrum, durable disease resistance in rice. Invited Seminar, Academica Sinca, Taipei, Taiwan, December 3."

2012, "2012 Understanding durable plant disease resistance. Invited Seminar, Guandong Academy of Agricultural Sciences, December 8."

2012, "2012 Wading through the murky paddies: understanding broad spectrum disease resistance. Invited Seminar, John Innes Institute, Norwich, UK, March 2".

2012, "2012 Wading through the murky paddies: understanding durable plant disease resistance. Invited Seminar, Purdue University, September 26."

2012, "2012. Omics Technologies to Tap Genetic Variation for Rice Improvement. Plenary Speaker. http://www.sivb.org/meetings/2012-World-Congress/meeting_program_W.htm#A-Omics. World Congress on In Vitro Biology, Bellvue, WA June 6, 2012."

2012, "2012. Perspectives on the Direction of Research in Plant Pathology. Opening Seminar Celebrating the 50th Anniversary of the Philippine Phytopathological Society, International Rice Research Institute, Los Banos, Philippines, May 14, 2012".

2012, "2012. The value of draft genomic sequence of rice-associated bacteria for understanding biology, diversity, and diagnosis. Invited Symposium Speaker, 4th Xanthomonas Genomics Conference 2012. Angers, France. July 9-12, 2012".

2012, "Measuring biomass quantity and composition. 2nd Global Rice

Phenotyping Network Workshop/Meeting
Invited speaker, Los Banos, Philippines
Nov 22-24".

November 13, 2012, "Tapping Genetic Variation to Improve Biomass Traits", Sustainable Bioenergy Development Center CSU, Fort Collins, CO, peer-reviewed/refereed.

August 5, 2012, "High Throughput Phenotyping for Bioenergy Traits: Measuring Natural Variation Using a Rice Mapping Population", Gordon Conference on Plant Cell Walls, Waltham, MA, peer-reviewed/refereed.

August 4, 2012, "'TAL effectors enhance virulence on diverse rice varieties when introduced individually into a TAL effector-deficient strain of *Xanthomonas oryzae*.'", 2012 annual meeting of the American Phytopathological Society, Providence, RI, peer-reviewed/refereed.

July 9, 2012, "'TAL effectors enhance virulence on diverse rice varieties when introduced individually into a TAL effector-deficient strain of *Xanthomonas oryzae*.'", 2012 *Xanthomonas* Genomics Conference, Angers, France, peer-reviewed/refereed.

February 14, 2012, "'Lessons from *Xanthomonas oryzae* genomics and global networking.'", 1st International Congress for Bacterial Diseases of Stone Fruits and Nuts, Zurich, Switzerland, peer-reviewed/refereed.

February 13, 2012, "'Synthetic biology applications for plant-based pathogen biosensing: progress and prospects.'", American Phytopathological Society Human Pathogens on Plants Workshop, Hyattsville, Maryland, peer-reviewed/refereed.

January 30, 2012, "Analysis of the diversity of *Xanthomonas oryzae* pv. *oryzicola* from China", 10èmes Rencontres Plantes-Bactéries – Aussois 2012, Aussios, France, peer-reviewed/refereed.

January 14, 2012, "Comprehensive approach to improve biofuel feedstocks using rice as a model system", Plant and Animal Genome Meeting, San Diego, CA, peer-reviewed/refereed.

January 14, 2012, "Reference-guided de novo Genome Assembly of the Indica Type Rice Variety IR 64 Using Short-read Sequencing", Plant and Animal Genome Meeting, San Diego, CA, peer-reviewed/refereed.

2011, "A Rice 14-3-3 Protein Negatively Regulates Broad Spectrum Disease 2nd International Symposium on Genomics and Crop Genetic Improvement. Symposium speaker. Wuhan, China. July 5."

2011, "Bioenergy at CSU: Steps to an NSF-IGERT. Invited Speaker, Virginia Tech Bioenergy Networking Symposium, November 4."

2011, "Bordeos, A., C. E. Jahn, J. K. McKay, J. E. Leach, D. R. Bush, H. Leung. 2011. Biomass accumulation in wide crosses between wild and domesticated rice. DOE/USDA-NIFA Genomic Science Program Meeting, Crystal City, MD. April 10-13."

2011, "Broeckling, B., M. Baroidan, C. E. Jahn, J. K. McKay, J. E. Leach, D. R. Bush, H. Leung. 2011. Identification of candidate genes using rice mutants for biomass engineering in switchgrass. DOE/USDA-NIFA Genomic Science Program Meeting, Crystal City, MD. April 10-13."

2011, "Identifying Genes and Networks for Increasing Biomass Production in New Energy Grasses by Using Rice as a Model System. Symposium speaker, DOE/USDA-NIFA PI meeting, Crystal City, MD. April 20".

2011, "J. Snelling, J. Hamilton, T. Adhikari, V. M. Verdier, C. Bragard, E. Duveiller, N. TISSERAT, C. Buell, J. E. Leach. 2011. Development of molecular diagnostic markers for *Xanthomonas translucens*. *Phytopathology* 101:S168".

2011, "Jahn, C.E., L. DeRose-Wilson, J. K. McKay, D. R. Bush, H. Leung, J. E. Leach. 2011. Night-time stomatal conductance and transpiration negatively impact biomass accumulation. DOE/USDA-NIFA Genomic Science Program Meeting, Crystal City, MD. April 10-13."

2011, "L. R. TRIPLETT, K. J. Morey, K. D. Albrecht, M. Ionescu, J. E. Leach, S. E. Lindow, N. A. Tisserat, J. I. Medford. 2011. Adapting synthetic gene circuits for plant-based detection of pathogen indicators: A test case. *Phytopathology* 101:S178".

2011, "S. LEE, J. Snelling, S. Han, J. Park, J. Leach. 2011. Rice chitinase gene contributes to rice sheath blight disease resistance. *Phytopathology* 101:S100".

2011, "Sustainable Bioenergy Research at Colorado State University. Symposium speaker. Symposium of the East China Normal University-Colorado State University Joint Research Institute for New Energy and the Environment. Shanghai, China June 10".

2011, "Tanger, P. Jahn, C.E., Wolfrum, E.,

Santoro, N., Naredo Ma. E.B., Baraoidan M., Leung, H., McNally, K., McKay, J., Bush, D., Leach, J.E. 2011.

Development of high-throughput phenotyping methods to investigate cell wall composition. 9th International Symposium of Rice Functional Genomics, Taipei Taiwan. November 7-9, 2011. [Poster Presentation]".

2011, "The dual use dilemma. Symposium speaker. American Phytopathological Society Annual Meetings, Honolulu, August 7".

2011, "Understanding broad spectrum resistance in rice. Seminar speaker. Guandong Academy of Sciences, Guandong, China, July 11".

2011, "Understanding Genome Responses to Guide Crop Improvement. Seminar Speaker, Soils and Crops Department, CSU, December 1."

2011, "V. Verdier, L. R. TRIPLETT, R. Corral, J. E. Leach. 2011. Genome-enabled primer design to distinguish geographic origin of *Xanthomonas oryzae* pvs. *oryzicola* and *oryzae*. *Phytopathology* 101:S183".

2011, "Wading through murky paddies: clarifying broad spectrum resistance in rice. Seminar speaker. National Key Laboratory of Crop Genetic Improvement, Huazhong Agricultural University, Wuhan, China, July 4."

2011, "Wading through murky paddies: Understanding broad spectrum, durable resistance in plants. Invited Speaker: Nusbaum Symposium, North Carolina State University, March 30."

2011, "Wading through the murky paddies: Applying Concepts of Plant Immunity to Achieve Crop Security. Gordon Research Conference (GRC) on Chemical & Biological Terrorism Defense. Ventura, CA March 22-25."

2010, "Davidson, P. A. Reeves, P. M.

Manosalva, J. E. Leach 2010.
Bioinformatic strategies for predicting
candidate genes under disease
resistance QTL *Phytopathology* 100:S164".

2010, "Hulbert,S; J.E.Leach.2010. Looking
ahead in genomics of plant-associated
microbes. *Phytopathology* 100:S167".

2010, "Jahn, C.E., I. Ona, J. Stephens, C.
Vera Cruz, D. Bush, H. Leung, J. McKay,
J.E. Leach. 2010. Screening a diverse
set of rice varieties for variation in
biomass and resistance to plant
disease. Poster presentation at the
10th Japan-US Seminar: Genome-Enabled
Integration of Research in Plant
Pathogen Systems. January 24-28,
Corvallis, OR."

2010, "Leach, J. E. 2010 Keeping Rice Bowls
Full: US-China
collaborations in rice improvement
research. Invited Symposium speaker,
International China Colloquium,
Colorado State University, Ft Collins
Sept 9."

2010, "Leach, J.E. 2010 Dissecting QTL: The
Genes that Contribute to Disease
Resistance Revealed. Invited Symposium
speaker, American Phytopathological
Society Annual Meetings, Charlotte,
August 9."

2010, "Leach, J.E. 2010 Genomics-based
diagnostic marker development for
bacterial pathogens. Plenary Speaker,
International Congress of
Phytopathogenic Bacteria, Ille de
Reunion, France, June 8."

2010, "Leach, J.E. 2010 Japan-US Seminar,
Genome analyses to understand durable
disease resistance in rice. Corvallis
Oregon, January 25-28."

2010, "Leach, J.E. 2010 Wading through murky
paddies: Clarifying broad spectrum
resistance in rice. Invited Plenary
Speaker, 5th International Rice Blast
Conference, Little Rock, AK, August 13."

2010, "Leach, J.E. 2010 Wading through the murky paddies: Clarifying broad spectrum disease resistance in rice. Invited Seminar Speaker, University of Delaware, May 7."

2010, "Leach, J.E. 2010 What do you do for a living? Evolving responses with shifting paradigms. Invited speaker, 100th Birthday of the Department of Plant Pathology, University of Wisconsin Madison. June 25."

2010, "Leach, J.E., Jahn, C.E., A. Bordeos, M. Baroidan, J. Stephens, E. Peachey, D. R. Bush, H. Leung, J. K. McKay. 2010. Genetic Variation In Biomass Traits Among 20 Diverse Rice Varieties. Plant and Animal Genome XVIII. San Diego, CA January 9-13. http://www.intl-pag.org/18/abstracts/P05b_PAGXVIII_241.html".

2010, "Leach, J.E., 2010 Codes of Conduct for the American Phytopathological Society. Invited participant and speaker, National Science Advisory Board on Biosecurity Roundtable on Codes of Conduct, Bethesda, MD, October 20."

2010, "Leach, J.E., J. Medford, S. Lindow, N. Tisserat. 2010. Development of Sentinel Plants for Detection of High Risk Pathogens. USDA-NIFA Project Director Meeting, APS Annual Meeting, Charlotte, NC, Aug. 9, 2010".

2010, "Leach, J.E., R. M. Davidson, J. Snelling, M. Bruce, H. Leung, C. M. Vera Cruz, 2010. Dissecting QTL: The genes that contribute to disease resistance revealed Phytopathology 100:S157".

2010, "Leung, H., M. Ayliffe, Z. Kang, S. Wang, Y. Jin, B. Steffenson, J. Leach. 2010. Understanding The Genetic Architecture Of Broad-Spectrum Disease Resistance Through Genome Scans Of Rice Mutants. Plant and Animal Genome XVIII. San Diego, CA January 9-13. <http://www.intl->

pag.org/18/abstracts/W36_PAGXVIII_282.html".

2010, "McNally, K., Childs, K., Bohnert, R., Davidson, R.M., Zhao, K., Ulat, V.J., Zeller, G., Clark, R.M., Hoen, D., Bureau, T., Stokowski, R., Ballinger, D., Frazer, K., Cox, D., Padhukasahasram, B., Bustamante, C., Weigel, D., Mackill, D., Bruskiewich, R., Ratsch, G., Buell, C. R., Leung, H. and Leach, J. E. 2010. Genomewide SNP Patterns In Rice Reveal Historical And Recent Introgressions. Plant and Animal Genome XVIII. SanDiego, CA January 9-13. http://www.intl-pag.org/18/abstracts/W18_PAGXVIII_140.html".

2010, "Triplett, L., J. P. Hamilton, N. A. Tisserat, C. R. Buell, J. E. Leach. 2010. Sequence data of Xanthomonas strains isolated from U.S. rice fields reveals substantial divergence from Xanthomonas oryzae pvs. oryzae and oryzicola. Phytopathology 100:S127".

November 16, 2009, "Dissecting QTL: The Genes that Contribute to Disease Resistance Revealed", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "Dissection and utilization of defense response QTLs for quantitative resistance to rice blast", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "Gene silencing reveals a role for oxalate oxidase in partial resistance to fungal pathogens", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "Genetic variability and heritability of biomass traits in 20 diverse rice varieties", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "Genomewide SNP patterns reveal historical and recent introgressions", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "NBS-LRR gene clusters contributing to durable resistance to Magnaporthe oryzae in rice variety SHZ-2", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "Rice 14-3-3 protein GF14e negatively regulates cell death and resistance to bacterial blight", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

November 16, 2009, "Rice genetic diversity assessment of the RiceSNP set using the GoldenGate genotyping assay and VeraCode technology", 6th International Rice Genetics Symposium, Manila, Philippines, peer-reviewed/refereed.

October 25, 2009, "Connecting Whole Genome Variation with Phenotype: Lessons Learned from Rice

Resequencing", 9th International Plant Molecular Biology meeting, St. Louis, MO, peer-reviewed/refereed.

October 23, 2009, "QTL For Durable Disease Resistance: Breaking Through the Bottleneck", Virginia Tech, Virginia Tech, peer-reviewed/refereed.

September 11, 2009, "A Perspective on Crop Genome Improvement", Soils and Crop Department 100th Birthday, Fort Collins, CO.

August 25, 2009, "Dissecting QTL to Understand Broad Spectrum Durable Disease Resistance in Rice", Guangdong Academy of Agricultural Sciences & Guangdong Plant Pathology Society, Guangdong China, peer-reviewed/refereed.

August 21, 2009, "Dissecting QTL to Understand Broad Spectrum Durable Disease Resistance", Yunan Agricultural University, Yunan, China, peer-reviewed/refereed.

August 19, 2009, "Dissecting QTL to Understand Broad Spectrum Durable Disease Resistance", Chinese Chinese Society of Plant Pathology Meeting, Kunming, China, peer-reviewed/refereed.

August 1, 2009, "Accumulating candidate genes for broad-spectrum resistance to rice blast in a drought-tolerant rice cultivar", Phytopathology 99:S19, Portland, OR, peer-reviewed/refereed.

August 1, 2009, "Genomics based diagnostic marker development for *Xanthomonas oryzae* pv. *oryzae* and *X. oryzae* pv. *oryzicola*", Phytopathology 99:S69, Portland, OR, peer-reviewed/refereed.

July 14, 2009, "Diverse bacterial plant pathogens contain homologs of the *Xanthomonas oryzae* pv. *oryzicola* avrRxo1 effector gene", Xanthomonas Genomics Conference, Pingree Park, CO, peer-reviewed/refereed.

July 14, 2009, "Genomics based diagnostic marker development for *Xanthomonas oryzae* pv. *oryzae* and *X. oryzae* pv. *oryzicola*", Xanthomonas Genomics Conference, Pingree Park, CO, peer-reviewed/refereed.

July 14, 2009, "Increased temperature favored effectiveness of a rice bacterial blight disease resistance gene", Xanthomonas Genomics Conference, Pingree Park, CO, peer-reviewed/refereed.

July 14, 2009, "The Comprehensive Phytopathogen Genomics Resource", Xanthomonas Genomics Conference, Pingree Park, CO, peer-reviewed/refereed.

June 19, 2009, "An NB-LRR binding protein: A switch for transcriptional reprogramming in plant immunity", XIV International Congress Molecular Plant-Microbe Interactions, Quebec, Canada, peer-reviewed/refereed.

June 17, 2009, "International Collaborations", Bill and Melinda Gates Foundation meeting on US-Africa Connections, ILRI, Nairobi, Kenya.

June 15, 2009, "Understanding Broad Spectrum Plant Disease Resistance", Biotechnology East and Central Africa (BECA), Nairobi, Kenya.

May 7, 2009, "Towards Broad Spectrum Disease Resistance in Rice: An Intriguing Odyssey", Cornell University-Geneva, Geneva, peer-reviewed/refereed.

May 6, 2009, "Towards Broad Spectrum Disease Resistance in Rice: An Intriguing Odyssey", Cornell University-Ithaca, invited by Graduate Student Colloquium, Ithaca, NY.

January 9, 2009, "Functional Analyses Of Germin-Like Proteins And Oxalate Oxidases; Contributors To Basal Disease Resistance In Rice", Plant and Animal Genomes XVII, San Diego, CA, peer-reviewed/refereed.

TEACHING:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u>Cr. Hrs.</u>	<u>Enrollment</u>
2016	Spring	BSPM799 - Dissertation	18	4
2016	Spring	CM795 - Independent Study	18	29
2016	Spring	BSPM798 - Research	18	14
2016	Spring	BSPM699 - Thesis	18	4
2015	Fall	BSPM799 - Dissertation	18	6
2015	Fall	CM795 - Independent Study	18	28
2015	Fall	BI550B - Plant Bacteriology	1	30
2015	Fall	BSPM698 - Research	18	10
2015	Fall	BSPM798 - Research	18	9
2015	Fall	BSPM699 - Thesis	18	6
2015	Fall	BSPM502B - Topics in Plant Pathology-Plant Bacteriology	1	8
2015	Spring	BSPM361 - Elements of Plant Pathology	3	56
2015	Spring	BSPM361 - Elements of Plant Pathology - Lab	0	24
2015	Spring	CM795 - Independent Study	18	34
2015	Spring	BSPM698 - Research	18	6
2015	Spring	BSPM798 - Research	18	9
2015	Spring	BSPM699 - Thesis	18	6
2014	Fall	BSPM495 - Independent Study	3	2
2014	Fall	BSPM594 - Independent Study	3	2
2014	Fall	CM795 - Independent Study	18	32
2014	Fall	BSPM698 - Research	18	10
2014	Fall	BSPM798 - Research	18	8
2014	Summer	BSPM798 - Research	18	2
2014	Spring	BSPM450 - Molecular Plant-Microbe Interaction	3	0
2014	Spring	BSPM550 - Molecular Plant-Microbe Interactions	3	10
2014	Spring	BSPM698 - Research	18	7
2014	Spring	BSPM798 - Research	18	9
2013	Fall	AGRI601 - Bioenergy Technology	3	3
2013	Fall	AGRI601 - Bioenergy Technology - Lab	0	3
2013	Fall	BSPM495 - Independent Study	3	3
2013	Fall	CM595 - Independent Study	18	5
2013	Fall	BSPM798 - Research	18	11
2013	Fall	BSPM502B - Topics in Plant Pathology-Plant Bacteriology	1	5
2013	Summer	BSPM698 - Research	18	2
2013	Spring	BSPM495 - Independent Study	3	9
2013	Spring	BSPM698 - Research	18	9
2013	Spring	BSPM798 - Research	18	8
2013	Spring	BSPM699 - Thesis	18	6
2012	Fall	AGRI601 - Bioenergy Technology	3	4
2012	Fall	ENGR601 - Bioenergy Technology	3	2
2012	Fall	AGRI601 - Bioenergy Technology - Lab	0	4
2012	Fall	ENGR601 - Bioenergy Technology - Lab	0	2
2012	Fall	HORT495 - Independent Study	18	5
2012	Fall	BSPM698 - Research	18	7
2012	Fall	BSPM798 - Research	18	10
2012	Spring	BSPM450 - Molecular Plant-Microbe Interaction	3	2
2012	Spring	BSPM550 - Molecular Plant-Microbe Interactions	3	8
2012	Spring	BSPM698 - Research	18	10
2012	Spring	BSPM798 - Research	18	6

2011	Fall	AGRI680A1 - Bioenergy Technology	3	10
2011	Fall	AGRI680A1 - Bioenergy Technology - Lab	0	10
2011	Fall	BSPM798 - Research	18	8
2011	Fall	BSPM502B - Topics in Plant Pathology-Plant Bacteriology	1	0
2011	Fall	BSPM502B - Topics in Plant Pathology-Plant Bacteriology	1	10
2011	Spring	BSPM799 - Dissertation	18	5
2011	Spring	BSPM798 - Research	18	12
2010	Fall	BSPM698 - Research	18	18
2010	Fall	BSPM798 - Research	18	12
2010	Spring	BSPM450 - Molecular Plant-Microbe Interaction	3	1
2010	Spring	BSPM550 - Molecular Plant-Microbe Interactions	3	6
2010	Spring	BSPM798 - Research	18	10
2010	Spring	BSPM699 - Thesis	18	6
2009	Fall	AGRI680A1 - Bioenergy Technology	3	3
2009	Fall	ENGR680A1 - Bioenergy Technology	3	3
2009	Fall	AGRI680A1 - Bioenergy Technology - Lab	0	3
2009	Fall	ENGR680A1 - Bioenergy Technology - Lab	0	3
2009	Fall	BSPM798 - Research	18	10
2009	Fall	BSPM699 - Thesis	18	7
2009	Fall	BSPM502B - Topics in Plant Pathology-Plant Bacteriology	1	3
2009	Spring	AGRI680A1 - Bioenergy Technology	3	3
2009	Spring	ENGR680A1 - Bioenergy Technology	3	2
2009	Spring	AGRI680A1 - Bioenergy Technology - Lab	0	3
2009	Spring	ENGR680A1 - Bioenergy Technology - Lab	0	2
2009	Spring	BSPM799 - Dissertation	18	3
2009	Spring	CM795 - Independent Study	18	20
2009	Spring	BSPM698 - Research	18	8
2009	Spring	BSPM798 - Research	18	10
2009	Spring	BSPM699 - Thesis	18	4
2008	Fall	BSPM698 - Research	18	8
2008	Fall	BSPM798 - Research	18	11
2008	Fall	BSPM699 - Thesis	18	3
2008	Spring	BSPM450 - Molecular Plant-Microbe Interaction	3	1
2008	Spring	BSPM550 - Molecular Plant-Microbe Interactions	3	6
2008	Spring	BSPM698 - Research	18	4
2008	Spring	BSPM798 - Research	18	10
2008	Spring	BSPM502B - Topics in Plant Pathology-Plant Bacteriology	1	8
2007	Fall	BSPM698 - Research	18	12

Guest Lectures:

<u>Year</u>	<u>Semester</u>	<u>Course No./Title</u>	<u># of Guest Lectures</u>	<u>Delivery Mode</u>
2015	Spring	FTEC572 - Food Biotechnology	1	Face to Face
2013	Fall	FSHN496 - Sustainable Food Systems	1	Face to Face

COMMITTEES

Genetics of complex plant traits, BSPM, (2013 - Present).

Thorton-Massa Plant Biology Speaker Selection Committee, (2013 - Present).

Vice Provost for Research Search Committee, (April 2013 - July 2013).

VPR's Scholarship Impact Award Selection Committee, (February 2013 - March 2013).

(2012).

(2011).

(2010).

(2010).

(2012).

(2011).

(2010).

(2010).

Pierce's Disease/GWSS REsearch Scientific Advisory Panel, (2011 - 2015).

Search Committee: Genetics of Complex Traits, (September 2013 - January 2014).

Systems Biology of Plant Responses to Drought Stress and Other Climate Change Related Environmental Stresses, BSPM, (November 2013 - December 2013).

(2012).

(2011).

(2010).

(2010).

PROFESSIONAL AFFILIATIONS AND ACTIVITIES

Chinese Society of Plant Pathology.

American Society for Plant Biologists. (2010 - Present).

American Association for the Advancement of Science. (2000 - Present).

American Phytopathological Society. (2000 - Present).

American Society of Plant Biologists. (1986 - Present).

American Society for Plant Biologists. (1985 - Present).

American Society for Microbiology. (1984 - Present).

International Society-Molecular Plant-Microbe Interactions. (1984 - Present).

American Phytopathological Society. (2010 - 2013).

Grass-O'-Line: The Fuel of the Future.

Gene Editing Tool Hailed as Breakthrough, and It Really is One! (December 28, 2015).

“Plant denizens get the big science treatment”. (July 6, 2015).

Can Microbes help feed the world? (October 14, 2014).

GMO foods debated by CSU and the rest of Colorado. (February 7, 2014).

A complete Harvest: the future of rice as a bioenergy crop. (January 2014).

From rice pathology research to food security gains: An interview with Jan Leach. (June 2, 2013).

Colorado researcher lands position on secretive bioterrorism board. (February 24, 2013).

Chairperson, International Advisory Committee for the 2018 International Congress of Plant Pathology. (2013 - Present).

Plant and Animal Genome Meeting, San Diego, CA. (2013 - Present).

International Rice Research Institute, Manila, CO. (2012 - Present).

Member, National Science Advisory Board for Biosecurity (NSABB. (2012 - Present).

Plant and Animal Genome Meetings, San Diego, CA. (2012 - Present).

Program Organizer, Training Workshop on armonizing Detection of Xanthomonas oryzae pathovars, Los Banos. (2012 - Present).

Okayama University, Japan. (2011 - Present).

Plant and Animal Genome Meeting, SanDiego, CA. (2011 - Present).

Member, U.S. Department of Energy's Systems Biology Knowledgebase Science Focus Area's Review Panel. (2011 - Present).

Member, USDA-NIFA Understanding Plant-associated Microorganisms Panel. (2011 - Present).

American Sociey for Plant Biologists. (2010 - Present).

Chairperson, APS Public Policy Board. (2010 - Present).

Reviewer, Ad Hoc Reviewer, BMC Genomics. (2010 - Present).

Reviewer, Ad Hoc Reviewer, BMC Plant Biology. (2010 - Present).

Conference of Research Workers in Animal Diseases, Fort Collins, CO. (2010 - Present).

CSIRO-Australia. (2010 - Present).

Reviewer, Ad Hoc Reviewer, Molecular Plant-Microbe Interactions. (2010 - Present).

Reviewer, Ad Hoc Reviewer, Nature Genetics. (2010 - Present).

Reviewer, Ad Hoc Reviewer, NSF. (2010 - Present).

Okayama University, Japan. (2010 - Present).

Oregon State University. (2010 - Present).

Reviewer, Ad Hoc Reviewer, Plant Physiology. (2010 - Present).

Reviewer, Ad Hoc Reviewer, Plant Science. (2010 - Present).

Reviewer, Ad Hoc Reviewer, Proceedings of the National Academy of Sciences. (2010 - Present).

Program Organizer, Workshop on Bioinformatics, Ft Collins, CO. (2010 - Present).

Chairperson, American Society Plant Biologists. (2009 - Present).

Council of Research Associate Deans. (2009 - Present).

Member, Honorary Degree Committee. (2008 - Present).

Infectious Diseases Supercluster. (2008 - Present).

Editor, Associate Editor, Journal of General Plant Pathology. (2004 - Present).

Member, American Association for the Advancement of Science. (2000 - Present).

Member, American Phytopathological Society. (2000 - Present).

USDA-CRG program (Plant Pathology). (1996 - Present).

USDA-CRG program (Plant Pathology and Weed Science). (1995 - Present).

DOE Biosciences. (1993 - Present).

Molecular Plant Pathology panel, USDA Competitive Research Program. (1991 - Present).

Chairperson, Bacteriology Committee, American Phytopathological Society. (1990 - Present).

Member, American Society of Plant Biologists. (1986 - Present).

Member, American Society for Plant Biologists. (1985 - Present).

Member, American Society for Microbiology. (1984 - Present).

Member, International Society-Molecular Plant-Microbe Interactions. (1984 - Present).

Member, Global Rice Partnership Science Oversight Committee (GRiSP-OC). (2015 - 2018).

Editor, Associate Editor, Annual Reviews of Phytopathology, Palo Alto, CA. (2010 - 2014).

Committee Chair, American Phytopathological Society. (2010 - 2013).

Member, Executive Committee. (2010 - 2013).

Reviewer, Ad Hoc Reviewer, NSF Panel Member: Plant Genome Program. (April 2013 - June 2013).

Committee Chair, Promotion and Tenure Committee. (2011 - 2012).

Member, Nominations Committee. (2009 - 2012).

Editor, Associate Editor, Rice (Springer). (2007 - 2012).

Member, Search Committee: Bioenergy position for College of Agricultural Sciences. (2010 - 2011).

Member, Search Committee: Bioenergy position for College of Engineering. (2010 - 2011).

Crops for Health Program. (2008 - 2011).

Member, Provost Search Committee. (2009 - 2010).

Chairperson, APS Ad Hoc Committee on International Collaborations. (2008 - 2009).

US-RCIECAPS project. (2004 - 2009).

Rural Development Administration of Korea. (2002 - 2008).

Officer, President/Elect/Past, American Phytopathological Society. (2006 - 2007).

Chairperson, National Research Council Committee on California Agricultural Research Priorities: Pierce's Disease. (2003 - 2004).

Kansas State University Research Foundation. (1998 - 2004).

Chairperson, Targeted Excellence Working Group. (2002 - 2003).

Member, Senator Pat Robert's Task Force on Biotechnology. (1999 - 2003).

Member, Kansas State University Patent Advisory Committee. (1997 - 2002).

Officer, President/Elect/Past, University Distinguished Professor Group, KSU. (2000 - 2001).

Officer, President/Elect/Past, International Society-Molecular Plant-Microbe Interactions. (1999 - 2001).

Member, External Advisory Panel for CEPRAP. (1995 - 2001).

Molecular Plant-Microbe Interactions. (1998 - 2000).

Officer, President/Elect/Past, International Society-Molecular Plant-Microbe Interactions. (1996 - 1999).

Member, Plant Biotechnology Steering Center, Kansas State University. (1996 - 1998).

Editor, Senior Editor, Molecular Plant-Microbe Interactions. (1995 - 1998).

Member, NSF-EPSCOR Faculty Advisory Committee, Kansas. (1992 - 1997).

Editorial Review Board Member, Rice Biotechnology Quarterly. (1992 - 1997).

Member, Biochemistry, Physiology, and Molecular Biology Committee for American Phytopathological Society. (1993 - 1996).

KSU Standard and Policy Subcommittee. (1993 - 1994).

Member, Provost's Task Force for Achieving University-Wide Aspirations, Research Committee. (1993 - 1994).

Editor, Associate Editor, Molecular Plant-Microbe Interactions. (1991 - 1994).

Chairperson, NCR-169 Committee on Detection, Ecology, and Management of Pathogenic and Beneficial Bacteria Associated with Plants. (1992 - 1993).

OTHER ACTIVITIES/ACCOMPLISHMENTS – SERVICE/OUTREACH

Visiting Scientist, Institute for Crop Protection, Chinese Academy of Agricultural Sciences, Beijing. (2012 - 2014).

Board of Advisors of a Company, Keystone Symposia, Keystone, CO. (2012 - 2014).

Board of Advisors of a Company, US Rice Genome Sequencing Project. (2000 - 2004).

Board of Directors of a Company, Kansas State University Research Foundation. (1997 - 2004).

Board of Directors of a Company, International Society-Molecular Plant-Microbe Interactions. (1995 - 2003).

Board of Advisors of a Company, Plant Biotechnology Center, Kansas State University. (1996 - 2000).

Plant and Animal Genome meeting. (2011 - Present).

Committee Member, Pierce's Disease/GWSS Research Scientific Advisory Committee. (2011 - 2015).
