

JONG HYUN HAM

Curriculum Vitae

Dept. Plant Pathology and Crop Physiology
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EDUCATION

1993. 8 – 1998. 10 Ph.D. Plant Pathology, Cornell University
1991. 8 – 1992. 2 Second lieutenant, The 3rd Korean Army Academy
1989. 3 – 1991. 2 M.S. Plant Pathology, Korea University
1985. 3 – 1989. 2 B.S. Agricultural Biology, Korea University

PROFESIONAL EXPERIENCE

2019. 7 – Present Professor, Department of Plant Pathology and Crop Physiology,
Louisiana State University/Louisiana State University Agricultural Center

2013. 7 – 2019. 6 Associate Professor, Department of Plant Pathology and Crop
Physiology, Louisiana State University/Louisiana State University
Agricultural Center

2007. 10 – 2013.6 Assistant Professor, Department of Plant Pathology and Crop
Physiology, Louisiana State University/Louisiana State University
Agricultural Center

2006.1 – 2007. 9 Research Scientist, Department of Horticulture and Crop Sciences, The
Ohio State University

2004. 3 – 2006.1 Post-doctoral Researcher, Department of Horticulture and Crop
Sciences, The Ohio State University

2002. 3 – 2004. 3 Post-doctoral Researcher, Department of Plant Pathology,
The Ohio State University

1999. 11 – 2002. 3 Post-doctoral Researcher, Department of Plant Pathology, University of
Wisconsin-Madison

1998. 10 – 1999. 8 Post-doctoral Researcher, Department of Crop Sciences, University of
Illinois at Urbana-Champaign

PROFESIONAL SERVICES

- Senior Editor of *Phytopathology* (01/2021 - present)
- Guest Editor of *Pathogens* (09/2020 – present)
- Associate Editor of *The Plant Pathology Journal* (07/2019 – present)

- Associate Editor of *Phytopathology Research* (02/2018 – present)
- Associate Editor of *Phytopathology* (02/2015 – 01/2018)
- Chair of the Biological Control Committee of the American Phytopathological Society (2017 – 2018) (*elected*)
- Vice Chair of the Biological Control Committee of the American Phytopathological Society (2016 – 2017) (*elected*)
- Member of APHIS Widely Prevalent Bacteria Committee as a regional coordinator for Louisiana, Arkansas, Texas, Mississippi, Alabama, and Oklahoma (2015 - present) (*invited*)
- Chair of the Bacteriology Committee of the American Phytopathological Society (2014 – 2015) (*elected*)
- Vice Chair of the APS Bacteriology Committee (2013-2014)

RESEARCH ACTIVITIES

Publications in Refereed Journals

Lee, H.-H., T. Lelis, J. Ontoy, J. Bruno, **J.H. Ham***, and Y.-S. Seo*. 2021. Complete genome sequence data of four *Burkholderia glumae* strains isolated from rice fields in the United States. *Molecular Plant-Microbe Interactions*. DOI: 10.1094/MPMI-04-21-0090-A. Online ahead of print (*: corresponding authors)

Calderon, R.B., C. Jeong, H.-H. Ku, L.M. Coghill, Y.J. Ju, N. Kim, and **J.H. Ham**. 2021. Changes in the microbial community in soybean plots treated with biochar and poultry litter. *Agronomy* 11, 1428. <https://doi.org/10.3390/agronomy11071428>.

Jungkhun, N., A. R. G. Farias, S. Patarapuwadol, and **J. H. Ham**. 2021. Isolation and characterization of bacteriophages infecting *Burkholderia glumae*, the major causal agent of bacterial panicle blight in rice. *Plant Disease*, DOI: 10.1094/PDIS-08-20-1711-RE. Online ahead of print

Chalivendra, S., F. Huang, M. Busman, W. P. Williams, **J. H. Ham**. 2020. Low aflatoxin levels in *Aspergillus flavus*-resistant maize are correlated with increased corn earworm damage and enhanced seed fumonisin. *Frontiers in Plant Science* 11: 565323. doi: 10.3389/fpls.2020.565323.

Peng, J., T. Lelis, R. Chen, I. Barphagha, S. Osti, and **J. H. Ham**. 2020. *tepR* encoding a bacterial enhancer-binding protein (bEBP) orchestrates the virulence and interspecies competition of *Burkholderia glumae* through *qsmR* and a type VI secretion system. *Molecular Plant Pathology* 21(8): 1042-1054.

Angira, B., Addison, C., Cerioli, T., Rebong, D.B., Wang, D., Pumplin, N., **Ham, J.H.**, Oard, J.H., Linscombe, S., Famoso, A. 2019. Haplotype Characterization of the SD1 Semi-Dwarf Gene in U.S. Rice. doi: 10.3835/plantgenome2019.02.0010

Zarbaifi S. S., B. Rabiei, A. A. Ebadi, and **J. H. Ham**. 2019. Association mapping of traits related to leaf blast disease in rice (*Oryza sativa* L.). *Australian Plant Pathology* DOI: 10.1007/s13313-019-00674-8.

Zarbaft S.S., and **J. H. Ham**. 2019. An overview of rice QTLs associated with disease resistance to three major rice diseases: blast, sheath blight, and bacterial panicle blight. *Agronomy* **2019**, 9, 177.

Lelis T., J. Peng, I. Barphagha, R. Chen, and **J. H. Ham**. 2019. The virulence function and regulation of the metalloprotease gene *prtA* in the bacterial plant pathogen, *Burkholderia glumae*. *Molecular Plant-Microbe Interactions* 32: 841-852. (DOI: 10.1094/MPMI-11-18-0312-R)

Zarbaft S. S., B. Rabiej, A. A. Ebadi, and **J. H. Ham**. 2019. Statistical analysis of phenotypic traits of rice (*Oryza sativa* L.) related to grain yield under neck blast disease. *J. Plant Dis. Protec.* 126: 293-306. (DOI: 10.1007/s41348-019-00230-y)

Chalivendra S., C. DeRobertis, J. R. Pineda, **J. H. Ham**, and K. Damann. 2018. Rice phyllosphere *Bacillus* species and their secreted metabolites suppress *Aspergillus flavus* growth and aflatoxin production *in vitro* and in maize seeds. *Toxins* 10(4), 159: doi:10.3390/toxins10040159.

Shrestha B. K., D. H. Oh, M. Dassanayake, and **J. H. Ham**. 2018. Analysis of genome sequence variations among three U.S. rice varieties showing differential quantitative resistance to bacterial panicle blight and sheath blight. *International Journal of Genomics* (under review)

Melanson, R. A., I. Barphagha, S. Osti, T. Lelis, H. S. Karki, R. Chen, B. K. Shrestha, and **J. H. Ham**. 2017. Identification of new regulatory genes involved in the pathogenic functions of the rice pathogenic bacterium *Burkholderia glumae*. *Microbiology* 163: 266-279.

C. Y. Jeong and **J. H. Ham**. 2017. Comparative analysis of the microbial community in the sediments of two constructed wetlands differentially influenced by the concentrated poultry feeding operations. *Journal of Soils and Sediments* 17: 557-566.

Jin, L., **J. H. Ham**, R. Hage, W. Zhao, J. Soto-Hernandez, S. Y. Lee, S. M. Paek, M. G. Kim, C. Boone, D. L. Coplin, D. Mackey. 2016. Direct and indirect targeting of PP2A by conserved type III-effector proteins. *PLoS Pathogens* 12(5): e1005609.

Karki, H. S. and **J. H. Ham**. 2016. Testing the effect of UV radiation on the survival of *Burkholderia glumae*. *Bio-protocol* 6(5) e1755.

Shrestha, B. K., H. S. Karki, D. E. Groth, and **J. H. Ham**. 2015. Isolation and characterization of rice-associated *Bacillus* spp. showing antagonistic activities against the rice pathogens *Rhizoctonia solani* and *Burkholderia glumae*. *PLoS ONE* 11(1): e0146764. DOI:10.1371/journal.pone.0146764.

Chen, R., I. Barphagha, and **J. H. Ham**. 2015. Identification of potential genetic components involved in the deviant quorum-sensing signaling pathways of *Burkholderia glumae* through a functional genomics approach. *Frontiers in Cellular and Infectious Microbiology* 5:22 doi: 10.3389/fcimb.2015.00022. eCollection 2015.

Kim, B. S. J. W. Han, J. D. Kim, J. M. Lee, **J. H. Ham**, and D. Lee. 2014. Structural elucidation and antimicrobial activity of new phencomycin derivatives isolated from *Burkholderia glumae* strain 411gr-6. *Journal of Antibiotics* 67(10):721-3. doi: 10.1038/ja.2014.50. Epub 2014 Apr 30.

Karki, H. S. and **J. H. Ham**. 2014. The roles of the shikimate pathway genes, *aroA* and *aroB*, in virulence, growth, and UV tolerance of *Burkholderia glumae* strain 411gr-6. *Mol. Plant Pathol.* 15(9): 940-947. DOI: 10.1111/mpp.12147. [Epub ahead of print]

Gangadharan A., M.-V. Sreerekha, J. Whitehill, **J. H. Ham**, and D. Mackey. 2013. The *Pseudomonas syringae* pv. *tomato* type III effector HopM1 suppresses Arabidopsis defenses independent of suppressing salicylic acid signaling and of targeting AtMIN7. *PLoS ONE* 8(12): e82032. doi:10.1371/journal.pone.0082032

Choi, H. W., D. S. Kim, N. H. Kim, H. W. Jung, **J. H. Ham**, and B. K. Hwang. 2013. *Xanthomonas* filamentous hemagglutinin-like protein Fha1 interacts with pepper hypersensitive induced reaction protein CaHIR1 and functions as a virulence factor in host plants. *Mol. Plant-Microbe Interact.* 26: 1441-1454

Francis, F., J. Kim, T. Ramaraj, A. Farmer, M. C. Rush, and **J. H. Ham**. 2013. Comparative genomic analysis of two *Burkholderia glumae* strains from different geographic origins reveal a high degree of plasticity in genome structure associated with genome islands. *Molecular Genetics and Genomics* 288:195-203.

Kim, H. Y., J. D. Kim, J. S. Hong, **J. H. Ham**, and B. S. Kim. 2012. Identification of antifungal niphimycin from *Streptomyces* sp. KP6107 by screening based on adenylate kinase assay. *J. Basic Microbiol.* 52: 1 -9.

Chen, R., I. K. Barphagha, and **J. H. Ham**. 2012. Dissection of quorum-sensing genes in *Burkholderia glumae* reveals non-canonical regulation and the new regulatory gene *tofM* for toxoflavin production. *PLoS ONE* 7: e52150.

Ham, J. H. 2012. Intercellular and intracellular signaling systems that globally control expression of virulence genes in plant pathogenic bacteria. *Mol. Plant Pathol.* 14: 308 – 322.

Karki, H. S., B. K. Shrestha, J. W. Han, D. E. Groth, I. K. Barphagha, M. C. Rush, R. A. Melanson, B. S. Kim, and **J. H. Ham**. 2012. Diversities in virulence, antifungal activity, pigmentation and DNA fingerprint among strains of *Burkholderia glumae*. *PLoS ONE* 7: e45376.

Melanson, R. A., R. S. Sanderlin, A. R. McTaggart, and **J. H. Ham**. 2012. A systematic study of the 16S-23S rRNA intergenic transcribed spacer region, *pglA*, and ERIC-PCR and REP-PCR fingerprints reveals that *Xylella fastidiosa* strains from pecan are part of *X. fastidiosa* subsp. *multiplex*. *Plant Dis.* 96: 1123 - 1134.

Karki, H. S., I. K. Barphaga, and **J. H. Ham**. 2012. A conserved two-component regulatory system, PidS/PidR, globally regulates pigmentation and virulence-related phenotypes of *Burkholderia glumae*. *Mol. Plant Pathol.* 13:785-794.

Ham, J. H.*, R. A. Melanson, and M. C. Rush. 2011. *Burkholderia glumae*: Next major pathogen of rice? *Mol. Plant Pathol.* 12: 329-339. *: Corresponding author.

Ham, J. H., D. R. Majerczak, K. Nomura, C. Mecey, F. Uribe, S.-Y. He, D. Mackey, and D. L. Coplin. 2009. Multiple activities of the plant pathogen type III effector proteins WtsE and AvrE require WxxxE motifs. *Mol. Plant-Microbe Interact.* 22: 703-712 (**MPMI Editor's pick**).

Ham, J. H., D. R. Majerczak, S. Ewert, M.-V. Sreerekha, D. Mackey, and D. L. Coplin. 2008. WtsE, an AvrE-family type III effector protein of *Pantoea stewartii* subsp. *stewartii*, causes cell death in nonhost plants. *Mol. Plant Pathol.* 9: 633-643.

Ham, J. H., M. G. Kim, S. Y. Lee, and D. Mackey. 2007. Layered basal defenses underlie nonhost resistance of *Arabidopsis* to *Pseudomonas syringae* pv. *phaseolicola*. *The Plant Journal* 51: 604-616.

Ham, J. H., D. R. Majerczak, A. R. Arroyo-Rodriguez, D. M. Mackey, and D. L. Coplin. 2006. WtsE, an AvrE-family effector protein from *Pantoea stewartii* subsp. *stewartii*, causes disease-associated cell death in corn and requires a chaperone protein for stability. *Mol. Plant-Microbe Interact.* 19: 1092-1102.

Quirino, B. F.* , R. Genger* , **J. H. Ham***, G. Zabala, and A. Bent. 2004. Identification and functional analysis of *Arabidopsis* proteins that interact with resistance gene product RPS2 in yeast. *Physiol. Mol. Plant Pathol.* 65: 257-267. *: Co-first author.

Rojas, C. M.* , **J. H. Ham***, L. M. Schechter, J. F. Kim, S. V. Beer, and A. Collmer. 2004. The *Erwinia chrysanthemi* EC16 *hrp/hrc* gene cluster encodes an Active Hrp type III secretion system that is flanked by virulence genes functionally unrelated to the Hrp system. *Mol. Plant-Microbe Interact.* 17: 644-653. *: Co-first author.

Jurkowski, G. I., R. K. Smith, Jr., I. Yu, **J. H. Ham**, S. B. Sharma, D. F. Klessig, K. A. Fengler, and A. F. Bent. 2004. *Arabidopsis* *DND2*, a second cyclic nucleotide-gated ion channel gene for which mutation causes the "defense, no death" phenotype. *Mol. Plant-Microbe Interact.* 17: 511-520.

Ham, J. H., Y. Y. Cui, J. R. Alfano, P. Rodríguez-Palenzuela, C. M. Rojas, A. K. Chatterjee, and A. Collmer. 2004. Analysis of *Erwinia chrysanthemi* EC16 *pelE::uidA*, *pelL::uidA*, and *hrpN::uidA* mutants reveals strain-specific atypical regulation of the Hrp type III secretion system. *Mol. Plant-Microbe Interact.* 17: 184-194.

Do, H. M., J. K. Hong, H. W. Jung, S. H. Kim, **J. H. Ham**, and B. K. Hwang. 2003. Expression of peroxidase-like genes, H₂O₂ production, and peroxidase activity during the hypersensitive response to *Xanthomonas campestris* pv. *vesicatoria* in *Capsicum annuum*. *Mol. Plant-Microbe Interact.* 16: 196-205.

Rojas, C. M., **J. H. Ham**, Deng, W.-L., Doyle, J. J., and A. Collmer. 2002. HecA, a member of a class of adhesins produced by diverse pathogenic bacteria, contributes to the attachment, aggregation, epidermal cell killing, and virulence phenotypes of *Erwinia chrysanthemi* EC16 on *Nicotiana clevelandii* seedlings. *Proc. Natl. Acad. Sci. U.S.A.* 99: 13142 - 13147.

Ham, J. H., D. W. Bauer, and A. Collmer. 1998. A cloned *Erwinia chrysanthemi* Hrp (type III protein secretion) system functions in *Escherichia coli* to deliver *Pseudomonas syringae* Avr protein signals to plant cells and to secrete Avr proteins in culture. *Proc. Natl. Acad. Sci. U.S.A.* 95: 10206 - 10211.

Kim, J. F., **J. H. Ham**, D. W. Bauer, A. Collmer, and S. V. Beer. 1998. The *hrpC* and *hrpN* operons of *Erwinia chrysanthemi* EC16 are flanked by *plcA* and homologs of hemolysin/adhesin genes and accompanying activator/transporter genes. *Mol. Plant-Microbe Interact.* 11: 563 - 567.

Alfano, J. R., **J. H. Ham**, and A. Collmer. 1995. Use of Tn5tac1 to clone a *pel* gene encoding a highly alkaline, asparagine-rich pectate lyase isozyme from *Erwinia chrysanthemi* EC16 mutant with deletions affecting the major pectate lyase isozymes. *J. Bacteriol.* 177: 4553 – 4556.

Ham, J. H., Y. J. Kim, and B. K. Hwang. 1991. Induction of resistance to Metalaxyl of *Phytophthora capsici* by chemical mutagenesis. *Korean J. Plant Pathol.* 7: 133 – 139.

Ham, J. H., B. K. Hwang, Y. J. Kim, and C. H. Kim. 1991. Differential sensitivity to Metalaxyl of isolates of *Phytophthora capsici* from different geographic areas. *Korean J. Plant Pathol.* 7: 212 – 220.

Book Edited

Virulence mechanisms of plant pathogenic bacteria. 2015. Edited by N. Wang, J. Jones, G. Sundin, F. White, S. Hogenhout, C. Roper, L. De La Fuente, and **J. H. Ham**. APS Press, Saint Paul, MN. USA.

Book Chapters

J. H. Ham, J. Jones, and W. Chun. *Burkholderia*. In *Laboratory Guide for Identification of Plant Pathogenic Bacteria, Fourth Edition*. J. Jones et al. Eds. APS Press. Saint Paul, MN. USA. (In preparation upon invitation)

Melanson, R. A. and **J. H. Ham**. 2017. Virulence factors produced by plant pathogenic bacteria (Chapter 19, p 305 - 318). In *Plant Pathology: Concepts and Laboratory Exercises, Third Edition*. Robert N. Trigiano and Bonnie Ownley, Eds. Taylor and Francis Group, LLC.

Ham, J. H. and Luis da Cunha. 2015. Virulence mechanisms of soft-rot-causing plant pathogenic bacteria. In *Virulence mechanisms of plant pathogenic bacteria*. Edited by N. Wang et al., pages 419-444. N. Wang et al. Ed. APS Press, Saint Paul, MN. USA.

Ham, J. H. 2012. Signaling systems for the regulation of virulence factors in plant pathogenic bacteria. Pages 211-242 in: *Plant Health* (in Korean). B. K. Hwang, Eds. Korea University Press.

Oard, S., **Ham, J.**, and Cohn, M. A. 2012. Thionins - nature's weapons of mass protection. Pages 472-511 in: *Small wonders: peptides for disease control. American Chemical Society Symposium Series 1095*. American Chemical Society, Washington, DC: Oxford University Press, Inc.

Ham J. H., M. G. Kim, and D. Mackey. 2006. Nonhost Resistance of Arabidopsis to *Pseudomonas syringae* pv. *phaseolicola* Is Mediated by Multiple, Independently Effective Layers of Basal Defense. Pages 260-269 in: *Biology of Plant-Microbe Interactions, Vol. 5*. Federico Sanchez, Carmen Quinto, Isabel M. Lopez-Lara, and Otto Geiger, Eds. APS press, St. Paul.

Ham, J. H. and A. F. Bent. 2002. Recognition and defense signaling in plant/bacterial and fungal interactions. Pages 198-224 in: *Plant Signal Transduction: Frontiers in Molecular*

Biology. Dierk Scheel and Claus Wasternack, Eds. Frontiers in Molecular Biology Series, Oxford University Press.

Collmer, A., Charkowski, A. O., Deng, W.-L., Fouts, D. E., **Ham, J. H.**, Rehm, A. H., van Dijk, K., and Alfano, J. R. 2001. Bacterial Avr proteins: secreted agents of parasitism and elicitors of plant defense. Pages 36-45 in: *Delivery and Perception of Pathogen Signals in Plants*. N. T. Keen, S. Mayama, J. E. Leach, and S. Tsuyumu, Eds. APS Press, St. Paul.

Collmer, A., J. R. Alfano, D. W. Bauer, G. M. Preston, A. O. Loniello, A. Conlin, **J. H. Ham**, H.-C. Huang, S. Gopalan, and S. Y. He. 1996. Secreted proteins, secretion pathways, and the plant pathogenicity of *Erwinia chrysanthemi* and *Pseudomonas syringae*. Pages 159-164 in: *Biology of Plant-Microbe Interactions, Vol. 1*, G. Stacey, B. Mullin, and P. M. Gresshoff, Eds.

Proceedings

Maharjan, A. J. Leonard, R. Calderon, and **J. H. Ham**. Development of biological agents that promote rice health and growth. Proceedings... 37th Rice Technical Working Group. P 93.

Jeong, C.Y. and J. Ham. 2015. Characterization of microbial community structure in wetlands sediments contaminated with animal waste. ASA-CSSA-SSSA Meeting, Nov. 15-18., Minneapolis, MN. Proceeding, P 210.

Karki, H.S., Shrestha, B.K., Groth, D.E., and **Ham, J.H.** 2014. Development of New Rice Lines Showing Broad Disease Resistance to Bacterial Panicle Blight and Sheath Blight. Proc. of the Rice Tech. Wrkg. Grp., New Orleans, LA, Feb. 18-21. 35:50.

Shrestha, B.K., H. S. Karki, D. E. Groth, X. Sha, P. K. Subudhi, H. Utomo, and **J. H. Ham**. 2012. Development of Quantitative Trait Loci (QTL) Mapping and Breeding Programs to Improve Rice Resistance to Bacterial Panicle Blight and Sheath Blight. Proceedings... 34th Rice Technical Working Group.

Subudhi, P.K., **J. Ham**, C.A. Kimbeng, J.W. Hoy, and N. Baisakh. 2012. Marker-assisted breeding to enhance disease resistance in corn, rice, and sugarcane. USDA-DOE Project Directors Meeting, Town and Country Resort Center, San Diego, CA, Jan 13, 2012. Annual Report, Pp 126-129.

Subudhi, P.K., **J. Ham**, C. A. Kimbeng, J.W. Hoy, N. Baisakh. 2011. Marker-assisted breeding to enhance disease resistance in corn, rice, and sugarcane. USDA-NIFA Agriculture and Food Research Initiative, Plant Genome, Genetics, and breeding Programs Project Directors Meeting, San Diego, CA, Jan 14, 2011. Annual Report, Pp 152-154.

Groth, D.E., M. C. Rush, A. K. M. Shahjahan, X. Sha, and **J. Ham**. 2010. Control options for rice bacterial panicle blight. Proc. International Rice Conf. of Latin America and the Caribbean 11:48.

Rush, M.C., D. E. Groth, **J. Ham**, and R. Nandakumar. 2010. Bacterial panicle blight causes and suggested controls. International Rice Conf. of Latin America and the Caribbean 11:45.

Ham, J.H., B. Shrestha, H. Karki, X. Sha, D. Groth, H. Utomo, R. Nandakumar, and M.C. Rush. 2010 Development of a genetic mapping and breeding program to develop resistance to the

bacterial panicle blight and sheath blight diseases. Proceedings... 33rd Rice Technical Working Group. p 60.

Ham J. H. 2008. Novel functional motifs of bacterial type III effector: A new insight into the role of small G proteins in plant disease resistance. Pages 33-36 in: *New Approaches to Plant Disease Management*. Korean Society of Plant Pathology.

Annual Reports

Ham, J. H., J.C. Ontoy, J. Bruno, I. K. Barphagha, and D. E. Groth. 2020. Genetic mapping, breeding, and development of new strategies to improve rice disease management for sheath blight and bacterial panicle blight. 112th Annual Research Report of H. Rouse Caffey Rice Research Station (for 2019), p 384 – 394.

Ham, J. H., J.C. Ontoy, J. Bruno, A. Maharjan, I. K. Barphagha, A. N. Famoso, and D. E. Groth. 2019. Genetic mapping, breeding, and development of new strategies to improve rice disease management for sheath blight and bacterial panicle blight. 111th Annual Research Report of H. Rouse Caffey Rice Research Station (for 2018), p 435 – 455.

Groth, D.E., A.F. Famoso, J.H. Oard, H.S. Utomo, I. Wenefrida, D.L. Harrell, M. Kongchum, N. Adotey, **J.H. Ham**, B.E. Wilson, L. Bernaola, J.M. Villegas, M.M. Mulcahy, E.P. Webster, R.E. Zaunbrecher, M.A. Deliberto, and K.A. Fontenot. 2018. 110th Annual Research Report, H. Rouse Caffey Rice Research Station, Louisiana Agricultural Experiment Station, LSU Agricultural Center. (Published online in 2019).

Ham, J. H., A. Maharjan, I. K. Barphagha, A. N. Famoso, and D. E. Groth. 2018. Genetic mapping, breeding, and development of new strategies to improve rice disease management for sheath blight and bacterial panicle blight. 109th Annual Research Report of H. Rouse Caffey Rice Research Station (for 2017), p 343 – 352.

Ham, J. H., I. K. Barphagha, and D. E. Groth. 2017. Genetic mapping, breeding, and development of new strategies to improve rice disease management for sheath blight and bacterial panicle blight. 108th Annual Research Report of Rice Research Station (for 2016), p 296 – 303.

Ham, J. H., B. K. Shrestha, J. Peng, T. Lelis, N. Jungkhun, I. Barphagha, and D. E. Groth. 2016. Genetic mapping, breeding, and development of new strategies to improve rice disease management for sheath blight and bacterial panicle blight. 107th Annual Research Report of Rice Research Station (for 2015), p 269 – 275.

Ham, J. H., B. K. Shrestha, S. Osti, I. Barphagha, and D. E. Groth. 2015. Genetic mapping, breeding, and development of new strategies to improve rice disease management for sheath blight and bacterial panicle blight. 106th Annual Research Report of Rice Research Station (for 2014), p 284 – 290.

Ham, J.H., B. Shrestha, H. Karki, S. Osti, and D. E. Groth. 2014. Genetic mapping and breeding of rice to improve rice disease resistance to bacterial panicle blight and sheath blight. 105th Annual Research Report of Rice Research Station (for 2013), p338 – 357

Ham, J.H., B. Shrestha, H. Karki, and D. E. Groth. 2013. Development of new disease control strategies for bacterial panicle blight and sheath blight. 104th Annual Research Report of Rice Research Station (for 2012), p351 – 354

Ham, J.H., B. Shrestha, H. Karki, and D. E. Groth. 2013. Genetic mapping and breeding of rice to improve rice disease resistance to bacterial panicle blight and sheath blight. 104th Annual Research Report of Rice Research Station (for 2012), p336 – 350.

Ham, J.H., B. Shrestha, H. Karki, D. E. Groth, X. Sha. 2012. Genetic studies to understand and improve rice disease resistance to bacterial panicle blight and sheath blight. 103rd Annual Research Report of Rice Research Station (for 2011), p311 – 320.

Abstracts for Conferences Published in Scientific Journals

J. H. Ham. 2021. Pathogen biology, genetics of disease resistance, and disease management strategies of bacterial panicle blight in the United States. The 2021 Annual Meeting of Korean Society of Plant Pathology.

Calderon, R. and **J. H. Ham.** 2021. Seed treatment effects of soybean-associated beneficial bacteria on microbiomes in soybean plants. The 2021 Annual Meeting of the American Phytopathological Society.

Bruno, J., R. Calderon, and **J. H. Ham.** 2021. Characterization of rhizospheric microbiomes associated with sheath blight resistant and susceptible rice lines. The 2021 Annual Meeting of the American Phytopathological Society.

Calderon, R., C. Jeong, J. Shin, and **J. H. Ham.** 2021. Development of soil amendments enriching the soil microbial community for sustainable soybean cultivation. The 2021 ASA-CSSA-SSSA Annual Meeting.

Padilla, J., R. Calderon, and **J. H. Ham.** 2021. Development of formulation methods for long-term preservation of soybean growth-promoting bacteria. The 2021 ASA-CSSA-SSSA Annual Meeting.

Calderon, R. J. Leonard, and **J. H. Ham.** 2020. Impacts of silicon and sheath blight inoculation on the microbiome of rice rhizosphere. *Phytopathology* 110:S2.112.

Angira, B., Cerioli, T., **Ham, J.H.**, Famoso, A. 2020. Identification, Characterization, and SNP Marker Validation for GS3 and a Novel Grain Shape Gene in U.S. Rice. The 38th Rice Technical Working Group Meeting, Perdido Beach Resort, Orange Beach, AL.

Angira, B., Addison, C., Cerioli, T., Wang, D., **Ham, J.**, Famoso, A. (2019) Identification of Plant Height sd1 Gene SNP Marker for U.S. Rice Using Haplotype Characterization Approach. 2019 ASA-CSSA-SSSA International Annual Meeting. San Antonio. TX.

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Cruz, J., B. Tubana, L. Fultz, **J. Ham,** J. Bamrungrai, M. Dalen, W. Paye, J. Mite, D. Forestieri, H. Mendoza, and D. Mayorga. 2019. Growth promoting potential of silicate-solubilizing bacteria in Louisiana soils. ASA-CSSA-SSSA Annual Meeting, San Antonio, TX.

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Chen, R., I. Barphagha, and **J. H. Ham**. 2011. A genomics study of *Burkholderia glumae* genes regulated by quorum-sensing. *Phytopathology* 101:S264.

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Collmer, A., J. R. Alfano, D. W. Bauer, G. M. Preston, A. O. Loniello, A. Conlin, **J. H. Ham**, H.-C. Huang, S. Gopalan, and S. Y. He. 1996. Secreted proteins, secretion pathways, and the plant pathogenicity of *Erwinia chrysanthemi* and *Pseudomonas syringae*. In *8th International Congress MPMI*, S-49.

Other publications

Ham, J. H. 2021. Seed treatment of Beneficial Bacteria Enhances Soybean Growth and Health. *Louisiana Agriculture* 64(3): 12-13.

Cruz, J., B. Tubana, L. Fultz, and **J. H. Ham**. 2021. Seed treatment of Beneficial Bacteria Enhances Soybean Growth and Health. *Louisiana Agriculture* 64(3): 14-15.

Ham, J. H. 2017. Development of Alternative Strategies to Manage Crop Diseases. *Louisiana Agriculture* 60(3): 28-30.

Ham, J. H. 2015. Breeding for resistance to bacterial panicle blight. *Rice Research Station News* 12 (1): p 3.

Ham, J. H. and D. E. Groth. 2011. Bacterial Panicle Blight: an Emerging Rice Disease. *Louisiana Agriculture* 54: 16-17.

FUNDING HISTORY (Total Amounts Funded: \$2,461,647)

- NIFA AFRI Foundation Program: Deciphering the role of the quorum-sensing master regulator, *qsmR*, in social behaviors of *Burkholderia glumae* for bacterial pathogenesis in rice plants (PI: **Jong Hyun Ham**, Co-PI: Maheshi Dassanayake), **\$682,232** (01/01/2022 – 12/31/2025)
- Louisiana Soybean and Feed Grains Research and Promotion Board Grant: Development of New Biological Agents for Seed Treatment and Biofertilization to Promote Soybean Growth (PI: **Jong Hyun Ham**, co-PI: Changyoon Jeong), **\$32,000** (04/2021 – 03/2022)
- The Land Institute Super Ratooning Rice Program: **\$27,080** (01/2021 – 12/2021)
- United Soybean Board Program: Development of seed-treating microbes to promote soybean health and yield (PI: **Jong Hyun Ham**), **\$92,300** (10/1/2020 – 12/31/2021)
- Louisiana Soybean and Feed Grains Research and Promotion Board Grant: Development of New Biological Agents for Seed Treatment and Biofertilization to Promote Soybean Growth (PI: **Jong Hyun Ham**, co-PI: Changyoon Jeong), **\$25,000** (Requested: \$36,500) (04/2020 – 03/2021)

- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$50,000** (01/2020 – 12/2020)
- Louisiana Soybean and Feed Grains Research and Promotion Board Grant: Development of New Biological Agents for Seed Treatment and Biofertilization to Promote Soybean Growth (**PI: Jong Hyun Ham**, co-PI: Changyoon Jeong), **\$20,000** (04/01/2019 – 03/31/2020)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$56,668** (01/2019 – 12/2019)
- Agricultural Research Development Agency of Thai Government: Training of Thai visiting graduate student (Trainee: Ms. Nootjarin Jungkhun, Ph.D. candidate), **\$5,000** (01/22/2019 – 01/21/2020)
- Louisiana Soybean and Feed Grains Research and Promotion Board Grant: Development of Foliar Treatment and Soil Amendment Methods to Promote Soybean Health (**PI: Jong Hyun Ham**, co-PI: Changyoon Jeong), **\$30,000** (04/01/2018 – 03/31/2019)
- Louisiana Rice Research Board Grant: Development of Seed Treatment Methods to Enhance Rice Health (**PI: Jong Hyun Ham**), **\$32,588** (01/2018 – 12/2018)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$52,338** (01/2018 – 12/2018)
- Economic Development Assistantship: Development of innovative methods to promote soybean growth and health (**PI: Jong Hyun Ham**), **\$100,000** (08/2018 – 08/2022)
- Pusan National University (Pusan, South Korea): A collaborative project with PNU funded by the Korean Government, entitled 'Comparative analyses of genome and in host transcriptome between plant-microbe and insect-microbe interactions to identify new virulence factors and its application', **\$36,000** (04/2017 – 09/2018)
- Louisiana Soybean and Feed Grains Research and Promotion Board Grant: Development of Foliar Treatment and Soil Amendment Methods to Promote Soybean Health (**PI: Jong Hyun Ham**, co-PI: Changyoon Jeong), **\$30,000** (04/2017 – 03/2018)
- Louisiana Rice Research Board Grant: Development of Seed Treatment Methods to Enhance Rice Health (**PI: Jong Hyun Ham**), **\$32,588** (01/2017 – 12/2017)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$52,338** (01/2017 – 12/2017)
- Testing efficacy of seed treatment materials on sheath blight control (Syngenta Inc.) (04/2016 – 09/2016), **\$10,000**
- Testing the efficacy of product on bacterial panicle blight (Gowan Inc.) (04/2016 – 09/2016), **\$5,000**

- Louisiana Soybean and Feed Grains Research and Promotion Board Grant: Development of Foliar Treatment and Soil Amendment Methods to Promote Soybean Health (**PI: Jong Hyun Ham**, co-PI: Changyoon Jeong), **\$30,000** (04/2016 – 03/2017)
- Louisiana Rice Research Board Grant: Development of Seed Treatment Methods to Enhance Rice Health (**PI: Jong Hyun Ham**), **\$29,625** (01/2016 – 12/2016)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$47,580** (01/2016 – 12/2016)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$47,000** (01/2015 – 12/2015)
- Testing the efficacy of product on sheath blight control (Agri-Neo Inc.) (04/2015 – 12/2015): **\$13,200**
- Testing the efficacy of product on sheath blight control (Agri-Neo Inc.) (04/2014 – 12/2014): **\$13,200**
- Testing the efficacy of product on bacterial panicle blight (Syngenta Inc.) (04/2014 – 12/2014): **\$14,400**
- Testing the efficacy of product on bacterial panicle blight (Gowan Inc.) (04/2014 – 12/2014): **\$6,000**
- Training a visiting scholar from Thailand (Rice Department, Bangkok, Thailand) (10/2014 – 09/2015): **\$4,000**
- LA Board of Regent/NSF Pilot Funding for New Initiatives (Pfund) Program. Characterization of rice defense system for disease resistance to bacterial panicle blight (**PI: Jong Hyun Ham**), **\$10,000** (10/01/2014 – 09/30/2015) LEQSF-EPS(2015)-PFUND-405-AA
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PI: Donald Groth), **\$33,777** (01/2014 – 12/2014)
- 2013 USDA Borlaug Fellowship Program (PI: Susan Karimiha, co-PI: **Jong Hyun Ham**), **\$29,009** (9/2013 – 12/2013) (Dr. Dorsaf Yahiaoui from Tunisia).
- Agri-Neo (2013): Bactericide and fungicide efficacy tests, **\$20,400** (04/2013 – 12/2013).
- Marrone Bio Innovations (2013): Bactericide efficacy tests, **\$10,800** (04/2013 – 12/2013).
- Novozyme (2013): Bactericide efficacy tests, **\$3,600** (04/2013 – 12/2013).
- Gowan (2013): Bactericide efficacy tests, **\$5,000** (04/2013 – 12/2013).
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (**PI: Jong Hyun Ham**. Co-PIs: Donald Groth, Xueyan Sha, Prasanta Subudhi, Herry Utomo), **\$37,530** (01/2013 – 12/2013)

- USDA AFRI NIFA Graduate Fellowship: Characterization of a novel negative regulator of toxoflavin production in *Burkholderia glumae* that causes bacterial panicle blight of rice (PI: Rebecca Melanson, PI's mentor: **Jong Hyun Ham**), **\$70,219** (08/2012 – 07/2014)
- Agri-Neo, Inc. (Quebec, Canada): AN-77V2 Greenhouse Seed Treatment Efficacy Test for Rice in Louisiana / AN-77V2 Efficacy and Yield Test for Rice in Louisiana (PI: **Jong Hyun Ham**), **\$10,875** (04/2012 – 09/2012)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (PI: **Jong Hyun Ham**. Co-PIs: Donald Groth, Xueyan Sha, Prasanta Subudhi, Herry Utomo), **\$41,700** (01/2012 – 12/2012)
- Economic Development Assistantship: Genetic Mapping and Characterization of Broad-Spectrum Disease Resistance of Rice (PI: **Jong Hyun Ham**), **\$100,000** (08/2010 – 08/2014)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (PI: **Jong Hyun Ham**. Co-PIs: Donald Groth, Xueyan Sha, Prasanta Subudhi, Herry Utomo), **\$41,700** (01/2011 – 12/2011)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (PI: **Jong Hyun Ham**. Co-PIs: Donald Groth, Xueyan Sha, Prasanta Subudhi, Herry Utomo), **\$30,000** (01/2010 – 12/2010)
- LA Board of Regent/NSF Pilot Funding for New Initiatives (Pfund) Program (submitted: 10/8/2009): Genomewide screening and identification of *Burkholderia glumae* genes controlled by quorum sensing signals (PI: **Jong Hyun Ham**), **\$9,960** (01/2010 – 02/2011) NSF(2010)-PFUND-194
- USDA CSREES AFRI Breeding and Education Program: Marker-assisted breeding to enhance disease resistance in corn, rice, and sugarcane (PI: Prasanta Subudhi. Co-PIs: Collins Kimbeng, Jeff Hoy, **Jong Hyun Ham**, Naranjan Baikash), **\$499,000 (Allocated: \$118,590)** (06/2010 – 02/2015)
- Louisiana Rice Research Board Grant: Characterization and Utilization of Genetic Traits for Resistance to Multiple Diseases of Rice (PI: **Jong Hyun Ham**. Co-PIs: Milton C. Rush, Donald Groth, Xueyan Sha, Prasanta Subudhi, Herry Utomo), **\$21,000** (01/2009 – 12/2009)
- Biotechnology AgCenter Interdisciplinary Team (BAIT) Grant Program: Development of the expression system for antimicrobial and insecticidal defensin-like peptides from rice (PI: **Jong Hyun Ham**. Co-PIs: Milton C. Rush, Mike Stout, Alma Roy, Rangaraj Nandakumar), **\$20,150** (02/2008 – 02/2009)
- Louisiana Board of Regents Research and Development Program (Research Competitiveness Subprogram): Functional genomic analysis of *Burkholderia glumae* pathogenic determinants underlying rice bacterial panicle blight: a globally emerging plant disease (PI: **Jong Hyun Ham**. Co-PIs: Milton C. Rush, Tin-Wein Yu, Rangaraj Nandakumar), **\$107,200** (07/2008 – 06/2012) LEQSF(2008-11)-RD-A-02.
- Economic Development Assistantship Program: Molecular genetic analysis of *Burkholderia glumae*: the causal agent of bacterial panicle blight in rice (PI: **Jong Hyun Ham**), **\$100,000** (08/2008 – 08/2012).

- Flagship Assistantship Program (submitted: 10/2007 along with Drs, Chen and Aime in the name of the Departmental Chair), \$ 60,000 (08/2008 – 08/2012)

OTHER PROFESSIONAL ACTIVITIES

Invited Seminar Presentations and Lectures at Universities and Research Institutes

Federal Rural University of Pernambuco, Recife, Brazil (12/16/2020 & 10/22/2021)

Special Lecture (online, two 1.5-hour lectures)

Title: Genetics of Plant-(Bacterial) Pathogen Interactions

Dept. Biological Sciences, Louisiana State University, Baton Rouge, Louisiana (9/14/2020)

Title: Variations among strains of *Burkholderia glumae* in genetic traits and pathogenic behaviors in rice

Dept. Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, Louisiana (01/29/2020)

Title: The diversity and commonality of quorum-sensing systems among strains of *Burkholderia glumae*: A story of paradigm shift

Federal Rural University of Pernambuco, Recife, Brazil (10/30/2019 & 11/06/2019)

Special Lecture (online, two 1.5-hour lectures):

- 1) Genetics of Plant-(Bacterial) Pathogen Interactions
- 2) Infection, Symptomatology, and Virulence Mechanisms of Bacterial Plant Diseases

Federal Rural University of Pernambuco, Recife, Brazil (10/17/2018 & 10/31/2018)

Special Lecture (online, two 1.5-hour lectures):

- 1) Genetics of Plant-(Bacterial) Pathogen Interactions
- 2) Infection, Symptomatology, and Virulence Mechanisms of Bacterial Plant Diseases

Dept. Biological Sciences, Louisiana State University, Baton Rouge, Louisiana (10/08/2018)

Title: Genetic dissection of the signaling and regulatory systems for the virulence functions of *Burkholderia glumae*

Dept. Plant Pathology and Crop Physiology, Louisiana State University, Baton Rouge, Louisiana (09/26/2018)

Title: The systems studies of bacterial panicle blight of rice in the Phytopathology Lab

Federal Rural University of Pernambuco, Recife, Brazil (05/14/ - 05/19/2018)

Special Lecture Series: Analysis of Bacterial Genome Sequences (9 hours of lecture to graduate students, post-docs, and professors)

Federal University of Vicosa (Universidade Federal de Viçosa), Viçosa, Brazil (03/13/2018)

Title: Basic and applied studies on bacterial panicle blight of rice

(Remote video seminar presentation, also broadcasted to University of Kentucky and University of Florida)

Korea University in Seoul, Korea (10/19/2017)

Title: The signaling and regulatory system of *Burkholderia glumae*

Kangwon National University, Chunchun, Korea (10/18/2017)

Title: The signaling and regulatory systems of the rice pathogenic bacterium, *Burkholderia glumae*

Pusan National University, Busan, Korea (10/17/2017)

Title: The signaling and regulatory system of *Burkholderia glumae* for pathogenesis, competition, and survival

Dong-A University, Busan, Korea (10/16/2017)

Title: The intercellular signaling system of the rice pathogenic bacterium, *Burkholderia glumae*

University of Carthage & the National Agronomy Institute of Tunis in Tunisia (10/05/2016) (**Title:** Development of alternative strategies to manage bacterial plant diseases)

Federal Rural University of Pernambuco (UFRPE) (02/17/2016) (**Title:** Signaling and regulatory mechanisms of the rice pathogenic bacterium *Burkholderia glumae* for its pathogenesis, competition, and survival)

The Citrus Research and Education Center (11/30/2015) (**Title:** Signaling and regulatory components of the rice pathogenic bacterium, *Burkholderia glumae*)

Dept. Plant Pathology, University of Florida (12/01/2015). (**Title:** The intercellular communication and global regulatory systems of the rice pathogenic bacterium, *Burkholderia glumae*, involved in pathogenesis, competition, and survival)

Rice Tec Inc. Alvin, Texas (07/16/2015) (**Title:** Genetic and genomic studies of major rice diseases in the southern United States)

Dept. Plant Pathology, Federal University of Vicosa (Universidade Federal de Viçosa), Brazil (11/12/2013) (**Title:** The signaling and regulatory systems of the rice pathogenic bacterium, *Burkholderia glumae*).

Dept. Biological Sciences, Louisiana State University, Baton Rouge, Louisiana (9/24/2012) (**Title:** Genetic and genomic approaches to understand the regulatory mechanism of *Burkholderia glumae*: an emerging pathogenic bacterium causing bacterial panicle blight of rice)

University of Massachusetts, Amherst, Massachusetts (4/10/2012) (**Title:** Genetic and genomic approaches to gain new insights into the virulence mechanism of *Burkholderia glumae*: an emerging rice pathogenic bacterium causing bacterial panicle blight)

Texas A and M University, College Station, Texas (3/28/2012) (**Title:** Current research progress on bacterial panicle blight of rice: An emerging threat to rice production)

University of Arkansas, Fayetteville, Arkansas (1/31/2012) (**Title:** A current outlook on the study of bacterial panicle blight of rice and its causal agent, *Burkholderia glumae*)

College of Natural Sciences, Wonkwang University, Iksan, Korea (5/20/2009) (**Title:** Virulence Factors of the Two Bacterial Plant Pathogens, *Pantoea stewartii* and *Burkholderia glumae*)

National Institute of Agricultural Science and Technology, Suwon, Korea (5/19/2009) (**Title:** Biological activities of WtsE: An AvrE-family type III effector protein of *Pantoea stewartii* subsp. *stewartii*)

College of Natural Science, Gyeongsang National University, Jinju, Korea (5/18/2009) (**Title:** Biological activities of WtsE: An AvrE-family type III effector protein of *Pantoea stewartii* subsp. *stewartii*)

College of Life Sciences, Korea University, Seoul, Korea (10/29/2008) (**Title:** Novel functional motifs of bacterial type III effector: A new insight into the role of small G proteins in plant disease resistance)

College of Applied Sciences, Jeju National University, Jeju, Korea (10/28/2008) (**Title:** Novel functional motifs of bacterial type III effector: A new insight into the role of small G proteins in plant disease resistance)

College of Agriculture and Life Sciences, Seoul National University, Seoul, Korea (10/20/2008) (**Title:** Novel functional motifs of bacterial type III effector: A new insight into the role of small G proteins in plant disease resistance)

Louisiana State University Agricultural Center, Baton Rouge, Louisiana (6/4/2007) (**Title:** Virulence Activities of Two Bacterial Proteins, HopM1 and WtsE: Modulators of Host G-Protein Signaling)

University of California-Riverside, Riverside, California (2/19/2007) (**Title:** Virulence Activities of Two Bacterial Proteins, HopM1 and WtsE: Modulators of Host G-Protein Signaling)

University of California-Riverside, Riverside, California (3/20/2006) (**Title:** Biological Activities of the AvrE-Family Effector Proteins from Bacterial Plant Pathogens)

Washington State University, Pullman, Washington (7/13/2005) (**Title:** Biological Activities of the AvrE-Family Effector Proteins from Bacterial Plant Pathogens)

Invited Presentations at National and International Scientific Conferences and Workshops

2021 The.2019 Annual American Society of Agronomy/Crop Science Society of America Meetings (*Pre-recorded for 11/10/2021*)
(**Title:** Development of formulation methods for long-term preservation of soybean growth-promoting bacteria)

2021 Annual Meeting of the Korean Society of Plant Pathology (*a key note speaker at the plenary session, 4/23/2021*)
(**Title:** Pathogen biology, genetics of disease resistance, and disease management strategies of bacterial panicle blight in the United States)

51st Brazilian Congress of Phytopathology, Recife, Brazil (*a key note speaker at the plenary session, 08/26/2019*)
(**Title:** The signaling and regulatory system of the rice pathogenic bacterium *Burkholderia glumae*)

11th International Congress of Plant Pathology, Boston, USA (08/01/2018)
(**Title:** Diversity of the rice pathogenic bacterium *Burkholderia glumae* in virulence, regulatory system, and genome structure associated with genomic islands) *Invited for presentation at the special session 'Accessory Genomes, Genome Islands, and Dispensable Chromosomes Fuel Rapid Adaptations in Plant Pathogens'*

2018 American Chemistry Society National Meeting, New Orleans, LA (03/18/2018)
(**Title:** Influence of biochar and poultry manure on the soil microbial community of soybean field)

37th Meeting of Rice Technical Working Group, Long Beach, CA (02/20/2018)
Panel: Plant Breeding and Genetics
(**Title:** Development of biological agents that promote rice health and growth)

2015 Annual Meeting of American Phytopathological Society, Pasadena, CA (08/04/2015)
(**Title:** Identification of genomic variants of rice associated with disease resistance to sheath blight and bacterial panicle blight through NGS sequencing)

2014 Annual Meeting of the American Phytopathological Society (8/10/2014, Minneapolis, MN)
(**Title:** An RNA-sequencing analysis implicates the presence of multiple cell-to-cell signaling pathways in the rice pathogenic bacterium, *Burkholderia glumae*)

2014 TM's 3rd World Molecular & Cell Biology Online Conference (2/28/2014) (**Title:** The intercellular signaling systems for the virulence of the rice pathogenic bacterium *Burkholderia glumae*)

2014 35th Meeting of Rice Technical Working Group (2/19/2014, New Orleans, LA) Panel: Plant Breeding and Genetics (**Title:** Development of new rice lines showing broad disease resistance to bacterial panicle blight and sheath blight)

2013 OMICS Group International Congress on Bacteriology and Infectious Diseases, Baltimore, MD (11/20 – 11/22/2013) (**Title:** Intercellular and intracellular signaling systems of the rice pathogenic bacterium *Burkholderia glumae*)

2013 Korean Society of Plant Pathology International Symposium, Sunchon, Korea (10/18/2013) (**Title:** Regulation of the virulence gene expression in the rice pathogenic bacterium, *Burkholderia glumae*)

2013 The 10th International Congress of Plant Pathology. Beijing, China (8/30/2013) (**Title:** A brief overview on bacterial panicle blight of rice and its causal agent *Burkholderia glumae*)

2012 Annual Meeting of American Phytopathological Society in Providence, Rhode Island (8/8/2012) (**Title:** The global regulatory network for the virulence of *Burkholderia glumae*, the major causal agent of bacterial panicle blight of rice)

2012 34th Meeting of Rice Technical Working Group (2/27/2012) Certified Crop Advisor Session (**Title:** Genetic mapping and breeding programs to understand and improve rice disease resistance to bacterial panicle blight)

2008 Korean Society of Plant Pathology International Symposium and Annual Meeting, Muju, Korea (10/24/2008) (**Title:** Novel functional motifs of bacterial type III effector: A new insight into the role of small G proteins in plant disease resistance)

Invited Presentations at Regional Conferences and Meetings

2021 Louisiana Agricultural Technology & Management Conference (2/11/2021)

Title: Bacterial Panicle Blight: Biology of Pathogen, Disease Resistance, and Disease Management

2020 Louisiana Soybean and Feed Grains Research and Promotion Board Meeting (11/20/2020)

Title: Development of new biological agents for seed treatment and biofertilization to promote soybean growth

2020 Louisiana Rice Research Board Meeting, Rice Research Station (11/05/2020)

Title: Characterization and utilization of genetic traits for resistance to multiple diseases of rice

2019 Louisiana Soybean and Feed Grains Research and Promotion Board Meeting (11/21/2019)

Title: Development of new biological agents for seed treatment and biofertilization to promote soybean growth

2019 Louisiana Rice Research Board Meeting, Rice Research Station (11/07/2019)

Title: Characterization and utilization of genetic traits for resistance to multiple diseases of rice

2018 Louisiana Soybean and Feed Grains Research and Promotion Board Meeting (11/16/2018)

Title: Development of new biological agents for seed treatment and biofertilization to promote soybean growth

2018 Louisiana Rice Research Board Meeting, Rice Research Station (11/01/2018)

Title: Characterization and utilization of genetic traits for resistance to multiple diseases of rice

2018 Louisiana Rice Research Board Meeting, Rice Research Station (11/01/2018)

Title: Development of seed treatment methods to enhance rice health

2017 Louisiana Soybean and Feed Grains Research and Promotion Board Meeting (11/16/2017)

Title: Development and foliar treatment and soil amendment methods to promote soybean health

2017 Louisiana Rice Research Board Meeting, Rice Research Station (10/31/2017)

Title: Characterization and utilization of genetic traits for resistance to multiple diseases of rice

2017 Louisiana Rice Research Board Meeting, Rice Research Station (10/31/2017)

Title: Development of seed treatment methods to enhance rice health

2016 Louisiana Soybean and Feed Grains Research and Promotion Board Meeting (11/17/2016)

Title: Development and foliar treatment and soil amendment methods to promote soybean health

2016 Louisiana Rice Research Board Meeting, Rice Research Station (11/11/2016)
Title: Characterization and utilization of genetic traits for resistance to multiple diseases of rice

2016 Louisiana Rice Research Board Meeting, Rice Research Station (11/11/2016)
Title: Development of seed treatment methods to enhance rice health

2015 Louisiana Soybean and Feed Grains Research and Promotion Board Meeting (11/19/2015)
Title: Development and foliar treatment and soil amendment methods to promote soybean health

2015 Louisiana Rice Research Board Meeting, Rice Research Station (11/04/2015)
Title: Characterization and utilization of genetic traits for resistance to multiple diseases of rice

2015 Louisiana Rice Research Board Meeting, Rice Research Station (11/04/2015)
Title: Development of seed treatment methods to enhance rice health

2015 3rd LA Conference on Computational Biology and Bioinformatics, Baton Rouge, Louisiana (04/18/2015) (**Title:** The intercellular signaling systems for the virulence of the rice pathogenic bacterium, *Burkholderia glumae*)

2014 Louisiana Rice Research Board Meeting, Rice Research Station (11/04/2014) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

2013 Louisiana Rice Research Board Meeting, Rice Research Station (10/29/2013) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

First GeneLab Workshop on NGS and Bioinformatics, LSU School of Veterinary Medicine, Baton Rouge, Louisiana (6/14/2013) (**Title:** Application of high-throughput sequencing to the study of the plant pathogenic bacterium, *Burkholderia glumae*: New opportunities and barriers)

2013 APS Southern Division Meeting, Baton Rouge, LA (2/9/2013) (**Title:** The Complex regulatory and signaling network for the virulence of the rice pathogenic bacterium *Burkholderia glumae* revealed by various molecular genetic and genomic studies)

2012 Louisiana Rice Research Board Meeting, Rice Research Station (10/30/2012) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

Louisiana State University Agricultural Center (Departmental Seminar: 4/4/2012) (**Title:** Research on bacterial panicle blight of rice at the Department of Plant Pathology and Crop Physiology: Its past, present and future)

2012 APS Southern Division Meeting, Birmingham, AL (2/6/2012) Symposium: Bacterial Plant Pathogens and Antagonists (**Title:** Genetic dissection of the regulatory network that controls virulence genes of *Burkholderia glumae*)

2011 APS Southern Division Meeting, Corpus Christi, TX (2/7/2011) (**Title:** Molecular genetic and genomic studies on bacterial panicle blight of rice and its causative agent *Burkholderia glumae*)

2011 Louisiana Rice Research Board Meeting, Rice Research Station (10/25/2011) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

2010 Louisiana Rice Research Board Meeting, Rice Research Station (11/16/2010) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

2009 Louisiana Rice Research Board Meeting, Rice Research Station (11/10/2009) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

2009 LSU Agricultural Center BAIT Conference (10/22/2009) (**Title:** Development of the expression system for antimicrobial and insecticidal defensin-like proteins from rice)

Louisiana State University Agricultural Center (Departmental Seminar: 12/3/2008) (**Title:** A brief overview of current research topics in the Phytobacteriology laboratory)

2008 Louisiana Rice Research Board Meeting, Rice Research Station (11/6/2008) (**Title:** Characterization and utilization of genetic traits for resistance to multiple diseases of rice)

Organization/Moderation of Special Seminars, Meetings and Sessions

Special seminars by Dr. Winston Ruiz and Mr. Renzo Valdez (University of San Martin, Peru) (11/13/2018)

Title: Research activities on rice diseases in University of San Martin, Peru

2018 International Congress of Plant Pathology (to be held in Boston, MA, from 07/29 – 08/03/2018): Invited to serve as the organizer for the session entitled 'Development of innovative management strategies for economically important bacterial diseases'

Special seminars by Drs. Marco Da Gama and Delson Larajeira (Federal Rural University of Pernambuco, Brazil) (04/20/2017) (**Title:** Current status of Anacardiaceae angular leaf spot in Brazil / Alternatives to chemical control in Northeast Brazil)

Special seminar by Dr. Dae-Jin Yun (01/26/2015) (**Title:** Biological function of genes involved in plant stress adaptation)

2015 Annual Meeting of the American Phytopathological Society (08/04/2015): Served as the co-organizer for the special session, *Life Beyond the Plant: Bacterial Wars* (Three invited speakers)

2014 Annual Meeting of the American Phytopathological Society (8/10/2014): Served as the moderator for the technical session, *Phytobacteriology* (Five invited speakers).

2014 TM's 3rd World Molecular & Cell Biology Online Conference (2/28/2014): Served as the session chair for the session 'General Biochemistry III' (Four invited speakers)

2012 APS-Southern Division Meeting (2/5/2012 – 2/6/2012, Birmingham, Alabama): Served as the organizer and moderator of the Symposium "Bacterial Plant Pathogens and Antagonists" (Five invited speakers)

2012 APS Meeting (8/4/2012 – 8/8/2012, Providence, Rhode Island): Serve as the co-organizer and moderator for the special session “New Insights into the Virulence Mechanism of Plant-Pathogenic Bacteria” (Six invited speakers).

Special seminar by Dr. Yong Chul Jeun (4/18/2011) (**Title:** Biological control using microorganisms on citrus diseases in Jeju Island (# of attendees: 22)

Meeting between Korean visiting scientists and LDAF and USDA officers (4/19/2011) (**Agenda:** Exchanging information about citrus diseases and citrus industries in Jeju Island and Louisiana) (**Attendees:** Yong Chul Jeun (Jeju University, Jeju, Korea), Jae Uk Hyun (Citrus Research Station of Rural Development Agency, Jeju, Korea), Philip J. Staudermann (USDA, Baton Rouge, LA), Tad N. Hardy (LDAF, Baton Rouge, LA), Ansel Rankins, Sr. (LDAF, Baton Rouge, LA), Donald Ferrin (LSU AgCenter, Baton Rouge, LA), Jong Hyun Ham (LSU AgCenter, Baton Rouge, LA)

Memberships and services in Professional Organizations

President of the Bacteriology Committee of the American Phytopathological Society (2014 – 2015) (*elected*)

Vice president of the Bacteriology Committee of the American Phytopathological Society (2013 – 2014) (*elected*)

Member of APHIS Widely Prevalent Bacteria Committee (2015 -) (*invited*)

Member of American Phytopathological Society (1994 – present)

Member of APS Bacteriology Committee (2008 – present)

Member of American Phytopathological Society Southern Division (2008 – present)

Member of Korean Society of Plant Pathology (1990 – 1992, 2008 - present)

Awards

Tifton Team Research Award (2015)

Louisiana State University Tiger Athlete Foundation Teaching Award (2015)

Oomycetes Genomics Workshop Travel Award (2011)

LSU Inter-Institutional Biological and Recombinant DNA Safety Committee Recognition Award (2010)

LSU AgCenter Travel Grant for USDA CSREES Integrated Competitive Programs Grantsmanship Workshop (2008)

Korean Government Overseas Scholarship Award (1992)

Korea University Graduate School Scholarship Award: First place among graduate students major in science and engineering fields (1989)

Patent

Bauer, D. W., S. V. Beer, A. J. Bogdanove, A. Collmer, and J. H. Ham. 2003. Recombinant constructs and systems for secretion of proteins via type III secretion systems. U.S. Patent 6,596,509. Issued July 22, 2003.

Disclosure by the LSU AgCenter Intellectual Property Office

Ham, J. H. and B. K. Shrestha. 2011. Bacterial pathogen control in rice. (Ag-1117, Ag-1118)

MENTORING AND SUPERVISING

1. Graduate Students

Major advisor of:

- Bishnu K. Shrestha (6/2008 – 12/2014), Ph. D. program (received M. S. degree in 12/2011 and Ph.D. degree in 12/2014)
- Hari S. Karki (8/2008 – 12/2013), Ph. D. program (received M.S. degree in 12/2010 and Ph. D. degree in 12/2013)
- Rebecca A. Melanson (8/2008 – 12/2014), Ph. D. program (received M. S. degree in 12/2011 and Ph.D. degree in 12/2014)
- Ruoxi Chen (8/2008 – 12/2013), Ph. D. program (received M.S. degree in 12/2011 and Ph. D. degree in 12/2013)
- Felix Francis (8/2010 – 5/2012), M. S. program (received M.S. degree in 6/2012)
- Maria Caldera (8/2011 – 5/2014), M. S. program (co-advising with Dr. Raghuwinder Singh)
- Surenda Osti (6/2012 – 12/2014), M. S. program (received M.S. degree in 12/2014)
- Jingyu Peng (8/2013 – 12/2015), M. S. program
- Cecilia Freitas (8/2014 – 5/2015), Ph. D. program (*transferred to Ohio State University*)
- Tiago Lelis (8/2014 – 08/2019), Ph. D. program
- Usha Bhatta (1/2016 – 12/2016) Ph. D. program (*transferred to University of Georgia*)
- Rosalie Calderon (8/2016 – present) Ph. D. program
- Ateet Marhajan (8/2016 – 08/2019) M. S. program
- Isaack Kikway (01/2017 – 06/2017) Ph. D. program (*transferred to North Carolina State University*)
- Jhonson Leonard (08/2017 – 08/2019) M.S. program
- John Christian Ontoy (01/2018 – present), Ph.D. program (received M.S. degree in 8/2021)
- Jobelle Bruno (01/2019 – present), M.S. program
- Jonas Padilla (01/2021 – present), M.S. program
- Jhonson Leonard (06/2021 – present), Ph.D. program

Member of graduate committees for:

Jeff West (Dept. Biological Science, Ph.D. student) 2008 - 2009
Freddy Garces (Dept. PPCP, Ph.D. student) 2007 – 2011
Dongli Wang (Dept. Biological Sciences, Ph.D. student) 2010 – 2011
Washington da Silva (Dept. PPCP, MS student) 2011 – 2013
James Young (Dept. PPCP, MS student) 2011
Andres Gutierrez Viveros (Dept. PPCP, M.S. student) 2012 – 2014
Surasak Khankhum (Dept. PPCP, Ph.D. student) 2012 – present
Ben Meritt (School of Plant Environment and Soil Sciences, Ph.D. student) 2014 - present
Dominique Clark A. Galam (School of Plant Environment and Soil Sciences, Ph.D. student) 2015 – present
Adam Bigott (Dept. PPCP, MS student) 2015 – 2017
Blake Wilson (Entomology, PhD) 2016 (defense date: 3/30/2016)
Robert J. DiMario (Biological Sciences, PhD) 2016 (defense date: 3/2016)
Isaak Kikway (PPCP, MS) co-advisor (5/2016 – 12/2016)
Pradip Panta (Dept. Biological Sciences, Ph.D.) 2016 – present
Addison Topher (SPESS, Ph.D.) 2017- present
Natasha Soares (Biological Sciences, Ph.D.) 2018 – present
Asif Iqbal (Biological Sciences, Ph.D.) 2018 – present

2. Professionals

- Inderjit Kauer Barphagha (M. S.), Research Associate (3/2008 – present)
- Jung Nam Lee, Postdoctoral Fellow (1/2009 – 6/2009, currently Research Professor in Dankook University in Korea)
- Tiyaikhon Chatnaparat, Intern Research Associate (From Dept. Plant Pathology, Kasetsart University, Bangkok, Thailand)(5/2008 – 8/2008)
- Pavinee Suttiviriya, Intern Research Associate (Dept. Genetics, Kasetsart University, Bangkok, Thailand)(5/2009 – 8/2009)
- Eng-Orn Srikeaw, Intern Research Associate (Dept. Genetics, Kasetsart University, Bangkok, Thailand)(5/2010 – 8/2010)
- Rachadapron Keawwan, Intern Research Associate (Dept. Plant Pathology, Kasetsart University, Bangkok, Thailand)(5/2011 – 8/2011)
- Daniel Forestieri (Agricultural Science and Production Program, Zamorano University, Zamorano, Honduras)(1/2013 – 4/2013)

- Dr. Dorsaf Yahiaoui (Technical Center of Citriculture, Tunisia)(9/2013 – 12/2013) (Borlaug Fellowship Program 2013 – North Africa)
- Katherine N. Rubio (Zamorano University, Honduras) (Visiting period: 05/2014 – 07/2014)
- Nootjarin Jungkhun (Chiangrai Rice Research Center, Chiangrai, Thailand) (Visiting period: 10/2014 – 09/2015)
- Chaithath Boonjan (Chulalongkorn University, Bangkok, Thailand) (Visiting period: 08/2015 – 10/2015)
- Elder Villanueva (Universidad Nacional de Agricultura, Olancho, Honduras) (10/2015 – 12/2016)
- Pablo Vargas (Zamorano University, Honduras) (Visiting period: 5/2016 – 12/2016)
- Min-kyu Kang (Kangwon National University, South Korea) (05/2017 – 08/2017)
- Soheila Zarbafi (University of Guilan, Iran) (07/2017 – 12/2017)
- Subbaiah Chalivendra (02/2018 – 09/2019): Research Professor
- Winston Ruiz (National University of San Martin, Peru) (11/2018): Visiting scientist
- Renzo Valdez (National University of San Martin, Peru) (11/2018): Visiting scientist
- Roberto Farias (Federal Rural University of Pernambuco, Brazil) (11/2018 – 10/2019): Intern Ph. D. Student
- Nootjarin Jungkhun (Dept. Plant Pathology, Kasetsart University, Bangkok, Thailand) (1/2019 – 12/2019): Visiting Ph.D. student
- Youn-Je Park (Dept. Food Science and Technology, Kong-ju National University, Yesan, South Korea)(8/2019 – 7/2020): Visiting professor
- Marco Gama (Federal Rural University of Pernambuco)(9/2021 – present): Visiting professor

3. Undergraduate Students

- Samjhauta Wagle, Major in Biology (01/2010 – 08/2011)
- Daniel Whitman, Pre-Med and Major in Biology (01/2009 – 08/2009)
- Mia Casabat, Major in Biological Engineering (8/2019 – present)

4. High/Middle School Students

- Brad Fraizer (John Curtis Christian School, River Ridge, LA) (07/2012)
- Carlie Whitty (Kenilworth Science and Technology Charter School) (09/2014 – 12/2014)

Theses/Dissertations Directed

John Ontoy. 2021. Genetic Characterization of Resistance to Bacterial Panicle Blight and Sheath Blight in Rice Using QTL linkage analysis and QTL-seq

Tiago Lelis. 2019. Characterization of the integrated signaling network of *Burkholderia glumae* for the regulation of virulence-related functions in the bacterial pathogenesis of rice plants. Ph.D. dissertation

Ateet Maharjan. 2019. Development of biological tools to promote rice health and growth. M.S. thesis

Jhonson Leonard. 2019. Effect of silicon and beneficial bacteria on sheath blight of rice and the microbial community of rice rhizosphere. M.S. thesis

Jingyu Peng. 2015. Genetic and transcriptomic analyses of the rice pathogenic bacterium, *Burkholderia glumae*, reveal the important roles of the regulatory gene, *tepR*, for bacterial survival in environmental stresses. M.S. thesis

Bishnu Shrestha. 2014. Genetics and genomics studies of rice disease resistance and development of alternative disease management methods for bacterial panicle blight and sheath blight. Ph.D. dissertation

Rebecca Melanson. 2014. Characterization of a novel negative regulator of toxoflavin production, *ntpR*, in the plant pathogen *Burkholderia glumae* that causes bacterial panicle blight of rice. Ph.D. dissertation

Surendra Osti. 2014. Characterization of a sigma 54-dependent response regulator, *tepR*, in the rice-pathogenic bacterium *Burkholderia glumae* and development of biocontrol strategies for bacterial panicle blight of rice. M.S. thesis

Chen, Ruoxi. 2013. Integrated functional analysis of quorum-sensing in the rice pathogenic bacterium *Burkholderia glumae*. Ph.D. dissertation

Karki, Hari S. 2013. A genetic study on the virulence mechanism of *Burkholderia glumae* and rice resistance to bacterial panicle blight of rice. Ph.D. dissertation

Francis, Felix. 2012. Comparative genomics, transcriptome analysis, and characterization of selected regulatory genes of *Burkholderia glumae*. M. S. Thesis

Melanson, R. A. 2011. A systematic study of *Xylella fastidiosa* strains isolated from pecan, grapevine, oleander, and sycamore in Louisiana. M. S. Thesis

Chen, Ruoxi. 2011. A molecular genetic study on the TofI/TofR quorum-sensing system of *Burkholderia glumae*: The major pathogen that causes bacterial panicle blight of rice. M. S. thesis

Shrestha, Bishnu K. 2011. Characterization and utilization of rice defense system associated with partial resistance to bacterial panicle blight: An emerging rice disease problem in the southern United States. M. S. Thesis

Karki, Hari S. 2010. Physiological, biochemical and molecular characteristics associated with virulence of *Burkholderia glumae*: The major causative agent of bacterial panicle blight of rice. M. S. Thesis

TEACHING ACTIVITIES

Major Course (PLHL 7011 Phytobacteriology, 4 credit hours)

2009 Spring (8 students enrolled): overall SPOT score 4.72 (CoA average: 4.03)

2011 Spring (13 students enrolled): overall SPOT score 4.70 (CoA average: 4.08)
2013 Spring (11 students enrolled): overall SPOT score 4.53 (CoA average: 4.07)
2015 Spring (12 students enrolled): overall SPOT score 4.36 (CoA average: 4.20)
2017 Spring (8 students enrolled): overall SPOT score 4.86 (CoA average: 4.20)
2019 Spring (8 students enrolled): overall SPOT score 4.15 (CoA average: 4.45)
2021 Spring (10 students enrolled): overall SPOT score 4.87 (CoA average: 4.41)

Other Courses Taught/Organized

PLHL7080 Host-parasite interactions: Guest lecture 3 hrs, 2008 Spring
PLHL4000 Introductory Plant Pathology: Guest lecture (3 lecture hrs), 2008 Fall
PLHL4001 Plant Disease Management: Guest lecture (3 lecture & 3 lab hrs), 2009 Spring
PLHL4001 Plant Disease Management: Guest lecture (3 lecture hrs), 2010 Spring
PLHL4000 Introductory Plant Pathology: Guest lecture (3 lecture & 3 lab hrs), 2010 Fall
PLHL4001 Plant Disease Management: Guest lecture (3 lecture hrs), 2011 Spring
PLHL4001 Plant Disease Management: Guest lecture (3 lecture hrs), 2012 Spring
PLHL4000 Introductory Plant Pathology: Guest lecture (3 lecture & 3 lab hrs), 2012 Fall
PLHL7052 Plant Pathology and Crop Physiology Seminar Series, 2012 Fall
PLHL7052 Plant Pathology and Crop Physiology Seminar Series, 2013 Spring
PLHL4000 Introductory Plant Pathology: Co-lecturer (8 lecture & 6 lab hrs). 2016 Fall
PLHL4000 General Plant Pathology. Team teaching with Drs. Edward McGawley, Rodrigo Valverde, and Sara Thomas-Sharma. 9 lecture hr and 6 lab hr. 2018 Fall
PLHL7080 Host-parasite interactions: Guest lecture 6 hrs. 2020 Spring

Service Activities for Teaching

Provided an informal lecture to the four graduate students and one research associate in my laboratory on basic molecular biology and DNA manipulation techniques (8/2008 – 1/2009, 1 – 2 hr/week)(Text book used: Gene Cloning and Manipulation 2nd Ed.(2007), by C. Howe, Cambridge Univ. Press).

Established a bi-weekly journal club for the graduate students (currently 5) and one research associate in my laboratory (8/2008 – 8/2009).

Publication for Teaching

Melanson, R. A. and J. H. Ham. 2017. Virulence factors produced by plant pathogenic bacteria (Chapter 19, p 305 - 318). In *Plant Pathology: Concepts and Laboratory Exercises, Third Edition*. Robert N. Trigiano and Bonnie Ownley, Eds. Taylor and Francis Group, LLC.

Meetings and Conferences on Teaching

2017 LSU Faculty Colloquium and Workshop: 'Small Teaching: From Minor Changes to Big Learning' (01/05/2017)

2016 LSU Faculty Colloquium and Workshop: 'Building a Better Lecture' (01/07/2016)

LSU College of Agriculture, Dean's Teaching Conference (1/2009, 1/2011, 1/2013, 1/2014)

Teaching Award

Tiger Athlete's Foundation Teaching Award (05/05/2015)