Dr. Claudia Husseneder

Professor (100% Research Appointment)

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Professional Experience

2013-pres.	Professor, Entomology, Louisiana State University Agricultural Center (100% Research)
2008-2013	Associate Professor, Entomology, Louisiana State University Agricultural Center (100% Research)
2003-2008	Assistant Professor, Entomology, Louisiana State University Agricultural Center (100% Research)
1998-2003	Research Scientist, Plant & Environmental Protection Sciences, Univ. of Hawaii
1994-1998	Research Assistant, Dept. of Animal Physiology, Univ. of Bayreuth, Germany

Education

07/14/1998	Doctor of Natural Sciences (Ph.D.)	University of Bayreuth, Germany
05/13/1994	Diploma Biology (M.S.)	University of Bayreuth, Germany
04/11/1990	Pre-diploma Biology (B.S.)	University of Bayreuth, Germany

Research and Creative Activity

❖ *Listings of research publications (published items only)*

- *Shorter works (invited reviews, chapters or essays in books)*

1. Vargo, E. L. and **Husseneder, C.** 2011. Genetic structure of termite colonies and populations. In: *Biology of termites: A modern synthesis*. Bignell, D., Roisin, Y., and Lo, N. (eds.). Springer, Dordrecht, Heidelberg, London, New York. p. 321-347.
2. Vargo, E. L., and **Husseneder, C.** 2009. Biology of subterranean termites: Insights from molecular studies of *Reticulitermes* and *Coptotermes*. Annu. Rev. Entomol. 54: 379-403. Impact Factor 13.73
3. **Husseneder, C.**, and Collier, R. E. 2009. Paratransgenesis for termite control. In: *Insect Symbiosis* Vol. 3. Bourtzis, K. and Miller, T.A. (eds.). CRC Press LLC, Boca Raton, Florida. p. 361-376.
4. **Husseneder, C.**, Vargo, E. L., and Grace, J. K. 2003. Molecular genetic methods: New approaches to termite biology. In: *Wood deterioration and preservation: advances in our changing world*. Goodell, B., Nicholas, D. D., and Schultz, T. P. (eds.). Oxford University Press. p. 358-371.

- *Articles in refereed journals or bulletins*

1. **Husseneder, C**., Donaldson, J. R., and Foil, L. D. 2016. Impact of the 2010 Deepwater Horizon oil spill on population size and genetic structure of horse flies in Louisiana marshes. Nature Scientific Reports 6:18968; DOI: 10.1038/srep18968 Impact Factor 5.58.
2. **Husseneder, C.**, Donaldson, J. R., and Foil L. D. 2016. Genetically Engineered Yeast Expressing a Lytic Peptide from Bee Venom (Melittin) Kills Symbiotic Protozoa in the Gut of Formosan Subterranean Termites. PLoS ONE 11(3): e0151675. DOI:10.1371/journal.pone.0151675 Impact Factor 3.06.
3. Tikhe, C., Martin, T., Howells, A., Delatte, J., and **Husseneder, C**. 2016. Assessment of genetically engineered *Trabulsiella odontotermitis* as a 'Trojan Horse' for paratransgenesis in termites. BMC Microbiology 16(1):202. DOI: 10.1186/s12866-016-0822-4 Impact Factor 3.10.
4. Carvajal-Aldaz Guice, D. G., […], **Husseneder, C.** et al. 2016. Simultaneous delivery of antibiotics neomycin and ampicillin in drinking water inhibits fermentation of resistant starch in rats. Molecular Nutrition & Food Research. doi: 10.1002/mnfr.201600609. Impact factor: 4.55.
5. Chouvenc, T. Li, H.-F. […], **Husseneder, C**, et al. 2016. Revisiting Coptotermes (Isoptera: Rhinotermitidae): a global taxonomic roadmap for species validity and distribution of an economically important subterranean termite genus. Systematic Entomology. Impact Factor 2.78.

6. Tikhe, C. V., Sethi, A., Delatte, J., and **Husseneder, C**. 2015. Isolation and assessment of gut bacteria from the Formosan subterranean termite, *Coptotermes formosanus* (Isoptera: Rhinotermitidae), for paratransgenesis research and application. Insect Sci. 10/2015; DOI:10.1111/1744-7917.12282. Impact Factor 2.14.
7. Taylor, R., Ediger, E. F., Lehman-Schletewitz,, J., McClane, N. W., Schweigert, K. C., Alzweideh, S. M., Wadsworth, L., **Husseneder, C**., Morris, J. W., and Ziesmann, J. 2015. Compound eye formation in the termite *Incisitermes minor* (Isoptera: Kalotermitidae). Development Genes and Evolution. DOI 10.1007/s00427-015-0507-2. Impact Factor 2.44.
8. Tikhe, C., Martin, T., Gissendanner, C., and **Husseneder, C**. 2015. Complete genome sequence of *Citrobacter* phage CVT22 isolated from the gut of the Formosan subterranean termite, *Coptotermes formosanus* Shiraki. Genome Announcements 3, e00408-15. DOI: 10.1128/genomeA.00408-15.
9. Patil, S. P., Salunkhe, R. C., Patil, R. H., **Husseneder, C.,** Shouche, Y. S., and Ramana, V. V. 2015. *Enterobacillus tribolii* gen. nov., sp. nov., a novel member of the family Enterobacteriaceae, isolated from gut of a red flour beetle, *Tribolium castaneum*. A. van Leeuw. J. Microbiol. 107: 1207-1216. DOI: 10.1007/s10482-015-0412-8. Impact Factor 1.81.
10. **Husseneder, C.** and Simms, D. M. 2014. Effects of caste on the expression of genes associated with septic injury and xenobiotic exposure in the Formosan subterranean termite. PLoS ONE 9 (8): 1-11. e105582. DOI: 10.1371/journal.pone.0105582. Impact Factor 3.23.
11. Sethi, A., J., Delatte, J., L. Foil, and **Husseneder, C.** 2014. Design of a Protozoacidal Trojan-Horse: Use of a Ligand-lytic Peptide for Selective Targeting and Destruction of Protozoa within Termite Guts. PLoS ONE 9 (9): 1-11. e106199. DOI: 10.1371/journal.pone.0106199. Impact Factor 3.23.
12. **Husseneder, C.**, J., Delatte, J. Krumholt, and L. Foil. 2014. Development of microsatellites for population genetic analyses a of the green head horse fly, *Tabanus nigrovittatus* (Diptera: Tabanidae). J. Med. Entomol. 51:114-118. http://www.bioone.org/DOI/full/10.1603/ME13093). Impact Factor 1.95.
13. Gillespie, J. J., Driscoll, T. P., Verhoeve, V., Utsuki, T., **Husseneder, C**., Chouljenko V., N., Azad, A. F., and Macaluso, K. R. 2014. Genomic diversification in strains of *Rickettsia felis* isolated from different arthropods. Genome Biol. Evol. DOI: 10.1093/gbe/evu262. Impact Factor 4.23.
14. **Husseneder, C.**, Garner, S. P., Huang, Q., Booth, W. and Vargo, E. L. 2013. Characterization of Microsatellites for Population Genetic Analyses of the Fungus-Growing Termite *Odontotermes formosanus* (Isoptera: Termitidae). Environ. Entomol. 42: 1092-1099. DOI: http://dx.DOI.org/10.1603/EN13059. Impact Factor 1.30.
15. Huang, Q., Li, G, **Husseneder, C.**, and Lei, C. 2013. Population genetic structure, colony breeding system and reproductive mode of the subterranean termite, *Reticulitermes chinensis*, in Midwestern China. PLoS ONE 8(7): e69070. DOI:10.1371/journal.pone.0069070. Impact Factor 3.23.
16. Yang, Y., Zhu, Y. C., Ottea, J., **Husseneder, C.**, Leonard, B. R., Abel, C., Luttrell, R., and Huang, F. 2013. Characterization and transcriptional analyses of cDNAs encoding three trypsin- and chymotrypsin-like proteinases in Cry1Ab-susceptible and Cry1Ab-resistant strains of sugarcane borer, *Diatraea saccharalis*. Insect Sci. 20: 485-496. DOI 10.1111/j.1744-7917.2012.01514.x. Impact Factor 2.14.
17. **Husseneder, C.,** McGregor, C., Lang, P., Collier, R., and Delatte, J. 2012. Transcriptome

profiling of female alates and egg-laying queens of the Formosan subterranean termite. Comp. Biochem. Physiol. D 7: 14-27. Impact Factor 2.06.

18. Schoeller, E., **Husseneder, C.**, and Allison, J. 2012. Molecular Evidence of Facultative Intraguild Predation by *Monochamus titillator* Larvae (Coleoptera: Cerambycidae) on Members of the Southern Pine Beetle Guild. Naturwissenschaften. DOI 10.1007/s00114-012-0973-6. Impact Factor 2.10.
19. Owens, C., Su, N.-Y., **Husseneder, C**., Riegel, C., and Brown, K. S. 2012. Molecular genetic evidence of Formosan subterranean termite colony survivorship after prolonged inundation. J. Econ. Entomol. 105(2): 518–522. Impact Factor 1.51.
20. **Husseneder, C.**, Simms, D. M., Delatte, J. R., Wang, C. Grace, J. K., and Vargo, E. L. 2012. Genetic diversity and colony breeding structure in native and introduced ranges of the Formosan subterranean termite, *Coptotermes formosanus*. Biol Invasions (2012) 14:419–437. DOI 10.1007/s10530-011-0087-7. Impact Factor 2.59.
21. Sethi, A., Xue, Q.-G., La Peyre, J., Delatte, J., and **Husseneder, C.** 2011. Dual origin of gut proteases in Formosan subterranean termites (*Coptotermes formosanus* Shiraki) (Isoptera: Rhinotermitidae). Comp. Biochem. Physiol. A: 159; 261-267. Impact Factor 1.97.
22. Yang, Y., Zhu, Y. C., Ottea, J., **Husseneder, C.**, Leonard, B. R., Abel, C., Luttrell, R., and Huang, F. 2011. Downregulation of a cadherin gene, but not of alkaline phosphatase genes, is associated with Cry1Ab resistance in *Diatrea saccharalis*. PLoS ONE: 6 (10), e25783: 1-12. Impact Factor 3.23.
23. **Husseneder, C.,** Sethi, A., Delatte, J., and Foil, L.D. 2010. Procedures for testing protozoacidal activity of ligand-lytic peptides against termite gut protozoa *in vitro* (protozoa culture) and *in vivo* (microinjection into termite hindgut). J. Vis. Exp. 46. http://www.jove.com/details.stp?id=2190, DOI: 10.3791/2190. Impact Factor 1.33.
24. **Husseneder, C.** 2010. Symbiosis in subterranean termites (Isoptera: Rhinotermitidae) – a review of insights from molecular studies. Environ. Entomol. 39: 278-288. Impact Factor 1.30.
25. **Husseneder, C.,** Ho, H.-Y., and Blackwell, M. 2010. Comparison of the bacterial symbiont composition of the Formosan subterranean termite from its native and introduced range. The Open Microbiology Journal 4: 53-66.
26. **Husseneder, C.** Simms, D. M., Aluko, G. K., and Delatte J. 2010. Colony breeding system influences cuticular bacterial load of Formosan subterranean termite (Isoptera: Rhinotermitidae) workers. Environ. Entomol. 39: 1715-1723. Impact Factor 1.30.
27. **Husseneder, C.,** Garner, S. P., Foil, L. D., and Macaluso, K. R. 2010. Development of microsatellites for genetic analyses and population assignment of the cat flea, *Ctenocephalides felis* (Siphonaptera: Pulicidae). J. Med. Entomol. 47(6):1028-1033. Impact Factor 1.95.
28. Yang, Y., Zhu, Y. C., Ottea, J., **Husseneder, C.**, Leonard, B. R. Abel, C., and Huang, F. 2010. Molecular characterization and RNA interference of three midgut aminopeptidase N isozymes from *Bacillus thuringiensis*-susceptible and –resistant strains of sugarcane borer, *Diatraea saccharalis*. Ins. Biochem. Mol. Biol. 40: 592-603. Impact Factor 3.45.

29. **Husseneder, C**., Berestecky, J., and Grace J. K. 2009. Changes in the composition of the culturable bacteria community in the gut of the Formosan subterranean termite depending on rearing conditions of the host. Ann. Entomol. Soc. Am. 102: 498-507. Impact Factor 1.19.
30. Simms, D. M. and **Husseneder, C.** 2009. Assigning individual alates of the Formosan subterranean termite to their colonies of origin within the context of an area-wide management program. Sociobiology 53: 631-650. Impact Factor 0.37.
31. **Husseneder, C.**, and Simms, D. M. 2008. Size and heterozygosity influence partner selection in the Formosan subterranean termite. Behav. Ecol. 19: 764–773. Impact Factor 3.18.
32. **Husseneder, C.**, Powell, J. E., Grace, J. K., Vargo, E. L., and Matsuura, K. 2008. Worker size in the Formosan subterranean termite and colony breeding structure as inferred from molecular markers. Environ. Entomol. 37: 400-408. Impact Factor 1.30.
33. Colby, D., **Husseneder, C.** and Foil, L. D. 2008. Microsatellite Genotyping of Red Imported Fire Ant (Hymenoptera: Formicidae) Colonies Reveals that Most Colonies Persist in Plowed Pastures. J. Econ. Entomol. 101: 1062–1067. Impact Factor 1.51.
34. Lee, A. H., **Husseneder, C.**, Hooper-Bui, L. M. 2008. Culture-independent identification of gut bacteria in fourth-instar red imported fire ant, *Solenopsis invicta* Buren, larvae. J. Invertebrate Pathology 98: 20–33. Impact Factor 2.11.
35. Pornwiroon,W., Kearney, M. T., **Husseneder, C.**, Foil, L. D., and Macaluso, K. R. 2007. Comparative microbiota of uninfected and *Rickettsia*-infected colonized cat fleas, *Ctenocephalides felis*. ISME Journal 1: 394-402. Impact Factor 9.30.
36. **Husseneder, C.**, Simms, D. M., and Riegel, C. 2007. Evaluation of treatment success and patterns of reinfestation of the Formosan subterranean termite. J. Econ. Entomol. 100: 1370-1380. Impact Factor 1.51.
37. Aluko, G., and **Husseneder, C.** 2007. Colony dynamics of the Formosan subterranean termite, *Coptotermes formosanus*, in a frequently disturbed landscape. J. Econ. Entomol. 100: 1037-1046. Impact Factor 1.51.
38. Fisher, M., Miller, D., Brewster, C., **Husseneder, C.**, and Dickerman, A. 2007. Diversity of gut bacteria of *Reticulitermes flavipes* as examined by 16S rRNA gene sequencing and Amplified rDNA Restriction Analysis. Curr. Microbiol. 55: 254-259. Impact Factor 1.42.
39. **Husseneder, C.**, Simms D.M., Ring D.R. 2006. Genetic diversity and genotypic differentiation between the sexes in swarm aggregations decrease inbreeding in the Formosan subterranean termite. Insect. Soc. 53: 212-219. Impact Factor 1.02.
40. Higashiguchi, D. T., **Husseneder, C.**, Grace, J. K., Berestecky, J. M. 2006. *Pilibacter termitis* gen. nov. sp. nov., a novel lactic acid bacterium from the hindgut of the Formosan subterranean termite (*Coptotermes formosanus*). Internat. J. Syst. Evol. Microbiol. 56: 15-20. Impact Factor 2.51.
41. Vargo, E. L., **Husseneder, C.**, Woodson, D., Waldvogel, M. G., and Grace, J. K. 2006. Genetic analysis of colony and population structure of three introduced populations of the Formosan subterranean termite (Isoptera: Rhinotermitidae) in the Continental United States. Environ. Entomol. 35: 151-166. Impact Factor 1.30.
42. **Husseneder, C.** and Grace, J. K. 2005. Genetically engineered termite gut bacteria deliver

and spread foreign genes in termite colonies. Appl. Microbiol. Biotechnol. 68: 360-367. Impact Factor 3.34.

43. **Husseneder, C.**, Messenger, M. T., Su, N.-Y., Grace, J. K., and Vargo, E. L. 2005. Colony social organization and population genetic structure of an introduced population of the Formosan subterranean termite from New Orleans, Louisiana, U.S.A. J. Econ. Entomol. 98: 1421-1434. Impact Factor 1.51.
44. **Husseneder, C.**, Grace, J. K., and Oishi, D. E. 2005. Use of genetically engineered bacteria (*Escherichia coli*) to monitor ingestion, loss and transfer of bacteria in termites. Curr. Microbiol. 50: 119-123. Impact Factor 1.42.
45. Messenger, M. T. Su, N.-Y., **Husseneder, C.**, and Grace, J. K. 2005. Elimination and reinvasion studies with *Coptotermes formosanus* (Isoptera : Rhinotermitidae) in Louisiana. J. Econ. Entomol. 98: 916-929. Impact Factor 1.51.
46. Florane, C. B., Bland, J. M., **Husseneder, C.**, and Raina, A. K. 2004. Diet mediated inter-colonial aggression in the Formosan subterranean termite, *Coptotermes formosanus*. J. Chem. Ecol. 30: 2559-2575. Impact Factor 2.75.
47. **Husseneder, C.**, Grace, J. K., Messenger, M. T., Vargo, E. L., and Su, N.-Y. 2003. Describing the spatial and social organization of Formosan subterranean termite colonies in Armstrong Park, New Orleans. Sociobiology 41: 61-65. Impact Factor 0.37.
48. Vargo, E. L., **Husseneder, C.**, and Grace, J. K. 2003. Colony and population genetic structure of the Formosan subterranean termite, *Coptotermes formosanus*, in Japan. Mol. Ecol. 12: 2599-2608. Impact Factor 6.49.
49. Vargo, E. L., **Husseneder, C.**, Grace, J. K., Henderson, G., and Ring, D. 2003. Colony and population genetic structure of Formosan subterranean termites from Hawaii and Louisiana. Sociobiology 41: 67-69. Impact Factor 0.37.
50. **Husseneder, C.**, Vargo, E. L., and Grace, J. K. 2002. Multilocus DNA Fingerprinting and microsatellite genotyping: complementary approaches to investigating colony and population genetic structure in subterranean termites. Sociobiology 40: 217-226. Impact Factor 0.37.
51. **Husseneder, C.**, and Grace, J. K. 2001. What can DNA fingerprinting, aggression tests and morphometry contribute to the identification of colonies of the Formosan subterranean termite (summary)? Sociobiology 37: 323. Impact Factor 0.37.
52. **Husseneder, C.**, and Grace, J. K. 2001. Evaluation of DNA fingerprinting, aggression tests and morphometry as tools for colony identification of the Formosan subterranean termite. J. Insect Behav. 14: 173-186. Impact Factor 1.14.
53. **Husseneder, C.**, and Grace, J. K. 2001. Similarity is relative: The hierarchy of genetic similarities in the Formosan subterranean termite (Isoptera: Rhinotermitidae) in Hawaii. Environ. Entomol. 30: 262-266. Impact Factor 1.30.
54. **Husseneder, C.**, and Grace, J. K. 2000. What can DNA fingerprinting, aggression tests and morphometry contribute to the identification of colonies of the Formosan subterranean termite? IRG/WP 00-10371, 8pp.

55. **Husseneder, C.**, Kaib, M., Epplen, C., Epplen, J. T., and Brandl R. 1999. Within-colony relatedness in a termite species: genetic roads to eusociality? Behaviour 136: 1045-1063. Impact Factor 1.13.
56. **Husseneder, C.**, Kaib, M., Epplen, C., Epplen, J. T., and Brandl, R. 1998. Variation between and within colonies in the termite: morphology, genomic DNA, and behaviour. Mol. Ecol. 7: 983-990. Impact Factor 6.49.
57. **Husseneder, C.**, Kaib, M., Epplen, C., Epplen, J. T., and Brandl, R. 1997. Small-scale population structure of the termite *Schedorhinotermes lamanianus*: Aggression modulated by genetic and environmental factors. Mitt. Dtsch. Ges. Allg. Angew. Ent. 11: 183-187.
58. Kaib, M., **Husseneder, C.**, Epplen, C., Epplen, J. T., and Brandl, R. 1996. Kin-biased foraging in a termite. Proc. R. Soc. Lond. B 263: 1527-1532. Impact Factor 5.05.
59. **Husseneder, C.** and Kaib, M. 1994. Taxonomy and population differences of carabides (Coleoptera) on semi-natural limestone grasslands in Upper Franconia. Verh. Dtsch. Zool. Ges. 87: p. 308.

- *Other publications*

1. Guice, J. L, […] **Husseneder, C**., et al. 2016. Resistant starch (RS) fermentation is prevented by low potency antibiotics (AB) neomycin and ampicillin. The FASEB Journal 30:690.3 (abstract).
2. **Husseneder, C**. 2015. Microbes: Good, Bad and overall fascinating. Louisiana Agriculture 58 (4): 2.
3. **Husseneder, C.,** Tikhe, C., Foil, L. and Gissendanner, C. 2015. Termite gut microbes. Louisiana Agriculture 58 (4): 8-9.
4. **Husseneder, C.**, Shult, H. T., Davis, J. A., Ogrey, A. N., Munoz, S., & Guerrero, F. 2015. Genome sequencing of the redbanded stink bug (*Piezodorus guildinii*). National Center for Biotechnology Information (NCBI).
5. **Husseneder, C.,** and Foil, L. D. 2014. Fishermen's bloodsucking nemesis, the greenhead horse fly as a bioindicator of marsh health after the 2010 oil spill. Louisiana Agriculture 57 (3):18-19 – won 2014 Article of the Year Award.
6. Tikhe, C., **Husseneder, C.,** and Delatte, J. 2013. Genetic engineering of hindgut bacteria from Formosan subterranean termites, *Coptotermes formosanus* Shiraki, to serve as "Trojan Horse" for termite control. Proceedings of the National Conference on Urban Entomology, Atlanta, Georgia, p. 29-33.
7. **Husseneder, C.**, Sethi, A., Delatte, J. and Foil, L. D. 2010. Symbiosis in urban pest termites and its disruption for control. Proceedings of the NCUE, Portland, Oregon. p. 77-82.
8. **Husseneder, C.** and Guillot, F. 2010. Assessment of treatment success of Formosan subterranean termites in the French Quarter, New Orleans, using DNA profiling. Louisiana Agriculture 53 (4): 25-27.

9. Foil, L. D., Hooper-Bui, L., Colby, D., Gentry, G., Hilbun, W., **Husseneder, C.**, Inmon, L. M., and Johnson, S. 2010. Balancing benefits and damage from fire ants in pastures. Louisiana Agriculture 53 (4): 32-33.
10. Yang, Y., Zhu, Y.C., Ottea, J., **Husseneder**, **C.,** Leonard B. R., and Huang, F. 2010. Analyses of sequences, gene expressions, and RNAi of three Cry1Ab-resistance related aminopeptidase genes in the sugarcane borer, *Diatraea saccharalis*. 2010 USDA NC-205 Annual Reports.
11. **Husseneder, C.** 2008. A novel approach to managing invasive termite species using genetically engineered bacteria. DoD, DoE, EPAStrategic Environmental Research and Development Program Project SI-1467. Final Report (53 pages). www.serdp.org/content/download/6848/89159/file/SI-1467-FR.pdf
12. **Husseneder, C.** and Vargo, E. L. 2008. Breeding systems, dispersal and mate choice in the Formosan subterranean termite. Proceedings of the XXIII International Congress of Entomology. Durban, South Africa. Sec1:357.
13. **Husseneder, C.**, Wise, B. R., and Higashiguchi, D. T. 2007. Bugs in bugs: the microbial diversity of the termite gut. Proceedings of the Hawaiian Entomological Society 39: 143-144.
14. **Husseneder, C.** 2007. Molecular genetic methods help unravel termite mysteries. Louisiana Agriculture 50: 16-17.
15. **Husseneder, C.**, Collier, R. E. 2007. Paratransgenesis for termite control-constructing the enemy within. Proceedings of the International Congress of Insect Biotechnology & Industry, Daegu, Republic of Korea, Entomol Res 37: p A40.
16. **Husseneder, C.**, Collier, R. E., Wise, B.R. 2006. Paratransgenesis in termites. Proceedings of the 2006 National Conference on Urban Entomology, Raleigh, North Carolina: pp 144-146.
17. Fisher, M., Miller, D., Brewster, C. **Husseneder, C.**, Dickerman, A. 2006. Bugs in bugs: Studies on the gut bacteria in termites. Proceedings of the 2006 National Conference on Urban Entomology, Raleigh, North Carolina: pp 144-146.
18. **Husseneder, C.**, Wise, B. R., and Higashiguchi D. T. 2005. Microbial diversity in the termite gut: a complementary approach combining culture and culture-independent techniques. Proceedings of the 5th International Conference on Urban Pests, 2005, Singapore: pp 189-195.
19. **Husseneder, C.**, Grace, J. K., and Oishi, D. E. 2004. Genetically engineered termite gut bacteria deliver and transfer foreign genes in termite colonies. Proceedings of the 2004 National Conference on Urban Entomology: pp 58-59.
20. Riegel, C., McAllister, J. C., Bordes, E. S., **Husseneder, C.**, Jordan, W. F., and Messenger, M. T. 2004. Population density of Formosan subterranean termites infesting the Riverfront Railroad in New Orleans and treatment using baits containing 0.5% noviflumuron. Proceedings of the 2004 National Conference on Urban Entomology: pp 90-91.
21. **Husseneder, C.** and Grace, J. K. 2004. Termite gut bacteria as "Trojan Horses" – a new approach to termite control. In: *Clean Asia,* Sept/Oct 2004, p. 20.
22. Higashiguchi, D., **Husseneder, C.**, Grace, J. K. and Berestecky J. 2002. The Formosan subterranean termite as a model for an exotic ecosystem. Hawai'i Space Grant Consortium,

Undergraduate Fellowship Reports, Honolulu, HI, p. 25-30.

23. **Husseneder, C.**, Vargo, E. L., and Grace, J. K. 2001. What can molecular biology tell us about termites? In: *Operation Full Stop Newsletter*. Wright, M. (ed.). Vol. 3, no. 1, p.1-2.
24. **Husseneder, C.**, Grace, J. K., and Vargo E. L. 2001. What can molecular biology tell us about termites? In: *Clean Asia*, Koh, L. (ed.). Vol. 8, November 2001, p. 20.
25. **Husseneder C.**, Epplen, J. T., Brandl, R., and Kaib, M. 2001. Genetic structure of a termite species across spatial scales. Zoology 103, p. 44.
26. Kaib, M., **Husseneder, C.**, Hacker, M., and Brandl, R. 1998. Polygyny and polyandry in termites: Causes and consequences. In: Schwarz P, Hogendoorn K (eds.) *Social Insects at the turn of the Millenium*. Proceedings of the XIII International Congress of IUSSI, p. 240. Flinders University Press, Adelaide, Australia.
27. **Husseneder, C.**, Brandl, R., and Kaib, M. 1998. Kin-biased behaviour in the termite *Schedorhinotermes*. In: Schwarz P, Hogendoorn K (eds.) *Social Insects at the turn of the Millenium*. Proceedings of the XIII International Congress of IUSSI, p. 220. Flinders University Press, Adelaide, Australia.
28. **Husseneder, C.**, Brandl, R., and Kaib, M. 1998. Population genetics in the termite *Schedorhinotermes.* In: Schwarz P, Hogendoorn K (eds.) *Social Insects at the turn of the Millenium*. Proceedings of the XIII International Congress of IUSSI, p. 221. Flinders University Press, Adelaide, Australia.
29. **Husseneder, C.** 1998. Populationsgenetik und soziogenetische Organisation der Termite *Schedorhinotermes lamanianus*. Ph.D. dissertation, Dept. of Animal Physiology, University of Bayreuth, Bayreuth, Germany. Bayreuther Forum Ökologie 58, 134 pages.

- *Publication of datasets and submissions to GenBank:* (http://www.ncbi.nlm.nih.gov/Genbank/index.html).

Tabanus nigrovittatus mitochondrial markers: 18S regions (KT222915.1, 982bp and KU321600.1, 417bp), CO I (KT381971.1, 687bp)

Termite gut meta-virome sequencing (BioProject: PRJNA306036, BioSample: SAMN04438312-4 (3 colonies), LSPY01000001-LSPY01004347 with 4347 assembled reads, LSQA01000001-LSQA01009190 with 9190 assembled reads, LSPZ01000001-LSPZ01010022 with 10022 assembled reads).

Annotated full genome of *Citrobacter* phage CVT22 from the termite gut (GenBank accession number KP774835, 47,771 bp).

Rickettsia felis str. LSU, whole genome shotgun sequencing project – fully assembled (NZ_JSEM00000000.1 GI:746565678, BioProject: PRJNA224116, BioSample: SAMN02989760, Assembly: GCF_000804525.1, 1546970 bp)

Rickettsia felis strain LSU-LB: shotgun genome of booklouse *R. felis* (JSEL00000000.1 GI:734690668, BioProject: PRJNA258188, BioSample: SAMN02989771, 43 contigs JSEL01000001-JSEL01000043)

Rickettsia felis strain LSU: shotgun genome of flea *R. felis* (JSEM00000000.1 GI:734689953, BioProject: PRJNA258182, BioSample: SAMN02989760, 22 contigs JSEM01000001-JSEM01000022)

Rickettsia felis strain LSU-Lb plasmid pRF (shotgun genome of *R. felis* plasmid from booklouse)
Piezodorus guildinii (redbanded stink bug) unassembled genomic sequences – Illumina MiSeq run (NCBI SequenceReadArchive, run SRR1609272, acc. no. SRX729935, 11,302,715 spots, 5.4G bases)
Piezodorus guildinii assembled genome (JTEQ00000000.1 GI:725062199, BioProject: PRJNA263369, BioSample: SAMN03099748, 1932 contigs JTEQ01000001-JTEQ01001932)
Tabanus nigrovittatus partial genome for microsatellite screening - 454 pyrosequencing (NCBI SequenceReadArchive, run SRR976966, experiment acc. no. SRX348809, 105,634 spots, 71.5M bases)
16S rRNA gene sequences of termite gut bacteria (KM878715-KM878734, KM886370-886377)
16S rRNA gene sequences of termite gut bacteria (GQ502463-GQ502668)
Expressed sequence tags of a polyphenic library of the Formosan subterranean termite (FK829415 - FK837077)
Microsatellite loci of cat fleas (GU784825-GU784831)
Microsatellite loci of horse flies (JN547239-JN547258)
Microsatellite loci of Macrotermitinae (JN980106-JN980114)
Microsatellite loci of redbanded stink bug (*Piezodorous guildinii*) (KT803864.1- KT881187.1)

- *Research program featured in popular science and media publications*

TV and Radio Interviews

Time Magazine (5/28/2013) phone interview concerning life span of termite queens

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WBRZ News 2 Louisiana: TERMITE TERMINATOR (05/24/2012). http://www.wbrz.com/news/termite-terminator-packed-into-trojan-horse/

Baton Rouge Morning News with Kevin Meeks and Clay Young, WJBO News Radio 1150 (05/25/2012)

Newspaper, Magazine, and Internet Articles featuring the research

Quiros, G. These Termites Turn Your House Into a Palace of Poop https://ww2.kqed.org/science/2016/10/18/these-termites-turn-your-house-into-a-palace-of-poop/ (10/18/2016)

Shean, S. GoMRI RFP-V: Horse fly populations & food web dynamics as stress indicators on coastal marsh http://education.gulfresearchinitiative.org/author/suzanne/ (6/22/2016).

Pests stop: Biotechnology-based termite control with "Trojan Horse" peptides. http://myhousepests.com/termites/biotech-termite-pest-control.html (3/30/2016).

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Reckdahl, K. On Deepwater Horizon Anniversary…TakePart (04/20/2016)

http://www.takepart.com/article/2016/04/20/6th-anniversary-deepwater-horizon-disaster-

dolphins-face-decades-recovery

Hirsch, A. LSU scientists find greenhead horseflies can help measure marsh health (2/11/2016). http://www.225batonrouge.com.

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Bogren R., Foil, L. and **Husseneder C**. Researchers see greenhead horse fly as indicators of marsh health. (1/26/2016). www.lsuagcenter.com and Eunice Today.com

Levine, R. Termite Experts Attempt to Solve Taxonomic Cold Cases. Entomology Today (12/22/2015). http://entomologytoday.org/2015/12/22/termite-experts-attempt-to-solve-taxonomic-cold-cases/

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Molino, D. Greenhead horse flies give clues to marsh health after oil spills. Louisiana Farm Bureau Agri-News Radio Network (4/23/2015).

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Bogren R., and Benedict L. F. (2012). Invasive Fire Ants and Termites Spur Research. Louisiana Agriculture 55, Spring 2012.

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Opelousas, LA paper: Scientists work to cap spread of termites (5/28/06) (http://www.dailyworld.com/apps/pbcs.dll/article?AID=/20060528/NEWS01/605280333/1002)

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LSU AgCenter News: BEST students, teachers trade summer fun for biotech skills (7/22/04) (http://www.lsuagcenter.com/news/July2004/headlines/BestStudentsTeachers-07-21-04.asp)

LSU AgCenter News: LSU AgCenter researcher searching for 'killer' gene to control Formosan termites (8/16/04) (http://www.lsuagcenter.com/news/August2004/headlines/KillerGene-Termites-08-16-04.asp)

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New Invention Resources: Taking Aim at Formosan Subterranean Termites - Agricultural Research Service - Brief Article (10/2001) (http://www.newinventionresources.com/articles/patent-protection/patent-protection-article-4856.htm)

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Science & Technology – The key to Hawaii's economic future. Millennium edition, p 15 (2001) (http://hawaii.gov/dbedt/ert/scitech/scitech-screen.pdf)

CTAHR Impact: Fingerprinting termite families (2000) (http://www2.hawaii.edu/~entomol/research/r_dna.htm)

Suszkiw J. 2000. Taking aim at Formosan subterranean termites. Agric. Res. 48: 12-15.

- ***Listings of other publications submitted, accepted for publication or in press***

Husseneder, C., Park, J.-S., Howells, A., Tikhe, C. and Davis. J. A. 2016. Identification of the bacteria community associated with the redbanded stink bug, *Piezodorus guildinii* (Hemiptera: Pentatomidae) with special reference to bacteria transmitted by feeding. Environ. Entomol. In press.

- ***Other creative and artistic contributions***

2016-pres. Photos are regularly published in the Entomology Newsletter.
2015: My photograph of biting midges feeding on the wing veins of a dragon fly was selected for the 2016 calendar of the Entomological Society of America and for decoration at the 63rd Annual Meeting of the Entomological Society of America. Minneapolis, MN.
2014-pres.: Designed "Bugshots" for the Entomology webpage featuring editorial photos and fun facts about insects commonly encountered in Louisiana backyards.
US Patent Serial No. 6,926,889; issued August 9, 2005, for Recombinant Bacteria for Use in Insect Control.
Provisional Application for Patent; May 17, 2007, published February 2009 for Paratransgenesis to Control Termites and Other Insects
Provisional Application for Patent; Dec 14, 2011 for Yeast expressing Ligand-Lytic Peptides to Kill Protozoa.

❖ ***Participation in professional meetings, symposia, workshops and conferences***

- Invited Speaker

1. **Husseneder, C.** 2015. RNA interference – Basics and Applications. City of New Orleans Mosquito & Termite Control Board seminar series
2. **Husseneder, C.,** Sethi, A., Donaldson, J., and Foil, L. 2012. Trojan Horses for target specific urban pest management. XXIV International Congress of Entomology, Daegu, South Korea.
3. **Husseneder, C.,** Simms, D.M., Riegel, C., Brown, K., Lax, A. Guillot, F. 2012. DNA genotyping for assessment of treatment success in area-wide termite control. XXIV International Congress of Entomology, Daegu, South Korea.
4. **Husseneder, C.,** Tikhe, C., Donaldson, J. 2012. Paratransgenic symbionts that express targeted toxins in the termite gut. XXIV International Congress of Entomology, Daegu, South Korea.
5. **Husseneder, C.,** Sethi, A., Delatte, J., and Foil, L. 2011. Paratransgenesis for termite control. Seminar at the College of Plant Science and Technology, Huazhong Agricultural University, Wuhan, China.
6. **Husseneder, C.** 2011. DNA Profiles for Characterization of Subterranean Termite Colonies and Assessment of Treatment Success. Seminar at the College of Plant Science and Technology, Huazhong Agricultural University, Wuhan, China.
7. **Husseneder, C.,** Sethi, A., Delatte, J., and Foil, L. D. 2011. Genetically engineered microorganisms for pest control. Annual Meeting of the Entomological Society of America, Reno, Nevada.
8. **Husseneder, C.,** Sethi, A., Delatte, J., and Foil, L. D. 2011. Symbiosis and its disruption for termite control. 3rd International Symposium on *Coptotermes formosanus*. New Orleans, Louisiana.
9. **Husseneder, C.,** Sethi, A., and Foil, L. 2010. Symbiosis in urban pest termites and its disruption for control. National Conference on Urban Entomology, Portland, Oregon.
10. **Husseneder, C.**, and Foil L. 2010. Population genetic analysis for measuring impact of oil spill and success of restoration efforts. Joint Meeting of LSU Agricultural Center and Foster-Wheeler Italiana, Baton Rouge, Louisiana.
11. **Husseneder, C.**, Sethi, A., Colby, D. and Lang, P. 2009. Biotechnologies in Entomology. Seminar at the Center for Biotechnology / Center for Plant Science Innovation, University of Nebraska, Lincoln, Nebraska.
12. **Husseneder, C.**, Sethi, A., Colby, D. and Lang, P. 2009. Emerging biotechnologies and their potential to control termites and other urban pests. Seminar at the Dept. of Entomology, University of Nebraska, Lincoln, Nebraska.
13. **Husseneder, C.**, Sethi, A., Colby, D. and Lang, P. 2009. Emerging biotechnologies in social insect biology and control. Southeastern Branch meeting of the Entomological Society of America, Montgomery, Alabama.
14. **Husseneder, C**., Vargo E. L. 2008. Breeding system, dispersal and mate choice in the Formosan subterranean termite. XXIII International Congress of Entomology, Durban, South Africa.

15. **Husseneder, C.** 2008. A novel approach to managing invasive termite species using genetically engineered bacteria. SERDP&ESTCP Sustainable Infrastructure Focus Area, Washington, DC.
16. **Husseneder, C.** 2007. DNA profiles for colony identification of termites. Workshop for IPM training of researchers under the Global Environmental Facility Project – Demonstrations of Alternatives to Chlordane and Mirex in Termite Control organized by the Stockholm Implementation Office of State Environmental Protection Administration of China and the World Bank. Haikou, China.
17. **Husseneder, C.**, Collier, R. E., Colby, D. 2007. Genetic manipulation and its potential for control of termites and other urban pests. Annual Meeting of the Entomological Society of America, San Diego, California.
18. **Husseneder, C.**, Collier, R. E., Foil, L. D. 2007. Paratransgenesis for termite control-constructing the enemy within. International Congress of Insect Biotechnology & Industry, Daegu, Republic of Korea.
19. **Husseneder, C.** and Collier, R. E. 2007. Paratransgenesis for termite control-constructing the enemy within. Seminar at North Carolina State University, Raleigh, North Carolina.
20. **Husseneder, C.**, and Simms, D. M. 2007. Dispersal and partner selection in the Formosan subterranean termite. Pacific Entomology Conference, Honolulu, Hawaii.
21. **Husseneder, C.** 2007. Termite symbiosis – bugs in bugs. Seminar at University of Hawaii at Manoa (Honolulu, Hawaii).
22. **Husseneder, C.**, and Simms, D. M. 2006. Partner selection and inbreeding avoidance in Formosan subterranean termites: International Union for the Study of Social Insects (Washington, D.C.).
23. **Husseneder, C.** 2006. Partner selection in termites. Seminar at University of California, Riverside (Riverside, California).
24. **Husseneder, C.** 2006. Paratransgenesis – research and development towards the future of pest control. Seminar at Dow AgroSciences (Indianapolis, Indiana).
25. **Husseneder, C.**, Collier, R. E., and Wise, B. R. 2006. Paratransgenesis in termites. National Conference of Urban Entomology, Raleigh, North Carolina.
26. **Husseneder, C.** 2006. Termite symbiosis. Seminar at University of Florida (Gainesville, Florida).
27. **Husseneder, C.** 2005. Microbial diversity in the termite gut: Tools and targets for termite control. National Pest Management Association/PestWorld (Nashville, Tennessee).
28. **Husseneder, C.** 2005. Microbial diversity and paratransgenesis in the termite gut. Seminar at Kansas State University (Manhattan, Kansas).
29. **Husseneder, C.** 2005. Molecular approaches to termite biology and control. Seminar at University of Hawaii at Manoa (Honolulu, Hawaii).
30. **Husseneder, C.** 2005. Bugs in Bugs- the microbial community in the termite gut. Pacific Entomology Conference, Honolulu, Hawaii.
31. **Husseneder, C.**, Grace, J. K., and Oishi, D. E. 2004. Genetic engineering of termite gut

bacteria. 22nd International Conference of Entomology, Brisbane, Australia.

32. **Husseneder, C.** 2004. Genetically engineered gut bacteria deliver and transfer foreign genes in termite colonies. National Conference on Urban Entomology (Phoenix, Arizona).
33. **Husseneder, C.**, Vargo, E. L. and Grace, J. K. 2001. Molecular approaches to termite biology and control. Spring National Meeting of the American Chemical Society (San Diego, California).
34. **Husseneder, C.**, Vargo, E. L. and Grace, J. K. 2001. Colony identification of Formosan termites using molecular methods." 2nd International Symposium on *Coptotermes formosanus* (New Orleans, Louisiana).
35. **Husseneder, C.**, Vargo, E. L. and Grace, J. K. 2000. Population structure of the Formosan subterranean termite in Hawaii. Joint Annual Meeting of the Entomological Societies of America and Canada, Montreal.
36. **Husseneder, C.** 2000. Molecular Methods: New Approaches to Termite Biology - An Introduction. Joint Annual Meeting of the Entomological Societies of America and Canada, Montreal.

- International: Submitted Oral Presentations

1. Vargo, E. L., **Husseneder, C,** Perdereau E., Dedeine, F. Dupont, S., and Bagneres, A.-G. 2014. Invasion genetics of two termite species: sources and breeding structure. 17th Congress of the International Union for the Study of Social Insects (IUSSI) (Cairns, Australia).
2. **Husseneder, C**.,Simms, D. M., Delatte, J. R., Wang, C., Vargo, E. L., and Grace, J. K. 2010. Population genetic structure of the Formosan subterranean termite from its native and introduced range. International Union for the Study of Social Insects (Copenhagen, Denmark).
3. **Husseneder, C.**, Wise, B. R., and Higashiguchi D. T. 2005. Microbial diversity in the termite gut: a complementary approach combining culture and culture-independent techniques. 5th International Conference on Urban Pests, Singapore.
4. **Husseneder, C.** and Grace, J. K. 2000. Population structure of the Formosan subterranean termite in Hawaii. 21st International Conference of Entomology, Iguassu, Brazil.
5. **Husseneder, C.**, Oishi, D. E. and Grace, J. K. 2000. Introduction of genetically tagged gut microbes into termites. Joint Annual Meeting of the Entomological Societies of America and Canada, Montreal.
6. **Husseneder, C.** and Grace, J. K. 2000. What can behavioral tests, morphometry and DNA fingerprinting contribute to the identification of colonies and their relationships in the Formosan subterranean termite? 31st Annual Meeting of the International Research Group on Wood Preservation, Kona, USA.
7. **Husseneder, C.**, Brandl, R., and Kaib, M. 1998. Kin-biased behaviour in the termite

Schedorhinotermes. XIII International Congress of the International Union for the Study of Social Insects, Adelaide, Australia.

8. **Husseneder, C.**, and Kaib, M. 1997. Sociogenetics of the termite *Schedorhinotermes lamanianus* International Union for the Study of Social Insects, Graz, Austria.

- International: Posters

1. Krumholt, J., Delatte, J.R., Inmon, L., Foil, L.D., and **Husseneder, C**. 2012. Microsatellite Development for a Horse Fly Species as a Bioindicator of Wetland Health. The French-American Workshop, Grenoble, France.
2. Vargo, E. L., **Husseneder, C.,** Bagnères, A.-G., Grace, J. K., Mo, J., Perdereau, E., Simms, D. M. 2010. Comparison of colony breeding structure in native and introduced populations of two invasive subterranean termites. XVI International Congress of the International Union for the Study of Social Insects, Copenhagen, Denmark.
3. **Husseneder, C.**, Brandl, R., and Kaib, M. 1998. Population genetics in the termite *Schedorhinotermes.* XIII International Congress of the International Union for the Study of Social Insects, Adelaide, Australia.
4. **Husseneder, C.**, and Kaib, M. 1997. Inbreeding avoidance of the termite *Schedorhinotermes lamanianus.* Meeting of the International Union for the Study of Social Insects, Graz, Austria.
5. **Husseneder, C.**, Epplen, J. T., Brandl, R., and Kaib, M. 1995. Genetic analyses of termite states using DNA fingerprinting. Meeting of the International Union for the Study of Social Insects, Utrecht, Netherlands.

- National: Submitted Oral Presentations

1. **Husseneder, C**. and Foil, L. 2016. Impact of the 2010 Deepwater Horizon oil spill on population size and genetic structure of horse flies in Louisiana marshes. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Tampa, FL.
2. Guice, J. […] **Husseneder, C**., et al. 2016. Resistant starch (RS) fermentation is prevented by low potency antibiotics neomycin and ampicillin. Experimental Biology, San Diego.
3. Tikhe, C., Martin, T., Gissendanner, C., and **Husseneder, C.** 2015. Bacteriophages from the gut of the Formosan subterranean termite, *Coptotermes formosanus.* Annual meeting of American Society for Microbiology, New Orleans, LA (participant in special symposium 'Phages through the Ages: Celebrating the Centennial Anniversary of Phage Discovery and Outlining Research Avenues for the Next 100 Years')
4. Tikhe, C., Martin, T., Gissendanner, C., and **Husseneder, C.** 2015. Bacteriophages from the gut of the Formosan subterranean termite, *Coptotermes formosanus.* Southeastern Branch Meeting of the Entomological Society of America, Biloxi, MS.
5. Tikhe, C., Martin, T., Howells, A., and **Husseneder, C.** 2014. Evaluation of *Trabulsiella odontotermitis*; a termite gut bacterium, as a 'Trojan horse' for paratransgenesis based termite control. Southeastern Branch Meeting of the Entomological Society of America, Greenville, SC.

6. Tikhe, C., Donaldson, J.**,** Martin, T., Howells, A., and **Husseneder, C.** 2013.Genetic engineering of a termite specific bacterium using a Tn7 transposon vector for paratransgenesis based termite control, Annual Meeting of the Entomological Society of America, Austin, TX
7. Tikhe, C., Martin, T., and **Husseneder, C.** 2013.Genetic engineering of native termite gut bacteria to target obligate symbionts for termite control, South-central-Texas Branch meeting of American Society for Microbiology, New Orleans, LA
8. Sethi, A., Foil, L., and **Husseneder, C.** 2012. Design of a protozoacidal Trojan-horse: Use of ligands for selective targeting of lytic peptides to kill cellulose-digesting protozoa within termite guts. Annual Meeting of the Entomological Society of America, Knoxville, Tennessee.
9. Tikhe, C., **Husseneder, C.,** and Delatte, J. 2012. Genetic engineering of hindgut bacteria from Formosan subterranean termites, *Coptotermes formosanus* Shiraki, to serve as "Trojan Horse" for termite control. National Conference on Urban Entomology, Atlanta, Georgia.
10. **Husseneder, C.**, Sethi, A., Delatte, J. and Foil, L. 2011. Yeast expressing protozoacidal lytic peptides for termite control. Southeastern Branch Meeting of the Entomological Society of America, San Juan, Puerto Rico.
11. Simms, D. M, and **Husseneder, C.** 2011. Reduction in the number of Formosan subterranean termite colonies contributing to alate swarms in the French Quarter, New Orleans. Annual Meeting of the Entomological Society of America, Reno, Nevada.
12. Schoeller, E., Allison, J, and **Husseneder, C.** 2011. Detection of facultative intraguild predation events by *Monochamus titillator* on the southern pine beetle guild using molecular gut analyses. Annual Meeting of the Entomological Society of America, Reno, Nevada.
13. Yang, Y., Zhu, Y. C., Ottea, J., **Husseneder, C.**, Leonard, B. R., and Huang, F. 2010. Sequencing and analyzing cadherin and alkaline phosphatase genes in Cry1Ab-susceptible and –resistant strains of the sugarcane borer. Annual Meeting of the Entomological Society of America, San Diego, California.
14. Sethi, A., Delatte, J. Foil, L. and **Husseneder, C.** 2010. Development of a termite bait with yeast expressing protozoacidal lytic peptides as the active ingredient. Annual Meeting of the Entomological Society of America, San Diego, California.
15. Yang, Y., Zhu, Y. C., Ottea, J., **Husseneder**, C., Leonard, B. R. Abel, C. A. and Huang, F. 2010. RNA interference-mediated knockdown of cadherin and aminopeptidase N genes in sugarcane borer. Southeastern Branch meeting of the Entomological Society of America. Atlanta, Georgia.
16. Yang, Y., Zhu, Y. C., Ottea, J., **Husseneder**, C., Leonard, B. R. Abel, C. A. and Huang, F. 2009. Sequencing and analysis of cadherin cDNAs in Cry1Ab-susceptible and -resistant strains of the sugarcane borer. Southeastern Branch meeting of the Entomological Society of America, Montgomery, Alabama.
17. Owens, C., **Husseneder, C.**, Su, N.-Y.,and Guidry, E. 2009. Genetic evidence of Formosan subterranean termite, *Coptotermes formosanus*, colony movement following construction in Louis Armstrong Park, New Orleans, Louisiana. Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
18. Owens, C., **Husseneder, C.**, Su, N.-Y., and Riegel, C. 2009. Molecular genetic evidence of the survival of Formosan subterranean termite colonies after flooding. Southeastern

Branch meeting of the Entomological Society of America, Montgomery, Alabama.

19. Simms, D., and **Husseneder, C.** 2009. Changes in the composition of swarm aggregations of Formosan subterranean termites (*Coptotermes formosanus*) over time. Southeastern Branch meeting of the Entomological Society of America, Montgomery, Alabama.
20. **Husseneder, C.** 2008. Dispersal and mate choice in the Formosan subterranean termite. North America Section of the International Union for the Study of Social Insects, Arecibo, Puerto Rico.
21. Aluko, G. K, Delatte, J. R., and **Husseneder, C.** 2007. Breeding system and microbial load in field colonies of the Formosan subterranean termite from New Orleans. Annual Meeting of the Entomological Society of America, San Diego, California.
22. Ho, H.-Y., and **Husseneder, C.** 2007. A comparison of the bacterial community in the guts of Formosan subterranean termites from their native (China) and introduced (U.S.) range. Annual Meeting of the Entomological Society of America, San Diego, California.
23. Vargo, E. L., **Husseneder, C.**, Simms, D., Bagneres, A.-G. 2007. Insights into the invasion biology of termites (Isoptera) from molecular markers. Annual Meeting of the Entomological Society of America, San Diego, California.
24. **Husseneder, C**., and Simms, D. M. 2007. Partner selection in the Formosan subterranean termite. Southeastern Branch Meeting of the Entomological Society of America, Knoxville, Tennessee.
25. Simms, D. M., Vargo, E. L., Grace, J. K., Delatte, J. and **Husseneder, C.** 2007. Population genetic structure of the Formosan subterranean termite in its native and introduced range. Southeastern Branch meeting of the Entomological Society of America, Knoxville, Tennessee.
26. **Husseneder, C.**, Vargo, E. L., and Grace, J. K. 2006. Stunted worker growth related to inbreeding in a subterranean termite. Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
27. Colby, D., Foil, L., and **Husseneder, C.** 2006. Tracking movement of red imported fire ant *Solenopsis invicta* colonies after disturbance. Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
28. Collier, R. E., **Husseneder, C.**, Foil, L. Cooper, R. and Enright F. 2006. Paratransgenesis – constructing the enemy within. Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
29. Simms, D. M., and **Husseneder, C.** 2006. Do alates of the Formosan subterranean termite originate from colonies infesting nearby inground stations? Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
30. Lee, A., **Husseneder, C.**, and Hooper-Bui, L. 2006. Culture-independent identification of bacteria in fourth-instar red imported fire ant larvae, *Solenopsis invicta* Buren. Annual Red Imported Fire Ant Conference, Mobile, Alabama.
31. Aluko, G. K., and **Husseneder, C.** 2005. Colony dynamics and social structure of Formosan subterranean termites surrounding the Wildlife and Fisheries Building, French

Quarter, New Orleans. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.

32. Simms, D. M., Riegel, C. and **Husseneder, C.** 2005. Genetic analysis of *Coptotermes formosanus* infestations along the Riverfront Railroad in New Orleans, La., before and after treatment. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
33. Fisher, M. L., Miller, D. M., Brewster, C. C., Dickerman, A., and **Husseneder, C.** 2005. Phylogenetic identification of symbiotic bacteria in the gut of the termite *Reticulitermes flavipes*. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
34. Riegel, C., **Husseneder, C.**, and McAllister, J. A. 2005. Area-wide management of Formosan subterranean termites along the Riverfront Railroad and levee in the French Quarter using 0.5% noviflumuron. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
35. Aluko, G., and **Husseneder, C.** 2005. Colony dynamics of Formosan subterranean termites in the French Quarter, New Orleans. Southeastern Branch meeting of the Entomological Society of America, Tunica, Mississippi.
36. **Husseneder, C.** 2004. Mate selection in the Formosan subterranean termite. Annual Meeting of the Entomological Society of America, Salt Lake City, Utah.
37. Wise, B. R, and **Husseneder, C.** 2004. Bacterial diversity in the termite gut. Annual Meeting of the Entomological Society of America, Salt Lake City, Utah.
38. **Husseneder, C.**, Grace, J. K., and Oishi, D. E. 2004. Genetically engineered termite gut bacteria deliver and transfer foreign genes in termite colonies. National Conference of Urban Entomology, Phoenix, Arizona.
39. Riegel, C., McAllister, J. C., Bordes, E. S., **Husseneder, C**., Jordan, W. F., and Messenger, M. T. 2004. Population density of Formosan subterranean termites infesting the Riverfront Railroad in New Orleans and treatment using baits containing 0.5% noviflumuron. National Conference of Urban Entomology, Phoenix, Arizona.
40. **Husseneder, C.**, Grace, J. K., and Oishi, D. E. 2004. Genetic engineering of termite gut bacteria: Creating a shuttle system for gene expression in a social insect colony. Keystone Symposia Conference on Genetic Manipulation of Insects, Taos, New Mexico.
41. **Husseneder, C.**, Vargo, E. L., Grace, J. K., Powell, J. E., and Woodson, D. 2001. Genetic structure and social organization of native and introduced populations of the Formosan subterranean termite. Annual Meeting of the Entomological Society of America, San Diego, California.
42. **Husseneder, C.**, Vargo, E. L., Grace, J. K., Messenger, M., and Su, N.-Y. 2001. Colony identification of Formosan termites using molecular methods. 2nd International Symposium on *Coptotermes formosanus*, New Orleans, Louisiana.
43. **Husseneder, C.**, Vargo, E. L., and Grace, J. K. 2001. Molecular approaches to termite biology and control. Spring National Meeting of the American Chemical Society, San Diego, California.

44. **Husseneder, C.** and Grace, J. K. 2000. Colony identification in the Formosan subterranean termite. Hawaiian Entomological Society, Honolulu, Hawaii.
45. **Husseneder, C.** and Grace, J. K. 1999. Who is Who in termite societies: Identification of colonies in a subterranean termite. Annual Meeting of the Entomological Society of America, Atlanta, USA.
46. **Husseneder, C.**, Epplen, C., Epplen, J. T., Brandl, R., and Kaib, M. 1997. Kin-biased foraging in the termite *Schedorhinotermes lamanianus.* Meeting of the Deutsche Gesellschaft fuer allgemeine und angewandte Entomologie, Bayreuth, Germany.
47. **Husseneder, C.**, Kaib, M, Brandl, R., Epplen, C., and Epplen, J. T. 1997. Genetic and behavioural structure within termite colonies. Meeting of the Deutsche Forschungsgemeinschaft, Bonn, Germany.
48. **Husseneder, C.**, Kaib, M, Epplen, C., Epplen, J. T., and Brandl, R. 1995. Genetic similarity, morphometry and agonistic behaviour in polycalic colonies of the termite *Schedorhinotermes lamanianus* (Rhinotermitidae). Meeting of the Deutsche Forschungsgemeinschaft, Bonn, Germany.

- National: Posters

1. Foil, L. D. and **Husseneder, C**. 2016. Impact of the 2010 Deepwater Horizon oil spill on population size and genetic structure of horse flies in Louisiana marshes. XXV International Congress of Entomology, Orlando, FL.
2. Bhalerao, D., Swale, D., Park, J.-S., Foil, L. and **Husseneder, C**. 2016. Determining bioindicators for coastal tidal marsh health using the food web of larvae of the greenhead horse fly (*Tabanus nigrovittatus*). XXV International Congress of Entomology, Orlando, FL.
3. **Husseneder, C.** and Foil, L. 2016. A study of horse fly (Tabanidae) populations and their food web dynamics as indicators of the effects of environmental stress on coastal marsh health. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Tampa, FL.
4. **Husseneder, C.** and Foil, L. 2016. Impact of the 2010 Deepwater Horizon oil spill on population size and genetic structure of horse flies in Louisiana marshes. Gulf of Mexico Oil Spill & Ecosystem Science Conference, Tampa, FL.
5. **Shult, H., Davis, J., and Husseneder, C. 2015.** Identification of microsatellite alleles for a population genetics study of the invasive pentatomid soybean pest, *Piezodorus guildinii.* Southeastern Branch Meeting of the Entomological Society of America, Biloxi, MS (won 2nd place in poster competition).
6. Martin, T. Tikhe, C. Howells, A., and **Husseneder, C.** 2014. Assessment of a Termite Gut-Specific Bacterium, *Trabulsiella odontotermitis*, as a Potential 'Trojan Horse' for a Paratransgenesis Based Method of Termite Control. 114th General Meeting of the American Society for Microbiology, Boston, MA.
7. Krumholt, J., Delatte, J. R., Inmon, L., Foil, L. D., and **Husseneder, C.** 2012.

Microsatellite development for a horsefly species as a bioindicator of wetland health. Creativity in the Arts and Science Event (HHMI Life). Gainesville, Florida.

8. Simms, D. M, and **Husseneder, C.** 2011. Effects of caste on the constitutive and induced expression of genes associated with immunity and detoxification in Formosan subterranean termites. Annual Meeting of the Entomological Society of America, Reno, Nevada.
9. Sethi, A., Delatte, J., Foil, L., and **Husseneder, C.** 2010. Use of ligands for selective targeting of lytic peptides to kill gut protozoa of the Formosan subterranean termite. Annual Meeting of the Entomological Society of America, San Diego, California.
10. Foil, L. D., and **Husseneder, C.** 2010.A survey of tabanid and ceratopogonid populations along coastal Louisiana to establish baseline data for measuring impact of the BP oil spill on tidal marsh communities (NSF-RAPID). Deepwater Horizon Oil Spill Principal Investigator Conference, St. Petersburg, Florida.
11. Sethi, A., Delatte, J., Kaur, N., and **Husseneder, C.** 2010. Cellulose diet with phagostimulants changes the intestinal bacterial community in Formosan subterranean termites. Southeastern Branch Meeting of the Entomological Society of America, Atlanta, Georgia.
12. Yang, Y., Zhu, Y. C, Ottea, J., **Husseneder, C.,** Leonard, B. R., and Huang, F. 2010. RNA interference-mediated knockdown of cadherin and aminopeptidase N genes in sugarcane borer. Southeastern Branch Meeting of the Entomological Society of America, Atlanta, Georgia.
13. Yang, Y., Zhu, Y. C, Ottea, J., **Husseneder, C.,** Leonard, B. R., and Huang, F. 2009. Analyses of Sequences, Gene Expressions, and RNAi of Three Cry1Ab-Resistance Related Aminopeptidase Genes in the Sugarcane Borer, *Diatraea saccharalis.* Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
14. Sethi, A., La Peyre, J. F., Xue Q.-G Delatte, J., Foil L., and **Husseneder, C.** 2009. Dual Origin of Gut Proteases in Formosan Subterranean Termites (Isoptera: Rhinotermitidae). Annual Meeting of the Entomological Society of America, Indianapolis, Indiana.
15. Lang, P., McGregor, C., Delatte, J., and **Husseneder, C**. 2009. Transcriptome profiling of colony founders of the Formosan subterranean termite *Coptotermes formosanus.* Southeastern Branch Meeting of the Entomological Society of America, Montgomery, Alabama.
16. Yang, Y., Zhu, Y. C, Ottea, J., **Husseneder, C.,** Leonard, B. R., Abel, C. A., and Huang, F. 2009. Sequencing and analysis of cadherin cDNAs in CryAb-susceptible and –resistant strains of the sugarcane borer. Southeastern Branch Meeting of the Entomological Society of America, Montgomery, Alabama.
17. Yang, Y., Zhu, Y. C, Ottea, J., **Husseneder, C.,** Leonard, B.R., Abel, C. A., and Huang, F. 2008. Comparative study on enzyme activities and cDNA sequences of *Bacillus thuringiensis*-resistance related genes between CryAb-susceptible and –resistant strains of *Diatraea saccharalis*. Annual Meeting of the Entomological Society of America, Reno, Nevada.

18. Yang, Y., Ottea, J., Zhu, Y. C., **Husseneder, C.**, Leonard, B. R., and Huang, F. 2008. Enzymatic Analysis of *Bacillus thuringiensis*-Susceptible and -Resistant Strains of the Sugarcane Borer, *Diatraea saccharalis* (F.). Southeastern Branch Meeting of the Entomological Society of America, Jacksonville, Florida.
19. **Husseneder, C.**, Collier, R. E., Foil, L., Cooper, R. and Enright F. 2007. Paratransgenesis for termite control. Partners in Environmental Technology Technical Symposium & Workshop, Department of Defence, Washington, D.C.
20. Colby, D., Collier, R. E., **Husseneder, C.**, Foil, L. 2007. Silencing the short neuropeptide F-like receptor in red imported fire ants using small interfering RNA. Annual Meeting of the Entomological Society of America, San Diego, California.
21. Collier, R. E., **Husseneder, C.**, Delatte, J. R., and Wiser, C. 2007. Gene expression profile of the Formosan subterranean termite. Annual Meeting of the Entomological Society of America, San Diego, California.
22. Collier, R. E., **Husseneder, C.**, Foil, L., Cooper, R. and Enright F. 2006. Paratransgenesis – constructing the enemy within. International Symposium on Molecular Insect Science, Tucson, Arizona.
23. Collier, R. E., Higashiguchi, D. T., Ho, H.-Y., and **Husseneder, C.** 2005. The production of Vitamin B12 by novel bacteria isolated from the hindgut of the Formosan subterranean termite. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
24. Lee, A. H.-Y., **Husseneder, C.** and Hooper-Bui, L. 2005. Culture-independent identification of bacteria in fourth–instar red imported fire ant larvae, *Solenopsis invicta* Buren. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
25. Delatte, J., Vargo, E. L., Grace, J.K., and **Husseneder, C.** 2005. Analysis of colony breeding structure of Formosan subterranean termites from Kauai and Maui, Hawaii. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
26. Wise, B. R., and **Husseneder, C.** 2005. Prokaryotic diversity in the gut of the Formosan subterranean termite. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
27. Colby, D., Foil, L., and **Husseneder, C.** 2005. New evidence on red imported fire ant colony dynamics following disturbance: cultural control in pastures revisited. Annual Meeting of the Entomological Society of America, Ft. Lauderdale, Florida.
28. **Husseneder, C.**, Wise, B. R., and Higashiguchi, D. T. 2005. The microbial diversity in the gut of the Formosan subterranean termite described by classical culture and culture independent techniques. Conference of the American Society for Microbiology on Beneficial Microbes, Lake Tahoe, Nevada.
29. Wise, B. R., and **Husseneder, C.** 2004. Microbial diversity in the gut of the Formosan subterranean termite. 104nd General Meeting of the American Society for Microbiology, New Orleans, Louisiana.

30. Higashiguchi, D. T., **Husseneder, C.**, Berestecky, J. M., and Grace, J. K. 2002. Composition of the culture dependant microbial gut flora of the Formosan subterranean termite. 102nd General Meeting of the American Society for Microbiology, Salt Lake City, Utah.
31. **Husseneder, C.**, Kaib, M., Epplen, C., Epplen, J. T., and Brandl, R. 1997. Small-scale population structure of the termite *Schedorhinotermes lamanianus*. Meeting of the Deutsche Gesellschaft fuer allgemeine und angewandte Entomologie, Bayreuth, Germany.
32. **Husseneder, C.** and Kaib, M. 1994. Taxonomy and population differences of carabids (Coleoptera) on semi-natural limestone grasslands in Upper Franconia. Meeting of the Deutsche Zoologische Gesellschaft, Jena, Germany.

- Regional: Oral Presentations

1. **Husseneder, C**. and Tikhe, C. 2015. Paratransgenesis for target-specific termite control – or how to tame a microbial Trojan Horse. Students of the American Society of Microbiology (SASM) at LSU, Baton Rouge, LA.
2. Gissendanner, C., Tikhe, C., Martin, T., and **Husseneder, C. 2015**. Bacteriophages from the gut of the Formosan subterranean termite, *Coptotermes formosanus*. University of Louisiana at Monroe, Monroe, LA.
3. Tikhe, C., Martin, T, Gissendanner, C., and **Husseneder, C.** 2014. Study of bacteriophages from the gut of Formosan subterranean termite. Student symposium of the Department of Entomology (winner of 1st place), Baton Rouge, LA.
4. **Husseneder, C.** 2012. Trojan Horse for Termite Control. Meeting with Copesan Technical Committee, Baton Rouge, Louisiana.
5. **Husseneder, C.** 2012. Molecular biology of insects and associated microorganisms. Meeting with representatives from Univ. of Louisiana Monroe, Baton Rouge, Louisiana.
6. Simms, D. M., and **Husseneder, C.** 2011. Reduction in the number of Formosan subterranean termite colonies contributing to alate swarms inside an area-wide management program area. 3rd International Symposium on *Coptotermes formosanus*. New Orleans, Louisiana.
7. Owens, C., Su, N.-Y., Brown, K., Riegel, C. and **Husseneder, C.** 2011. Survival of Formosan subterranean termite, *Coptotermes formosanus*, colonies following prolonged inundation in New Orleans, Louisiana. 3rd International Symposium on *Coptotermes formosanus*. New Orleans, Louisiana.
8. Su, N.-Y., Messenger, M., Mullins, A., Guidry, E., **Husseneder, C.** et al. 2011. Population recovery of *C. formosanus* in Armstrong Park following the elimination of all detectable colonies. 3rd International Symposium on *Coptotermes formosanus*. New Orleans, Louisiana.
9. **Husseneder, C.,** Simms, D.M., Brown, K., and Lax, A. 2010. Decline in numbers of colonies contributing to swarm aggregations. Meeting of Cooperators. Southern Regional Research Center, New Orleans, Louisiana.

10. **Husseneder, C.** 2009. Emerging biotechnologies in pest control. Dept. of Plant Pathology and Crop Sciences, Baton Rouge, Louisiana.
11. **Husseneder, C.,** Simms, D. M., Brown, K., and Lax, A. 2009. Composition of swarm aggregations of Formosan subterranean termites (*Coptotermes formosanus*) in the French Quarter, New Orleans. 15th Meeting of the Formosan subterranean termite technical committee, New Orleans, Louisiana.
12. **Husseneder, C.** 2009. Paratransgenesis. Seminar at School of Renewable Natural Resources, LSU, Baton Rouge, Louisiana.
13. **Husseneder, C.** 2008. Emerging biotechnologies and their potential for control of termites and other urban pests. LSU AgCenter Conference, Baton Rouge, Louisiana.
14. Yang, Y., Ottea, J., Zhu, Y. C., **Husseneder, C.**, Leonard, B. R., and Huang, F. 2008. Activities of aminopeptidase and alkaline phosphatase from *Bacillus thuringiensis*-susceptible and –resistant strains of the sugarcane borer. Annual Meeting of the Louisiana Agricultural Science Association (LASA), Baton Rouge, Louisiana.
15. **Husseneder, C.** 2007. Paratransgenesis for termite control – constructing the enemy within. Science Club at LSU, Baton Rouge, Louisiana.
16. Aluko, G. K. and **Husseneder, C.** 2007. Breeding system and microbial load in field colonies of the Formosan subterranean termite from New Orleans. French Quarter Project, Meeting of Cooperators. Southern Regional Research Center, New Orleans, Louisiana.
17. Simms, D. M. and **Husseneder, C.** 2007. Assigning alates of the Formosan subterranean termite to colonies of origin within the context of an area- wide management program. French Quarter Project, Meeting of Cooperators. Southern Regional Research Center, New Orleans, Louisiana.
18. **Husseneder, C.** 2006. Termite symbiosis – bugs in bugs. Saturday Science at LSU, Baton Rouge, Louisiana.
19. **Husseneder, C.**, Foil, L. Cooper, R. and Enright F. 2006. Paratransgenesis for termite control. Biotechnology Committee, Baton Rouge, Louisiana.
20. **Husseneder, C.**, Aluko, G. K. 2006. Colony dynamics and social structure of Formosan subterranean termites surrounding the Wildlife and Fisheries Building, French Quarter, New Orleans. 14th Meeting of the Formosan subterranean termite technical committee, New Orleans, Louisiana.
21. **Husseneder, C.**, Simms, D. M., and Riegel, C. 2006. Genetic analysis of *Coptotermes formosanus* infestations along the Riverfront Railroad in New Orleans before and after treatment. 14th Meeting of the Formosan subterranean termite technical committee, New Orleans, Louisiana.
22. **Husseneder, C.**, and Simms, D. M. 2005. Mate choice in the Formosan subterranean termite – genotypic versus phenotypic traits. 13th Meeting of the Formosan subterranean termite technical committee, New Orleans, Louisiana.
23. **Husseneder, C.**, and Aluko, G. 2005. Colony dynamics of the Formosan subterranean termite surrounding the Wildlife and Fisheries Building in New Orleans. 13th Meeting of

the Formosan subterranean termite technical committee, New Orleans, Louisiana.

24. **Husseneder, C.** 2005. Bugs in bugs – the microbial diversity in the termite gut. Seminar at LSU, Dept. of Plant Pathology & Crop Physiology, Baton Rouge, Louisiana.
25. **Husseneder, C.** 2004. Mate choice in the Formosan subterranean termite. 12th Meeting of the Formosan subterranean termite technical committee, New Orleans, Louisiana.

- Regional: Posters

1. Shult, H., Davis, J., and **Husseneder, C.** 2014. Identification of microsatellite alleles for a population genetics study of the invasive pentatomid soybean pest, *Piezodorus guildinii*. Student symposium of the Department of Entomology, Baton Rouge, LA.
2. Martin, T., Tikhe, C, Howells, A., Delatte, J. and **Husseneder, C.** 2014. Assessment of a termite specific gut bacterium, *Trabulsiella odontotermitis*, as a potential 'Trojan Horse' for a paratransgenesis based method of termite control. LSU Discovery, Baton Rouge, LA.
3. Howells, A., Davis. J., and **Husseneder, C.** 2014. Analyzing bacteria that are transmitted during stink bug feeding for potential plant pathogenic nature. Summer Undergraduate Research Forum (HHMI), Baton Rouge, Louisiana
4. Martin, T. Tikhe, C., Gissendanner, C., and Husseneder, C. 2014. Gut bacteriophages of the Formosan subterranean termite. Summer Undergraduate Research Forum (HHMI), Baton Rouge, Louisiana
5. Tikhe, C., **Husseneder, C.** and Delatte, J. 2013. Genetic engineering of gut bacteria from the Formosan subterranean termite, *Coptotermes formosanus* Shiraki, to serve as "Trojan Horses" for termite control. Southeastern Branch Meeting of the Entomological Society of America, Baton Rouge, Louisiana.
6. Krumholt, J., Delatte, J. R., Inmon, L., Foil, L. D., and **Husseneder, C.** 2011. Microsatellite development for a horsefly species as a bioindicator of wetland health. Summer Undergraduate Research Forum (HHMI), Baton Rouge, Louisiana.
7. Nierman, W. W., Fedorova, N. D., Zhang, D. Tarver, M., Scharf, M., **Husseneder, C**., Kambhampati, S., and Lax, A. 2011. The status of the *Coptotermes formosanus* genome sequence. 3rd International Symposium on *Coptotermes formosanus*. New Orleans, Louisiana.
8. Foil, L. D., **Husseneder, C.**, Delatte, J., Becker, M., Hilbun, W., and Inmon, L. 2011. NSF-RAPID: A survey of tabanid and ceratopogonid populations along coastal Louisiana to establish baseline data for measuring impact of the BP oil spill on tidal marsh communities. Deepwater Horizon Oil Spill Conference. Baton Rouge, Louisiana.
9. Foil, L. D., and **Husseneder, C.** 2010. A survey of tabanid and ceratopogonid populations along coastal Louisiana to establish baseline data for measuring impact of the BP oil spill on tidal marsh communities (NSF-RAPID). Collaborative Scientific Research Opportunities Relative to the Gulf Oil Spill. New Orleans, Louisiana.

10. Collier, R. E., **Husseneder, C.**, Foil, L. Cooper, R. and Enright F. 2006. Paratransgenesis – constructing the enemy within. Biotechnology Education of Teachers and Students, Baton Rouge, Louisiana.

- Participant

Qiagen PCR array Webinar series (3 parts) (1/2015)

Qiagen Microbiome Webinar series (4 parts) (11/2014)

USDA Regulatory Permitting and Compliance Education Workshop, Baton Rouge, LA, April 30, 2013.

Webinar "U.S. EPA/ORD Grants Process Workshop – How it Works", December 9, 2010

Discussion sessions sub-surface oil sampling plan: Unified Command, Federal Agencies & Academic Partners. Tulane, New Orleans, LA, September 2, 2010.

❖ ***Other scholarly or creative activities or other contributions to the profession***

Contributor of a photograph to decorate the 2015 Annual Conference of the Entomological Society of America and their 2016 calendar.

Contributor of photographs for the 2011 and 2015 National Insect catalog (juried competition).

Author of the webpage "Bugshots" connected to the Department of Entomology website (http://entomology.lsu.edu/) featuring striking insect images and fun facts.

Photostream on FLICKR featuring my insect photography (including award winning photos). (http://www.flickr.com/photos/63801202@N02/).

❖ ***Other awards, lectureships, or prizes that show recognition of scholarly or artistic achievement***

2016	Winner of the photo contest of Pest Control Technology Magazine ($500)
2014	Award for the 2014 Article of the Year by the Louisiana Agriculture Magazine
2014	Finalist in the photo contest of Pest Control Technology Magazine
2013	South Eastern Branch of the Entomological Society of America: Award for best photo in the Macro category of the Insect Photosalon Contest
2012	First place in the photo contest of Pest Control Technology Magazine ($500)
2011	Recognition Award in Urban Entomology, South Eastern Branch of the Entomological Society of America
2011	South Eastern Branch of the Entomological Society of America: Second place for best artistic photo in the Insect Photosalon Contest
2010	First place in the photo contest of Pest Control Technology Magazine ($500)
2010	LSU Inter-Institutional Biological & Recombinant DNA Safety Committee

	Recognition Award
2009	Invitation to join the LSU Science Club (by nomination only)
2009	South Eastern Branch of the Entomological Society of America: First and second place for best artistic photo in the Insect Photosalon Contest
2007	South Eastern Branch of the Entomological Society of America: Award for best artistic photo in the Insect Photosalon Contest
1998-2000	Postdoctoral stipend from the German Academic Exchange Service ($35,000)
1987-1992	Educational scholarship of Bavaria for highly gifted students ($39,600)

- ***Research support/ grant activities***
  (as of 2016: $6,449,804 total combining $3,411,441 in competitive grants, $1,134,940 in Cooperative Agreements, $1,512,123 in State funds, $357,100 in LSU grants, and $32,200 in industry and other funds)

1. Foil, L. and **Husseneder, C.** 2016-2018. A study of horse fly (Tabanidae) populations and their food web dynamics as indicators of the effects of environmental stress on coastal marsh health. GOMRI2015-V. $1,847,459.
2. **Husseneder, C.** 2014-2019. Genome sequencing of Ambrosia beetles to screen for microsatellite loci. USDA-ARS. $35,000.
3. Schlub, R., **Husseneder, C.**, Alvarez, A. et al. 2014-2019. Refinement and mitigation of *Casuarina equisetifolia* decline components responsible for tree loss in Guam. McIntire-Stennis (through University of Guam). $42,000 ($6,000 for termite work).
4. Foil, L. D. and **Husseneder, C.** 2014-2015. Ligand-lytic peptides for specific targeting of *Leishmania* parasites. NSF (2014-15) PFUND. $10,000.
5. Macaluso, K., Foil, L. D. and **Husseneder, C.** 2013-2015. Arthropod host-dependent influence on rickettsial pathogenicity. NIH-Bridge grant. $350,000.
6. Keenan, M.J., Martin, R.J., **Husseneder, C.**, Marco, M., and Durham, H. 2013-2018. Use of three bioactive components, whole-grain, resistant starch and moderate dietary fat, to improve gut health and boost immune function. USDA-NIFA. $ 499,785.
7. **Husseneder, C.** and Gissendanner, C. 2013-2014. Biodiversity and genomics of bacteriophages associated with termites and phage therapy in the termite gut model. NSF(2013)Pfund. $9,997.
8. Foil, L. D., and **Husseneder, C.** 2011. Continued sampling of tabanid populations as indicators of acute and potentially chronic effects of oil spill stress on coastal marsh health. Gulf of Mexico Research Initiative RFP-III. $80,898.
9. **Husseneder, C.**, and Sabliov, C. 2011-2013. Nanotechnology for delivering protozoa-specific ligands into termite guts. NSF (2010-2011) Pfund. $10,000.
10. **Husseneder, C.** 2010. Biotechnology and molecular identification of population and colony structures for improved termite control. State of Louisiana. $138,123.
11. **Husseneder, C.** 2010-2012. Assessment of treatment success of Formosan subterranean termites in the French Quarter, New Orleans, at the level of alate swarms and tracking potentially invasive termites using molecular methods (continued). USDA-ARS. $150,000.
12. Foil, L. D., and **Husseneder, C.** 2010. A Survey of Tabanid and Ceratopogonid Populations along Coastal Louisiana to Establish Baseline Data for Measuring the Impact of the BP Oil Spill on Tidal Marsh Communities. NSF RAPID. $175,761.
13. **Husseneder, C.,** Sethi, A., Foil, L., and Enright, F. M. 2010. Development of a termite bait with yeast expressing protozoacidal lytic peptides as the active ingredient. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU Agricultural Center. $40,000.

14. **Husseneder, C.** 2009. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $186,000.
15. **Husseneder, C.** 2009. Assessment of treatment success of Formosan subterranean termites in the French Quarter, New Orleans, at the level of alate swarms and tracking potentially invasive termites using molecular methods. USDA-ARS. $150,000.
16. **Husseneder, C.,** Sethi, A., Foil, L., and Richard A. 2009. Designing ligand/lytic peptides to target surface receptors of the obligate gut protozoa of the Formosan subterranean termite. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU Agricultural Center. $34,000.
17. Foil, L., **Husseneder, C.,** Colby, D., and Johnson, S. 2009. Novel methods for increasing the efficiency of gene knockdown for control of red imported fire ants. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU Agricultural Center. $34,000.
18. **Husseneder, C.** 2008. Invasive termites. USDA-ARS. $150,000.
19. Foil, L. D., and **Husseneder, C.** 2008. Characterization of polymorphic microsatellite loci for population genetic analyses in the horn fly, *Haematobia irritans.* NSF (2008) PFUND. $10,000.
20. **Husseneder, C.** 2008. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $200,000.
21. Martin, R. J., Keenan, M., Janes, M., Hou, A., Bae, H.-S., **Husseneder, C.**, and Day, D. 2008. Molecular Characterization of Gut Microflora of Rats Fed a Prebiotic, Resistant Starch. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU Agricultural Center. $40,000.
22. **Husseneder, C.** 2007. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $203,000.
23. **Husseneder, C.** 2007. Characterization of Formosan subterranean termite colonies in the French Quarter, New Orleans. USDA-ARS. $150,000.
24. **Husseneder, C.**, Colby, D., Foil, L. Collier, R., and Johnson, S. 2007. Control of the red imported fire ant using RNA interference and paratransgenesis. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU AgCenter. $40,000.
25. **Husseneder, C.** 2006. Characterization of Formosan subterranean termite colonies in the French Quarter, New Orleans. USDA-ARS. $200,000.
26. **Husseneder, C.** 2006. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $203,000.
27. Vargo, E. L., and **Husseneder, C.** 2006-2008. Geographical analysis of genetic and behavioral basis of invasion success in a termite. National Geographical Society. $16,860.
28. Larkin, J., Blackwell, M., Dimario, P., Fuxa, J., **Husseneder, C.**, Moe, W., Henry, J., Hjortso, M. 2006-2007. A fluorescence in situ hybridization (FISH) collaborative in the Socolofsky Microscopy Center. LSU Faculty Research Grant Program. $37,000.

29. **Husseneder, C.** 2006. Creation of a normalized cDNA library and an expressed sequence tag database of the Formosan subterranean termite. NSF (2006) PFUND. $10,000.
30. **Husseneder, C.**, Foil, L., Cooper, R., and Enright, F. 2006-2007. A novel approach to managing termite species using genetically engineered bacteria. SERDP Exploratory Development Program (SEED). Army Corps of Engineers/DOE. $99,944.
31. **Husseneder, C.** 2006-2007. Genetic analysis of colony organization and elimination in Formosan termites. Research agreement, University of Hawaii. $42,071.
32. **Husseneder, C.** 2006. Molecular genetic screening of termite colonies for the New Orleans Mosquito and Termite Control Board. New Orleans Mosquito and Termite Control Board. $5,000.
33. **Husseneder, C.** 2006. CSREES Grantmanship and Grant Writing Workshop, Dallas, Texas, Oct. 17-18, 2006. AgCenter Travel Grant. $1,200.
34. **Husseneder, C.** 2005. Characterization of Formosan subterranean termite colonies in the French Quarter, New Orleans. USDA-ARS. $140,000.
35. **Husseneder, C.** 2005. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $182,000.
36. **Husseneder, C.**, Foil, L. D., Cooper, R. K., and Enright, F. M. 2005. Engineering termite gut bacteria to express protozoicidal lytic peptides to control Formosan subterranean termites. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU Agricultural Center. $40,000.
37. **Husseneder, C.** 2005. Evaluation of bimonthly monitoring of Recruit IV (0.5% Noviflumuron) for control of subterranean termites, *Coptotermes formosanus* and *Reticulitermes* spp. in Louisiana. Dow AgroSciences. $7,000.
38. **Husseneder, C.** 2004-2008. Diversity and ecology of the microbial gut flora of the Formosan subterranean termite. Louisiana Board of Regents. $92,100.
39. **Husseneder, C.** 2004. Characterization of Formosan subterranean termite colonies in the French Quarter, New Orleans. USDA-ARS. $80,000.
40. **Husseneder, C.** 2004. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $180,000.
41. **Husseneder, C.** 2004. Genetic characterization of Formosan subterranean termite colonies. Dow AgroSciences. $7,000.
42. **Husseneder, C.** 2004. Oral presentation at the ICE in Australia: Paratransgenesis – a novel approach to termite control. Travel Grant from Louisiana Board of Regents. $1,000.
43. **Husseneder, C.** 2003. Molecular approaches to biology and management of the Formosan subterranean termite. State of Louisiana. $220,000.
44. **Husseneder, C.** 2003. Characterization of Formosan subterranean termite colonies in the French Quarter, New Orleans. USDA-ARS. $79,940.
45. **Husseneder, C.** 2003. Genetic characterization of Formosan Subterranean termite colonies infesting the Riverfront Railroad in New Orleans. DOW Agroscience. $7,000.

46. **Husseneder, C.**, Vargo, E. L., and Grace, J. K. 2002-2004. Genetic analysis of colony organization and elimination in Formosan termites. USDA T-STAR. $119,011.

47. Grace, J. K., **Husseneder, C.**, and Vargo, E. L. 2001-2002. Genetic analysis of origin and spread of the Formosan subterranean termite. USDA T-STAR. $139,655.

Grants pending

Gissendanner, C., **Husseneder, C.** 2016-2018. Gut Microbiome Manipulation Using Engineered Phage Therapy. PA-16-162: NIH Small Research Grant Program (Parent R03): $100,000.

Swale, D., Foil, L. D., Healy, K., **Husseneder, C.**, Roy, A. 2017-2021. Using novel surveillance, control, and outreach methodologies to provide needed tools for successful control of *Aedes* vectored diseases. Concept paper for CDC program Advanced And Innovative Solutions To Improve Public Health - (BAA) 2017-N-18041. $5,000,000.

Healy, K., Swale, D., Ottea, J., **Husseneder, C.**, et al. 2017-2021. Establishment of a Centers of Excellence for Vector-borne diseases at Louisiana State University. Vector-Borne Disease Regional Centers of Excellence (RFA CK 17 005). Department of Health and Human Services, Centers for Disease Control and Prevention – ERA. $9,971,308.

Grants not funded

Keenan, M. […], **Husseneder, C.**, et al. 2016-2021. The role of resistant starch in healing dysbiosis and the role of FXR gene in the mechanism. Advancing Mechanistic Probiotic/Prebiotic and Human Microbiome Research (R01) NIH. $1,798,096.

Gissendanner, C., **Husseneder, C.** and Keenan, M**.** 2015. Gut pathogen clearance using engineered phage in a mouse enteropathic model: efficacy and longitudinal metagenomics analysis. Bill and Melinda Gates Foundation. $100,000.

Schlub, R., Alvarez, A., **Husseneder, C**. et al. 2015. Revitalizing ironwood tree windbreaks through resource assessment and technology transfer to the historically underserved in the Mariana Islands. CIG $198,134 ($25,000 for termite work).

Gissendanner, C. and **Husseneder, C**. 2015. Utilizing bacteriophages to engineer gut microbiomes through delivery of species-specific antimicrobial agents. Bill and Melinda Gates Foundation. $100,000.

Husseneder, C., Gissendanner, C. Sabliov, C., Astete, C., Gauthier, T., Janes, M., Ham, J., and Keenan, M. 2015-2016. Phage recombineering, phage therapy and delivery via nanoencapsulation as novel biotechnologies for microbial community manipulation, pathogen and pest control. Louisiana Campuses Research Initiative (LaCRI). $99,158.

Davis, J. and **Husseneder, C.** 2015-2018. Genetic studies and bioassays to describe patterns and processes of insecticide resistant soybean looper spread for sustainable pest management. Monsanto $739,950.

Sathievel et al. 2014-2018. Using delivery systems to deliver probiotics to the gut and to improve elderly gut health. USDA-NIFA. $495,328.

Husseneder, C. and Davis, J. 2014-2018. Role of Endosymbionts in Range Expansion and

Pathogenicity of a New Invasive Stink Bug Species, *Piezodorus guildinii*. USDA-NIFA. $499,992.

Husseneder, C. 2014-2016. Horse fly [Tabanidae} populations and their food web as indicators of the effects of environmental stress on coastal marsh health. Louisiana Board of Regents. $131,326.

Husseneder, C. 2014. Metagenetic analyses from multiple environmental samples from Louisiana marshes for environmental impact assessment using the MinION sequencing technology. Oxford Nanopore.

Schlub, R., Alvarez, A., **Husseneder, C.** et al. 2014. Understanding the interaction of *Casuarina equisetifolia* decline components responsible for tree loss in windbreaks and landscapes in Guam. Western SARE. Preproposal.

Davis, J. and **Husseneder, C.** 2013-2018. Role of Endosymbionts in Range Expansion and Pathogenicity of a New Invasive Stink Bug Species, *Piezodorus guildinii*, and their use in Paratransgenesis for Control. USDA-NIFA. $493,253.

Schlub, R., Husseneder, C., Alvarez, A., Aime, C., and Marx, B. 2013-2016. Interdisciplinary and multistate/territory IPM systems approach to ironwood tree (*Casuarina equisetifolia*) decline. NIFA Western RIPM. $132,895.

Macaluso, K., Foil, L. D. and **Husseneder, C.** 2013-2017. Arthropod host-dependent influence on rickettsial pathogenicity. NIH. $1,839,036.

Foil, L. and **Husseneder, C.** 2013-2015. A study of horse fly (Tabanidae) populations and their food web dynamics as indicators of the effects of environmental stress on coastal marsh health. BOEM Louisiana Coastal Marine Institute. $361,032.

Foil, L. D. and **Husseneder, C.** 2012-2013. Ligand-lytic peptides for specific targeting of *Leishmania* parasites. NSF (2012-13) PFUND. $10,000.

Foil, L., **Husseneder, C.**, Green, C.C., and Wang, J. 2012-2015. A study of horse fly (Tabanidae) populations and their food web dynamics as indicators of the effects of environmental stress on coastal marsh health. GoMRI. $1,476,897.

Husseneder, C., and Gissendanner, C. 2012-2013. Isolation, sequencing and application of bacteriophages from the termite gut for the development of novel termite biocontrol methods and biotechnology tools. LaCri. $39,980.

Husseneder, C., and Simms. D. M. 2012. Using DNA technology to establish the impact of pest control industry efforts on the number of Formosan subterranean termites colonies contributing to alate swarms in New Orleans. National Pest Management Foundation. $20,415.

Macaluso, K., Foil, L. D. and **Husseneder, C.** 2012-2016. Mechanisms and molecules required for flea-borne transmission of *Rickettsia felis.* NIH. $1,250,000.

Foil, L. D., and **Husseneder, C.** 2012-2015. Using insect (mosquito, ceratopogonid and tabanid) species in freshwater and spartina marsh habitats as bioindicators of estuary health: comparison of population abundance, species diversity, and genetic diversity in oil impacted areas to pristine areas. Gulf of Mexico Research Initiative RFP-I (as part of the

Consortium for Land-Sea Interaction Research in the Northern Gulf of Mexico). $597,124.

Keenan, M., Martin, R., **Husseneder, C**., and Ye, J. 2011-2015. Use of a Prebiotic to Improve Gut Health and Boost Immune Function. USDA-AFRI. $500,000.

Macaluso, K., Foil, L. D. and **Husseneder, C.** 2011-2015. Microbial contribution to rickettsial pathogenicity in arthropod hosts. NIH. $1,835,000.

Foil, L., and **Husseneder, C.** 2011-2012. Continued evaluation of tabanid population dynamics and genetics as indicators of the acute and potentially chronic effects of oil spill stress on coastal marsh health. BP Gulf Research Initiative. $249,902.

Simms, D. M. and **Husseneder, C.** 2011-2012. Effects of caste on the induced and constitutive expression of genes associated with immunity in Formosan subterranean termites. NAS/IUSSI $2500

Macaluso, K., Foil, L. D. and **Husseneder, C.** 2011-2016. Mechanisms and molecules required for flea-borne transmission of *Rickettsia felis.* NIH. $1,850,000.

Aime, M. C., and **Husseneder , C**. 2010-2011. Investigation of a novel multipartite insect-fungus relationship in Guyana. NSF (2010-2011) Pfund. $10,000.

Husseneder, C. 2010-2013. Gene expression involved in reproduction and response to immune and xenobiotic challenges in the Formosan subterranean termite. Louisiana Board of Regents. $198,700 (Ranked in Top Category by the subject area panel, but not funded, because PI was considered sufficiently competitive on national level).

Husseneder, C., Sethi, A., Foil, L., and La Peyre, J. 2010-2013. Paratransgenesis - a novel approach to pesticide-free termite control. USDA-CSREES-AFRI. $399,611.

Allison, J. and **Husseneder, C**. 2010. Characterization of subcortical interactions between bark and woodboring beetle larvae using molecular tools. USDA-AFRI. $149,160.

Huang, F., Zhu, Y. C., **Husseneder, C**., Ottea, J., and Leonard, R. 2010-2013. Elucidation of the molecular mechanism of resistance to *Bacillus thuringiensis* in the sugarcane borer. USDA-CSREES-AFRI. $399,844.

Aryana, K., Hay, G. and **Husseneder, C**. 2010. Improving probiotic characteristics of acid and bile tolerances in health beneficial bacteria. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU AgCenter. $40,000.

Allison, J. D., and **Husseneder, C.** 2009. Characterization of subcortical interactions between bark beetle and woodborer larvae using molecular tools. USDA-CSREES-AFRI. $148,583.

Husseneder, C., Lang, P., Foil, L., La Bonte, D. R. 2009. Gene expression and function in primary kings and queens in colonies of the Formosan subterranean termite. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU AgCenter. $40,000.

Husseneder, C., Foil, L., and La Peyre, J. 2008. Paratransgenesis – a novel technology for termite control. SERDP (DoD, DoE, EPA). $1,263,189.

Foil, L., Colby, D., **Husseneder, C.** 2008. Altering Red Imported Fire Ant behavior using gene silencing as an approach for ant population suppression. NRICGP. $99,536.

Foil, L., **Husseneder, C.**, Bui, L., Johnson, S., Colby, D., Henne, D. 2008. Impact Of Biological, Chemical, And Cultural Suppression Tactics On Size, Structure, And Behavior Of Red Imported Fire Ant Populations. NRICGP. $400,000.

Foil, L., **Husseneder, C.**, Colby, D., Bui, L. 2007. Genetic profiling of red imported fire ant colonies for evaluating the impact of chemical and cultural suppression tactics in rangelands. NRICGP. $399,126

Foil, L., Baldwin, J., Colby, D., Johnson, S., Bui, L., **Husseneder, C.**, McCormick, M., and Sanson, D. 2006. Control of the invasive red imported fire ant in grazing lands using an IPM approach. Natural Resources Conservation Service. $246,500.

Husseneder, C. 2006. The influence of phenotype, genotype and microbial diversity on partner selection in the Formosan subterranean termite. NRICGP. $301,293.

Husseneder, C., Aluko, G., and Riegel, C. 2006. The impact of flood on subterranean termite colonies. National Pest Management Association. $16,560.

Husseneder, C., Collier, R. E., and Oard, S. 2006. Gene expression in the gut of the Formosan subterranean termite. Biotechnology AgCenter Interdisciplinary Team (BAIT) initiative, LSU AgCenter. $40,000.

Husseneder, C., Aluko, G., and Riegel, C. 2005. Identification of termite species of economic importance in Nigeria and Ghana. National Geographical Society. $20,000.

Roy, A., Foil, L., **Husseneder, C.**, Mackay, A., Mitchell. M. Ratard, R., and Yates, M. 2004. Characterizing enzootic and epizootic cycles of West Nile Virus. NIH-National Center for Infectious Diseases, Centers for Disease Control and Prevention. $249,000.

Scharf, M. E., and **Husseneder, C.** 2004. Creation of normalized cDNA libraries for comparative genomic research on two economically important U.S. termites. SNRE – Seed funding grant. $59,058.

Vargo, E. L., Grace, J. K., **Husseneder, C.**, and Henderson, G. 2001. Genetic analysis of colony organization in the Formosan subterranean termite. NRICGP. $178,306.

❖ ***Theses/dissertations directed (numbers only)***

4 M.S. (one co-advised with J. Davis)
2 Ph.D. (one co-advised with C. Aime, Dept. of Plant Pathology)

❖ ***Major areas of research interest***

Molecular biology, genomics, population genetics and breeding systems of social insects with a focus on subterranean termites; impact of disasters on population genetics and foodweb of bioindicator species; microbial ecology of insect guts; use of paratransgenesis and nanotechnology for pest management; phage therapy for termite control and improving gut health in humans;

❖ ***Outreach – field days, trade shows, direct clientele-contact***

2006-present: annual AgMagic participant
2006-present: annual Judge at LSU 4H Agricultural Demonstrations

❖ ***Cooperative/collaborative efforts with other faculty***

2008-2012: Adjunct position with the Department of Biological Sciences, LSU

Within the Department of Entomology, LSU Agricultural Center, the LSU main campus and Pennington

Formosan subterranean termite project in Louisiana (Dennis Ring, Alan Morgan, Dale Pollet, Dept. of Entomology)
Nanotechnology as delivery system for protozoacidal toxins into the termite gut (Cristina Sabliov, Dept. of Ag. Engineering)
Insect-fungus relationships in the rainforest of Guyana, microsatellite development for the rust-feeding fly *Mycodiplosis* sp. (Cathie Aime, Dept. of Plant Pathology)
Effect of oil on insect abundance, diversity and genetic diversity in freshwater and Spartina marsh habitats (Lane Foil, Dept. of Entomology, Andy Nyman, School of Renewable Natural Resources, et al.)
Identification of proteases in the gut of subterranean termites and their symbionts (Jerome La Peyre, Dept. of Veterinary Sciences)
Molecular identification of predator-prey relationships in wood boring beetles (Jeremy Allison, Dept. of Entomology)
Morphometric and genetic differentiation of *Salvinia* weevil populations (Seth Johnson, Dept. of Entomology)
Microsatellite genotyping to identify colonies and breeding systems of fire ants (Lane Foil, Dept. of Entomology)
Microsatellite genotyping of horn fly populations, for assigning individuals to source populations to monitor dispersal, survival and gene flow in insect release studies (Lane Foil, Dept. of Entomology)
Silencing expression of the neuropeptide F-like (NPF) receptor gene in the red imported fire ant (Deanna Colby, Lane Foil, Dept. of Entomology)
Bloodmeal identification in mosquitoes and sandflies (Lane Foil, Dept. of Entomology)
Sequencing of bacterial DNA to identify symbionts of fire ants (Linda Hooper-Bui, Dept. of

Entomology)
Sequencing of bacterial DNA to identify symbionts of cat fleas, microsatellite development for identification of flea colonies (Kevin Macaluso, School of Veterinary Medicine, Lane Foil, Dept. of Entomology).
Expression of gut peptidases and RNA interference in *Bacillus thuringiensis*-susceptible and –resistant strains of sugarcane borers (Fangneng Huang, Dept. of Entomology).
Molecular characterization of the gut flora from humans and rats in relation to diet; development of biotechnological approaches to modify gut flora to reduce obesity, diabetes and cancer (Michael Keenan, Roy Martin, School of Human Ecology, Aixin Hou, Dept. of Environmental Sciences, et al.)
Developing selective capture to retrieve specific DNA sequences from the termite gut (John Battista, Biol. Sciences)
Composition of termite gut bacteria (Meredith Blackwell, Biol. Sciences)
Pyrosequencing of symbionts and pathogens associated with the red-banded stinkbug (Jeff Davis, Dept. of Entomology)

With faculty from other institutions
Population genetics of *Odontotermes formosanus* and *Reticulitermes chinensis* in China (Qiuying Huang, Huazhong Agricultural University, Wuhan City, China)
Population genetics of the Formosan subterranean termite in its native and introduced range (Ed Vargo, NCSU; Kenneth Grace, UH; Jianchu Mo, Zhejiang University, China)
Impact of Hurricane Katrina on termite colonies in New Orleans (C. Riegel, New Orleans Mosquito and Termite Control Board, Nan-Yao Su, University of Florida)
Use of paratransgenesis to express RNAi in the termite gut to silence cellulase expression (Mike Scharf, Purdue)
Termite genomics (Srini Kambhampati, KSU; Mike Scharf, Purdue, Alan Lax, Matt Tarver, et al. USDA-ARS)
Termite eye development (Juergen Ziesmann, Azusa Pacific University)
Morphological post-invasion evolution of the Formosan subterranean termite (Armin Moczek, Indiana University)
Isolation and genome-sequencing of bacteriophages associated with termites (Chris Gissendanner, University of Louisiana at Monroe)
Identification of insect gut bacteria (Vikas Patil and Venkata Ramana at the Microbial Culture Collection, National Centre for Cell Science, Pune, Maharastra, India; Ravindra H. Patil at the Department of Microbiology and Biotechnology, R. C. Patel Arts, Commerce and Science College,Shirpur 425405, Maharashtra, India.

With other agencies
City of New Orleans Mosquito and Termite Control Board
USDA-ARS (F, Guillot, A. Lax (New Orleans): Operation Fullstop, F, Guerrero (Kerrville, TX): genomics, J. Adamczyk (Poplarville, MS): population genetics of ambrosia beetles
Dow AgroSciences

❖ ***Community involvement (as it relates to the AgCenter mission)***

2010 Volunteer citizen scientist to conduct oiled bird survey after the BP oil spill
2005 Volunteer at the animal shelter in Parker Coliseum after Katrina
2003-present: Introducing DNA work to citizens and PMP's of New Orleans

❖ ***Contributions to science and overall program impact (with selected publications)***

1. *Impact of man-made and natural disturbances and disasters on population genetics, breeding systems and food webs of native and invasive insect species.*

Natural disasters, such as hurricanes and floods as well as pollution of the environment and disturbance of habitats by human activities have an increasing impact on ecosystems, populations and species. We showed the movement of termite colonies and changes in breeding systems of termite colonies in adaptation to life in a disturbed urban landscape and proved the astounding survival of Formosan subterranean termite colonies after flooding by Hurricane Katrina via microsatellite genotype profiling of termite colonies. Results from this research guided pest control and quarantine decisions.

After the 2010 Deepwater Horizon oil spill in the Gulf of Mexico, I developed tools to measure the impact of the oil spill on bioindicator insect species in Louisiana marshes. Our model is the greenhead horse fly, *Tabanus nigrovittatus* Macquart, since its larvae are top predators in the marsh and thus vulnerable to changes in the environment and food web. We found evidence of severe crashes of tabanid populations in oiled areas. Microsatellite genotyping detected genetic bottlenecks in oiled populations in association with fewer breeding parents, reduced effective population size, lower number of family clusters and fewer migrants among populations. We are currently using next-generation sequencing to compare the meiofauna foodweb in soil and larval guts from oiled and pristine areas. This research guides assessment of damage, recovery and restoration of salt marshes.

a. Husseneder C, Donaldson JR, Foil LD. Impact of the 2010 Deepwater Horizon oil spill on population size and genetic structure of horse flies in Louisiana marshes. Sci Rep. 2016 Jan 12;6:18968. PubMed PMID: 26755069; PubMed Central PMCID: PMC4709594.
b. Husseneder C, Delatte JR, Krumholt J, Foil LD. Development of microsatellites for population genetic analyses of *Tabanus nigrovittatus* (Diptera: Tabanidae). J Med Entomol. 2014 Jan;51(1):114-8. PubMed PMID: 24605460.
c. Owens CB, Su NY, Husseneder C, Riegel C, Brown KS. Molecular genetic evidence of Formosan subterranean termite (Isoptera: Rhinotermitidae) colony survivorship after prolonged inundation. J Econ Entomol. 2012 Apr;105(2):518-22. PubMed PMID: 22606822.
d. Aluko GA, Husseneder C. Colony dynamics of the Formosan subterranean termite in a frequently disturbed urban landscape. J Econ Entomol. 2007 Aug;100(4):1037-46. PubMed PMID: 17849849.

2. *Population genetics of invasive termites.*

Termites are interesting alternative models of eusociality since they differ in their genetic makeup from the classical social insects (Hymenoptera). Subterranean termites are also important urban, forest and agricultural pest species. I was among the first researchers to use genetic profiling of termite colonies to identify kin biased behavior and roads to eusociality

that differed from the classical Hymenoptera model. From 1998-2011 I was part of the core research team collaborating with USDA-ARS under the umbrella of a federally funded program to combat Formosan subterranean termites in New Orleans. I used microsatellite genotyping to assess treatment success, survival after disturbances (e.g. landscaping, construction or flooding) and sources of re-infestation of termite colonies. I traced the origin of swarming alates via their genotypes and quantified how many colonies contribute to swarms to assess whether treatment had an area-wide effect. My population genetic studies identified the plasticity of breeding systems of termite colonies in native and introduced ranges, as well as dispersal and mating strategies of alates, and revealed sources of introduction and ways of spread of invasive termites on a global scale. Gene expression studies showed important aspects about reproduction, wound healing, immunity and detoxification in subterranean termites. This research contributed to advances in the theories of eusociality in termites as well as other important aspects of termite biology. Results from these studies provided information for the legislature, the pest control industry and homeowners on issues, such as prevention of termite spread, success of area-wide treatment and the development of novel termite control methods.

I was also a member of a delegation of termite specialists invited in 2008 by Dr. Nan-Yao Su and the State Environmental Protection Administration of China to transfer the DNA profiling technology for colony identification to China. I have trained Chinese scientists funded by the International Foundation for Science in my laboratory and have presented workshops and seminars on the use of DNA profiling at Chinese Institutes.

a. Husseneder C, Simms DM. Effects of caste on the expression of genes associated with septic injury and xenobiotic exposure in the Formosan subterranean termite. PLoS One. 2014;9(8):e105582. PubMed PMID: 25141339; PubMed Central PMCID: PMC4139394.
b. Husseneder C, McGregor C, Lang RP, Collier R, Delatte J. Transcriptome profiling of female alates and egg-laying queens of the Formosan subterranean termite. Comp Biochem Physiol Part D Genomics Proteomics. 2012 Mar;7(1):14-27. PubMed PMID: 22079412.
c. Husseneder C, Simms D, Delatte J, Wang C, Grace J, Vargo E. Genetic diversity and colony breeding structure in native and introduced ranges of the Formosan subterranean termite, *Coptotermes formosanus*. Biological Invasions. 2012; (14):419-437.
d. Vargo EL, Husseneder C. Biology of subterranean termites: insights from molecular studies of Reticulitermes and Coptotermes. Annu Rev Entomol. 2009;54:379-403. PubMed PMID: 18793101.

3. *Diversity of bacteria and bacteriophages associated with insects.*

The nutritional health of insects living on specialized diet is dependent on their gut microbiota. The knowledge obtained from my workgroup's studies improves understanding of the microbial ecology of the insect guts and aids in the development of tools and targets for pest control as well as the use of insects as models for gut microbiome engineering. My team used 16S rRNA gene and metagenome sequencing to discover the amazing diversity of bacteria in guts of termites, fleas, fire ants, and stink bugs, among others. Guts of Formosan subterranean termites contained mostly novel species, which belonged to specific lineages only found in termites. Although the bacterial community of the Formosan subterranean termite differs from colony to colony, between geographic regions, and with regards to diet, several bacteria species were detected in most of the investigated termite colonies, and are

thus in all likelihood obligate symbionts that can be used as tools and targets for termite control. Recently, we started to investigate the diversity of bacteriophages in termite guts by full genome sequencing of isolated phages and metavirome sequencing to develop phage therapy for pest control and microbiome engineering. Investigating the microbial diversity ecology of insects guts not only sheds light on novel symbioses, but is also expected to aid in the development of biological pest control strategies.

a. Tikhe CV, Martin TM, Gissendanner CR, Husseneder C. Complete Genome Sequence of Citrobacter Phage CVT22 Isolated from the Gut of the Formosan Subterranean Termite, *Coptotermes formosanus* Shiraki. Genome Announc. 2015 Jul 16;3(4)PubMed PMID: 26184927; PubMed Central PMCID: PMC4505115.

b. Gillespie JJ, Driscoll TP, Verhoeve VI, Utsuki T, Husseneder C, Chouljenko VN, Azad AF, Macaluso KR. Genomic diversification in strains of *Rickettsia felis* Isolated from different arthropods. Genome Biol Evol. 2014 Dec 4;7(1):35-56. PubMed PMID: 25477419; PubMed Central PMCID: PMC4316617.

c. Husseneder C, Ho HY, Blackwell M. Comparison of the bacterial symbiont composition of the Formosan subterranean termite from its native and introduced range. Open Microbiol J. 2010 Aug 11;4:53-66. PubMed PMID: 21347207; PubMed Central PMCID: PMC3040989.

d. Pornwiroon W, Kearney MT, Husseneder C, Foil LD, Macaluso KR. Comparative microbiota of *Rickettsia felis*-uninfected and -infected colonized cat fleas, Ctenocephalides felis. ISME J. 2007 Sep;1(5):394-402. PubMed PMID: 18043659.

*4. Paratransgenesis for insect contro*l.

My team was the first in the development of paratransgenesis (use of genetically engineered symbionts to spread foreign genes throughout a target population) for insect control (US Patent Serial No. 6,926,889). Our target was the invasive Formosan subterranean termite, which poses a serious economic threat globally. We provided proof of concept that bacteria and yeast can be used as Trojan Horses to rapidly introduce, efficiently spread and stably express foreign gene products in termite colonies. We developed a ligand via phage display that binds to the vital protozoa in the gut of termites. When coupled to an antimicrobial lytic peptide, this ligand-lytic peptide specifically and efficiently kills the cellulose digesting protozoa in the termite gut resulting in the death of the termite colony by starvation. We are currently engineering bacteriophages as Trojan Horses for termite control. We are also aiming to use a similar technique for using phage therapy to improve human gut health in humans and combat pathogenic protozoa (e.g. Leishmania).

a. Husseneder C, Donaldson JR, Foil LD. Genetically Engineered Yeast Expressing a Lytic Peptide from Bee Venom (Melittin) Kills Symbiotic Protozoa in the Gut of Formosan Subterranean Termites. PLoS One. 2016;11(3):e0151675. PubMed PMID: 26985663; PubMed Central PMCID: PMC4795760.

b. Tikhe CV., Martin T., Howells A, Delatte J, Husseneder C. Assessment of genetically engineered *Trabulsiella odontotermitis* as a 'Trojan Horse' for paratransgenesis in termites. BMC Microbiol. 2016 16(1): 202. PMCID: PMC5011783

c. Sethi A, Delatte J, Foil L, Husseneder C. Protozoacidal Trojan-Horse: use of a ligand-lytic peptide for selective destruction of symbiotic protozoa within termite guts. PLoS One. 2014;9(9):e106199. PubMed PMID: 25198727; PubMed Central PMCID: PMC4157778.

d. Husseneder C, Grace JK. Genetically engineered termite gut bacteria (*Enterobacter cloacae*) deliver and spread foreign genes in termite colonies. Appl Microbiol Biotechnol. 2005 Aug;68(3):360-7. PubMed PMID: 15742168.

Service Activities

Service Activities

❖ ***Organizations advised***

2014: Reviewer for USDA-ARS project plans

2013-pres. Member of the Editorial Board of Louisiana Agricultural Magazine

2013: Advisor for CB&I (former Shaw Group) concerning impact of seismic studies of the sink hole at Bayou Corne on termites.

2003-2011: Member of the Formosan Subterranean Termite Technical Committee, New Orleans

❖ ***Recruitment of students and faculty***

Chair of the Systematic Discovery committee (2015)

Member of the search committee for a Department Head (2015-2016)

Member of the search committee for the Insect Physiologist position at the department (2014)

Member of the search committee for the Protein Chemist position with a joint appointment between the LSU AgCenter and the LSU A&M College of Basic Sciences (2009)

Member of the search committee for the Forest Entomology position at the department (2007)

Member of the selection committee for a Molecular Biologist position at the USDA bee lab (2006)

Recruited four M.S. students (H.-Y. Ho, D. Simms, H. Shult, D. Bhalerao), two Ph.D. student (R. Koch, co-advised with C. Aime, Dept. Plant Pathology; Chinmay Tikhe), eight postdocs/visiting scientists (R. Dhar, G. Aluko, R. Collier, C. McGregor, P. Lang, Q. Huang, A. Sethi, D. Colby) and numerous undergraduate students, including HHMI funded undergraduates, and research associates

❖ ***University service (department, college, university, and faculty senate committees)***

- <u>Department</u>

Service as Acting Department Head

Member of the Mentor Committee of Dr. Daniel Swale (2015-pres.)

Member of the Mentor Committee of Dr. Kristen Healy (2014-pres.)

Chair of the Departmental Safety Committee (2013)

Chair of the Awards Committee (2012, 2014)

Member of the Distinguished Lecturer and Seminar Committee (2012-pres.)

Member of the Unit Head Review Committee (2010)

Host of seminar speaker Dr. Theo Evans (CSIRO, Canberra, Australia, 2010)

Member of the Awards Committee (2009-pres.)

Member of the Departmental Safety Committee (2009-pres.)

Member of the Courses and Curriculum Committee (2007-2009)

Chair of the Distinguished Lecturer Committee (2006-2007)

Member of the Distinguished Lecturer Committee (2005-2006)

Chair of the Admissions Committee (2004-2005).

Member of the Admissions Committee (2003-2004)

Member of the Committee for revising Strategic Goals in Urban Pest Management and the Committee for defining the Mission and Vision of the Department of Entomology (2004)

- University

Member of the Selection Committee for the Outstanding Dissertation Award for the LSU College of Agriculture (2014-pres.)

Secretary Treasurer of the LSU Science Club (2011-2012)

Co-Leader (with J. LaPeyre) of the AgCenter exchange group (ACE) Basic Animal and Plant Biology (2009-present)

Member of the AgCenter Biotechnology Laboratory (ABL) Advisory Team (2010-present)

Member of the AgCenter Biotechnology Laboratory (ABL) Review Team (2009-2010)

Adjunct with the Department of Biological Sciences, LSU (2008-2012)

Member of the Biotechnology Initiative Group (BIG) organizing committee of the LSU AgCenter (2007-2009)

Member of the Inter-Institutional Biological and Recombinant DNA Safety Committee (IBRDSC, 2006-present)

Member of the Biotechnology Council of the LSU AgCenter (2004-present)

Member of the Steering Committee to plan and conduct an AgCenter Biotechnology Summit (2004)

Full Member of the Graduate Faculty (2008-2011), 2011-2014 Affiliate Member of the Graduate Faculty for technical reasons, i.e., 100% LSU AgCenter appointment, reinstated as Full Member in 2015.

Associate Member of the Graduate Faculty (2003-2008)

Service as Dean's Representative (2004-2006, 2010, 2014)

Reviewer of CRIS projects (2005-present)

❖ ***Professional service***

- Symposium Organizer

Vargo, E. L., **Husseneder, C.** "Breeding system of Social insects: Causes and

consequences of within colony genetic diversity." XXIII International Congress of Entomology (2008, Durban, South Africa)

Zurek, L. **Husseneder, C.** "Bugs in bugs: Rock'n roll in the insect gut microcosm". Annual Meeting of the Entomological Society of America (2005, Ft. Lauderdale, Florida).

Clement, J.-L., **Husseneder, C.** Vargo, E. L. "Molecular ecology, systematics and population genetics of termites: from evolution to pest management." International Union for the Study of Social Insects (2002, Sapporo, Japan).

Jenkins, T., **Husseneder, C.** "Molecular Methods: New Approaches to Termite Biology." Joint Annual Meeting of the Entomological Society of America and Canada (2000, Montreal, Canada).

- Other Professional Service

2015: Member of the consortium for revising the taxonomy of the genus *Coptotermes* (led by T. Chouvenc, UFL)

2015: Judge at the LA STEM EXPO at Kennilworth Science and Technology School

2014: Assisted in designing a class/lab taught at University of Guam concerning the interaction of termites, pathogens and ironwood trees

2012-2013: Expert witness for the Louisiana Department of Agriculture & Forestry and Louisiana Pest control Commission in their lawsuit against Terminix Exterminating Co., Inc., Riverlands Terminix, and Terminix Service Co., Inc.

2012: Reviewer for L'Agence Nationale de la Recherche (National Research Funding Agency of France)

2012: Reviewer for Fundação para a Ciência e Tecnologia (FCT, Research and Technology Funding Agency of Portugal)

2011: Member of the Consortium for Land-Sea Interaction Research in the Northern Gulf of Mexico

2010-2011: Guest editor for PSYCHE

2010: Invited panel referee for the Insect Science special issue: Insects and Biofuels.

2009: Outside reviewer for NSF Genes and Genome Systems

2008-present: Reviewer for the International Foundation of Science (IFS)

2006-present: Judge at the Region VII Science and Engineering Fair

2004, 2005: Judge at the Capitol District Science and Engineering Fairs

2004: Head Judge at the ESA Student Poster Competition

Reviewer of Agricultural Science Research Journal, Annals of the Entomological Society of America, Australian Journal of Zoology, Biological Conservation, BASE (Biotechnologie, Agronomie, Societé et Environnement), Biological Invasions, Biology Letters, BioSystems, BMC Genomics, Chemical Ecology, Environmental Entomology, European Journal of Soil

Biology, Folia Microbiologica, Insectes Sociaux, International Microbiology, Journal of Invertebrate Pathology, Journal of Economic Entomology, Journal of Insect Molecular Biology, Journal of Medical Entomology, Journal of Integrated Pest Management, Molecular Ecology, Pesticide Biochemistry and Physiology, Physiological Entomology, PNAS, USDA-NRI proposals, NSF proposals, among others

Professional Memberships in Entomological Society of America, Hawaiian Entomological Society, International Isoptera Society, International Union for the Study of Social Insects, American Society for Microbiology, International Research Group on Wood Preservation, among others.

❖ ***Other external service***

2015: Seminar at the City of New Orleans Mosquito & Termite Control Board seminar series "RNA interference – Basics and Applications"

2013: Interview partner for LSU undergraduate students to discuss biotechnology

2012: Discussion partner for students of St. Joseph's Academy, Baton Rouge, Louisiana to debate the risks and achievements of genetic engineering.

2011: Lectures at Huazhong Agricultural University, Wuhan, China, to educate Chinese researchers and administrators about the use of molecular techniques in termite biology and control. Visit to research stations along the Yangtze River to exchange experiences concerning the danger and control of termites in levees. Demonstrations of termite control methods to local media and homeowners in rural and urban China.

2008: Lecture for the Termite Academy organized by the City of New Orleans and the Greater New Orleans Pest Control Association on the use of molecular biology for termite control, New Orleans

2006: Seminar at the New Orleans citizen meeting "DNA detectives – identification of termite colonies using molecular methods"

2005: Member of the selection committee for the BEST Undergraduate Research Award

2004: Seminar at Mosquito and Termite Control Board "Sampling for DNA analysis – the why and the how".

2004: Presentation at the meeting of the Louisiana Pestcontrol Association.

2003: Invited guest at the Premise Research meeting to discuss current and future developments with Premise.

2003-present: Advising colleagues from academia, industry and stakeholders concerning biotechnology, molecular biology and termite management via email and phone. Providing insect identification from samples or pictures to citizens.

Teaching

Teaching

❖ ***Documentation of teaching activities***

Courses:
Spring 2016: ENTM 9000, Thesis Research, 9 credit hours (1 student)
Spring 2016 ENTM 8000, Thesis Research, 2 credit hours (1 student)
Fall 2015 ENTM 9000, Thesis Research, 6 credit hours (1 student)
Fall 2015 ENTM 8000, Thesis Research, 10 credit hours (2 students)
Summer 2015 ENTM 9000, Thesis Research, 6 credit hours (1 student)
Summer 2015 ENTM 8000, Thesis Research, 9 credit hours (2 students)
Spring 2015 ENTM 8900, Research Problems, 4 credit hours (1 student)
Spring 2015 ENTM 9000, Thesis Research, 5 credit hours (1 student)
Spring 2015 ENTM 8000, Thesis Research, 5 credit hours (2 students)
Fall 2014 ENTM 9000, Thesis Research, 5 credit hours (1 student)
Fall 2014 ENTM 8000, Thesis Research, 3 credit hours (1 student)
Summer 2014 ENTM 9000, Thesis Research, 6 credit hours (1 student)
Spring 2014 ENTM 9000, Thesis Research, 12 credit hours (2 students)
Fall 2013 ENTM 9000, Thesis Research, 5 credit hours (1 student)
Summer 2013 ENTM 9000, Thesis Research, 6 credit hours (1 student)
Summer 2013 ENTM 4099, Independent Research, 3 credit hours (1 undergraduate student)
Spring 2013 ENTM 9000, Thesis Research, 5 credit hours (1 student)
Spring 2013 ENTM 8000, Thesis Research, 1 credit hour (1 student),
Fall 2012 ENTM 9000, Thesis Research, 3 credit hours (1 student)
Fall 2012 ENTM 8000, Thesis Research, 1 credit hours (1 student)
Summer 2012 ENTM 9000, Thesis Research, 6 credit hours (1 student)
Summer 2012 ENTM 8000, Thesis Research, 3 credit hours (1 student)
Spring 2012 ENTM 9000, Thesis Research, 3 credit hours (1 student)
Spring 2012 ENTM 8000, Thesis Research, 2 credit hours (1 student),
Fall 2011 ENTM 9000, Thesis Research, 6 credit hours (1 student)
Fall 2011 ENTM 8000, Thesis Research, 4 credit hours (1 student)
Spring, Summer 2011 ENTM 8000, 2 credit hours (1 student)
Fall 2010: BIOL 3999. Independent Research, 2 credit hours (2 undergraduate students)
Fall 2010: ENTM 8000. Thesis Research, 2 credit hours (1 student)
Summer 2010: ENTM 7008. Special Topics in Entomology: Real-time PCR for gene expression studies in insects. 3 credit hours (1 student)
Spring, Summer 2010: ENTM 9000. Thesis Research, 4 credit hours (1 student)
Spring, Summer, Fall 2009: ENTM 8000. Thesis Research, 1 credit hour (1 student)
Spring 2008: BIOL 3999. Independent Research, 2 credit hours (1 student)
Summer and Fall 2007: BIOL 3999. Independent Research, 3 credit hours (2 students)
Summer 2006: Biotechnology Education of Students and Teachers (BEST) program. Project title: "Genetic engineering of termite gut bacteria" (duration: one month, 4 full days/week)
Summer 2006: Biotechnology Education of Students and Teachers (BEST) program. Project title: "Identification of colonies of the red imported fire ant using microsatellite

genotyping" (duration: one month, 4 full days/week)
Summer 2005: Biotechnology Education of Students and Teachers (BEST) program. Project title: "Dynamics of microbial diversity of the termite gut depending on rearing conditions and nutrition" (duration: one month, 4 full days/week)
Spring and Fall 2005: BIOL 3999. Independent Research. 3 credit hours (3 students).
Summer 2004: ENTM 7008. Special Topics in Entomology: Culture-independent techniques to identify insect symbionts. 3 credit hours
Summer 2004: Biotechnology Education of Students and Teachers (BEST) program. Project title: "Microbial diversity of the termite gut" (duration: one month, 4 full days/week)

Guest Lectures
Fall 2014: Trojan Horses for Target Specific Termite Management (ENTM 7008)
Fall 2014: Introduction to Paratransgenesis (ENTM 7008)
Summer 2011: Genetic Engineering and Nanotechnology – Sci (Fi?) Approaches to Termite Control. HHMI Mentor Seminar
Fall 2008: Use of molecular biology for termite control, Termite Academy, City of New Orleans and the Greater New Orleans Pest Control Association
Fall 2006: Lab tour for ENTM 7001
Summer 2006: Paratransgenesis in termites (BEST summer program)
Fall 2005: Insect Sociality (BIOL 4154, Invertebrate Zoology, Biological Sciences)
Summer 2005: Microbial diversity in the termite gut (BEST summer program)
Summer 2004: Sequencing termite gut bacteria (BEST summer program)
Fall 2003: Insect Sociality – Basics and Theory (Insect Behavior, Dept. of Entomology)
1999-02: Guest lectures: Foundation of Entomology, General Entomology, Systematic Entomology
1990-96: Teaching assistant in the undergraduate lab course in Animal Physiology

Graduate Students advised
Major Professor:
MS: 4 (D. Bhalerao, H. Shult- co-advised, H.-Y. Ho, D. Simms)
PhD: 2 (C. Tikhe, R. Koch - co-advised)
Committee member:
PhD: 7 (C. Fassbinder-Orth, A. Lee, I. Unlu, Y. Yang, F. Yang, L. Bernaola, D. Obanda)
MS: 2 (E. Schoeller, RC Page)
Adjunct committee member for students at other universities:
PhD: 2 (M. Fisher, Virginia Tech, C. Owens, Univ. of Florida)
Dean's representative:
PhD: 3

Postdoctoral Fellows and Visiting Scientists advised
10 (R. Dhar, G. Aluko, R. Collier, D. Colby, C. McGregor, P. Lang, Q. Huang, A. Sethi, J. Sidhu, J.-S. Park)

- ***Participation in professional meetings, symposia, workshops, and conferences on teaching and local instructional activities***

Howard Hughes Medical Institute Mentor seminar (7/5/11)

AgCenter HRM Training: Effective supervision (5/18/06)

❖ ***Other instructional activities or other contributions to the profession***

2014: Mentor of two Summer Undergraduate Research students funded by the Howard Hughes Medical Institute
2014: Mentor of undergraduate student conducting research project for LSU Discovery
2011: Mentor of a Summer Undergraduate Research student funded by the Howard Hughes Medical Institute
2006: Mentor for a BEST sponsored postdoctoral fellow (Dee Colby: Silencing expression of the neuropeptide F-like (NPF) receptor gene in the red imported fire ant)
2005-2007: Mentor for a BEST sponsored postdoctoral fellow (Rachael Collier: Paratransgenesis in termites)
Fall 2005: Mentor for a high school science project on the influence of inbreeding on body weight, size and fluctuating asymmetry of termites
Fall 2003: Mentor for a high school science project on morphometric and genetic differentiation of *Salvinia* weevil populations (collaboration with Seth Johnson)
2000-02: Mentor for NASA Space Grant Undergraduate Fellowship Program. Project title: "The gut flora of the Formosan subterranean termite as a model of an exotic ecosystem"
Ongoing: Informal training of undergraduate and graduate students in molecular, microbiological and biotechnology techniques.

❖ ***Teaching support/grant activities***

Grants funded

Reddicks, A., and **Husseneder, C.** 2016. Characterizing a *Citrobacter rodentium* Bacteriophage SPI. Undergraduate Research Grant. $3,000.

Husseneder, C., and Tikhe, C. 2012. Paratransgenesis for termite control. Student research grant from the Entomological Society of America. $700.

Aime, M. C., and **Husseneder, C.** 2011-2015. Investigation of a termite-fungus partnership and its potential for biocontrol. Economic Development Assistantships, Louisiana State University. $25,000 per year to support a graduate student.

Husseneder, C., Simms, D. M. and Patel, K. 2010. Microsatellite genotyping to describe colony structures of *Coptotermes formosanus* (Shiraki) in the French Quarter, New Orleans. Undergraduate Research Grant, LSU. $1,500.

Husseneder, C., Simms, D. M., and Morella, V. 2010. Analysis of 16S rRNA and COII mitochondrial genes to infer phylogeography and gene flow of *Odontotermes formosanus* in China. Undergraduate Research Grant, LSU. $700.

Husseneder, C. and Collier, R. 2006. Genetic engineering of termite gut bacteria. Biotechnology Education for Teachers and Students. $2,000.

Husseneder, C. and Colby, D. 2006. Identification of fire ant colonies using microsatellite genotyping. Biotechnology Education for Teachers and Students. $2,000.

Husseneder C. 2005. Dynamics of microbial diversity of the termite gut depending on rearing conditions and nutrition. Biotechnology Education for Teachers and Students. $2,000.

Husseneder C. 2004. Microbial diversity of the termite gut. Biotechnology Education for Teachers and Students. $2,000.

Grants not funded

Husseneder, C., and Davis, J. A. 2015-19. Structure and function of microbial communities of an invasive stink bug and their impact on pest status in different geographical regions and host plant. Economic Development Assistantships, Louisiana State University. $25,000 per year.

Husseneder, C. 2013. Hosting a fellow from Malaysia for microsatellite study of banana. USDA Borlaug Fellowship Program.

Husseneder C., and Foil, L. D. 2014-2018. A study of horse flies and their food web as health indicators of Louisiana saltmarshes after the Macondo oil spill. Economic Development Assistantships, Louisiana State University. $25,000 per year.

Husseneder C. 2012-2016. Melittin and insect diuretic hormones coupled to ligands that bind to insect guts for target specific customizable pest control. Economic Development Assistantships, Louisiana State University. $25,000 per year.

Husseneder C. 2010-2014. Basic and applied studies towards the development of pesticide-free termite control strategies. Economic Development Assistantships, Louisiana State University. $25,000 per year.