

Dr. Eric V. Stabb

Professor and Associate Head, Department of Microbiology, University of Georgia
258-B Biological Sciences, Athens, GA 30602, (706)-542-2414, estabb@uga.edu

Education

- 1997 Ph.D. in Bacteriology
University of Wisconsin-Madison
- 1990 B.S. with distinction in Molecular Biology and Philosophy
University of Wisconsin-Madison

Professional Experience

- 2012-present Professor, Department of Microbiology, University of Georgia (UGA). Research Focus: The bioluminescent marine bacterium *Vibrio fischeri*. Research topics include symbiotic interactions of *V. fischeri* with *Euprymna scolopes*, inter- and intraspecies signaling, regulation and role of bioluminescence, *V. fischeri* plasmids and genomics, and application of genetic techniques in *V. fischeri* and other marine bacteria.
- 2014-2015 Visiting Professor, Department of Molecular, Cellular, and Developmental Biology, Yale University. Mentored personnel in Jo Handelsman's lab and taught class during Dr. Handelsman's service at White House Office of Science and Technology Policy.
- 2007-2012 Associate Professor, Department of Microbiology, UGA
- 2001-2007 Assistant Professor, Department of Microbiology, UGA
- 1997-2001 Postdoctoral Fellow with Professor Edward G. Ruby, Kewalo Marine Laboratory, University of Hawai'i. Focus: *Vibrio fischeri*-*Euprymna scolopes* symbiotic interactions.
- 1991-1997 Graduate Research Assistant with Professor Jo Handelsman. Elucidated mechanisms of resistance to zwittermixin A in *Escherichia coli*, and described populations of genetically diverse zwittermixin A-producing *Bacillus* strains from soils and plant roots.
- 1988-1990 Undergraduate Researcher with Professor Timothy J. Donohue. Examined maturation of c-type cytochromes. Developed molecular genetic tools in *Rhodobacter sphaeroides*.

Other Significant Positions

- Associate Head, UGA Microbiology Department (2012-2014, 2015-present)
- Editor, *Applied and Environmental Microbiology* (2016-present)
- Microbiology Graduate Program Coordinator (2011-2014)
- Councilor (2014), Chair (2013), Chair elect (2012), ASM General Microbiology Division (Div I)
- Co-Chair, 5th and 6th ASM Conference on Cell-Cell Communication in Bacteria (2014 & 2017)
- UGA University Council - Arts & Sciences Representative (2011-2014)
- President (2009-2010) and Senator (2007-2009), UGA College of Arts and Sciences Faculty Senate

Awards and Honors

- 2015 (also 2006, 2012, 2013) Acknowledged by UGA alumni in "Thank a Teacher" Program
- 2014 Margaret Green Award for outstanding teaching of microbiology, Southeast Branch ASM
- 2011 UGA Master Award for Excellence in Undergraduate Research Mentoring
- 2009 Finalist, UGA Graduate School Outstanding Graduate Student Mentoring Award
- 2008 Accepted UGA Embracing Diversity Award on behalf of Microbiology Department
- 2004 National Science Foundation (NSF) CAREER early investigator award
- 1999-2001 National Institutes of Health, Postdoctoral National Research Service Award
- 1996 Gamma Sigma Delta inductee
- 1991-1996 Howard Hughes Medical Institute Predoctoral Fellow
- 1991 NSF Predoctoral Fellowship (awarded but declined)
- 1990-1991 National Institutes of Health Molecular and Cellular Biology Training Grant Fellow
- 1989 Phi Beta Kappa inductee
- 1988 NSF Research Experience For Undergraduates Award

Memberships

- American Society for Microbiology (ASM)
- International Symbiosis Society
- American Association for the Advancement of Science

Publications ([Google Scholar link](#))Journals:

- Lyell, N.L., A.N. Septer, A.K. Dunn, D. Duckett, Stoudenmire and **E.V. Stabb** 2017. An expanded transposon-mutant library reveals that *Vibrio fischeri* δ -aminolevulinic acid auxotrophs can colonize *Euprymna scolopes*. *Applied and Environmental Microbiology* 83: e02470-16
- Fischer, C.N., E. Trautman, J.M. Crawford, **E.V. Stabb**, N.A. Broderick, and J. Handelsman. 2017. Metabolite exchange between microbiome members produces compounds that influence *Drosophila* behavior. *ELife* 6:e18855
- Stulberg, E., G.L. Lozano, J.B. Morin, H. Park, E. G. Baraban, C. Mlot, C. Heffelfinger, G. M. Phillips, J.S. Rush, A.J. Phillips, N.A. Broderick, M.G. Thomas, **E. V. Stabb**, and J. Handelsman. 2016. Genomic and secondary metabolite analyses of *Streptomyces* sp. 2AW provide insight into the evolution of the cycloheximide pathway. *Frontiers in Microbiology* 7:573
- Kimbrough, J.H. and **E.V. Stabb**. 2016. Antisocial *luxO* mutants provide a stationary-phase survival advantage in *Vibrio fischeri* ES114. *Journal of Bacteriology*. 198:673-687
- Dunn, A.K., B.A. Rader, **E.V. Stabb**, and M.J. Mandel 2015. Regulation of bioluminescence in *Photobacterium leiognathi* strain KNH6. *Journal of Bacteriology* 197:3676-3685
- Colton, D.M., J.L. Stoudenmire and **E.V. Stabb**. 2015. Growth on glucose decreases cAMP-CRP activity while paradoxically increasing intracellular cAMP in the light-organ symbiont *Vibrio fischeri*. *Molecular Microbiology* 97:1114-1127
- Colton, D.M., **E.V. Stabb**, and S.J. Hagen. 2015. Modeling analysis of signal sensitivity and specificity by *Vibrio fischeri* LuxR variants. *PLoS One* 10:e0126474
- Septer, A.N., J.L. Bose, A. Lipzen, J. Martin, C. Whistler, and **E.V. Stabb**. 2015. Bright luminescence of *Vibrio fischeri* aconitase mutants reveals a connection between citrate and the Gac/Csr regulatory system. *Molecular Microbiology* 95: 283-296
- Kimbrough, J.H. and **E.V. Stabb**. 2013. Substrate specificity and function of the pheromone receptor AinR in *Vibrio fischeri* ES114. *Journal of Bacteriology* 195:5223-5232
- Lyell, N.L., D.M. Colton, J.L. Bose, M.P. Tumen-Velasquez, J.H. Kimbrough, and **E.V. Stabb**. 2013. Cyclic AMP-receptor protein regulates pheromone-mediated bioluminescence at multiple levels in *Vibrio fischeri* ES114. *Journal of Bacteriology* 195:5051-5063
- Lyell, N.L. and **E.V. Stabb**. 2013. Symbiotic characterization of *Vibrio fischeri* ES114 mutants that display enhanced luminescence in culture. *Applied and Environmental Microbiology* 79:2480-2483
- Septer, A.N., N.L. Lyell, and **E.V. Stabb**. 2013. The iron-dependent regulator Fur controls pheromone-signaling systems and luminescence in the squid symbiont *Vibrio fischeri* ES114. *Applied and Environmental Microbiology* 79:1826-1834
- Septer, A.N. and **E.V. Stabb**. 2012. Coordination of the Arc regulatory system and pheromone-mediated positive feedback in controlling the *Vibrio fischeri lux* operon. *PLoS One* 7:e49590
- Dailey, H.A., A.N. Septer, L. Daugherty, D. Thames, S. Gerdes, **E.V. Stabb**, A.K. Dunn, J.D. Phillips, and T.A. Dailey. 2011. The *Escherichia coli* protein YfeX functions as a peroxidase and is not a heme dechelataase. *MBio* 2:e00248-11
- Septer, A.N., Y. Wang, E.G. Ruby, **E.V. Stabb**, and A.K. Dunn. 2011. The haem-uptake gene cluster in *Vibrio fischeri* is regulated by Fur and contributes to symbiotic colonization. *Environmental Microbiology* 13:2855-2864
- Phillips, N.J., D.M. Adin, **E.V. Stabb**, M.J. McFall-Ngai, M.A. Apicella, and B.W. Gibson. 2011. The lipid A from *Vibrio fischeri* LPS: A unique structure bearing a phosphoglycerol moiety. *The Journal of Biological Chemistry* 286:21203-21219
- Bose, J.L., M.S. Wollenberg, D.M. Colton, M.J. Mandel, A.N. Septer, A.K. Dunn, and **E.V. Stabb**. 2011. Contribution of rapid evolution of the *luxR-luxI* intergenic region to the diverse bioluminescence output of *Vibrio fischeri* strains isolated from different environments. *Applied and Environmental Microbiology* 77:2445-2457
- Altura, M.A., **E. Stabb**, W. Goldman, M. Apicella, and M.J. McFall-Ngai. 2011. Attenuation of host NO production by MAMPs potentiates development of the host in the squid–vibrio symbiosis. *Cellular Microbiology* 13:527-537

- Lyell, N.L., A.K. Dunn, J.L. Bose, and **E.V. Stabb**. 2010. Bright mutants of *Vibrio fischeri* ES114 reveal conditions and regulators that control bioluminescence and expression of the *lux* operon. *Journal of Bacteriology* 192:5103-5114
- Dunn, A.K., A.K. Karr, Y. Wang, A.R. Batton, E.G. Ruby, **E.V. Stabb**. 2010. The alternative oxidase (AOX) gene in *Vibrio fischeri* is controlled by NsrR and upregulated in response to nitric oxide stress. *Molecular Microbiology* 77:44-55 (Featured in Commentary: Spiro, S., 2010 *Mol Microbiol.* 77:6-10)
- Septer, A.N., J.L. Bose, A.K. Dunn, and **E.V. Stabb**. 2010. FNR-mediated regulation of bioluminescence and anaerobic respiration in the light-organ symbiont *Vibrio fischeri*. *FEMS Microbiology Letters* 306: 72-81
- Mandel, M.J., M.S. Wollenberg, **E.V. Stabb**, K.L. Visick, and E.G. Ruby. 2009. A single regulatory gene is sufficient to alter bacterial host range. *Nature* 458: 215-218
- Troll, J.V., D.M. Adin, A.M. Wier, N. Paquette, N. Silverman, W.E. Goldman, F.J. Stadermann, **E.V. Stabb**, and M.J. McFall-Ngai. 2009. Peptidoglycan induces loss of a nuclear peptidoglycan recognition protein during host tissue development in a beneficial animal-bacterial symbiosis. *Cellular Microbiology* 11:1114-1127
- Adin, D.M., J.T. Engle, W.E. Goldman, M.J. McFall-Ngai, and **E.V. Stabb**. 2009. Mutations in *ampG* and lytic transglycosylase genes affect the net release of peptidoglycan monomers from *Vibrio fischeri*. *Journal of Bacteriology* 191:2012-2022 (Featured in Commentary: Nyholm S.V., 2009 *J. Bacteriol.* 191:1997-1999)
- Lyell, N.L., A.K. Dunn, J.L. Bose, S.L. Vescovi, and **E.V. Stabb**. 2008. Effective mutagenesis of *Vibrio fischeri* using hyperactive mini-Tn5 derivatives. *Applied and Environmental Microbiology* 74:7059-63
- Dunn, A.K. and **E.V. Stabb**. 2008. Genetic analysis of trimethylamine *N*-oxide reductases in the light-organ symbiont *Vibrio fischeri* ES114. *Journal of Bacteriology* 190:5814-5823
- Adin, D.M., K.L. Visick, and **E.V. Stabb**. 2008. Identification of a cellobiose utilization gene cluster with cryptic β -galactosidase activity in *Vibrio fischeri*. *Applied and Environmental Microbiol.* 74:4059-69.
- Bose, J.L., C.S. Rosenberg, and **E.V. Stabb**. 2008. Effects of *luxCDABEG* induction in *Vibrio fischeri*: Enhancement of symbiotic colonization and conditional attenuation of growth in culture. *Archives of Microbiology* 190:169-183
- Mandel, M.J., **E.V. Stabb**, and E.G. Ruby. 2008. Comparative genomics-based investigation of resequencing targets in *Vibrio fischeri*: focus on point miscalls and artefactual expansions. *BMC Genomics* 9:138
- Adin, D.M., N.J. Phillips, B.W. Gibson, M.A. Apicella, E.G. Ruby, M.J. McFall-Ngai, D.B. Hall, and **E.V. Stabb**. 2008. Characterization of *htrB* and *msbB* mutants of the light organ symbiont *Vibrio fischeri*. *Applied and Environmental Microbiology* 74:633-644
- Dunn, A.K. and **E.V. Stabb**. 2008. The twin arginine translocation system contributes to symbiotic colonization of *Euprymna scolopes* by *Vibrio fischeri*. *FEMS Microbiology Letters* 279:251-258.
- Bose, J.L., U. Kim, W. Bartkowski, R.P. Gunsalus, A.M. Overley, N.L. Lyell, K.L. Visick, and **E.V. Stabb**. 2007. Bioluminescence in *Vibrio fischeri* is controlled by the redox-responsive regulator ArcA. *Molecular Microbiology* 65:538-553
- Walker, E.L., J.L. Bose, and **E.V. Stabb**. 2006. Photolyase confers resistance to UV light but does not contribute to the symbiotic benefit of bioluminescence in *Vibrio fischeri* ES114. *Applied and Environmental Microbiology* 72:6600-6606
- Dunn, A.K., D.S. Millikan, D.M. Adin, J.L. Bose, and **E.V. Stabb**. 2006. New *rfp*- and pES213-derived tools for analyzing symbiotic *Vibrio fischeri* reveal patterns of infection and *lux* expression *in situ*. *Applied and Environmental Microbiology* 72:802-810
- Sawabe, T., Y. Fukui, and **E.V. Stabb**. 2006. Simple conjugation and outgrowth procedures for tagging vibrios with GFP, and factors affecting the stable expression of the *gfp* tag. *Letters in Applied Microbiology* 43:514-522
- Dunn, A.K. and **E.V. Stabb**. 2005. Culture-independent characterization of the microbiota of the antlion *Myrmeleon mobilis* (Neuroptera: Myrmeleontidae). *Applied and Environmental Microbiology* 71:8784-8794
- Dunn, A.K., M.O. Martin, and **E.V. Stabb**. 2005. Characterization of pES213, a small mobilizable plasmid from *Vibrio fischeri*. *Plasmid* 54:114-134

- Ruby, E.G., M. Urbanowski, J. Campbell, A. Dunn, M. Faini, R. Gunsalus, P. Lostroh, C. Lupp, J. McCann, D. Millikan, A. Schaefer, **E. Stabb**, A. Stevens, K. Visick, C. Whistler, and E.P. Greenberg. 2005. Complete genome sequence of *Vibrio fischeri*: a symbiotic bacterium with pathogenic congeners. *Proceedings of the National Academy of Sciences, USA* 102:3004-3009
- Burgents, J.E., L.E. Burnett, **E.V. Stabb**, and K.G. Burnett. 2005. Localization and bacteriostasis of *Vibrio* introduced into the Pacific white shrimp, *Litopenaeus vannamei*. *Developmental and Comparative Immunology* 29:681-691
- Koropatnick, T.A., J.T. Engle, M.A. Apicella, **E.V. Stabb**, W.E. Goldman, and M.J. McFall-Ngai. 2004. Microbial factor-mediated development in a host-bacterial mutualism. *Science* 306: 1186-1188
- Stabb, E.V.**, M.S. Butler, and D.M. Adin. 2004. Correlation between osmolarity and luminescence of symbiotic *Vibrio fischeri* strain ES114. *Journal of Bacteriology* 186:2906-2908
- McCann J., **E.V. Stabb**, D.S. Millikan, and E.G. Ruby. 2003. Population dynamics of *Vibrio fischeri* during infection of *Euprymna scolopes*. *Applied and Environmental Microbiology* 69:5928-5934
- Stabb, E.V.** and E.G. Ruby. 2003. Contribution of *pilA* to competitive colonization of *Euprymna scolopes* by *Vibrio fischeri*. *Applied and Environmental Microbiology* 69:820-826
- Stabb, E.V.** and E.G. Ruby. 2002. RP4-based plasmids for conjugation between *Escherichia coli* and members of the Vibrionaceae. *Methods in Enzymology* 358:413-426
- Stabb, E.V.**, K.A. Reich, and E.G. Ruby. 2001. *Vibrio fischeri* genes *hvnA* and *hvnB* encode secreted NAD⁺ glycohydrolases. *Journal of Bacteriology* 183:309-317
- Nyholm, S.V., **E.V. Stabb**, E.G. Ruby, and M.J. McFall-Ngai. 2000. Establishment of an animal-bacterial association: recruiting symbiotic vibrios from the environment. *Proceedings of the National Academy of Sciences, USA* 97:10231-10235
- Stabb, E.V.** and J. Handelsman. 1998. Genetic analysis of zwittermicin A resistance in *Escherichia coli*: Effects on membrane potential and RNA polymerase. *Molecular Microbiology* 27:311-322
- Silo-Suh, L., **E.V. Stabb**, S.J. Raffel, and J. Handelsman. 1998. Target range of zwittermicin A, an aminopolyol antibiotic from *Bacillus cereus*. *Current Microbiology* 37:6-11
- Raffel, S.J., **E.V. Stabb**, J.L. Milner, and J. Handelsman. 1996. Genotypic and phenotypic analysis of zwittermicin A-producing strains of *Bacillus cereus*. *Microbiology* 142:3425-3436
- Stabb, E.V.**, L.M. Jacobson, and J. Handelsman. 1994. Zwittermicin A-producing strains of *Bacillus cereus* from diverse soils. *Applied and Environmental Microbiology* 60:4404-4412
- Stabb, E.V.**, L.M. Jacobson, M. Janowiak, and J. Handelsman. 1994. Biological control with zwittermicin A-producing strains of *Bacillus cereus* from diverse soils. *Molecular Ecology* 3: 608-609
- Brandner, J.P., **E.V. Stabb**, R. Temme, and T.J. Donohue. 1991. Regions of *Rhodobacter sphaeroides* cytochrome *c*₂ required for export, heme attachment and function. *Journal of Bacteriology* 173:3958-3964

Reviews and Book Sections:

- Colton, D.M. and **E.V. Stabb**. 2016. Rethinking the roles of CRP, cAMP, and sugar-mediated global regulation in the *Vibrionaceae*. *Current Genetics* 62:39-45
- Stabb, E.V.** and Z. Flores-Cruz. 2013. Who turned on the lights? What the regulation of bacterial bioluminescence tells us about this and other bacterial group behaviors. *The Biochemist* 35:18-23
- Stabb, E.V.** and K.L. Visick. 2013. *Vibrio fischeri*: A Bioluminescent light-organ symbiont of the bobtail squid *Euprymna scolopes*. In E. Rosenberg, E.F. DeLong, E. Stackebrandt, S. Lory, and F. Thompson (eds.), *The Prokaryotes 4th edition*. Springer-Verlag Berlin Heidelberg, pp. 497-532
- Stabb, E.V.** and D.S. Millikan. 2009. Is the *Vibrio fischeri*-*Euprymna scolopes* symbiosis a defensive mutualism? In J.F. White, Jr. and M.S. Torres (eds.), *Defensive Mutualism in Microbial Symbiosis*. Taylor and Francis, Boca Raton, pp. 85-98
- Stabb, E.V.**, A. Schaefer, J.L. Bose, and E.G. Ruby. 2008. Quorum Signaling and Symbiosis in the Marine Luminous Bacterium *Vibrio fischeri*, In S.C. Winans and B.L. Bassler (eds.), *Chemical Communication Among Microbes*. ASM Press, Washington, D.C., pp. 233-250
- Dunn, A.K. and **E.V. Stabb**. 2007. Beyond quorum sensing: the complexities of prokaryotic parliamentary procedures. *Analytical and Bioanalytical Chemistry*. 387:391-398
- Cloud-Hansen, K.A., S.B. Peterson, **E.V. Stabb**, W.E. Goldman, M.J. McFall-Ngai, and J. Handelsman. 2006. Breaching the Great Wall: Peptidoglycan and Microbial Interactions. *Nature Reviews Microbiology* 4:710-716

- Stabb, E.V.** 2006. The *Vibrio fischeri*–*Euprymna scolopes* light organ symbiosis. In F. L. Thompson, B. Austin and J. Swings (eds.), The biology of Vibrios. ASM Press, Washington D.C., pp. 204-218
- Stabb, E.V.** 2005. Shedding light on the bioluminescence “paradox”. ASM News 71:223-229
- Stabb, E.V.,** K.L. Visick, D.S. Millikan, A.A. Corcoran, L. Gilson, S.V. Nyholm, M. McFall-Ngai and E.G. Ruby. 2001. The *Vibrio fischeri*-*Euprymna scolopes* symbiosis: A model marine animal-bacteria interaction. In N.K. Saxena (ed.), Recent Advances in Marine Science and Technology, 2000. PACON International, Honolulu, Hawai'i. pp. 269-277
- Handelsman, J. and **E.V. Stabb.** 1996. Biocontrol of soilborne plant pathogens. Plant Cell 8:1855-69
- Stohl, E.A., J. Handelsman, and **E.V. Stabb.** 1996. Zwittermicin A and biological control of oomycete pathogens. In G. Stacey, B. Mullen and P. Gresshoff (eds.), Advances in molecular genetics of plant-microbe interactions, Vol. 4. Kluwer Academic Publishers, Dordrecht, Netherlands. pp. 475-9

Patents:

- Handelsman, J., S.J. Stewart, and **E.V. Stabb.** Issue date Mar. 7, 2000. *Bacillus cereus* strain W35. U.S. Patent Number 6,033,659.
- Handelsman, J., S.J. Stewart, and **E.V. Stabb.** Issue date Feb. 29, 2000. *Bacillus cereus* strain Z8. U.S. Patent Number 6,030,610.
- Handelsman, J., S.J. Stewart, and **E.V. Stabb.** Issue date Dec. 7, 1999 Disease suppression by novel *Bacillus cereus* strain SOY130. U.S. Patent Number 5,998,196.
- Handelsman, J., L.M. Jacobson, and **E.V. Stabb.** Issue date April 7, 1998. *Bacillus cereus* strain DGA34. U.S. Patent Number 5,736,382.
- Handelsman, J., **E.V. Stabb,** L.M. Jacobson, R.M. Goodman, D.W. Johnson, and K.P. Smith. Issue date Dec. 23, 1997. *Bacillus cereus* strain MS1-9. U.S. Patent Number 5,700,462.
- Handelsman, J., J.L. Milner, E.A. Stohl, S.J. Stewart, and **E. Stabb.** Issue date April 8, 1997. Zwittermicin resistance gene and biocontrol bacteria with the gene. U.S. Patent Number 5,618,692.
- Handelsman, J., L.M. Jacobson, D.W. Johnson, K.P. Smith, R.M. Goodman, and **E.V. Stabb.** Issue date Sept. 3, 1996. *Bacillus cereus* strain AS4-12. U.S. Patent Number 5,552,138.
- Handelsman, J., L. Halverson, **E.V. Stabb,** B. Lethbridge, and L. Silo. Issue date Aug. 6, 1996. Method of identifying *Bacillus cereus* having biocontrol activity. U.S. Patent Number 5,543,301.

Invited Workshop Speaker and/or Participant (host/organizer): **-highlights national meeting
UGA Academic Affairs Faculty Symposium: The Teaching/Research Nexus: Building Effective Bridges, Unicoi State Park, March 2012

- ** Biology Research Experience for Undergraduates Workshop, NSF, Arlington VA, Mar 2010
- ** NSF/AAAS Workshop on Transforming Undergraduate Biology Education: Mobilizing the Community for Change, Washington DC, July 2009
- ** NSF Workshop on Molecular Communication/Biological Communication Technology, Arlington VA, Feb 2008 (Dr. Michael Simpson)
- ** Marine Eco-Genomics Workshop, NSF/Centers Development Initiative and Medical University of South Carolina, (Rand Haley [CDI] and Dr. Eric Lacy [MUSC]), Charleston, Feb 2006

Invited Seminars (host): **-highlights national meeting

- College of William and Mary, Biology Department, 2/17/2017 (Dr. Will Soto)
- ** ASM Beneficial Microbes Conference, Seattle, 9/10/2016
- Kennesaw State University, Molecular Biosciences Interest Group, 8/26/2016 (Dr. Melanie Griffin)
- University of Tennessee, Dept. of Microbiology, 6/22/2015 (Dr. Alison Buchan)
- Dartmouth, Dept. of Microbiology and Immunology, 5/11/2015 (Mr. Kurt Dahlstrom, student)
- University of Connecticut, Dept. of Molecular and Cell Biology, 3/3/2015 (Dr. Spencer Nyholm)
- University of Tennessee, Dept. of Microbiology, 2/9/2015 (Dr. Liz Fozo)
- Northwestern University, Dept. of Microbiology-Immunology, 11/25/2014 (Dr. Mark Mandel)
- ** General Meeting, American Society for Microbiology, Boston, 5/18/2014 (session chair; substitute speaker)
- Emory University, Population Biology, Ecology, and Evolution, 10/14/2011 (Dr. Nicole Gerardo)
- Georgia Institute of Technology, Dept. of Biology, 10/6/2011 (Dr. Brian Hammer)
- Georgia State University, Dept. of Biology, 9/30/2011 (Dr. Nicole Lopanik)
- Georgia State University, Biology Honor Society (tri-Beta), 10/28/2010 (Ms. Vonee Hemans)

- ** eHormone 2010: Environmental Signaling: Exploring Multiple Dimensions, Tulane Univ. New Orleans, 10/21/2010
- Cal Polytechnic State Univ., San Luis Obispo, Dept. of Biology, 10/23/2009 (Dr. Pat Fidopiastis)
- ** General Meeting, American Society for Microbiology, Philadelphia, 5/19/2009
- ** ASM Beneficial Microbes Conference, San Diego, 10/15/2008
- University of Wisconsin-Madison, Dept. of Bacteriology, 4/3/2008 (Dr. Katrina Forest)
- Southeastern Branch American Society for Microbiology Meeting, Auburn University, 11/9/2007
- University of Florida, Dept. of Microbiology and Cell Science, 10/22/2007 (Dr. Jamie Foster)
- Oak Ridge Natl. Lab., Center for Nanophase Materials Sciences, 8/20/2007 (Dr. Michael Allen)
- Valdosta State Univ., Science Seminar Series, 1/18/2007 (Dr. Archana Bhasin, Biology Dept)
- University of Tennessee, Dept. of Microbiology, 11/13/2006 (Drs Erik Zinser and Alison Buchan)
- University of Alabama-Birmingham, Dept of Biology, 11/3/2006 (Dr. Robert Thacker)
- University of Nevada-Las Vegas, Dept. of Biological Sci., 10/14/2005 (Dr. Eduardo Robleto)
- Loyola University Chicago, Dept. of Microbiology and Immunol., 9/22/2005 (Dr. Karen Visick)
- Georgia State University, Dept. of Biology, 1/28/2005 (Dr. Eric Gilbert)
- ** General Meeting, American Society for Microbiology, New Orleans, 5/26/2004
- Xavier University of Louisiana, Dept. of Biology, 1/28/2004 (Dr. Roldan Valverde)
- Auburn University, Dept. of Biological Sciences, 1/17/2003 (Dr. Laura Suh)
- Grice Marine Laboratories and College of Charleston, 10/4/2002 (Dr. Karen Burnett)
- Georgia Institute of Technology, Dept. of Biology, 8/30/2002 (Dr. Patty Sobecki)

Professional Service

- Associate Editor, *Applied and Environmental Microbiology* (2016-present)
- Editorial board, *Journal of Bacteriology* (2016-present)
- Editorial board, *Applied and Environmental Microbiology* (2005-2016)
- Grant Review Panelist, National Science Foundation, 2006, 2009, and 2013
- Grant Review Panelist, National Institutes of Health SCORE program, 2008 and 2009
- Contributing Member, Faculty of 1000, Cellular Microbiology and Pathogenesis, 2005-2010
- *Ad hoc* reviewer for thirty-five journals (2001-2016)
- *Ad hoc* reviewer for fifteen NSF programs (2004-2016)
- *Ad hoc* reviewer promotion/tenure applications: ten candidates, eight research universities
- *Ad hoc* reviewer Graduate Women in Science fellowship program
- *Ad hoc* reviewer for international funding agencies: Research Foundation-Flanders 2011, INSERM (French Institute for Medical Research) 2009, the Singapore National Medical Research Council 2006, and the US-Israel Binational Science Foundation 2005

Teaching:

- Instructor, Yale University, MCDB 123, Genes and Environment, 2015
- Course designer & Instructor, UGA, Microbiol. 4500/6500 Bacterial Symbioses, 2003-2016
- Co-Instructor, UGA, Microbiol. 4090/6090, Prokaryotic Biology (7-8 lectures), 2011-2016
- Co-Instructor, UGA, Biol. 1108, Principles of Biology II (8 lectures), 2010
- Course designer & Instructor, UGA, Microbiol. 8700-Special Topics: Bacterial Symbioses, 2002
- Guest lecturer, eight additional courses, University of Georgia system, 2001-present
- Guest lecturer, U. Hawai'i, Prokaryotic Genetics (1997) and Microbial Physiology (1999)
- Tutor, U. Wisconsin Athletic Department, Prokaryotic Microbiology, 1993
- Teaching assistant, U. Wisc., Prokaryotic Micro. Lab and Physiology of Microorganisms Lab, 1992

Other Contributions to Mentoring and Education:

- Advisor for eight graduate students and two postdoctoral researchers since 2001
- Directed research of twelve additional rotating grad students and 35 undergrads since 2001
- Undergrad and grad students awarded competitive travel funds & research or presentation awards
- PI, co-coordinator, Summer REU site program 2008-2013
- Participating faculty, summer REU program, including instruction on poster prep, 2002-2013, 2016
- Initiated and taught "Entering Mentoring" program for graduate students and postdocs, 2008-2013
- Served on 43 graduate student committees 2001-present
- Graduate Affairs Committee, UGA Microbiology Dept., 2002-2004, 2006-2014

- Graduate Student Recruitment Committee, UGA Microbiology Dept. 2002-2005
- Academic Program Coordinator, UGA Microbiology Dept. 2017-present

Summary of Extramural Support:

Current Extramural Support:

- PI, NSF (IOS), *Collaborative Research: Experimental Evolution of Peptidoglycan in the Bacterial Symbiont Vibrio fischeri*, 2016-2019, Budget for Stabb Lab \$419,838 total costs; [IOS-1557964]
- PI, NSF (MCB), *6th ASM Conference on Cell-Cell Communication in Bacteria* 2017-2018, \$9,100 total costs; [MCB-1735551]
- PI, NSF (MCB), *Collaborative Research: Evolution of Information Processing in the Vibrio fischeri Pheromone-Signaling Network*, 2017-2020 \$420,000 total costs; [MCB- 1716232] – recommended for funding

Previous Extramural Support:

- PI, NSF (IOS), *Sensing more than a quorum: The role of pheromones in the light-organ symbiont Vibrio fischeri*, 2011-2015, \$503,257 total costs; [IOS-1121106]
- PI, NSF (MCB), *5th ASM Conference on Cell-Cell Communication in Bacteria, October 2014 in San Antonio, Texas*, 2014-2015, \$9,100 total costs; [MCB-1440104]
- Co-PI, NSF (DBI), *Research Experience for Undergraduates Site Program: Research in Prokaryotic biology*, 2011-2014, \$313,482 total costs
- Co-PI, NSF, *Collaborative Research: Use of genome-enabled tools to understand symbiosis*, 2009-2012, Budget for Stabb lab \$57,114 total costs [IOS-0841480]
- Co-PI, NSF, *Collaborative Research: Iron limitation, carbon metabolism and siderophore production in marine bacteria – a systems biology approach*, 2009-2012, Budget for Stabb lab \$134,382 total costs [OCE-0929081]
- PI, NSF, *Research Experience for Undergraduates Site Program: Research in Prokaryotic biology*, 2008-2011, \$278,148 total costs [DBI-0755182]
- PI, NSF, *CAREER: Symbiotic Role of Bacterial Bioluminescence*, 2004-2009, \$567,000 total costs (including supplements) [MCB-0347317]
- Co-investigator, National Institutes of Health, *Vibrio fischeri as a model of bacterial colonization*, R01 AI50661, (PI: Margaret McFall-Ngai, University of Wisconsin), 2001-2006 and 2007-2009, Budget for Stabb lab \$396,950 total costs [R01 AI 50661]
- Collaborator, NSF, *Mobilome Genomics: Large Plasmids of Diverse Prokaryotic Groups* (PI Anne Summers) 2007-2008, Budget for E. Stabb \$14,500 total costs [EF-06-26940]
- PI, Army Research Office, *Quorum-sensing inhibitors present in complex microbiological media*. 2006-2007, \$50,000 total costs [49549-LS-II]
- Collaborating researcher, NSF, *Hypercapnic hypoxia impacts shrimp immune defenses against bacterial pathogens* (Co-PI's Karen Burnett and Louis Burnett, College of Charleston). Budget for E. Stabb, 2002-2004, \$33,310 total costs [IBN-0212921]

Competitive External Support for DNA Sequencing Projects:

- PI, Department of Energy/Joint Genome Institute, Community Sequencing Program; *Identifying second-site suppressor mutations in Vibrio fischeri that restore aerobic growth in a mutant lacking the TCA cycle enzyme aconitase (AcnB)*, funded resequencing of wild-type *V. fischeri* genome as well as six mutant strains. 2009-2010. Value ~\$25,000 [CSP-65]
- Co-PI (with Edward Ruby), Gordon and Betty Moore Foundation; *Niche-specific characteristics revealed by genome sequencing of strains in the Vibrio fischeri/Vibrio logei group*, funded 8x sequencing coverage of one *V. fischeri* strain's genome. 2005-2006. Value ~\$100,000

Fellowship/Award Support for Advisees and Postdoctoral Mentees:

- Sponsor/PI, NSF; Dr. Zomary Flores-Cruz was awarded a Postdoctoral Research Fellowship, 2010-2013, \$189,000 total costs [DBI-0905813]
- Mentor/PI; Ms. Alecia Septer was awarded a Pre-doctoral National Defense Science and Engineering Graduate Fellowship through the Army Research Office, 2008-2011, (full stipend, tuition, and benefits)
- Advisor; Ms. Alecia Septer was awarded a competitive ARCS foundation Fellowship (\$7,500 per year)
- Advisor; Ms. Deanna Colton, Georgia Oceans and Health Initiative Fellowship, \$21,000 stipend, \$8000 supplies and travel support, 2010-2011
- Sponsor/PI, NSF; Dr. Anne Dunn was awarded a Postdoctoral Fellowship in Microbial Biology, 2003-2005, \$100,000 total costs [DBI-0301367]

Current laboratory personnel:

- Julie Stoudenmire; graduate student, PhD program (2011-present)
- Marisa Delgado; undergraduate hourly (2016-present)
- Alizah Garvin; undergraduate hourly/work study (2016-present)
- Jordon Powers; NSF-sponsored (REU) undergraduate researcher, summer 2017

Former Group Members (full-time personnel for >6 months):

- R. M. (Mark) Jones; PhD student, PhD program (2010-2017)
- J. Henry (Hank) Kimbrough; 2011-2015, Ph.D. student; left as postdoc, Josie Chandler, Kansas U
- Deanna Colton; 2007-2014, Ph.D. student; left as adjunct lecturer York Technical College
- Dr. Zomary Flores-Cruz, 2010-2012, postdoc; left as Assistant Professor, U. Puerto Rico
- Dr. Alecia Septer, 2006-2012, Ph.D. student; left as postdoc with Karin Gibbs, Harvard U.; now Assistant Professor, U. North Carolina
- Dr. Noreen Lyell, 2005-2011, Ph.D. student; left as postdoc, Stuart Levy, Tufts U.; now lecturer, MIT
- Dr. Dawn Adin, 2001-2008, Ph.D. student; left as postdoc with Dr. Susan Golden, UCSD; now science writer, DOE
- Dr. Galina Vydryakova, 2008, visiting Fulbright Scholar from the Institute of Biophysics, Siberian Branch-Russian Academy of Science
- Dr. Anne Dunn, 2002-2007, postdoc; left as Assistant Professor, University of Oklahoma
- Dr. Jeffrey Bose, 2002-2007, Ph.D. student; left as postdoc with Dr. Ken Bayles, U. Nebraska, now Assistant Professor, U. Kansas
- Emma Walker, 2005, extended rotation student; Instructor of Biology at Albany State University
- Melissa Butler,