

Curriculum Vitae
Paul Anthony Gulig

Born: January 25, 1958; Waco, Texas

Current Position:

Professor, Department Molecular Genetics and Microbiology, 2001-present
Associate Dean of Graduate Education, 2011-present
Box 100266, University of Florida College of Medicine
Gainesville, FL 32610-0266
(352) 392-0050; email gulig@ufl.edu

Previous positions:

Assistant Professor, Department Molecular Genetics and Microbiology, 1988-1993
Associate Professor, Department Molecular Genetics and Microbiology, 1993-2001

Research Interests:

- Molecular pathogenesis of *Vibrio vulnificus* and *Acinetobacter baumannii* infection
- Bacteriophage therapy for bacterial infections
- Rapid detection of agents of bioterrorism using phage display reagents

Education:

- B.S. (Microbiology), Texas A&M University, College Station, Texas, 1980.
- Ph.D. (Microbiology), The University of Texas Southwestern Medical School, Dallas, Texas, 1981-1985. Studies of Outer Membrane Antigens of *Haemophilus influenzae* type b as Potential Vaccine Candidates. Dissertation advisor: Dr. Eric J. Hansen.
- Postdoctoral Training: Molecular genetic and pathogenic analysis of the *Salmonella typhimurium* virulence plasmid. Advisor: Dr. Roy Curtiss III, Washington University, St. Louis, Missouri, 1985-1988.

Current Funding:

- University of Florida Emerging Pathogens Institute, Molecular Pathogenesis of *Acinetobacter baumannii*, 3/11-2/12, \$64,161 (total), Role -PI.

Previous Funding:

- Department of Defense subcontract W911SR-09-C-0005, Countermeasures to Biological Threats subcontract: Development and improvement of antigen-based detection of waterborne protozoan infectious agents in capture real time systems, 12/08-6/11, \$178,598 (total) , Role - PI.
- University of Florida Opportunity Fund, Differential laser-induced perturbation spectroscopy, 5/09-4/11, \$10,580 (total), Omenetto (PI), Role - Co-investigator.
- Eisai, Inc. Examining growth of microorganisms in propofol formulations. 6/10-5/11, \$47,598 (total), Role - PI.
- Department of Defense subcontract W911SR-07-C-0084, Rapid sample processing and biosensor detection of biothreat agents, 9/07 – 3/11, \$447,323 (total), Role - PI.
- USDA-CREES 2007-01955, Post harvest treatment of Live Oysters and Investigation of Therapeutic Potential of Biological Controls, 03/08-1/11, \$372,096 (direct), Anita Wright (PI), Role - Co-investigator.
- Intralytix, Inc. (Subcontract with on Department of Defense STTR), Bacteriophage therapy for treating *A. baumannii* infected wounds. 2/10-12/10, \$50,000 (total), role - PI.
- USDA-CREES-AREA 2007-01979, Reduction of *Vibrio vulnificus* in oysters by treatment with viruses and Bdellovibrio and Like Organisms, 10/08-08/09, \$62,126 (total), Henry Williams (PI), role – Co- investigator.

- University of Florida Opportunity Fund, Genomic analysis of *Vibrio vulnificus*: Understanding and preventing human disease by understanding lifestyle in mammals, oysters, and biofilms, 5/08-6/09, \$85,000 (total), Role - PI.
- University of Florida Emerging Pathogens Institute, Genomic Sequencing of Environmental Strains of *Vibrio vulnificus*, 5/08-4/09, \$20,000 total costs.
- Department of Defense subcontract W911SR-05-C-0020, Real time/near real time detection of microbial pathogens/toxins associated with food, water, air, and human specimens, March 2006 - May 2009, \$517,316 (total).
- University of Florida College of Medicine, Web/graphics-based teaching of bacterial and parasitic disease in MMID, 5/08-6/09, \$1,774 (total).
- N.I.H.-N.I.A.I.D. - R01-AI056056-01, Molecular pathogenesis of *Vibrio vulnificus*, August 2003-Jan. 2009, \$912,500 (direct).
- Florida Sea Grant, Preliminary genomic sequencing of environmental *Vibrio vulnificus* strain 99-520 DP-B8, 05/01/08-05/31/08, \$5,000 total costs.
- NIH/SBIR Subcontract 5R44GM072142-03, NanoMedex Propofol Microemulsions: Preclinical Studies to FDA IND Application, August 2006-July 2007, \$40,695 (total).
- Department of Defense subcontract DAAD13-00-C-0037, Real Time/Near Real Time Detection of Microbial Pathogens/Toxins Associated with Food, Water, and Surfaces, Dec. 2001 - August 2007, \$1,546,896 (total).
- Department of Commerce, Strategies for decontamination of oysters infected with *Vibrio vulnificus*, March 2001 - November 2004, \$144,299 (Co-PI, PI - Donna H. Duckworth).
- N.I.H.-N.I.A.I.D. - R21 DE015069, Oral and vaginal gene expression by Candida during AIDS. Sept. 2003 - August 2005. Direct costs \$150,000 (Co-PI, PI-Conelius Clancy)
- Johnson and Johnson, Inc., Focused Giving Award, New Targets to Circumvent Emerging Antimicrobial Resistance: Replication of Bacterial Pathogens within Host Cells, July, 1997 - June, 2003, \$255,000.
- American Heart Association - Florida/Puerto Rico Affiliate, Virulence factors involved with vascular pathophysiology in necrotic perivascular infection caused by *Vibrio vulnificus*, July 2000-June 2003, \$118,800.
- U.S.D.A., 99-35201-8606, Are Virulent Strain-Specific DNA Sequences of *Vibrio vulnificus* Essential For Virulence?, Oct. 1999-Dec. 2002, \$129,000.
- American Heart Association - Florida/Puerto Rico Affiliate, (Graduate Fellowship to Angela Starks), Virulence factors contributing to perivascular infection and necrotizing fasciitis caused by *Vibrio vulnificus*, Sept. 2000-August 2002, \$33,500.
- Interstate Shellfish Sanitation Commission, Testing *Vibrio vulnificus* strains for virulence, Jan. 2001 - June 2001, \$10,000.
- Department of Commerce, Use of Bacteriophage for the Decontamination of Oysters Infected with *Vibrio vulnificus*, Oct. 1999-Mar. 2002, \$64,030 (Co-PI, PI - Donna H. Duckworth).
- U.S.D.A., 96-35201-3309, Defining Genomic Sequences Specific to Virulent *Vibrio vulnificus* Strains to Assess Risk, Oct. 1998-Sept. 2000, \$90,000 (Co-PI, PI-Mark L. Tamplin).
- Ross Products Division - Abbott Laboratories, Inhibition of Bacterial Translocation Employing Lactoferrin, Jan. 1998 - Jan. 1999, \$17,600.
- N.I.H. - N.I.A.I.D., R01AI28421, Analysis of the *Salmonella typhimurium* Virulence Plasmid, Oct. 1, 1996-Sept. 30, 1998, \$142,205.
- U.S.D.A., 95-37204-2144, Host defense against virulence plasmid-mediated growth of *Salmonella*, Sept. 1995-August 1998, \$120,000.
- NATO Collaborative Research Grant, Pathogenesis and Prevention of *Salmonella abortus ovis* Infection, July 1993 - June 1995, \$8,194.
- American Heart Association - Florida Affiliate, Graduate Fellowship to Julie A. Rogers, Genetics of Invasive Infection by *Salmonella typhimurium*, July 1992 - June 1995, \$39,000.
- American Heart Association - Florida Affiliate, Grant-In-Aid 92GIA/868, Mechanism of Invasive Infection by *Salmonella typhimurium*, July 1992 - June 1994, \$40,000.

- N.I.H. - N.I.A.I.D., R29 AI28421, Analysis of the *Salmonella typhimurium* Virulence Plasmid, April 1990-March 1996, \$350,000.
- Interdisciplinary Center for Biotechnology Research, University of Florida, Development of a Salmonella Vectored Influenza Vaccine, Jan. 1990-June 1990. \$15,000.
- American Heart Association - Florida Affiliate, Grant in Aid #89GIA81, Mechanism of Cardiovascular Infection by *Salmonella* spp., July 1989 - June 1991, \$60,000.
- Interdisciplinary Center for Biotechnology Research, University of Florida, New Initiatives in Biotechnology Research, 1988-1989, \$25,000.

Previous Fellowships and Career Awards:

- American Heart Association, Established Investigatorship, 93001221, Pathogenesis and Genetics of the *Salmonella typhimurium* Virulence Plasmid, July 1993 - June 1998.
- American Cancer Society, Junior Faculty Research Award, JFRA 280, Jan. 1990 - Dec. 1992.
- Nat. Res. Service Award, N.I.H.-N.I.A.I.D. Postdoctoral Fellowship #AI07168, 1985-1988.
- National Science Foundation Graduate Fellowship SPI-66383, 1981-1984.

Professional Achievements and Service:

- National Institutes of Health: Special study section ZRG1 IDM-Q (53) R, 2009; Special study section ZAI1 GPJ-M (Enhancement awards for underrepresented minority scientists) 2004; Bacteriology and Mycology Study Sections 1 and/or 2: Ad hoc reviewer 1990-1994, 1999; B&M-1 Temporary Member, 1996; Biological Sciences Study Section 1: Ad hoc reviewer 1992,1994; NIDDK Program Project Site Visit Member, 1997.
- U.S.D.A.-N.R.I.C.G.P., Sustaining Animal Health and Well Being, Ad hoc reviewer: 1994-2000, Panel Member: 1996; Ensuring Food Safety: Ad hoc reviewer 1994, 1997- 2002.
- U.S. Department of Commerce, Mississippi-Alabama Sea Grant Program, Reviewer, 2003.
- U.S. Civilian Research and Development Foundation for the Independent States of the Former Soviet Union, Science Center Program. Reviewer, 2004.
- Veterans Administration site visit team, 1988. Ad hoc reviewer, 1992.
- Editorial Board: Infection and Immunity, 1991-2011.
- Editorial Board: Bacteriophage, 2010-present.
- Ad hoc reviewer: Antimicrob. Agents Chemotherapy 1998-2010; Applied and Environmental Microbiol. 2004-2010; AOAC, 2009; Cellular Microbiol. 1999-2007; Emerging Infect. Dis. 2008; FEBS-Letters 2009; FEMS-Microbiol. Ecol. 2008; Infection and Immunity, 1988-1990; J. AOAC Inter. 2009-2010; J. Applied Microbiol. 2007; J. Bacteriol. 1995-2007; J. Clin. Invest., 1991-1992; J. Clin. Microbiol. 2003 - 2009; J. Infect. Dis., 1992-2010; Microbial Pathog. 1993-1995; Microbes and Infect. 2007-2010; Microbiol. and Molec. Biol. Rev., 1998-1999; Mol. and Cellular Probes 1994; Mol. Gen. Genet., 1992; Mol. Microbiol. 1992-2009; Nature Reviews, 2003; Pediatric Res. 2004; P.L.o.S. Pathogens 2007-2010, P.N.A.S. 2008; Science 1997.

Invited Presentations:

- SOLiD Pyrosequencing of Four *Vibrio vulnificus* Genomes Enables Comparative Genomic Analysis and Identification of Candidate Clade-Specific Virulence Genes, Jackson State University Medical Center, 2010.
- Phage therapy of local and systemic disease. Society for General Microbiology, Dublin, Ireland, 2004.
- Pathogenesis of *Vibrio vulnificus* disease and use of bacteriophage as therapy, Korean Society for Microbiology and Biotechnology, Muju, Korea, 2003.
- Pathogenesis of *Vibrio vulnificus* disease and use of bacteriophage as therapy. Southeast Branch American Society for Microbiology, 2002.
- What's eating you? Molecular pathogenesis of *Vibrio vulnificus*. Eastern Pennsylvania Branch American Society for Microbiology, 2002.
- What's eating you? Molecular pathogenesis of *Vibrio vulnificus* - a flesh eating bacterium. 102nd Annual Meeting of the American Society for Microbiology, 2002.

- Growth out of Control: Infection of Mice by *Vibrio vulnificus* as a Model for Extremely Rapid Replication of Bacterial Pathogens in Host Tissues; Johnson & Johnson Focused Giving Symposium; Fall 1999.
- Salmonellosis and *Vibrio vulnificus* - Lecture and Seminar; Univ. Kentucky Medical School; Spring 1999.
- Regulation of Virulence Gene Expression - Lecture and Seminar; University of Alabama - Birmingham; June 1998.
- Salmonella-Macrophage Interactions - Lecture and Seminar; Univ. of Georgia; Summer 1998.
- Spv-mediated pathogenesis of *Salmonella typhimurium*; Kansas State University, Division of Biology, Sept. 1997.
- Plasmid-mediated virulence of *Salmonella typhimurium*. R.W. Johnson Pharmaceutical Research Institute. Jan. 1995.
- Invited Speaker: Regulation of *spv* genes of the *Salmonella typhimurium* virulence plasmid. 1994 Gordon Research Conference on Microbial Toxins and Pathogenesis.
- Invited speaker: Seminar - Molecular and functional analysis of the *Salmonella* virulence plasmid. 93rd Annual Meeting of the American Society for Microbiology, 1993.
- Convener: New Developments in Vaccines: Vehicles for Effective Antigen Delivery. 92nd Annual Meeting of the American Society for Microbiology, 1992.
- Invited speaker: Symposium - "*Salmonella*: recent advances in epidemiology and strategies for control." Sassari, Italy, September, 1991.
- Invited speaker: Seminar - Organization and Regulation of the virulence Genes of the *Salmonella typhimurium* Virulence Plasmid. 91st Annual Meeting of the American Society for Microbiology, 1991.
- Convener: *Salmonella* and *Campylobacter*. Mechanisms of Pathogenesis. 89th Annual Meeting of the American Society for Microbiology, 1989.

Academic Honors:

- Summa cum laude, B.S. degree, 1980.

Scientific and Honorary Societies:

- American Society for Microbiology, 1981-present.

Peer-reviewed Publications:

1. Hansen, E.J., S.M. Robertson, P.A. Gulig, C.F. Frisch, and E.J. Haanes. 1982. Immunoprotection against *Haemophilus influenzae* type b disease mediated by monoclonal antibody directed against a Haemophilus outer membrane protein. *The Lancet* i:366-368.
2. Robertson, S.M., C.F. Frisch, P.A. Gulig, J.R. Kettman, K.H. Johnston, and E.J. Hansen. 1982. Monoclonal antibodies directed against a cell surface-exposed outer membrane protein of *Haemophilus influenzae* type b. *Infect. Immun.* 36:80-88.
3. Gulig, P.A., G.H. McCracken, Jr., C.F. Frisch, K.H. Johnston, and E.J. Hansen. 1982. Antibody response of human infants to cell surface-exposed outer membrane proteins of *Haemophilus influenzae* type b after systemic Haemophilus disease. *Infect. Immun.* 37:82-88.
4. Murphy, T.V., G.H. McCracken, Jr., B.S. Moore, P.A. Gulig, and E.J. Hansen. 1983. *Haemophilus influenzae* type b disease after rifampin prophylaxis in a day care center: possible reasons for its failure. *Ped. Infect. Dis.* 2:193-198.
5. Gulig, P.A., C.F. Frisch, and E.J. Hansen. 1983. A set of two monoclonal antibodies specific for the cell surface-exposed 39K major outer membrane protein of *Haemophilus influenzae* type b defines all strains of this pathogen. *Infect. Immun.* 42:516-524.
6. Gulig, P.A., G.H. McCracken, Jr., and E.J. Hansen. 1984. Immunogenic proteins in cell-free culture supernatants of *Haemophilus influenzae* type b. *Infect. Immun.* 44:41-48.
7. Kimura, A., P.A. Gulig, G.H. McCracken, Jr., T.A. Loftus, and E.J. Hansen. 1985. A minor high-molecular-weight outer membrane protein of *Haemophilus influenzae* type b is a protective antigen. *Infect. Immun.* 47:253-259.

8. Gulig, P.A., and E.J. Hansen. 1985. Co-precipitation of lipopolysaccharide and the 39K major outer membrane protein of *Haemophilus influenzae* type b by lipopolysaccharide-directed monoclonal antibody. *Infect. Immun.* 49:819-827.
9. Gulig, P.A., C.C. Patrick, L. Hermanstorfer, G.H. McCracken, Jr., and E.J. Hansen. 1987. Conservation of epitopes in the oligosaccharide portion of the lipooligosaccharide of *Haemophilus influenzae* type b. *Infect. Immun.* 55:513-520.
10. Gulig, P.A., and R. Curtiss III. 1987. Plasmid-associated virulence of *Salmonella typhimurium*. *Infect. Immun.* 55:2891-2901.
11. Gulig, P.A., and R. Curtiss III. 1988. Cloning and transposon-insertion mutagenesis of virulence genes of the 100 kb plasmid of *Salmonella typhimurium*. *Infect. Immun.* 56:3262-3271.
12. Poppe, C., R. Curtiss III, P.A. Gulig, and C.L. Gyles. 1989. Hybridization studies with a DNA probe derived from the virulence region of the 60 Mdal plasmid of *Salmonella typhimurium*. *Can. J. Vet. Res.* 53:378-384.
13. Patrick, C.C., S.E. Pelzel, E.E. Miller, E. Haanes-Fritz, J.D. Radolf, P.A. Gulig, G.H. McCracken, Jr., and E.J. Hansen. 1989. Antigenic evidence for the synthesis of two different lipooligosaccharides by some strains of *Haemophilus influenzae* type b. *Infect. Immun.* 57:1971-1978.
14. Gulig, P.A., and V.A. Chiodo. 1990. Genetic and DNA sequence analysis of the 28,000 molecular weight protein encoded by the *Salmonella typhimurium* virulence plasmid. *Infect. Immun.* 58:2651-2658.
15. Caldwell, A.L., and P.A. Gulig. 1991. The *Salmonella typhimurium* virulence plasmid encodes a positive regulator of a plasmid-encoded virulence gene. *J. Bacteriol.* 173:7176-7183.
16. Gulig, P.A., A.L. Caldwell, and V.A. Chiodo. 1992. Identification, genetic analysis, and DNA sequence of a 7.8 kilobase virulence region of the *Salmonella typhimurium* virulence region. *Mol. Microbiol.* 6:1395-1411.
17. Gulig, P.A., and T.J. Doyle. 1993. The *Salmonella typhimurium* virulence plasmid increases the growth rate of salmonellae in mice. *Infect. Immun.* 61:504-511.
18. Ervin, S.E., Small, P.A., Jr., and Gulig, P.A. 1993. Use of incompatible plasmids to control expression of antigen by *Salmonella typhimurium* and analysis of immunogenicity in mice. *Microbial Pathog.* 15:93-101.
19. Langevin, P.B., N. Gravenstein, S.O. Langevin, and P.A. Gulig. 1996. Epidural catheter reconnection. Safe and unsafe practice. *Anesthesiology* 85:883-888.
20. Wilson, J.A., T.J. Doyle, and P.A. Gulig. 1997. Exponential phase expression of *spvA* of the *Salmonella typhimurium* virulence plasmid: induction intracellular salts medium and intracellularly in mice and cultured mammalian cells. *Microbiol.* 143:3827-3839.
21. Gulig, P.A., T.J. Doyle, M.J. Clare-Salzler, R.L. Maiese, and H. Matsui. 1997. Systemic infection of mice by wild-type but not Spv⁻ *Salmonella typhimurium* is enhanced by neutralization of gamma interferon and tumor necrosis factor alpha. *Infect. Immun.* 65:5191-5197.
22. Gulig, P.A., T.J. Doyle, J.A. Hughes, and H. Matsui. 1998. Analysis of host cells associated with Spv-mediated increased intracellular growth rate of *Salmonella typhimurium* in mice. *Infect. Immun.* 66:2471-2485.
23. Wilson, J.A., and P.A. Gulig. 1998. Regulation of the *spvR* gene of the *Salmonella typhimurium* virulence plasmid during exponential phase growth in Intracellular Salts Medium and at stationary phase in L broth. *Microbiology* 144:1823-1833.
24. Langevin, P.B., N. Gravenstein, T.J. Doyle, S.A. Roberts, S. Skinner, S.O. Langevin, and P.A. Gulig. 1999. Growth of *Staphylococcus aureus* in Diprivan and Intralipid: Implications on the Pathogenesis of Infections. *Anesthesiology* 91:1394-1400.
25. Matsui, M., K. Takatoshi, S. Ishikawa, H. Danbara, and Paul A. Gulig. 2000. Constitutively expressed *phoP* inhibits mouse-virulence of *Salmonella typhimurium* in an Spv-dependent manner. *Microbiol. Immun.* 44:447-454.
26. Uzzau, S., P.A. Gulig, B. Paglietti, G. Leori, B.A. Stocker, S. Rubino. 2000. Role of *Salmonella abortusovis* virulence plasmid in the infection of BALB/c mice. *FEMS Microbiol. Lett.* 188:15-18.

27. Jeong, K.C., H.S. Jeong, J.H. Rhee, S.E. Lee, S.S. Chung, A.M. Starks, G.M. Escudero, P.A. Gulig, and S.H. Choi. 2000. Construction and phenotypic evaluation of a *Vibrio vulnificus* *vvpE* mutant for elastolytic protease. *Infect. Immun.* 68:5096-5106.
28. Starks, A.M., T.R. Schoeb, M.L. Tamplin, S. Parveen, T.J. Doyle, P.E. Bomeisl, G.M. Escudero, and P.A. Gulig. 2000. Pathogenesis of infection by clinical and environmental strains of *Vibrio vulnificus* in iron dextran-treated mice. *Infect. Immun.* 68:5785-5793.
29. Matsui, H., C.M. Bacot, W.A. Garlington, S.C. Roberts, T.J. Doyle, and P.A. Gulig. 2001. The *spvB* and *spvC* genes of the 90-kb virulence plasmid can replace the entire plasmid to restore virulence of *Salmonella typhimurium* in BALB/c mice. *J. Bacteriol.* 183:4652-4658.
30. Cervený, K.E., A. DePaola, D.H. Duckworth, and P.A. Gulig. 2002. Phage therapy of local and systemic disease caused by *Vibrio vulnificus* in iron-dextran-treated mice. *Infect. Immun.* 70:6251-6262.
31. DePaola, A., J.L. Nordstrom, A. Dalsgaard, A. Forslund, J. Oliver, T. Bates, K.L. Bourdage, and P.A. Gulig. 2003. Analysis of *Vibrio vulnificus* from market oysters and septicemia cases for virulence markers. *Appl. Environ. Microbiol.* 69:4006-4011.
32. Parikh, S.S., S.A. Litherland, M.J. Clare-Salzler, W. Li, P.A. Gulig, and F.S. Southwick. 2003. CapG(-/-) mice have specific host defense defects that render them more susceptible than CapG(+/+) mice to *Listeria monocytogenes* infection but not to *Salmonella enterica* serovar Typhimurium infection. *Infect. Immun.* 71:6582-90.
33. Lian, W., S.A. Litherland, H. Badrane, W. Tan, D. Wu, H.V. Baker, P.A. Gulig, D.V. Lim, and S. Jin. 2004. Ultrasensitive detection of biomolecules with fluorescent dye-doped nanoparticles. *Anal. Biochem.* 334:135-44.
34. Starks, A.M., K.L. Bourdage, P. C. Thiaville, and P.A. Gulig. 2006. Use of a marker plasmid to examine growth and death of *Vibrio vulnificus* in infected mice. *Mol. Microbiol.* 61:310-323.
35. Brown, R.N., and P.A. Gulig. 2008. FadR, a regulator of fatty acid metabolism, is essential for *Vibrio vulnificus* to cause infection of mice. *J. Bacteriol.* 190:7633-44.
36. Srivastava, M., M.S. Tucker, P.A. Gulig, and A.C. Wright. 2009. The role of phase variation, capsular polysaccharide, pilin, and flagella in survival of *Vibrio vulnificus* in the Eastern oyster (*Crassostrea virginica*). *Environ. Microbiol.* 11:1934-1944.
36. Gulig, P.A., P.C. Thiaville, M. Tucker, R.N. Brown, and J.L. Joseph. 2009. USER Friendly cloning coupled with chitin-based natural transformation enables rapid mutagenesis of *Vibrio vulnificus*. *Appl. Environ. Microbiol.* 15:4936-4949.
37. Brown, R.N., and P.A. Gulig. 2009. Roles of RseB, σ E, and DegP in virulence and phase variation of colony morphotype of *Vibrio vulnificus*. *Infect. Immun.* 77:3768-3781.
38. Mahmud, Z.H., A.C. Wright, S.C. Mandal, J. Dai, M.K. Jones, M. Hasan, M.H. Rashid, M.S. Islam, J.A. Johnson, P.A. Gulig, J.G. Morris, Jr. and A. Ali. 2010. Genetic characterization of *Vibrio vulnificus* strains from tilapia aquaculture in Bangladesh. *Appl. Environ. Microbiol.* 76:4890-4895.
39. Gulig, P.A. V. de Crécy-Lagard, A.C. Wright, B. Walts, M. Telonis-Scott, and L.M. McIntyre. 2010. SOLiD pyrosequencing of four *Vibrio vulnificus* genomes enables comparative genomic analysis and identification of candidate clade-specific virulence genes. *BMS Genomics* 11:512.
40. Gauthier, J.D., M.K. Jones, P. Thiaville, J.L. Joseph, R.A. Swain, C.J. Krediet, P.A. Gulig, M.A. Teplitski, and A.C. Wright. 2010. Role of GacA in virulence of *Vibrio vulnificus*. *Microbiology* 156:3722-33.
41. Thiaville, P.C., K.L. Bourdage, M. Evans, A.C. Wright, C. Garvan, and P.A. Gulig. 2011. Genotype is correlated with but does not predict virulence of *Vibrio vulnificus* biotype 1 in subcutaneously inoculated, iron dextran-treated mice. *Infect. Immun.* 79:1194-1207.
42. Sims, J.N., R.D. Isokpehi, G.A. Cooper, M.P. Bass, S.D. Brown, A.L. St. John, P.A. Gulig, and H.H.P. Cohly. 2011. Visual analytics of surveillance data on foodborne vibriosis, United States, 1973–2010. *Environmental Health Insights* 5:71-85.

Reviews and Chapters:

1. Hansen, E.J., and P.A. Gulig. 1985. Immunogenic proteins on the surface of *Haemophilus influenzae* type b. pp. 106-109. In Leive (ed.), Microbiology 1985. American Society for Microbiology, Washington, D.C.
2. Hansen, E.J., P.A. Gulig, A. Kimura, and G.H. McCracken, Jr. 1987. High molecular weight proteins on the surface of *Haemophilus influenzae* type b. pp. 273-282. In J.B. Robbins, R. Schneerson, D. Kline, J.C. Sadoff and C. Hartdegree (ed.), Bacterial vaccines. Praeger, N.Y.
3. Curtiss, R., III, S.M. Kelly, P.A. Gulig, C.R. Gentry-Weeks, and J.E. Galan. 1988. Avirulent *Salmonella* expressing virulence antigens from other pathogens for use as orally-administered vaccines pp. 311-328. In: James A. Roth (ed.) Proceedings from the International Symposium on Virulence Mechanisms of Veterinary Bacterial Pathogens. American Society for Microbiology, Washington, D.C.
4. Curtiss, R. III, A.T. Maurelli, and P.A. Gulig. 1988. Genetic analysis of pathogenesis of enteric bacteria pp. 67-82. In P. Owen and T.J. Foster (ed.), Immunochemical and molecular genetic analysis of bacterial pathogens. Elsevier, Paris.
5. Curtiss, R.C. III, S.M. Kelly, P.A. Gulig, and K. Nakayama. 1989. Selective delivery of antigens by recombinant bacteria. Curr. Top. Microbiol. Immunol. 146:35-49.
6. Curtiss, R.C. III, S.M. Kelly, P.A. Gulig, and K. Nakayama. 1989. Stable recombinant avirulent *Salmonella* vaccine strains. pp. 33-47. In M.Z. Atassi (ed.) Immunobiology of Proteins and Peptides - No. 5: Vaccines: Mechanism, Design, and Applications. Plenum Publishing Corp., N.Y.
7. Gulig, P.A. 1990. Virulence plasmids of *Salmonella typhimurium* and other salmonellae. Microbial Pathogenesis 8:3-11.
8. Gulig, P.A., H. Danbara, D.G. Guiney, A.J. Lax, F. Norel, and M. Rhen. 1993. Molecular analysis of *spv* virulence genes of the salmonella virulence plasmids. Mol. Microbiol. 7:825-830.
9. Gulig, P.A. 1993. Use of isogenic mutants to study bacterial virulence factors. J. Microbiol. Meth. 18:275-287.
10. Gulig, P.A. 1996. Pathogenesis of Systemic Disease. pp. 2774-2787. In: Neidhardt, F.C. (ed.), *Escherichia coli* and *Salmonella typhimurium*: Cellular and molecular biology, American Society for Microbiology, Washington, D.C.
11. Duckworth, D.H., and P.A. Gulig. 2002. Bacteriophages: Potential Treatment for Bacterial Infections. Biodrugs 16:57-62.
12. Gulig, P.A., Bourdage, K.L., and A.M. Starks. 2005. Molecular Pathogenesis of *Vibrio vulnificus*. J. Medical Microbiol. 43:118-131.
13. Gulig, P.A., J.L. Martin, H.G. Messer, B.L. Deffense, and C.J. Harpley. 2007. Phage display methods for detection of bacterial pathogens. In: Zourob, M. (ed), Handbook of bacteria detection: Biosensors, recognition receptors and microsystems, Springer, New York.

Abstracts:

1. Gulig, P.A., G.H. McCracken, Jr., K.H. Johnston, and E.J. Hansen. Human antibody response to outer membrane proteins of *Haemophilus influenzae* type b. Twenty-first Interscience Conference on Antimicrobial Agents and Chemotherapy, No. 701 (1981).
2. Gulig, P.A., and E.J. Hansen. Characterization of the antibody response of infant rats to outer membrane proteins of *Haemophilus influenzae* type b. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 26, B48 (1982).
3. Robertson, S.M., C.F. Frisch, N.J. Wischkamper, P.A. Gulig, J.R. Kettman, and E.J. Hansen. Restricted murine monoclonal antibody response to *Haemophilus influenzae* type b outer membrane proteins. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 66, E37 (1982).
4. Murphy, T.V., G.H. McCracken, Jr., P.A. Gulig, and E.J. Hansen. Failure of rifampin prophylaxis to prevent *Haemophilus influenzae* type b disease in a day care center. Twenty-second Interscience Conference on Antimicrobial Agents and Chemotherapy, p. 193, No. 725 (1982).
5. Gulig, P.A., and E.J. Hansen. Identification of immunogenic proteins in cell-free culture supernatants of *Haemophilus influenzae* type b. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 62, D22 (1983).

6. Gulig, P.A., and E.J. Hansen. Identification of *Haemophilus influenzae* type b outer membrane proteins expressed both in vitro and in vivo. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 62, D21 (1983).
7. Gulig, P.A., C.F. Frisch, and E.J. Hansen. A set of two monoclonal antibodies directed against the 39K outer membrane protein of *Haemophilus influenzae* type b defines all strains of this pathogen. Twenty-third Interscience Conference on Antimicrobial Agents and Chemotherapy, p. 259, No. 948 (1983).
8. Kimura, A., G.H. McCracken, Jr., P.A. Gulig, T.A. Loftus, and E.J. Hansen. Identification of an immunogenic, high molecular weight outer membrane protein of *Haemophilus influenzae* type b as a protective antigen. Abstracts Annual Meeting Amer. Soc. Microbiol., p.34, B99 (1984).
9. Gulig, P.A., T.A. Loftus, and E.J. Hansen. Variability in antibody-accessibility of selected antigenic determinants of the 39K outer membrane protein of *Haemophilus influenzae* type b. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 60, D56 (1984).
10. Gulig, P.A., and E.J. Hansen. Co-immunoprecipitation of LPS and the 39K outer membrane protein of *Haemophilus influenzae* type b by LPS specific monoclonal antibody. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 329, C178 (1985).
11. Kimura, A., P.A. Gulig, F.R. Gonzales, E.J. Fritz, and E.J. Hansen. A monoclonal antibody recognizes a virulence-associated antigenic determinant of *Haemophilus influenzae* type b lipopolysaccharide. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 21, B21 (1985).
12. E.J. Hansen, T.A. Loftus, P.A. Gulig, D.A. Hart, and G.B. Toews. Intravenous administration of monoclonal antibody enhances pulmonary clearance of *Haemophilus influenzae*. Abstracts Annual Meeting Amer. Soc. Microbiol., p. 51, B198 (1985).
13. Patrick, C.C., C.M. Hall, E.H. Fritz, P.A. Gulig, G.H. McCracken, Jr., and E.H. Hansen. *Haemophilus influenzae* type b can synthesize two antigenically distinct lipooligosaccharides. Twenty-Sixth Interscience Conference on Antimicrobial Agents and Chemotherapy, No. 863, p. 256 (1986).
14. Gulig, P.A., and R. Curtiss III. Studies on the virulence plasmid of *Salmonella typhimurium*. Twenty-Sixth Interscience Conference on Antimicrobial Agents and Chemotherapy, No. 1171, p. 310 (1986).
15. Gulig, P.A., and R. Curtiss III. Cloning of virulence genes of the 100-kilobase plasmid of *Salmonella typhimurium*. Abstracts Annual Meeting Amer. Soc. Microbiol., D147, p. 96 (1987).
16. Gulig, P.A., and R. Curtiss III. Tn5 mutagenesis of cloned virulence genes of the *Salmonella typhimurium* virulence plasmid. Twenty-Seventh Interscience Conference on Antimicrobial Agents and Chemotherapy, No. 1323, p. 327 (1987).
17. Gulig, P.A., and V.A. Chiodo. Confirmation of the 28,000 dalton protein encoded by the *Salmonella typhimurium* virulence plasmid as being a virulence factor and determination of the nucleic acid sequence. Abstracts Annual Meeting Amer. Soc. Microbiol., B217, p. 66 (1989).
18. Caldwell, A.L., and P.A. Gulig. A *Salmonella typhimurium* virulence plasmid gene encodes a positive regulatory factor for other plasmid-encoded virulence factors. Abstracts Annual Meeting Amer. Soc. Microbiol., B54, p. 34 (1991).
19. Gulig, P.A., and T.J. Doyle. The *Salmonella typhimurium* virulence plasmid affects the growth rate of salmonellae in mice, probably within infected host cells. Abstracts Annual Meeting Amer. Soc. Microbiol., B163, p. 53 (1992).
20. Rogers, J.A., V.A. Chiodo, S.D. Schreck, and P.A. Gulig. Virulence genes of the *Salmonella typhimurium* virulence plasmid are regulated in SpvR-dependent and SpvR-independent manners by growth phase, complexity of growth medium, and certain amino acids. Abstracts Annual Meeting Amer. Soc. Microbiol., D220, p. 132(1992).
21. Ervin, S.E., P.A. Small, Jr., and P.A. Gulig. *Salmonella* as a vaccine vector: controlled *de novo* expression of antigen in mice for immunization with toxic proteins. Abstracts Annual Meeting Amer. Soc. Microbiol., (1992).

22. Rubino, S., P. Rizzu, G. Erre, M. Colombo, G. Leori, P. Gulig, T.J. Doyle, M. Pisano, S. Uzzau, and P. Cappuccinelli. Mechanisms of pathogenicity in *Salmonella abortusovis* and construction of protective mutants. Presented at "Salmonella and Salmonellosis," Ploufragan/St. Brieuc, France, (1992).
23. Langevin, P., P. Gulig, and N. Gravenstein. Epidural catheter contamination: Effect of catheter position and meniscus on extent of contamination. American Society of Anesthesiology, A-1041 (1992).
24. Langevin, P., P. Gulig, and N. Gravenstein. Epidural catheter disconnection: Extent of contamination. American Society of Anesthesiology (1992).
25. Gulig, P.A., J.A. Rogers, and V.A. Chiodo. The *Salmonella typhimurium* virulence plasmid-encoded operon requires OxyR and RelA for maximal expression and induction. Abstracts Annual Meeting Amer. Soc. Microbiol., B66, p. 38 (1993).
26. Rogers, J.A., T.J. Doyle, and P.A. Gulig. *spvA* of the *Salmonella typhimurium* virulence plasmid is induced intracellularly in J774.1 cells. Abstracts Annual Meeting Amer. Soc. Microbiol., B78, p. 40 (1993).
27. Bacot, C.M. and P.A. Gulig. Genetic analysis for the role in virulence of the *Salmonella typhimurium spvB* gene. Abstr. Annu. Meet. Am. Soc. Microbiol. (1994).
28. Rogers, J.A. and P.A. Gulig. Expression and molecular regulation of the *spvR* gene of the *Salmonella typhimurium* virulence plasmid. Abstr. Annu. Meet. Am. Soc. Microbiol. (1994).
29. Matsui, H., T.J. Doyle, and P.A. Gulig. Analysis of host cells responsible for increased intracellular growth rate by virulence plasmid-containing *Salmonella typhimurium*. Abstr. Annu. Meet. Am. Soc. Microbiol. (1994).
30. Matsui, H., T.J. Doyle, and P.A. Gulig. IFN- γ and TNF- α Suppress the Growth of Wild-type but not Virulence Plasmid-Cured *Salmonella typhimurium* in Orally Inoculated Mice. Annu. Meet. Am. Soc. Microbiol. B114, p. 185 (1995).
31. Rogers, J.A., Matsui, H., and P.A. Gulig. *spvA* of the *Salmonella typhimurium* Virulence Plasmid Can Act as a Transcriptional Repressor of *spvR* and is not Essential for Virulence in Orally Inoculated Mice. Annu. Meet. Am. Soc. Microbiol. B304, p. 218 (1995).
32. Rogers, J.A., and P.A. Gulig. Involvement of DNA sequences upstream of *spvR* in regulation of *spvR* and plasmid-mediated virulence of Salmonella. Annu. Meet. Am. Soc. Microbiol. B118, p. 175 (1996).
33. Gulig, P.A., T.J. Doyle, S.N. Vogel, and W.H. Benjamin, Jr. Interactions Between *Salmonella typhimurium spv* Genotype and the Murine *Ity* and *Lps* Genotypes during Systemic Infection. Annu. Meet. Am. Soc. Microbiol. B409, p. 99 (1997).
34. Matsui, H., K. Kawahara, A. Suzuki, K. Sekiya, H. Danbara, C. M. Bacot, and P.A. Gulig. The *spvB* and *spvC* genes of the 90-kb *Salmonella typhimurium* virulence plasmid can replace the entire plasmid to restore virulence after subcutaneous but not oral inoculation of mice. Annu. Meet. Am. Soc. Microbiol. B281, p. 77 (1997).
35. Gulig, P.A., S. Roberts, and T.J. Doyle. *Salmonella typhimurium* resides primarily within macrophages in spleens and livers after oral and subcutaneous inoculation of BALB/c mice, but does not infect hepatocytes except after intravenous inoculation. Annu. Meet. Am. Soc. Microbiol. B212, p. 91 (1998).
36. Gallman, A.M., T.J. Doyle, S.C. Skinner, P.E. Bomeisl, S. Parveen, M.L. Tamplin, and P.A. Gulig. Pathogenesis of infection by virulent and naturally attenuated strains of *Vibrio vulnificus* in subcutaneously inoculated, iron dextran-treated mice. Annu. Meet. Am. Soc. Microbiol. DB302, p. 267 (1999).
37. Gallman, A.M., D.H. Duckworth, S.C. Skinner, T.J. Doyle, P.A. Gulig. Both virulent and naturally attenuated *Vibrio vulnificus* strains are cytotoxic for, but non-invasive into, human intestinal epithelial cell lines. Annu. Meet. Am. Soc. Microbiol. DB304, p. 268 (1999).
38. Cervený, K.E., T.J. Doyle, G.M. Escudero, D.H. Duckworth, and Paul A. Gulig. Use of bacteriophage as therapy for disease caused by *Vibrio vulnificus* in iron dextran-treated mice. Annu. Meet. Am. Soc. Microbiol. D230, p. 279 (2000).

39. Escudero, G.M., T.J. Doyle, P.A. Gulig. Use of peritoneal chamber implants to examine host-pathogen interactions in *Vibrio vulnificus* infection of mice. Annu. Meet. Am. Soc. Microbiol. D231, p. 279 (2000).
40. Gulig, P.A., and G.M. Escudero. Cell culture and mouse peritoneal chamber implant models reveal differences in cytotoxicity between clinical and environmental *Vibrio vulnificus* strains. Annu. Meet. Am. Soc. Microbiol. D68, p. 289 (2001).
41. Smith, J.G., P.A. Gulig, A. DePaola, and A.C. Wright. Use of bacteriophage for elimination of *Vibrio vulnificus* from oysters. Annu. Meet. Am. Soc. Microbiol. P67, p. 570 (2001).
42. Bourdage, K., S. Lang, P. A. Gulig. Virulence of *Vibrio vulnificus* is not related to source of the strain or cytotoxicity in INT-407 cell culture models. Annu. Meet. Am. Soc. Microbiol. (2002).
43. Starks, A.M., P. A. Gulig. Use of in vivo selection for virulence to identify genomic sequences associated with virulence of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2002).
44. Clare-Salzler, M., P. Gulig, W. Li, S. Litherland, S. Parikh, and F. Southwick. Loss of the actin filament capping protein CapG increases susceptibility to *Listeria monocytogenes*, but not *Salmonella typhimurium*. Annu. Meet. Am. Soc. Microbiol. (2002).
45. Bourdage, K., P. Gulig, and A. Starks. The RtxA toxin is a major cytotoxic factor but plays a minor role in virulence of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2003).
46. Dalsgaard, A., A. DePaola, P. Gulig, W. Nilsson, J. Oliver, M. Strom, and M. Vickery. Analysis of *Vibrio vulnificus* from oysters and septicemia cases for virulence markers. Annu. Meet. Am. Soc. Microbiol. (2003).
47. Gulig, P.A., M. Kramer, and D. Lim. A rapid and automated fiber optic-based biosensor assay for the detection of *Salmonella* in spent irrigation water used in the sprouting of sprout seeds. Annu. Meet. Am. Soc. Microbiol. (2003).
48. Duckworth, D.H., P.A. Gulig, and J. Martin. Use of Bacteriophages to reduce *Vibrio vulnificus* in experimentally and naturally infected oysters (*Crassostrea virginica*). Annu. Meet. Am. Soc. Microbiol. (2004).
49. Deffense, B., P. Turner, A. Wright, and P.A. Gulig. Recombinant scFv Antibodies Recognizing Proteins of Vaccinia Virus. Annu. Meet. Am. Soc. Microbiol. (2005).
50. Tucker, M.S., S.-S. Lang, P.C. Thiaville, J.L. Joseph, and P.A. Gulig. Identification of Virulence Genes of *Vibrio vulnificus* using Signature-Tagged Mutagenesis. Annu. Meet. Am. Soc. Microbiol. (2005).
51. Frank, R.N., Y. Qiu, and P.A. Gulig. Alkaline Phosphatase Fusion-Insertion Vectors for Use in Identifying Secreted Virulence Factors of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2005).
52. Martin, J.L., D.E. Duckworth, P.A. Gulig. Use of Genetic Tools and Microtiter-Based Phage Typing in Analyzing the Ability of Bacteriophage to Clear Oysters of *Vibrio vulnificus* Contamination. Annu. Meet. Am. Soc. Microbiol. (2005).
53. Messer, H.G. R.E. Moose, G. Sapparapu, J.J. Ferrara, P.A. Gulig. Phage Display scFv Antibodies Recognizing Flagella to Detect Bacterial Pathogens. Annu. Meet. Am. Soc. Microbiol. (2005).
54. Deffense, B.L., P.C. Turner, and P.A. Gulig. Development of a Capture ELISA for the Detection of Vaccinia Virus Using Recombinant Antibodies. Annu. Meet. Am. Soc. Microbiol. (2006).
55. Frank, R.N. and P.A. Gulig. Regulation of Fatty Acid Metabolism and Sigma E Activity Are Essential for Virulence of *Vibrio vulnificus* in Iron Dextran-Treated Mice. Annu. Meet. Am. Soc. Microbiol. (2006).
56. Joseph, J.L., P.C. Thiaville, P.A. Gulig. Roles of RTX Toxins of *Vibrio vulnificus* in Cytotoxicity and Mouse Virulence. Annu. Meet. Am. Soc. Microbiol. (2006).
57. Thiaville, P.C. and P.A. Gulig. Examining the Roles of GGDEF and EAL Domains in Virulence of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2006).
58. Tucker, M.S., P.C. Thiaville, and P.A. Gulig. Analysis of Flagella, Motility, and Chemotaxis in the Pathogenesis of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2006).
59. Joseph, J.L., and P.A. Gulig. Analysis of the Three RTX Loci in Pathogenesis of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2007) B-035

60. Messer, H.G., and P.A. Gulig. Detection of *Listeria monocytogenes* Using Phage Display scFv Proteins Recognizing Auto and Flagella. Annu. Meet. Am. Soc. Microbiol. (2007) P-045.
61. Frank, R.N., and P.A. Gulig. RseB, a Negative Regulator of the Extracytoplasmic Stress Response, is Essential for Virulence of *Vibrio vulnificus* and Indirectly Affects Colony Morphology and Surface Carbohydrate Expression. Annu. Meet. Am. Soc. Microbiol. (2007) B-401.
62. Vargas-Pinto, S., P.A. Gulig, and M. Dziejman. Analysis of VSP-II Genes in *V. cholerae*. Annu. Meet. Am. Soc. Microbiol. (2007) D-199.
63. Frank-Brown, R.N. and P.A. Gulig. The role of σ^E and DegP of the extracytoplasmic stress response in stress resistance, biofilm formation, and virulence of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2008) B-097.
64. Joseph, J.L. and P.A. Gulig. A phospholipase/hemolysin of *Vibrio vulnificus* has no role in virulence in a mouse model. Annu. Meet. Am. Soc. Microbiol. (2008) B-158.
65. Thiaville, P.C., K.L. Bourdage, M. Evans, A.C. Wright, V.J. Harwood, and P.A. Gulig. *Vibrio vulnificus* Clade Is Associated with Systemic, as Opposed to Local, Infection in a Mouse Model of Disease. Annu. Meet. Am. Soc. Microbiol. (2008) B-355.
66. Vedam-Mai, V., M. Farrell-Evans, P. Thiaville, P. Gulig, and A.C. Wright. Distribution of *viuB* gene among *Vibrio vulnificus* strains does not predict virulence. Annu. Meet. Am. Soc. Microbiol. (2008) Q-241.
67. Asencio, J.M., D.A. Ostrov, R.N. Brown, P.A. Gulig. Use of molecular docking to identify inhibitors of FadR of *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2009).
68. Martin, J.L., T. Finnegan, P.A. Gulig. Isolation and characterization of phage display scFv antibodies to flagella of *Escherichia coli* O157:H7. Annu. Meet. Am. Soc. Microbiol. (2009).
69. Morey, T.E., J.H. Modell, P. Gulig, A. Mittel, D.M. Dennis. Microbial growth in propofol micro- and macro-emulsions. Annu. Meet. Am. Soc. Anesthesiol. A386.
70. Little, C.S., J.L. Martin, P.A. Gulig. Isolation of Phage Display scFv Antibodies to Giardia lamblia Cysts. Annu. Meet. Am. Soc. Microbiol. (2010) 192/AA
71. Gulig, P.A., V. de Crécy-Lagard, A.C. Wright, B. Walts, M. Telonis-Scott, L.M. McIntyre. SOLiD Pyrosequencing of Four *Vibrio vulnificus* Genomes Enables Comparative Genomic Analysis and Identification of Candidate Clade-Specific Virulence Genes. Annu. Meet. Am. Soc. Microbiol. (2010) 230/B
72. Swain, R.A., M.K. Jones, P.A. Gulig, A.C. Wright. GacA Regulation of Iron Response in *Vibrio vulnificus*. Annu. Meet. Am. Soc. Microbiol. (2010) 322/B.
73. Thiaville, P.C., K.L. Bourdage, A.C. Wright, M. Evans, C. Wilson Garvan, P.A. Gulig. Genotype is correlated with but does not predict virulence of *Vibrio vulnificus* Biotype 1 in subcutaneously inoculated, iron dextran-treated mice. Vibrios in the Environment 2010.
74. Gulig, P.A., V. de Crécy-Lagard, A.C. Wright, B. Walts, M. Telonis-Scott, and L. McIntyre. SOLiD sequencing of four *Vibrio vulnificus* genomes enables comparative genomic analysis and identification of candidate profile-specific virulence genes. Vibrios in the Environment 2010.
75. Swain, R.A., M.K. Jones, P. Thiaville, J. Joseph, P.A. Gulig, A.C. Wright. The iron limitation response of *Vibrio vulnificus*: genetic variation, GacA regulation, and virulence. Vibrios in the Environment 2010.

University Service:

<u>Committee</u>	<u>Unit</u>	<u>Role</u>	<u>Years</u>
Office of Graduate Education	College	Associate Dean	2011-
Interdisciplinary Program in Biomedical Sciences (IDP)	College	Director	2011-
Institutional Biosafety Committee	University	Member	1999-2000 2007-2008
		Chair	2000-2005 2008-2011
Emerging Pathogens Institute Internal Advisory Committee	University	Member	2007-2009

Promotion and Tenure Committee	College	Member	2007-2010
Emerging Pathogens Institute Building Committee	University	Member	2006-2007
Academic Status Committee	College	Member	2006-2012
College of Med. Ph.D. program (IDP) Immunology/Microbiology Concentration	College	Co-Coord.	2003-2008
Medical Selection Committee	College	Member	2002-2008
Medical Curriculum Committee	College	Member	2002-2005
Mol. Gen. & Micro. Faculty Search Cmt.	Department	Chair	1998-1999
University of Florida Faculty Senate	University	Senator	1996-2003
Graduate Admissions Committee	College	Member	1996-2001
Advanced Program Focus Committee	College	Member	1996-1997
Mouse Facility Oversight Committee	Dept. (Pathol.)	Member	1996-1997
Admissions Committee	Department	Member	1994-1996
Medical Student Advisor	College	Advisor	1993-1994

Teaching: (Since tenure)**A. Medical Students: BMS 6300 Medical Microbiology and Infectious Disease - Bacteriology Section**

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2011-2012	Course Director	Lecture	18
2010-2011	Course Director	Lecture	16
2009-2010	Course Director	Lecture	16
2008-2009	Course Director	Lecture	19
2007-2008	Course Director	Lecture	19
2006-2007	Section Leader	Lecture	19
2005-2006	Section Leader	Lecture	18
2004-2005	Section Leader	Lecture	17
2003-2004	Section Leader	Lecture	17
2002-2003	Section Leader	Lecture	17
		Small group	2
2001-2002	Section Leader	Lecture	17
	Ran Labs	Lab	5
		Small group	2
2000-2001	Section Leader	Lecture	20
	Ran Labs	Lab	5
		Small group	2
1999-2000	Section Leader	Lecture	20
	Ran Labs	Lab	5
		Small group	2
1998-1999	Section Leader	Lecture	20
	Ran Labs	Lab	5
		Small group	2
1997-1998	Section Leader	Lecture	20
	Ran Labs	Lab	5
		Small group	2
1996-1997	Section Leader	Lecture	14
	Ran Labs	Lab	5
		Small group	2
1995-1996	Section Leader	Lecture	13
	Ran Labs	Lab	5
		Small group	2
1994-1995	Section Leader	Lecture	10

	Ran Labs	Lab	5
		Small group	2
1993-1994	Lecturer	Lecture	10
	Ran Labs	Lab	5
		Small group	2

B. Graduate Student Teaching - Interdisciplinary Program in Biomedical Sciences (IDP)

1. Bacterial Genetics and Physiology (GMS6038)

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2011-2012	Course Director	Lecture	13
2010-2011	Course Director	Lecture	13
2009-2010	Course Director	Lecture	13
2008-2009	Course Director	Lecture	13
2007-2008	Course Director	Lecture	13
2006-2007	Course Director	Lecture	13
2005-2006	Course Director	Lecture	13
2004-2005	Course Director	Lecture	13
2003-2004	Course Director	Lecture	13
2002-2003	Course Director	Lecture	13
2001-2002	Course Director	Lecture	13
2000-2001	Course Director	Lecture	13
1999-2000	Course Director	Lecture	13
1998-1999	Course Director	Lecture	13

2. Core Course GMS 6006 - Fundamentals of Immunology/Microbiology

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2009-2010	Lecturer	Lecture	4
2008-2009	Lecturer	Lecture	4
2007-2008	Lecturer	Lecture	4
2006-2007	Lecturer	Lecture	5
2005-2006	Lecturer	Lecture	5
2004-2005	Lecturer	Lecture	5
2003-2004	Lecturer	Lecture	5
2002-2003	Lecturer	Lecture	5
		Lab-lecture	2
2001-2002	Lecturer	Lecture	5
		Small group	1
		Lab-lecture	2
2000-2001	Lecturer	Lecture	5
		Small group	1
		Lab-lecture	2
1999-2000	Lecturer	Lecture	5
		Small group	1
		Lab-lecture	2
1998-1999	Lecturer	Lecture	5
		Small group	1
		Lab-lecture	2
1997-1998	Lecturer	Lecture	5
		Small group	1
		Lab-lecture	2
1996-1997	Lecturer	Lecture	2
		Small group	1
		Lab-lecture	2

3. GMS 6121 Infectious Diseases (Dept. Mol. Gen. & Micro.)

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2011-2012	Lecturer	Lecture	11
2010-2011	Lecturer	Lecture	10
2009-2010	Lecturer	Lecture	3
2008-2009	Lecturer	Lecture	3
2007-2008	Lecturer	Lecture	3
2005-2006	Lecturer	Lecture	17
2004-2005	Lecturer	Lecture	17
2003-2004	Lecturer	Lecture	17
2002-2003	Course Director	Lecture	17
2001-2002	Course Director	Lecture	15
2000-2001	Course Director	Lecture	15
1999-2000	Course Director	Lecture	15
1998-1999	Course Director	Lecture	15
1997-1998	Course Director	Lecture	15
1996-1997	Course Director	Lecture	13
1995-1996	Course Director	Lecture	14
1994-1995	Course Director	Lecture	8
1993-1994	Course Director	Lecture	19

4. Principles of Immunology (GMS 6140)

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2011-2012	Lecturer	Lecture	2
2010-2011	Lecturer	Lecture	4
2007-2008	Lecturer	Lecture	4
2002-2003	Lecturer	Lecture	4
2001-2002	Lecturer	Lecture	4
2000-2001	Lecturer	Lecture	4
1999-2000	Lecturer	Lecture	5
1998-1999	Lecturer	Lecture	5
1997-1998	Lecturer	Lecture	5
1995-1997	Lecturer	Lecture	3

5. Fundamentals in Biomedical Science (GMS 6001)

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2011-2012	Course Director		
2003-2004	Lecturer	Small Group	1
2002-2003	Lecturer	Small Group	1
2001-2002	Lecturer	Small Group	1

6. Molecular Pathogenesis

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
2001-2002	Lecturer	Lecture	1
2000-2001	Lecturer	Lecture	1
1999-2000	Lecturer	Lecture	1

7. Microbiology Journal Club (Dept. Mol. Gen. & Micro.)

<u>Year</u>	<u>Role in Course</u>	<u># Hours</u>
1996-1997	Director	30

8. Mechanisms of Disease (Pathology Department)

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
1994-1995	Lecturer	Lecture	1

C. Undergraduate Pharmacy - Immunology

<u>Year</u>	<u>Role in Course</u>	<u>Description</u>	<u># Hours</u>
1999-2000	Lecturer	Lecture	2
1998-1999	Lecturer	Lecture	2
1997-1998	Lecturer	Lecture	2

D. Postdoctoral/Graduate Student Supervisory Activities (Complete list)

<u>Name</u>	<u>Degree</u>	<u>Dates</u>	<u>Advisor</u>	<u>Project</u>
Jennifer Joseph	Ph.D.	2003-2009	Gulig	V. vulnificus pathogenesis
Crystal Harpley	M.S.	2006-2008	Gulig	Detection of agents of bioterrorism
Roslyn (Franks) Brown	Ph.D.	2003-2008	Gulig	V. vulnificus pathogenesis
Ann Griswold, Ph.D.	Postdoc	2006-2007	Gulig	V. vulnificus pathogenesis
Matthew Tucker	M.S.	2003-2006	Gulig	V. vulnificus pathogenesis
Rebecca Moose-Clemente	Postdoc	2004-2006	Gulig	Detection of bioterrorism agents
Harald Messer	M.S.	2003-2006	Gulig	Detection of bioterrorism agents
Julio Martin	M.S.	2001-2006	Gulig	Bacteriophage treatment of Oysters
Gopal Sapparapu	M.S.	2001-2003	Gulig	Detection of Salmonella
Yushi Qiu	M.S./ M.B.A	2000-2004	Gulig	V. vulnificus pathogenesis
Keri (Malcolmson) Bourdage	M.S.	2000-2002	Gulig	Molecular pathogenesis
Karen Cerveny	M.S.	1999-2001	Gulig	Phage therapy
Gloria Escudero	M.S.	1998-2001	Gulig	Vibrio vulnificus
Angela Starks	Ph.D.	1997-2003	Gulig	Vibrio vulnificus
Wendy Garlington	M.S.	1995-1996	Gulig	Salmonella pathogenesis
Fusun Erler, M.D.	Postdoc	1995-1996	Gulig	Salmonella pathogenesis
Hidenori Matsui, Ph.D.	Visiting Prof.	1994-1996	Gulig	Salmonella pathogenesis
Anuradha Menon	M.S.	1993-1995	Gulig	Salmonella pathogenesis
Christopher Bacot, Ph.D.	Postdoc	1993-1994	Gulig	Salmonella pathogenesis
Sean Ervin, Ph.D.	Postdoc	1991-1993	Gulig	Salmonella vaccines
Julie A. Wilson	Ph.D.	1991-1996	Gulig	Salmonella pathogenesis
Allison Caldwell	M.S.	1989-1993	Gulig	Salmonella pathogenesis
Greg Stupp	Ph.D.	2010-present	Edison	<i>C. elegans</i> -bacterial interactions
April Sapp	M.S.	2010-present	Rice	Staphylococcal biofilms
Nicole Martino	M.S.	2010-2011	Burne	Streptococcal genetics
Rick Swain	M.S.	2010-2011	Wright	<i>V. vulnificus</i> GacA regulation
Yah-Wen Yeh	Ph.D.	2010-present	Gower	Microchip phage display
Dana Blackburn	M.S.	2009-2010	Giron	<i>E. coli</i> virulence
Francy Lilliana Crosby	Ph.D.	2009-present	Barbet	Anaplasma virulence
Heather Brown	Ph.D.	2009-present	Grieshaber	Chlamydia biology
Algevis Wrench	Ph.D.	2009-2011	Lorca	Francisella virulence
MD Nahid	Ph.D.	2009-2011	Chan	MicroRNA and LPS tolerance

Steve Garrett	M.S.	2009-2010	Burne	Streptococcal genetics
Amber Delmas	M.S.	2009-2010	Kladde	DNA methylation in cancer
Candace Bichsel	Ph.D.	2008-2012	Jin	Pseudomonas protein delivery
Mercedes Rivera	M.S.	2006-2010	Burne	Streptococcal genetics
Sarah (Guilmain) Szarowicz	Ph.D.	2007-2010	Southwick	Pathogens and actin
Ekta Patel	Ph.D.	2006-2011	Chang	Lentivirus vectors
Sara Palmer	Ph.D.	2005-2011	Brady	Oral streptococci
Heather Wamsley	Ph.D.	2006-2009	Barbet	Anaplasma virulence
Jessica Smith	Ph.D.	2006-2008	Lyons	Lipids in bacterial virulence
Russell Durring	Ph.D.	2004-2006	Southwick	Anthrax pathogenesis
Massoumeh Rajabi	Ph.D.	1999-2006	Wright	Salmonella identification
Stephanie Jacks	Ph.D.	2002-2007	Gigeure	Rhodococcus equi
Ann Griswold	Ph.D.	2002-2006	Burne	Streptococcus
Yiqian Dong	Ph.D.	2001-2004	Burne	Streptococcus
Xialing Wang	M.S.	2002-2004	Jin	Pseudomonas
Weihui Wu	Ph.D.	2002-2006	Jin	Pseudomonas
Botund Balogh	Ph.D.	2001-2006	Jones	Phage therapy for plants
Sheila Walters	Ph.D.	2001-2006	Progulske-Fox	IVIAT
Winston Brasor	M.S.	2001-2001	Baker	Yeast gene expression
Maria Chitzadaki	Ph.D.	1999-2004	Wright	V. vulnificus pathogenesis
Unhwan Ha	Ph.D.	2000-2002	Jin	Pseudomonas
Jinghua Jia	Ph.D.	2000-2004	Jin	Pseudomonas
Lin Zeng	Ph.D.	2000-2004	Jin	Pseudomonas
Trevor Seifert	Ph.D.	1999-2006	Progulske-Fox	in vivo expression of bacteria
Kyle Seifert	Ph.D.	1999-2004	Brady	Group B streptococci
Tamara Widenhouse, D.V.M.	Ph.D.	1999-2004	Lester	Equine Salmonellosis
Troy Scott	Ph.D.	1998-2002	Farrah	Molecular bacterial detection
Brian Dorn	Ph.D.	1998-2001	Progulske-Fox	Porphyromonas
Greg Havemann	Ph.D.	1998-2003	Bobik	Salmonella structural biology
Rajkumar Nathaniel	Ph.D.	1997-2002	R. Moyer	Pox virus
Talibah Metcalf	M.S.	2000-2002	West	Dictyostelium biology
Chin (Vivian) Chen	M.S.	1996-1998	Schultz	Wound healing
Lori Wojciechowski	Ph.D.	1996-1997	Hillman	Oral Biology
James Kohler	Ph.D.	1994-1998	Brown	Salmonella vaccine delivery
Annette Khaled	Ph.D.	1993-1997	Schiffenbauer	NF- κ B
Arthur Alleman, D.V.M.	Ph.D.	1993-1995	Barbet	Anaplasma antigens
Nicholas Grimaudo, D.M.D.	M.S.	1992-1995	Bleiweis	Candida
Richard Stern	Ph.D.	1991-1996	R. Moyer	Vaccinia pathogenesis
Martha Ewing	M.S.	1991-1993	Brown	Salmonella
Bigboy Simbi	M.S.	1991-1993	Allred	Cowdria
Scott Winram	Ph.D.	1990-1995	Lottenberg	Streptococcal virulence
Joyce Feller	Ph.D.	1989-1994	R. Moyer	Pox viruses
Robert Massung	Ph.D.	1988-1991	R. Moyer	Pox viruses

E. Undergraduate student research mentoring

Brandon Duncanson	2011-
Jennifer Baker	2011-2012
Ashley Gregory	2011-
Robert Bowden	2011-
Jacob Comiskey	2010-2011
John Delano	2010-2011
Riva Raiker	2010-2011

Becky (Dung) Ho	2010-2011
Nima Rezaie	2009-2011
Luke Christakis	2009-2010
Rupam Sharma	2009-2010
Nicholas Huckaba	2009-2011
Oswaldo Martinez	2009
Vivian Reyes	
Kimberly Foster	
Jessica Asencio	
Christopher Little	
Timothy Finnegan	
Fernando Donoso	
Andrew Jones	
Shih-Shan Lang	
Stephen Schreck	
Craig Speight	
Jasmin	
Philip Bomeisl	
Charles Deibel	

F. Medical Student Research Program students

Ashley Rawls	2011
Michael Montuno	2010