

ANGELA J. ROBERTS

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EDUCATION

August 2004 Ph.D. Department of Microbiology, Cornell University, Ithaca NY

May 1997 B.S. Department of Biology, St. Mary's College of California, Moraga CA

PROFESSIONAL AND RESEARCH EXPERIENCE

Aug. 2008-present: Assistant Professor of Biology, Department of Biology, Texas Wesleyan University, Fort Worth, TX. *Responsible for teaching courses in Microbiology, Infection and Immunity, and Contemporary Issues in Biology. Supervise undergraduate research and pursue independent and collaborative research in the areas of foodborne infectious disease and undergraduate education.*

Oct. 2007-Aug. 2008: Postdoctoral Research Associate, Department of Animal Sciences, Colorado State University, Fort Collins, CO. *Conducted basic research on virulence variation among *Listeria monocytogenes* strains, focusing on cell culture and transcriptional expression comparisons among strains from human listeriosis outbreaks in the lab of Kendra Nightingale.*

Oct. 2005-Oct. 2007: Postdoctoral Research Fellow, Department of Microbiology, Univ. of Colorado at Denver and Health Sciences Center, Aurora, CO. *Conducted basic research on the pathogenesis of *Pseudomonas aeruginosa*, focusing on the transcriptional effects of a *tat* (twin-arginine translocase) mutation on Type III protein secretion in the lab of Michael Vasil.*

June 2005-Aug. 2005: Postdoctoral Research Associate, Department of Food Science, Cornell University. Ithaca, NY. *Conducted research on virulence variation in *Listeria monocytogenes*; supervised undergraduate research students, and prepared learning activities for visiting undergraduate Food Science Summer Scholars.*

July 2004-May 2005: Visiting Assistant Professor, Department of Biology, Denison University. Granville, OH. *Designed and taught lecture and lab courses in Cell and Molecular Biology, Modern Topics in Biology, and Infectious Disease.*

Aug. 1999-July 2004: Graduate Research Assistant; Department of Food Science, Cornell University. *Conducted independent research to investigate the relationship between allelic variation and virulence phenotype in the foodborne pathogen, *Listeria**

monocytogenes, using modern molecular, microbiological, and cell culture techniques in the lab of Martin Wiedmann.

PUBLICATIONS AND PRESENTATIONS

Peer-Reviewed Publication

Roberts, A. J., S. K. Williams, M. Wiedmann, and K.K. Nightingale. (2009) *Listeria monocytogenes* outbreak strains demonstrate differences in invasion phenotypes, *inlA* transcript levels and motility. Appl. Environ. Microbiol. **submitted**, AEM00367-09.

Roberts, A., K. Nightingale, G. Jeffers, E. Fortes, J. Kongo, and M. Wiedmann (2006) Genetic and phenotypic characterization of *Listeria monocytogenes* lineage III. Microbiology. **152(Pt 3)**: 685-693.

Roberts, A. and M. Wiedmann (2006) Allelic exchange and site-directed mutagenesis probe the contribution of ActA amino acid variability to phosphorylation and virulence-associated phenotypes among *Listeria monocytogenes* strains. FEMS Microbiol. Lett. **254(2)**: 300-307.

Roberts, A., Y. Chan, and M. Wiedmann (2005) Definition of genetically distinct attenuation mechanisms in naturally virulence-attenuated *Listeria monocytogenes* by comparative cell culture and molecular characterization. Appl. Environ. Microbiol. **71**: 3900-3910.

Roberts, A.J. and M. Wiedmann (2003) Pathogen, host and environmental factors contributing to the pathogenesis of listeriosis. Cell. Mol. Life Sci. **60**: 904-918.

Non Peer-Reviewed Publications

Roberts, A.J. (2004) Virulence differences among *Listeria monocytogenes* strains and clonal groups. Dissertation, Cornell University.

Book Chapters

Roberts, A. and M. Wiedmann (2006) Hijacking the host cell: foodborne pathogen strategies for reproduction and defense evasion. In: Food consumption and disease risk: consumer-pathogen interactions, Morris Potter (ed), Woodhead Publishing Ltd, Cambridge England.

Roberts, A.J. and M. Wiedmann (2005) Host-Pathogen Interactions. In: Understanding pathogen behaviour in food: virulence, stress response and resistance, Mansel Griffiths (ed), Woodhead Publishing Ltd, Cambridge England.

Posters

Roberts, A.J. and M. Vasil. (2007) A Twin-Arginine Translocase Mutant of *Pseudomonas aeruginosa* Mis-Regulates Genes Associated with Type III Secretion. 107th American Society for Microbiology General Meeting, Toronto, ON.

Roberts, A.J., Y. Chan, M. Roma, K. Windham, and M. Wiedmann. (2004) Multiple Genetic Mechanisms Cause Natural Virulence Attenuation in *Listeria monocytogenes*. 104th American Society for Microbiology General Meeting, New Orleans, LA

- Roberts, A., S. Cai, K. Windham, and M. Wiedmann. (2003) The Contribution of *actA* to Virulence Differences Among *Listeria monocytogenes* Strains. 103rd American Society for Microbiology General Meeting, Washington DC
- Kerr K., B. Sauders, A. Roberts, K. Windham, E. Fortes, R. Nielsen, S. Cai, Y. Schukken, Y. Grohn, and M. Wiedmann (2002) Evolution and Ecology of *Listeria monocytogenes*. Evolution of Infectious Disease Meeting, NIH, Bethesda MD
- Roberts, A.J. and M. Wiedmann (2001) A Non-Radioactive Cytotoxicity Assay to Identify Virulence Attenuated *Listeria monocytogenes* Food Isolates. 101st American Society for Microbiology General Meeting, Orlando, FL

Presentations

Roberts, A.J. (2009) *Listeria monocytogenes* Outbreak Strains Demonstrate Differences in Invasion Efficiency and Other Virulence Associated Characteristics. The 96th Annual Meeting of the International Association of Food Protection. Grapevine, TX

Roberts, A.J., (2004) Determining the Genetic Basis of Virulence Attenuated Phenotypes in *Listeria monocytogenes*. The Fourth Annual Retreat of the Infection and Pathobiology Program. Cornell University. Ithaca, NY

TEACHING EXPERIENCE

TEACHING ASSISTANTSHIPS

General Microbiology Lectures (BioMI 290); Cornell University. Fall 1999-Spring 2000

OTHER TEACHING

Assistant Professor of Biology, Texas Wesleyan University, Fall 2008-present

Microbiology (BIO 2343 and BIO 2141); *Infection and Immunity* (BIO 4426);
Contemporary Issues in Biology (NSC 1406)

Visiting Assistant Professor of Biology, Denison University. Fall 2004-Spring 2005

Modern Topics in Biology: Microbes in the Media (BIOL 100); Fall 2004
Cell and Molecular Biology (BIOL 201); Fall and Spring 2004-2005
Infectious Disease (BIOL 356), Spring 2005

Course Instructor, Cornell University. Spring 2003

General Microbiology Discussions: Hot Topics in Microbiology (BioMI 292);

Program Leader, Cornell University. June 2001, 2002, and 2003.

4-H Career Explorations Program in Food Science: DNA Fingerprinting

Course Instructor, Cornell University. Spring 2001

General Microbiology Discussions: A Century of Revolutionary Microbes (BioMI 292);

Small Group Leader, Cornell University. Fall 1999-Spring 2003 (7 semesters).

General Microbiology Lectures (BioMI 290).

Tutor, St. Mary's College of California. Fall 1995-Spring 1997 (5 semesters).

TEACHING TRAINING

Graduate Teaching in Microbiology, Cornell University. (BioMI 795); Fall 2002
Effective College Teaching, Cornell University. (Educ 548); Spring 2001
Graduate Teaching Development Workshop, Center for Learning and Teaching. Cornell University; Spring 2001
Internship in Education, Cornell University (Educ 620); Fall 1999
Graduate Student Professional Development Workshop, College of Agriculture and Life Sciences, Cornell University; Summer 1999

HONORS AND AWARDS

2009 STAR Fellow for 2009-2010, Univ. of North Texas Health Sciences Center
2009 Bass Faculty Development Grant, Texas Wesleyan University
2003 Corporate Activities Graduate Student Travel Grant Award, 103rd Annual Meeting, American Society for Microbiology
2003 Graduate Student Transportation Grant, Cornell University
2001 Graduate Student Transportation Grant, Cornell University
1997 Carlos Frietas Award for Outstanding Achievement in Biology, St. Mary's College of California
1996 Newman Essay Contest, 1st place winner, St. Mary's College of California
1995 Summer Research Award (Funded by Abbott Laboratories), St. Mary's College of California

LEADERSHIP AND SERVICE

Student Representative

Cornell University Infection and Pathobiology Program, 2002-2004

Treasurer

Cornell University Field of Microbiology Students (FOMS), 2002-2003

President

Cornell University Field of Microbiology Students (FOMS), 2001-2002

SCIENTIFIC MEMBERSHIPS

American Society for the Advancement of Science (AAAS) 2000-2006
American Society for Microbiology (ASM) 2000-present

REFERENCES

Martin Wiedmann, DVM, Ph.D.
Cornell University,
Department of Food Science

Kathryn Boor, Ph.D.
Cornell University,
Department of Food Science

Eric Liebl, Ph.D.
Denison University
Department of Biology

John Helmann, Ph.D.
Cornell University,
Department of Microbiology

Mike Vasil, Ph.D.
Univ. of Colorado at Denver and HSC
Department of Microbiology

Christine Weingart, Ph.D.
Denison University
Department of Biology