

BIOGRAPHICAL SKETCH

DO NOT EXCEED FOUR PAGES.

NAME Andrews-Polymenis, Helene Louise	POSITION TITLE Assistant Professor		
eRA COMMONS USER NAME ANDREWSH			
EDUCATION/TRAINING <i>(Begin with baccalaureate or other initial professional education, such as nursing, and include postdoctoral training.)</i>			
INSTITUTION AND LOCATION	DEGREE <i>(if applicable)</i>	YEAR(s)	FIELD OF STUDY
Brown University, Providence, RI	A.B.	1989	Biology
Tufts University, Sackler School, Boston, MA	Ph.D.	1999	Mol. Biology and Microbiology
Texas A&M University CVM, College Station, TX	D.V.M. Cum Laude	2001	Veterinary Medicine
Licensed by Texas State Board of Veterinary Medical Examiners, Austin, TX		5/2001	
USDA Accredited		8/2001	
Texas A&M University HSC College Station, TX	Postdoc	9/2001-9/2004	

A. Positions and Honors.

- 9/2001-8/2004 Post Doctoral Research Associate, Texas A&M University HSC, College Station, TX. Laboratory of Andreas Baumler
- 9/2004- 8/2005 Assistant Professor (non-tenure track), Texas A&M University HSC, COM, Dept. of Microbial and Molecular Pathogenesis, College Station, TX.
- 8/2005- present Assistant Professor (tenure track), TexasA&M University HSC, COM, Department of Microbial and Molecular Pathogenesis College Station, TX.

B. Recent Publications (in chronological order).

- 1) Wang, J., Andrews, H., and Thukral, V., (1992) Presynaptic glutamate receptors regulate noradrenaline release from isolated nerve terminals. **J. Neurochemistry** 58(1): 204-211.
- 2) Kirby, J.E., Vogel, J.P., Andrews, H.L., and Isberg, R.R., (1998) Evidence for pore forming ability by *L. pneumophila*. **Molecular Microbiology** 27(2): 323-336
- 3) Andrews, H.L., Vogel, J.P., and Isberg, R.R., (1998) Identification of linked genes of *Legionella pneumophila* essential for intracellular growth and evasion of the endocytic pathway. **Infection and Immunity** 66(3) 950-958.
- 4) Vogel, J.P., Andrews, H.L., Wong, S.K., and Isberg, R.R., (1998) Conjugative transfer by the virulence system of *Legionella pneumophila*. **Science** 279: 873-876.

- 5) Watarai, M.*, Andrews, H.L.*, and Isberg, R.R., (2001) Formation of a fibrous structure on the surface of *Legionella pneumophila* associated with exposure of DotH and DotO proteins after intracellular growth. **Molecular Microbiology** 39(2): 313-329.
***The first two authors contributed equally to this work.**
- 6) Rabsch, W., Andrews, H.L., Kingsley, R.A., Prager, R., Tschaepe, H., Adams, L.G., and A. Bäumler, (2002) *Salmonella enterica* serotype Typhimurium and its host adapted variants. **Infection and Immunity** 70: 2249-2255.
- 7) Zhang, S., Kingsley, R.A., Santos, R.L., Andrews-Polymenis, H., Raffatellu, M., Figueiredo, J., Nunes, J., Tsolis, R.M., Adams, L.G., and Bäumler, A.J. (2003) Molecular Pathogenesis of *Salmonella enterica* serotype Typhimurium-Induced Diarrhea. **Infection and Immunity** 71(1): 1-12.
- 8) Andrews-Polymenis, H.L., Rabsch, W., Porwollik, S., McClelland, M., Rosetti, C., Adams, L.G., and Bäumler, A.J. (2004) Host restriction of *Salmonella enterica* serotype Typhimurium pigeon isolates does not correlate with loss of discrete genes. **Journal of Bacteriology** 186(9): 2619-2628.
- 9) Raffatellu, M., Wilson, R.P., Chessa, D., Andrews-Polymenis, H.L., Tran, Q.T., Lawhon, S., Khare, S. Adams, L.G., and Bäumler, A.J. (2004) SipA, SopA, SopB, SopD, and SopE2 contribute to *Salmonella enterica* serotype Typhimurium invasion of epithelial cells. **Infection and Immunity** 73(1): 1-9.
- 10) Raffatellu, M., Wilson, R.P., Tran, Q.T., Chessa, D., Andrews-Polymenis, H.L., Lawhon, S.D., Figueiredo, J.F., Adams, L.G., and Baumler, A.J. (2005) Host restriction of *Salmonella enterica* serotype Typhi is not caused by functional alteration of SipA, SopB or SopD. **Infection and Immunity**, 73(12) 7817-26 .
- 11) Tukel, C., Raffatellu, M., Humphries, A.D., Wilson, R.P., Andrews-Polymenis, H.L., Adams, L.G., and Baumler, A.J., (2005) Thin curled fimbriae are a pathogen-associated molecular pattern of *Salmonella enterica* serotype Typhimurium that is recognized by Toll-like receptor 2. **Molecular Microbiology** 58: 289-304.
- 12) Andrews-Polymenis, H.L. and Baumler A.J. ‘*Salmonella* ssp.’ in Pathogenomics Ed. Joerg Hacker and Ulrich Dobrind, (WILEY-VCH Verlag GmbH, Weinheim) 2005.
- 13) Andrews-Polymenis H.L., Dorsey, C.W., Raffatellu, M., and Baumler, A.J., (2006) ‘Expression, function, and *in vivo* identification of *Salmonella* virulence factors.’ In *Salmonella* Infections: Clinical, Immunological and Molecular Aspects. Ed. Pietro Mastroeni (Cambridge University Press).
- 14) Lenz, L.L. and H. Andrews-Polymenis (2008) Silencing the Alarm: Insights into the interaction between host and pathogen. **EMBO Reports** 9, 27-32.
- 15) Bogomolnaya, L.M., Santiviago, C.A., Yang, H.J., Baumler, A.J., and H. L. Andrews-Polymenis (2008) ‘Form Variation’ of the O12 antigen is critical for persistence of *Salmonella* Typhimurium in the Murine Intestine. **Mol. Microbiology**, **70**(5), 1105-1119.

- 16) Sivula, C.P., Bogomolnaya, L.B., and H.L. Andrews-Polymenis (2008) A Comparison of Cecal Colonization of *Salmonella enterica* serotype Typhimurium in White Leghorn Chicks and *Salmonella*-resistant Mice. **BMC Microbiology**, 8, 182.
- 17) Andrews-Polymenis, H.L.*, Santiviago, C. and M. McClelland (2009) Novel Genetic Tools for Studying Food Borne *Salmonella*. **Current Opinion in Biotechnology**, 20, 1-9.
- 18) Katribe, E.L., Bogomolnaya, L.B., Wingert, H. and H.L. Andrews-Polymenis (2009) Subspecies IIIa and IIIb *Salmonellae* are Defective for Colonization of Murine Models of Salmonellosis as Compared to Ssp. I Serotype Typhimurium. **Journal of Bacteriology**. 191 (8) 2843-2850.
- 19) Santiviago, C.*, Reynolds, M*. Porwollik, S., Choi, S.H., Long, F. Andrews-Polymenis, H.**, and M. McClelland** (2009) Analysis of pools of targeted *Salmonella* deletion mutants identifies novel genes affecting fitness during competitive infection in mice. **PLOS Pathogens**, 5(7): e1000477. *Co-First,**Co-Corresponding
- 20) Nunes, J.S., Lawhon, S.D., Rossetti, C.A., Khare, S., Figueiredo, J.F., Gull, T., Burghardt, R.C., Baumler, A.J., Tsolis, R.M., Andrews-Polymenis, H.L., and L.G. Adams (2009) Morphologic and Cytokine Profile Characterization of *Salmonella enterica* serovar Typhimurium Infection in Calves with Bovine Leukocyte Adhesion Deficiency. **Veterinary Pathology**, in press.

Current Support

- 1. NIH R21AI083964-01**(Andrews-Polymenis, PI) 08/11/2009- 07/31/2011 (2.4 mo)
NIAID \$275,000/2 years
Title: Genetics of Salmonella Resistance to the Inflammatory Response in the Gut
- 2. NIH 1R01AI083646-01** (Andrews-Polymenis, PI) 09/24/09- 09/23/13 (2.4 mo)
NIAID \$250,000/ yr
Title: Identification of Salmonella Genes Important for Systemic Colonization
- 3. NIH 1R56AI077645**(Andrews-Polymenis, PI) 09/11/09-09/10/2010 (2.4 mo)
NIAID \$250,000/yr
Title: Identification of Salmonella Genes Involved in Persistence in Murine Intestine
- 4. NIH R01 AI075093-01A2** (M. McClelland, PI) (09/25/09-09/24/11) (1.2 mo)
NIAID \$50,000, \$25,000 (Andrews-Polymenis, Subcontract)
Title: Salmonella Genes Associated with Colonization of Specific Hosts