Kwang Cheol Jeong, Ph.D.
Assistant Professor,
Department of Animal Sciences, Emerging Pathogens Institute
University of Florida

I. Education

Ph.D. Dec. 2004 Food microbiology and Toxicology (Food Safety option)/Bacteriology
University of Wisconsin-Madison

II. Professional Experience

Assistant Professor: March, 2011 – Present
Department of Animal Sciences, Emerging Pathogens Institute, University of Florida
Postdoctoral Research Associate: July 2010 – March 2011
Department of Bacteriology/Food Research Institute, University of Wisconsin-Madison
Postdoctoral Research Associate: June 2005 – June 2010
Department of Molecular Microbiology, Washington University in St. Louis School of Medicine
Research Assistant: Aug. 2000 – Dec. 2004
Department of Food Microbiology and Toxicology, University of Wisconsin-Madison

III. Awards and membership

- 1st place Poster Competition, Food Research Institute 2003 Annual Meeting, WI, USA. 2003
- Berg/Morse Fellowship Award ($25,000), Department of Molecular Microbiology, Washington University in St. Louis, School of Medicine. 2007
- Associate Faculty Member in Faculty of 1000 (2010 – present)

IV. Publications

A) In preparation/submitted/in revision

1 **Jeong, K.C.** and J. Yu. Protein interaction studies in Aspergillus spores (Submitted, Methods in Molecular Biology on Fungal Secondary Metabolism)
2 **Jeong, K.C.** and J.P. Vogel. Development of a dominant negative inhibitor to examine the *Coxiella burnetii* type IV secretion system (In revision, Infect & Immun).
3 Vincent, C.D., **K.C. Jeong**, J.R. Friedman, and J.P. Vogel. Identification of the DotL Coupling Protein Subcomplex of the *Legionella* Dot/Icm Type IV Secretion (In revision, Mol. Microbiol.)
4 **Jeong, K.C., O. Hiki,** M.Y. Kang, and C.W. Kaspar. Phenotypic and genotypic analysis of a dominant *E. coli* O157:H7 strain isolated from dairy cattle farm (in preparation, Appl. Environ. Microbiol.)
5 **Jeong, K.C.** and J.P. Vogel. Bipolar localization of the *Legionella pneumophila* Dot/Icm type IV secretion system is necessary for virulence. (In preparation, Science).
6 **Jeong, K.C.** and J.P. Vogel. Biogenesis of the *Legionella pneumophila* Dot/Icm type IV secretion system. (In prepartion, Molecular Cell).
7 **Jeong, K.C.** and J.P. Vogel. The role of the secreted effector protein SidJ in virulence of *Legionella pneumophila*. (In preparation, PLOS Pathogen).
8 **Jeong, K.C.** and J.P. Vogel. Regulated secretion of effector protein SidJ by two different signal sequences temporally modulates SidJ virulence in *Legionella pneumophila*. (In preparation).

B) Published papers

9 Lim, M.S., J. Kim, J.G. Lim, B.S. Kim, **K.C. Jeong**, K.H. Lee, and S.H. Choi. 2011. Identification and characterization of a novel serine protease VvpS containing two functional domains and essential for autolysis of *Vibrio vulnificus*. J. Bacteriol. Doi:10.1128/JB.00314-11.
10 **Jeong, K.C.,** M.Y. Kang, J.H. Kang, D.J. Baumler, and C.W. Kaspar. 2011. Reduction of *Escherichia coli* O157:H7 shedding in cattle by addition of chitosan microparticles to feed. Appl. Environ. Microbiol. 77:2611-2616.

11 Baumler, D.J., K.F. Hung, **K.C. Jeong,** and C.W. Kaspar. 2008. Molybdate treatment and sulfate starvation decrese ATP and DNA levels in *Ferroplasma acidamaunus.* Archaea. 2:205-209.

12 **Jeong, K.C.,** D.J. Baumler, K.F, Hung, J. Byrd, and C.W. Kaspar. 2008. *Escherichia coli* O157:H7 Dps protects DNA against low pH by formation of Dps-DNA complexes. BMC Microbiol. 8:181.

13 Baumler, D.J., K.F. Hung, **K.C. Jeong**, C.W. Kaspar. 2007. Production of methanethiol and volatile sulfur compounds by the archaeon "*Ferroplasma acidarmanus*". *Extremophiles.* 11:841-851.

14 **Jeong, K.C.,** M.Y. Kang, C. Heimke, J.A. Shere, I. Erol and C.W. Kaspar. 2007. Isolation of *Escherichia coli* O157:H7 from the gall bladder of inoculated and naturally infected cattle. *Vet. Microbiol*. 119:339-345.

15 Vincent, C.D., J.R. Friedman, **K.C. Jeong**, E.C. Buford, J.L. Miller, and J.P. Vogel. 2006. Identification of the core transmembrane complex of the *Legionella* Dot/Icm type IV secretion system. *Mol. Microbiol*. 62:1278-129.

16 Erol, I., **K.C. Jeong,** D.J. Baumler, B. Vykhodets, S.H. Choi, and C.W. Kaspar. 2006. H-NS controls metabolism and stress tolerance in *E. coli* O157:H7 that influence mouse passage. *BMC Microbiol.* 6:72.

17 Baumler, D.J., K.F. Hung, J.L. Bose, B.M. Vykhodets, C.M. Cheng, **K.C. Jeong** and C.W. Kaspar. 2006. Enhancement of acid tolerance in *Zymomonas mobilis* by a proton-buffering peptide. *Appl Biochem Biotechnol*. 134:15-26.

18 **Jeong, K.C.,** D.J. Baumler, and C.W. Kaspar. 2006. An extended -10 region is required for Dps-associated acid tolerance in *Escherichia coli* O157:H7. *Biochim Biophys Acta*. 1759:51-59.

19 Baumler, D.J., **K.C. Jeong**, B.G. Fox, J.F. Banfield, and C.W. Kaspar. 2005. Sulfate requirements for heterotrophic growth of *Ferroplasma acidarmanus* strain fer1. *Res. Microbiol.* 156:492-498.

20 Jeong, H.S., **K.C. Jeong**, H.K. Choi, K.-J. Park, K.-H. Lee, J.H. Rhee, and S.H. Choi. 2001. Differential expression of *Vibrio vulnificus* elastase gene in a growth phase-dependent manner by two different types of promoters. *J. Biol. Chem*. 276:13875-13880.

21 **Jeong, K.C.,** H.S. Jeong, S.E. Lee, S.S. Chung, J.H. Rhee, 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.

22 **Lee, S.E.,** Shin, S.Y. Kim, Y.R. Kim, D.H. Shin, S.S. Chung, Z.H. Lee, J.Y. Lee, **K.C. Jeong**, S.H. Choi, and J.H. Rhee. 2000. *Vibrio vulnificus* has the transmembrane transcription activator ToxRS stimulating the expression of the hemolysin gene *vvh*. *J. Bacteriol*. 182:3405-3415.

23 **Jeong K.C.,** E.Y. Jeong, T.E. Hwang, and S.H. Choi. 1998. Identification and characterization of *Acinetobacter* sp. CNU961 able to grow with phenol at high concentrations. *Biosci. Biotechnol. Biochem*. 62:1830-1833.

24 Kim, C.M., **K.C. Jeong**, J.H. Rhee, and S.H. Choi. 1997. Thermal-death times of opaque and translucent morphotypes of *Vibrio vulnificus*. *Appl. Environ. Microbiol*. 63:3308-3310.

C) Book chapter/review

25 **K.C. Jeong**, C.D. Vincent, E. Buford, and J.P. Vogel. Subcellular Localization of the Dot/Icm Type IV Secretion Proteins. *Legionella*: State of the art 30 years after its recognition. Nicholas P. Cianciotto [et al.]. Washington, D.C. ASM Press, 2006.

26 C.D. Vincent, **K.C. Jeong**, J. Sexton, E. Buford, and J.P. Vogel . The *Legionella pneumophila* Dot/Icm Type IV Secretion System. *Legionella*: State of the art 30 years after its recognition. Nicholas P. Cianciotto [et al.]. Washington, D.C. ASM Press, 2006.

D) Patent

1. Charles W. Kaspar, **K.C. Jeong.** Method of Using Chitosan to Reduce Shedding of *E. coli* O157:H7 from Cattle. WARF: P05442US, Patent applied for. 2005