

Aubrey Leigh Frantz
Curriculum Vitae

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EDUCATION

- 2012 - **Ph.D., Microbiology, Immunology and Molecular Genetics**, Integrated Biomedical Sciences Program, University of Kentucky College of Medicine, Lexington KY
- 2007 - **B.A., Chemistry and Biology**, University of Kentucky , Lexington KY

PROFESSIONAL POSITIONS

- **Program Coordinator** for the Department of Life and Health Sciences in the School of Liberal Arts and Sciences at UNT Dallas, August 2014 – present.
- **Lecturer of Biology**, University of North Texas at Dallas, Department of Arts and Life Sciences, August 2013- present
- Full-time Adjunct Professor, University of North Texas at Dallas, Department of Arts and Life Sciences, August 2012- August 2013
- Graduate Research Assistant, University of Kentucky, Department of Microbiology, Immunology and Molecular Genetics, August 2007 – June 2012
- Teaching Assistant for Medical Microbiology, University of Kentucky College of Medicine August 2009 - December 2009
- Laboratory Technician , University of Kentucky, Department of Microbiology, Immunology and Molecular Genetics, August 2006 – August 2007
- Undergraduate Researcher, University of Kentucky, Department of Biology, May 2005 – June 2006

RELATED PROFESSIONAL EXPERIENCE

- 2016- 2017 Academic Year – Chair of the School of Liberal Arts and Science Curriculum Committee, UNT Dallas.
- 2016- 2017 Academic Year – UNT Dallas Secretary of the Faculty Alliance
- 2015– 2016 Primary Science Instructor for Girls Inc. Eureka! Summer STEM camp at UNTD. Developed and instructed STEM activities for cohorts of 30 at risk eighth grade girls participating in a week long summer camp during the summers of 2015 and 2016.
- June, 2016 - Completion of the Effective Teaching Practices course from The Association of the College and University Educators (ACUE) and the American Council on Education
- February 2016 - Participation in the American Society of Biochemistry and Molecular Biology Workshop (ASBMB) “Developing and Sharing Best Practices: From Concept to Classroom.” University of Texas Southwestern Medical Center.

PUBLICATIONS

Aubrey L. Frantz, Eric W. Rogier, Gavin Ellis, Cathryn Kurkijan, William deVilliers, Donald A. Cohen, Arnold Stromberg, J. Scott Bryson, Rasvan Arsenescu, C. Darrell Jennings, Charlotte S. Kaetzel and Maria E.C. Bruno. Down-regulation of the polymeric immunoglobulin receptor in human Ulcerative Colitis and murine Colitis-Associated Cancer. *In preparation*.

Eric W. Rogier, Aubrey L. Frantz, Maria E.C. Bruno, Leia Wedlund, Donald A. Cohen, Arnold J. Stromberg, Charlotte S. Kaetzel. Lessons from mother: Long-term impact of antibodies in breast milk on the gut microbiota and intestinal immune system of breastfed offspring. *Gut Microbes* **2014**. 5:5, 663-668.

Eric W. Rogier, Aubrey L. Frantz, Maria E.C. Bruno and Charlotte S. Kaetzel. Secretory IgA is Concentrated in the Outer Layer of Colonic Mucus along with Gut Bacteria. *Pathogens* **2014**. 3, 390-403.

Eric W. Rogier, Aubrey L. Frantz, Maria E.C. Bruno, Leia Wedlund, Donald A. Cohen, Arnold J. Stromberg, Charlotte S. Kaetzel. Secretory IgA in Breast Milk Promotes Long-Term Intestinal Homeostasis. *PNAS*. **2014** Feb; 111(8): 3074-3079.

Aubrey L. Frantz, Eric W. Rogier, Christopher Weber, Le Shen, Donald A. Cohen, Maria E.C. Bruno, and Charlotte S. Kaetzel. Targeted deletion of MyD88 in intestinal epithelial cells results in compromised antibacterial immunity associated with the down-regulation of polymeric immunoglobulin receptor, mucin-2 and antibacterial peptides. *Mucosal Immunology*, **2012** Sep;5(5):501-12.

Aubrey L. Frantz, Maria E.C. Bruno, Eric W. Rogier, Halide Tuna, Donald A. Cohen, Subbarao Bondada, Ralph L. Chelvarajan, J. Anthony Brandon, C. Darrell Jennings, and Charlotte S. Kaetzel. Multifactorial Patterns of Gene Expression in Colonic Epithelial Cells Predict Disease Phenotypes in Experimental Colitis. *Inflammatory Bowel Disease*, February **2012** DOI: 10.1002/ibd.22923

Weikang Cai, Jennifer L. Rudolph, Ling Jin, Susan M.W. Harrison, Aubrey L. Frantz, Douglas A. Harrison, and Douglas A. Andres. An evolutionarily conserved Rit GTPase-p38 MAPK signaling pathway mediates oxidative stress resistance. *Mol Biol Cell*. **2011** Jul 7. E11-05-0400.

Bruno, M.E.C., Frantz, A. L., Rogier, E.W., Johansen, F.E. and Kaetzel, C.S. Differential roles of the RelA and RelB subunits of NF- κ B in regulation of the polymeric immunoglobulin receptor and pro-inflammatory genes by TNF and TLR signaling in intestinal epithelial cells. *Mucosal Immunol.* **2011**; 4(4):468-78.

Bruno, M.E.C., Rogier, E.W., Frantz, A.L., Stefka, A. Thompson, S. & Kaetzel, C.S. Regulation of the polymeric immunoglobulin receptor in intestinal epithelial cells by *Enterobacteriaceae*: Implications for mucosal homeostasis. *Immunological Investigations* **2010**; 39:356.

PRESENTATIONS

April 2016, 2016 UNT Dallas Student Research Symposium, Dallas, TX. The Effects of a Common Food Emulsifier on the Composition of the Human Oral Microbiota. Miriam Lopez, Marcela Torres, Berenise Yanez, Donna Hamilton and Aubrey Frantz. Poster Presentation.

November 2015, Workshop Presentation at the Conference for the Advancement of Science Teaching, Fort Worth, TX “Creating Engaging, Hands-on STEM Activities for Middle School”. Oral presentation and demonstration.

August, 2012, Host-Microbial Interaction Symposium, Vanderbilt University, Nashville, TN. “The role of intestinal epithelial cells and the regulation of the polymeric immunoglobulin receptor in homeostasis and inflammation” Guest Seminar Speaker.

July, 2012, Immunology Musings, University of Texas Southwestern, Dallas, TX. “The role of intestinal epithelial cells and the regulation of the polymeric immunoglobulin receptor in homeostasis and inflammation” Guest Seminar Speaker.

July, 2011, International Congress of Mucosal Immunology, Paris, France. Aubrey Frantz, Eric Rogier, Maria E. C. Bruno and Charlotte S. Kaetzel. Intestinal Epithelial Cell-Specific MyD88 Signaling Promotes Homeostasis by Regulating Expression of the Polymeric Immunoglobulin Receptor. Oral presentation.

March, 2011, University of Kentucky Cancer Research Day. Aubrey Frantz, Eric Rogier, Gavin Ellis, Cathryn Kurkijun, Razvan Arsenescu and Charlotte Kaetzel. Down-regulation of the polymeric immunoglobulin receptor in ulcerative colitis and in experimental murine colitis-associated cancer. Poster presentation.

November, 2010, Autumn Immunology Conference, Chicago, IL. Aubrey Frantz, Maria Bruno, Subbarao Bondada, Donald Cohen & Charlotte Kaetzel. Signature biomarkers in Crohn’s disease predict phenotypes in mouse models of colitis. Poster presentation and short talk.

October, 2010, Department of Microbiology, Immunology and Molecular Genetics Retreat. Aubrey Frantz, Maria Bruno, Subbarao Bondada, Donald Cohen & Charlotte Kaetzel. Signature biomarkers in Crohn’s disease predict phenotypes in mouse models of colitis. Poster presentation and short talk.

August, 2010, University of Kentucky Cancer Research Day. Aubrey Frantz, Maria Bruno, Subbarao Bondada, Donald Cohen & Charlotte Kaetzel. Signature biomarkers in Crohn’s disease predict phenotypes in mouse models of colitis. Poster presentation.

November, 2009, Autumn Immunology Conference, Chicago, IL. Aubrey Frantz, Eric Rogier, Maria E. C. Bruno and Charlotte S. Kaetzel. Induction of the Polymeric Immunoglobulin Receptor by Colonic Bacteria through TLR-Dependent Activation of NF- κ B. Poster presentation and short talk.

October, 2009, Department of Microbiology, Immunology and Molecular Genetics Retreat. Aubrey Frantz, Eric Rogier, Maria E. C. Bruno and Charlotte S. Kaetzel. Induction of the Polymeric Immunoglobulin Receptor by Colonic Bacteria through TLR-Dependent Activation of NF- κ B. Poster presentation.

August, 2009, IBS Orientation for the Department of Microbiology, Immunology and Molecular Genetics Retreat. Aubrey Frantz, Eric Rogier, Maria E. C. Bruno and Charlotte S. Kaetzel. Induction of the Polymeric Immunoglobulin Receptor by Colonic Bacteria through TLR-Dependent Activation of NF- κ B. Poster presentation.

July, 2009, International Congress of Mucosal Immunology, Boston, MA. Aubrey Frantz, Eric Rogier, Maria E. C. Bruno and Charlotte S. Kaetzel. Induction of the Polymeric Immunoglobulin Receptor by Colonic Bacteria through TLR-Dependent Activation of NF-kB. Poster presentation.

November, 2008, Autumn Immunology Conference, Chicago, IL. Aubrey Frantz, Eric Rogier, Maria E. C. Bruno and Charlotte S. Kaetzel. Differential responses of intestinal epithelial cells and monocytes to commensal bacteria. Poster presentation and short talk

October, 2008, University of Kentucky Cancer Research Day. Aubrey Frantz, Eric Rogier, Maria E.C. Bruno and Charlotte S. Kaetzel. The Role of MyD88-Dependent Toll-like Receptor Signaling in Intestinal Inflammation. Poster presentation.

HONORS and AWARDS

- **University of North Texas at Dallas – Faculty Service Award, September 2016**
- **University of North Texas at Dallas – (Faculty Advisor) 1st Place Poster Presentation at the UNT Dallas Undergraduate Research Symposium, April 2016**
- University of Kentucky Dissertation Year Fellowship, January 2012- May 2012
- University of Kentucky Graduate Student Travel Award, July 2011
- University of Kentucky Opportunity Fellowship, August 2010 – August 2011
- University of Kentucky Opportunity Fellowship, August 2009 – August 2010
- International Congress of Mucosal Immunology Travel Award , July 2009
- University of Kentucky Graduate Student Travel Award, June 2009
- University of Kentucky Opportunity Fellowship, August 2008 – August 2009
- University of Kentucky Graduate School Academic Fellowship, August 2007 – August 2008

COURSES TAUGHT (* denotes course taught at the graduate level)

Anatomy and Physiology I	Cell Biology
Anatomy and Physiology I Laboratory	Environmental Science
Anatomy and Physiology II	Environmental Science Laboratory
Anatomy and Physiology II Laboratory	Microbiology
Biology I for Majors	Microbiology Laboratory
Biology I Laboratory	Medical Microbiology Laboratory*
Biology II for Majors	Molecular Biology *
Biology II Laboratory	Biology of Disease *

PROFESSIONAL MEMBERSHIPS

- **Tri-Beta Biological Honor's Society (*in progress*)**
- **AAMCB** - American Society of Biochemistry and Molecular Biology
- **ACUE** – Association of College and University Educators
- Society of Mucosal Immunology 2009 – Present
- Science Teachers Association of Texas 2014 – 2016