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EDUCATION

Ph.D., Department of Immunology, The University of Connecticut Health Center, 2009. Thesis: Investigating the adjuvant effects of lipopolysaccharide on T cells in mice. Thesis advisor: Dr. Anthony T. Vella, Ph.D.

Bachelor of Science, Microbiology, The University of Iowa, 2003.
Honors Thesis: Antibody repertoire in mesenteric lymph nodes and thymus of newborn, germ-free, and colonized pigs. Thesis advisor: Dr. John E. Butler, Ph.D.

WORK EXPERIENCE

Phlebotomy, Veterans Affairs Medical Center, Iowa City, IA, April 2001-July 2002.

RESEARCH TECHNIQUES

- Flow cytometry on BD FACSCalibur and LSR II; data analysis on FlowJo software
- Mouse intratracheal infection (*Klebsiella pneumoniae*, *Staphylococcus aureus*, *Streptococcus pneumoniae*)
- Mouse tissue processing (lymph nodes, spleen, liver, lung, bronchoalveolar lavage, intestinal lamina propria)
- Generating bone marrow chimeras
- Mammalian cell culture and T cell functional analysis (proliferation, cytokine production)
- Enzyme-Linked ImmunoSorbant Assay
- Western blotting
- Polymerase Chain Reaction
- mRNA sequencing sample preparation (Illumina)
- Breeding and screening mouse colonies

POSTER PRESENTATIONS

1. **McAleer J**, Rossi R, Zammit D, Lefrancois L and Vella AT. Effects of bacterial toxins on T cell responses. Graduate Research Seminar at Gordon Research Conference on Microbial Toxins and Pathogenicity. July 12-13, 2008.

2. **McAleer J**, Rossi R, Zammit D, Lefrancois L and Vella AT. Lipopolysaccharide Enhances T Cell Survival via MyD88 and Effector Function via Dendritic Cells. 3rd Cold Spring Harbor Meeting on Gene Expression and Signaling in the Immune System. April 26-30, 2006.
3. **McAleer J**, Weber P and Butler JE. Variable region antibody repertoire in thymus and mesenteric lymph node of newborn, germ-free, and colonized piglets. American Association of Immunologists 90th Annual Meeting, Denver, CO. May 6-10, 2003.
4. **McAleer J**, Weber P and Butler JE. Immunoglobulin Variable region gene usage in germ-free versus colonized piglets. 31st Annual Autumn Immunology Conference, Chicago, IL. November 23-25, 2002.

ORAL PRESENTATIONS

1. May 27, 2009. University of Pittsburgh, Pittsburgh, Pennsylvania, Dr. Shabaana A. Khader's lab. Title: The impact of lipopolysaccharide on CD4 T cell responses in vivo.
2. May 21, 2009. Oregon Health and Science University, Vaccine & Gene Therapy Institute, Beaverton, Oregon, Dr. Mark K. Slifka's lab. Title: The impact of lipopolysaccharide on CD4 T cell responses in vivo.
3. May 15, 2009. Trudeau Institute, Saranac Lake, New York. Title: The impact of lipopolysaccharide on CD4 T cell responses in vivo.
4. April 3, 2009. Louisiana State University Health Sciences Center, New Orleans, Louisiana, Dr. Jay K. Kolls' lab. Title: The impact of lipopolysaccharide on CD4 T cell responses in vivo.
5. February 24, 2009. Rocky Mountain Laboratories, Hamilton, Montana. Title: The impact of lipopolysaccharide on CD4 T cell responses in vivo.

PRIMARY RESEARCH PAPERS

1. **McAleer JP**, Saris CJM, and Vella AT. The WSX-1 pathway restrains intestinal T cell immunity during inflammation. Manuscript submitted.
2. **McAleer JP**, Liu B, Li Z, Dai J, Oft M, Ngoi SM, and Vella AT. Potent Intestinal Th17 Priming Through Peripheral Lipopolysaccharide-based Vaccination. *J Leukoc Biol.* 2010.
3. Menoret A, **McAleer JP**, Ngoi SM, Ray S, Eddy NA, Fenteany G, Lee SJ, Rossi RJ, Mukherji B, Allen DL, Chakraborty NG and Vella AT. The Ozazolidinone Derivative Locostatin Induces Cytokine Appeasement. *J Immunol.* 2009. *183(11): 7489-7496.*

4. **McAleer JP**, Rossi RJ and Vella AT. Lipopolysaccharide Potentiates Effector T Cell Accumulation into Nonlymphoid Tissues through TRIF. *J Immunol.* 2009. *182(9)*: 5322-5330.
5. **McAleer JP**, Zammit DJ, Lefrancois L, Rossi RJ and Vella AT. The Lipopolysaccharide Adjuvant Effect on T Cells Relies on Nonoverlapping Contributions from The MyD88 Pathway and CD11c⁺ Cells. *J Immunol.* 2007. *179(10)*: 6524-6535.
6. **McAleer J**, Weber P, Sun J and Buter JE. 2005. Antibody repertoire development in fetal and neonatal piglets. XI. The thymic B-cell repertoire develops independently from that in blood and mesenteric lymph nodes. *Immunology.* 2005. *114(2)*: 171-183.
7. Mihalyo MA, Doody, AD, **McAleer JP**, Nowak EC, Long M, Yang Y and Adler AJ. In vivo cyclophosphamide and IL-2 treatment impedes self-antigen-induced effector CD4 cell tolerization: implications for adoptive immunotherapy. *J. Immunol.* 2004. *172(9)*: 5338-5345.

REVIEW ARTICLES

1. **McAleer JP** and Vella AT. Educating CD4 T cells with vaccine adjuvants: lessons from lipopolysaccharide. Manuscript submitted.
2. **McAleer JP** and Vella AT. Understanding How Lipopolysaccharide Impacts CD4 T-Cell Immunity. *Crit Rev Immunol.* 2008. *28(4)*: 281-299.

TRAINING GRANTS/FELLOWSHIPS/AWARDS

1. Henderson Memorial Award for the Outstanding Ph.D. Thesis. Awarded by The University of Connecticut Health Center, \$500, 2010.
2. National Institutes of Health, NIAID, Principal investigator: Leo Lefrancois, Basic Immunology and Immunologic Cell Injury, T32-AI07080, The University of Connecticut Health Center, August 2008-July 2009.
3. Internal Funding Initiatives Undergraduate Research Scholarship, \$3,000, The University of Iowa, January 2003.
4. Summer Undergraduate Research Fellowship, \$4,000, The University of Iowa, June-July 2002.

REFERENCES

1. Dr. Jay K. Kolls, M.D.
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2. Dr. Anthony T. Vella, Ph.D.
Phone: 860-679-4364
e-mail: vella@uchc.edu
3. Dr. Leo Lefrancois, Ph.D.
Phone: 860-679-3242
e-mail: llefranc@neuron.uchc.edu
4. Dr. Zihai Li, M.D., Ph.D.
Phone: 860-679-7979
e-mail: zli@up.uchc.edu