

**EAST TENNESSEE STATE UNIVERSITY  
JAMES H. QUILLEN COLLEGE OF MEDICINE  
SUMMARY OF SCHOLARLY ACTIVITIES  
DEPARTMENT OF SURGERY**

**July 1, 2013 through June 30, 2014**

**I. PUBLICATIONS**

**A. Journal Publications**

Burt R, Graves BM, Gao M, Li C, Williams DL, Fregoso SP, Hoover DB, Li Y, Wright GL, Wondergem R. 9-Phenanthrol and flufenamic acid inhibit calcium oscillations in HL-1 mouse cardiomyocytes. *Cell Calcium*. 54(2013): 193-201; Jul 4, 2013. Pii: S0143-4160(13)00088-2. doi: 10.1016/j.ceca.2013.06.003.

Ifrim DC, Quintin J, Joosten LAB, Jacobs L, Jansen T, Gow N, Williams D, van der Meer JWM, Netea MG. Trained Immunity or Tolerance: Opposing Functional Programs Induced in Human Monocytes after Engagement of Various Pattern Recognition Receptors. *Clinical Vaccine Immunology* 2014, 21(4):534.

Kelley JL, Ozment TR, Li C, Schweitzer JB, Williams DL. Scavenger Receptor-A (CD204): A Two-Edged Sword in Health and Disease. *Critical Reviews in Immunology*, 34(3):241-261, 2014.

Li J, Zhang Y, Li C, Xie J, Liu Y, Zhu W, Zhang X, Jiang S, Liu L, Ding Z. HSPA12B attenuates cardiac dysfunction and remodelling after myocardial infarction through an eNOS-dependent mechanism. *Cardiovascular Research*, In Press, doi: 10.1093/cvr/cvt139, 2013.

Lowman DW, Greene RR, Bearden DW, Kruppa MD, Pottier M, Monteiro MA, Soldatov DV, Ensley HE, Cheng SC, Netea MG, Williams DL. Novel structural features in *Candida albicans* hyphal glucan provide a basis for differential innate immune recognition of hyphae versus yeast. *Journal of Biological Chemistry*, 289(6):3432-3443; Epub ahead of print, doi: 10.1074/jbc.M113.529131, 12/16/2013.

Lu C, Ren D, Wang X, Ha T, Liu L, Lee EJ, Hu J, Kalbfleisch J, Gao X, Kao R, Williams D, Li C. Toll-like receptor 3 plays a role in myocardial infarction and ischemia/reperfusion injury. *BBA-Molecular Basis of Disease* 1842(1): 22-31, 2014.

Lu C, Ha T, Wang X, Liu L, Zhang X, Kimbrough EO, Sha Z, Guan M, Schweitzer J, Kalbfleisch J, Williams D, Li C. The TLR9 Ligand, CpG-ODN, Induces Protection against Cerebral Ischemia/Reperfusion Injury via Activation of PI3K/Akt Signaling. *J Am Heart Assoc*. 2014;3:e000629.

Stone, B., Jr., Vargo, J., Liu, P., Habeeb, D., DeLucia, A., Trail, M., Hu, Y., Russell, A. Avoided Heat-Related Mortality Through Climate Adaptation Strategies in Three US Cities. *PLOS ONE*, accepted for publication, 2014.

Suram S, Silveira LJ, Mahaffey S, Brown GD, Bonventre JV, Williams DL, Gow NA, Bratton DL, Murphy RC, Leslie CC. Cytosolic phospholipase s2a and eicosanoids regulate expression of genes in macrophages involved in host defense and inflammation. *PLoS One* 8(7):e69002, 7/25/13. PMC3742295.

Wang X, Ha T, Zou J, Ren D, Liu L, Zhang X, Kalbfleisch J, Gao X, Williams D, Li C. MicroRNA-125b protects against myocardial ischaemia/reperfusion injury via targeting p53-mediated apoptotic signaling and TRAF6. *Cardiovasc Res*, 2014 Mar. 10 (Epub ahead of print).

West L, Lowman DW, Mora-Montes HM, Grubb S, Murdoch C, Thornhill MH, Gow NA, Williams D, Haynes K. Differential virulence of *Candida glabrata* glycosylation mutants. *J Biol Chem* 288(30):22006-22018, 7/26/13. PMC3724654.

Zhang X, Ha T, Lu C, Liu L, Gao M, Schweitzer J, Kalbfleisch J, Kao RL, Williams DL, Li C. Poly I:C decreases cerebral ischemia/reperfusion injury and attenuates microglial apoptosis. Submitted to *Journal of Immunology*, 2/4/14.

Zhang X, Lu C, Gao M, Cao X, Ha T, Kalbfleisch JH, Williams DL, Li C, Kao RL. Toll-Like Receptor 4 Plays a Central Role in Cardiac Dysfunction During Trauma Hemorrhage Shock. *Shock*, 2014 Feb 24 (Epub ahead of print).

## **B. Books or Chapters**

Lamb EK, Kao GW, Kao RL. Cellular cardiomyoplasty: its past, present, and future. *Methods Mol. Biol.* 2013; 1036:1-17. Doi: 10.1007/978-1-62703-551-8\_1.

Kao GW, Lamb EK, Kao RL. Skeletal muscle stem cells. *Methods Mol Biol.* 2013;1036:19-32. Doi: 10.1007/978-1-62703-511-8\_2.

## **C. Proceedings**

## **II. PAPERS, ABSTRACTS, AND/OR PRESENTATIONS**

### **A. Regional and National**

Al-Balbissi L, Testerman G. Stump Appendicitis: Critical in the Differential Diagnosis of Abdominal Pain. Poster presented at Southeastern Surgical Congress, 3/22/14 – 3/24/14, Savannah, GA.

Bassante M, Mejia J, Champney G. Solitary Right Adrenal Metastasis in a Patient With Rectal Adenocarcinoma. Poster presented at Southeastern Surgical Congress, 3/22/14 – 3/24/14, Savannah, GA.

Bassante M, Browder W, Kadowaki M. Use of Harmonic Scalpel in Single Site Laparoscopic. Poster, presented at Southeastern Surgical Congress, 3/22/14 – 3/24/14, Savannah, GA

Bassante M, Browder W, Kadowaki M. Cholecystectomy: A Safe Alternative. Experience in 100 Consecutive Patients. Poster accepted for presentation at SAGES, 4/3/14 – 4/5/14, Salt Lake City, UT.

Delucia, A. Health Impacts of Projected Climate Warming: New and Old Tools for Communities. Carolinas Climate Resiliency Conference, Charlotte, NC, April 29, 2014.

Delucia, A. Brookings Typology and Future Climate Change Mortality and Morbidity. National Healthy Homes Conference, Nashville, TN, May 28-30, 2014.

Hoover DB, Downs AM, Bond CE, Ozment TR, Williams DL. Increased Nerve Growth Factor Expression and Increased Sympathetic Nerve Fiber Growth in the Spleen During Sepsis. Poster

Presentation at the 37<sup>th</sup> Annual Conference on Shock, Charlotte, NC, June 7-10, 2014.

Kruppa M, Lowman D, Ozment TR, Rice P, Williams DL. The Antifungal Drug Caspofungin Specifically Interacts with Glucan in *Candida albicans* Biofilms. Poster Presentation at the 37<sup>th</sup> Annual Conference on Shock, Charlotte, NC, June 7-10, 2014.

Lu C, Wang X, Ha T, Liu L, Zhang X, Kao R, Kalbfleisch J, Williams D, Li C. Increased Expression of MiR-130a Improves Cardiac Function and Reduces Ventricular Remodeling Following Myocardial Infarction. Abstract presented at American Heart Association Scientific Sessions 2013, Dallas, TX, November 16-20, 2013.

Ozment TR, Graves B, Kalbfleisch J, Williams DL. Neutrophil Scavenger Receptor Class A (SRA) Expression is Increased by TLR2 Stimulation. Poster Presentation at the 37<sup>th</sup> Annual Conference on Shock, Charlotte, NC, June 7-10, 2014.

Ramos T, Taylor L. Traumatic Laceration of Horseshoe Kidney. Poster presented at Southeastern Surgical Congress, 3/22/14 – 3/24/14, Savannah, GA.

Vinsant J, Lee J. Multiple Splanchnic Artery Aneurysms in a Single Adult Male Patient: Case Report and Literature. Poster presented at Southeastern Surgical Congress, 3/22/14 – 3/24/14, Savannah, GA.

Wang X, Ha T, Zhang X, Li L, Lu C, Gao X, Kao R, Kalbfleisch J, Williams D, Li C. Increased Expression of MicroRNA-214 Protects Against Hypoxia/Reoxygenation Induced Cell Damage and Myocardial Ischemia/Reperfusion Injury via Suppression of PTEN and Phosphorylation of BAD. Presentation at American Heart Association Scientific Sessions 2013, Dallas, TX, November 16-20, 2013.

Wongergem R, Graves B, Ozment TR, Williams DL. Lipopolysaccharides Directly Increase Calcium Oscillations and Intracellular Calcium in Human Cardiomyocytes. Poster Presentation at the 37<sup>th</sup> Annual Conference on Shock, Charlotte, NC, June 7-10, 2014.

Zhang X, Wang X, Ha T, Lu C, Kalbfleisch J, Kao R, Williams DL, Li C. Heat Shock Protein A12B Deficiency Potentiates Cardiac Dysfunction in Polymicrobial Sepsis. Poster Presentation at the 37<sup>th</sup> Annual Conference on Shock, Charlotte, NC, June 7-10, 2014.

Zhang X, Wang X, Ha T, Lu C, Kalbfleisch J, Kao R, Williams DL, Li C. Exosomes Isolated from HSPA12B Deficient Mice Promote Endothelial Cell Dysfunction and Inflammatory Responses in Macrophages During Sepsis. Poster Presentation at the 37<sup>th</sup> Annual Conference on Shock, Charlotte, NC, June 7-10, 2014.

## **B. International**

### **III. INVITED PRESENTATIONS**

#### **A. Grand Rounds**

Taylor, Lesli. "Pediatric Surgery Highlights: The 8<sup>th</sup> Year in Review." Pediatric Grand Rounds, Quillen College of Medicine, Johnson City, TN. August 30, 2013.

Williams, David L. Grand Rounds, Dept. of Anesthesiology, Vanderbilt University School of Medicine, Nashville, TN. April 4, 2014.

## **B. National or International Meetings**

## **IV. OTHER**

### **National and International Peer-review Committees**

#### **Journal Reviewers: 5**

I. William Browder  
Chuanfu Li  
Tammy Ozment  
Race Kao  
David L. Williams

## **V. VISITING PROFESSORS**

Chuanfu Li was invited to be a Visiting Professor at the Animal Model Research Center, Nanjing University, Nanjing, China from April 29 through May 20, 2014.

David L. Williams was a Visiting Professor in the Dept. of Anesthesiology, Vanderbilt University School of Medicine, Nashville, TN, April 2-5, 2014.

**IV. OTHER**

**VI. EXTRAMURAL FUNDING**

**Number of PI's on Funded Grants: 3**

<b>Faculty</b>	<b>Agency</b>	<b>Project Period</b>	<b>Current Year Award</b>	<b>Total Award</b>
Li C & Williams DL	NIH 1 RO1 GM83016 Innate Immunity & CV	2RO1 GM083016-05 3/1/14 – 12/31/17	\$210,000 DC \$96,600 IC	\$1,226,400.00
Williams, DL	NIH	12/15/11-11/30/15 (3rd yr)	\$176,965 DC \$81,404 IC	\$1,148,308.00
Ozment, TR	AHA Scientist Development Grant	1/1/11 - 12/31/14	\$70,000.00 DC \$7,000 IC	\$308,000.00
<b>Total Funding Received</b>				
<b>Total for Multi-Year Commitments</b>				<b>\$2,375,016</b>

Other Sponsored Activities – Current (Chair of Carroll Long, RDC, etc.)

<b>Faculty</b>	<b>Agency</b>	<b>Project Period</b>	<b>Current Year Award</b>	<b>Total Award</b>
<b>Total Funding Received</b>				
<b>Total for Multi-Year Commitments</b>				

**VII PENDING EXTRAMURAL APPLICATIONS**

(Means proposed but unfunded.)

<b>Faculty</b>	<b>Agency</b>	<b>Project Period</b>	<b>Current Year Award</b>	<b>Total Award</b>
Li	NIH-R01	7/1/14 – 6/30/18	365,000	\$1,460,000
Kao	NIH-R15	7/1/14 – 6/30/16		\$427,840.00
Williams	NIH-GSK Grant	7/1/14 – 6/30/19		\$3,800,000
Williams	NIH-R01	7/1/14 – 6/30/19		\$1,825,000.00
Williams	NIH – R21	1/1/15 – 12/31/16		\$401,500
Kao	AHA Grant-in-Aid	7/1/14 – 6/30/16	\$57,987.00	\$300,000.00
Kao	NIH – R15	4/1/15 – 3/31/17		\$427,840.00
Ozment	AHA Grant	7/1/14 – 6/31/16	\$82,500	\$165,000
Ozment	NIH – R15	7/1/14 – 6/31/17		427,840
<b>Total Funding Received</b>				
<b>Total for Multi-Year Commitments</b>				<b>\$9,235,020</b>