

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

July 1, 2016 through June 30, 2017

I. PUBLICATIONS

A. Journal Publications

Garcia-Valtanen P, Guzman-Genuino RM, Williams DL, Hayball JD, Diener KR. Evaluation of trained immunity by β -1, 3 (d)-glucan on murine monocytes in vitro and duration of response in vivo. *Immunol Cell Biol.* 2017 Mar 14, Epub ahead of print. Doi: 10.1038/icb.2017.13.

Li C, Ha T, Kao RL. Toll-Like Receptors in Stroke. *Journal of Heart and Stroke.* 1(2):1008.

Ramseyer MM, Rush D. Axillary Artery Aneurysm Presenting as Acute Limb Ischemia. Brief Report published in *The American Surgeon* 82: 1-2, December 2016.

Wang X, Ha T, Hu Y, Lu C, Liu L, Zhang X, Kao R, Kalbfleisch J, Williams D, Li C. MicroRNA-214 protects against hypoxia/reoxygenation induced cell damage and myocardial ischemia/reperfusion injury via suppression of PTEN and Bim 1 expression. Accepted for Advance Publications 2016, Oncotarget.

Williams TJ, Gibson J, Taylor L, Macariola D, Krishnan S, Reeder C. Case 1: Left Breast Swelling in an 11-month-old Girl. *Pediatric Review.* 38(5): 233, 2017. Doi: 10.1542/pir.2016-0061.

B. Books or Chapters

C. Proceedings

II. PAPERS, ABSTRACTS, AND/OR PRESENTATIONS

A. Regional and National

Fan M, Tu F, Xu J, He M, Nolt B, Wang X, Zhang X, Ha T, Kalbfleisch J, Kao R, Williams D, Li C. Enhanced glycolytic metabolism contributes to cardiac dysfunction in polymicrobial sepsis. Abstract submitted to 40th Annual Conference on Shock, to be held in Ft. Lauderdale, FL, June 3-6, 2017.

Ozment TR, Keener M, Moorman J, Williams DL. Blood Leukocyte Dectin-1 Expression in the Critically Ill Sepsis Patient. Abstract submitted to 40th Annual Conference on Shock, to be held in Ft. Lauderdale, FL, June 3-6, 2017.

Ozment TR, Blair TE, Hall JL, Hopkins NS, Miller MK, Williams DL, Hoover DB. Donepezil Increases Survival in CLP Sepsis but Persistent Splenic Pathology and Bacterial Infection Remain in 28-day Survivors. Abstract submitted to 40th Annual Conference on Shock, to be held in Ft. Lauderdale, FL, June 3-6, 2017.

Prior D, Testerman G. Helmets Matter: Kentucky All-Terrain Vehicle Accidents Seen at a Tennessee

Trauma Center. Poster to be presented at Southeastern Surgical Congress, Nashville, TN, Feb. 25-28, 2017.

Ramos T, Keeley J. Novel Repair of Giant Hernia. Poster to be presented at Southeastern Surgical Congress, Nashville, TN, Feb. 25-28, 2017.

Ramseyer MM, Rush D. Axillary Artery Aneurysm Presenting as Acute Limb Ischemia. Presented at the Southeastern Surgical Congress Annual Meeting, Atlanta, GA, 2016.

Rao, Nandita S. Traumatic Adrenal Hemorrhage masking as a pseudotumor. Poster presented at Appalachian Student Research Forum. 4/11/17-4/12/17, Johnson City, TN.

Serrano L, Keeley J. Localized Lymphedema of the Calf presenting as a pedunculated soft tissue mass. Poster to be presented at Southeastern Surgical Congress, Nashville, TN, Feb. 25-28, 2017.

Tu F, Wang X, Xu J, Fan M, Ha T, Zhang X, Kao R, Kalbfleisch J, Williams D, Li C. Endothelial cell HSPA12B plays a major role in mediating immune functions in murine polymicrobial sepsis. Abstract submitted to 40th Annual Conference on Shock, to be held in Ft. Lauderdale, FL, June 3-6, 2017.

Vance JF, DO. Diverticular Disease. Teaching Lecture given at Novant Health Family Medicine Residency Program in Huntersville, NC, May 17, 2017.

Wang X, Ha T, Kalbfleisch J, Williams D, Li C. TLR3 Mediates Neonatal Heart Repair and Regeneration through Glycolysis-Dependent YAP/TAZ mediated miR-152 expression. Abstract accepted for presentation at American Heart Association Scientific Sessions 2016, New Orleans, LA, Nov. 12-16, 2016.

Williams D, Rice P, Graves B, Kwofie F, Greene R, Lowman D, Rosier B, van de Veerdonk F, Netea M, Kruppa M. *Candida albicans* hyphal mannan is recognized by the human mannose (CD206) and Dectin-2 receptors with higher affinity than *C. albicans* yeast mannan. Presentation to the Gordon Research Conferences, Galveston, TX, January 15-20, 2017.

Williams D, Graves B, Child R, Smith A, Rice P, Ma Z, Lowman D, Ensley H, Ryter K, Evans J. Is Laminarin a Dectin-1 antagonist or is it an agonist: It depends on which laminarin you use! Poster presented at the Gordon Research Conferences, Galveston, TX, January 15-20, 2017.

Xu J, Wang X, Nolt B, Tu F, Fan M, Ha T, Kalbfleisch J, Kao R, Williams D, Li C. Lactate suppresses the response of bone marrow derived macrophages to LPS stimulation, but this effect is attenuated by immune training. Abstract submitted to 40th Annual Conference on Shock, to be held in Ft. Lauderdale, FL, June 3-6, 2017.

B. International

Li C, Wang X, Ha T, Ma H, Kalbfleisch J, Kao R, Williams D. MicroRNA-125B Preserves Cardiac Function in Polymicrobial Sepsis by Targeting TRAF6 and P53 Mediated Apoptotic Signaling. Abstract accepted for presentation at the International Shock Congress 2016 Tokyo, Oct. 5, 2016, Tokyo, Japan. (Not Presented)

Li C. Invited lecture given at Northeast Ohio University, 5/1/17-5/3/17.

Li C. Invited lecture at 11th Congress of Chinese Society of Critical Care Medicine, May 25-29, 2017, Xian, China.

Ozment T, Hopkins N, Williams DL. The role of Scavenger Receptor A (CD204) in apoptosis of septic neutrophils. Abstract presented as poster at The Society for Leukocyte Biology's 49th Annual Meeting and Neutrophil 2016. September 15-17, 2016, Verona, Italy.

III. INVITED PRESENTATIONS

A. Grand Rounds

B. National or International Meetings

Williams DL. Invited Speaker. Training innate immunity: A new approach for the treatment of sepsis. Given at Innate Immune Memory Conference at Wellcome Genome Campus, Cambridge, UK, March 14-16, 2017.

IV. OTHER

National and International Peer-review Committees

Journal Reviewers:

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V. VISITING PROFESSORS

Li C. Visiting Professor to Nanjing Medical University, May 25-29, 2017, Nanjing, China.

Williams DL. Visiting Professor at Friedrich Schiller University Jena, Germany. Insights into (1-3, 1-6)- β -glucans in innate immunity. March 20-23, 2017, Jena, Germany.

IV. OTHER

VI. EXTRAMURAL FUNDING

Number of PI's on Funded Grants: 2

VI EXTRAMURAL FUNDING

Peer Review (NIH, AHA, etc.)

Faculty	Agency	Project Period	Current Year Award	Total Award
Li	NIH-R01 ¹	7/1/14 – 6/30/18	365,000.00	\$1,460,000.00
Williams	NIH-R01 ²	12/1/14 – 11/30/17	2nd Yr Unfunded Extension	
Li & Williams	NIH-R01 ³	1/1/15-12/31/16	\$210,000 DC \$96,600 IC	\$1,226,400.00
Williams & Sherwood ⁴	NIH-R01	4/1/16-1/31/20	465,001 DC 102,589 IC	\$2,193,405
Williams-Sherwood	NIH-R01GM119197-01S1*	4/1/16 – 1/31/17	127,430.00	\$127,430.00
Total Funding Received				
Total for Multi-Year Commitments				

¹Li, C. Role of Toll-Like Receptor Signaling in Cardiac Ischemia. NIH-R01HL071837-09A1, Total Award: \$1,460,000.

²Williams, DL. Amelioration of Sepsis in Macrophage Activation.

³Li & Williams, Co-PIs. Innate Immunity and Cardiovascular

⁴Williams & Sherwood. Training innate immunity. 1R01 GM119197-01

*Equipment Supplement for Flow Cytometer.

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

Faculty	Agency	Project Period	Current Year Award	Total Award
D.L. Williams	NIH – U. New Mexico*	5/15/15 – 4/30/17	DC \$32,278 IC \$14,848	\$94,252
D.L. Williams	Corixa – d.b.a. GSK	10/1/14 – 9/30/20	DC \$400,238 IC \$184,109	\$3,674,406
Race L. Kao	Carroll Long Chair			
Total Funding Received				
Total for Multi-Year Commitments				

VII PENDING EXTRAMURAL APPLICATIONS

(Means proposed but unfunded.)

Faculty	Agency	Project Period	Current Year Award	Total Award
Williams, David L.	NIH	5/1/18 – 4/30/23	837, 832.00	\$4,417,603.00
Kao, Race L.	NIH R15	9/1/16 – 8/31/19	\$141,001	\$425,845.00
Ma, Zuchao	NIH U01	7/1/17 – 6/30/21	\$592,609.00	\$2,369,730.00
Ma, Zuchao	NIH R15	7/1/17 – 6/30/20	300,000.00	423,665.00
Ozment, T.	NIH R15	7/1/17 – 6/30/20	300,000.00	300,000
Ozment, T*	NIH R01	8/15/17 – 4/30/22	288,600	\$1,443,000
Total Funding Received				
Total for Multi-Year Commitments				

This grant was funded to start 8/15/17.