

# University of South Alabama Division of Cardiology 2015 - 2016 Summary of Scholarly Activities

## I. PUBLISHED JOURNAL ARTICLES, BOOK CHAPTERS, AND PATENTS

1. Yang X-M, Cui L, White J, Kuck J, Ruchko MV, Wilson GL, Alexeyev M, Gillespie MN, Downey JM, Cohen MV: Mitochondrially targeted endonuclease III has a powerful anti-infarct effect in an in vivo rat model of myocardial ischemia/reperfusion. *Basic Res Cardiol*. 2015 Mar; 110 (2):3.
2. Cohen MV, Downey JM: Signaling pathways and mechanisms of protection in pre- and postconditioning: historical perspective and lessons for the future. *Br J Pharmacol* 2015 Apr; 172 (8): 1913-32.
3. Cohen MV, Downey JM: Status of P2Y<sub>12</sub> treatment must be considered in evaluation of myocardial ischaemia/reperfusion injury. *Cardiovasc Res* 2015 Apr; 106 (1): 8.
4. Iliodromitis EK, Cohen MV, Dargès N, Andreadou I, Kremastinos DT, Downey JM: What is wrong with cardiac conditioning? We may be shooting at moving targets. *J Cardiovasc Pharmacol Ther* 2015 Jul; 20 (4): 357-69.
5. Bell RM, Sivaraman V, Kunuthur SP, Cohen MV, Downey JM, Yellon DM: Cardioprotective properties of the platelet P2Y<sub>12</sub> receptor inhibitor, cangrelor: protective in diabetics and reliant upon the presence of blood. *Cardiovasc Drugs Ther* 2015 Oct; 29 (5): 415-418.
6. Cohen MV, Yang X-M, White J, Yellon DM, Bell RB, Downey JM: Cangrelor-mediated cardioprotection requires platelets and sphingosine phosphorylation. *Cardiovasc Drugs Ther* 2016 Apr; 30 (2): 229-232
7. Pavani Kolakalapudi, Sadaf Chaudhry and Bassam Omar. Iatrogenic Aortic Insufficiency Following Mitral Valve Replacement: Case Report and Review of the Literature. *J Clin Med Res*. 2015 Jun;7(6):485-9.
8. Cao Tran, Ehtesham Ul Haq, Ngoc Nguyen, Bassam Omar. Giant thoracic aortic aneurysm and dissection following aortic valve replacement for bicuspid aortic valve. *Rev Cardiovasc Med*. 2015; 16(4):255-60.
9. Barrett JC, Alweis R, Frank M, O'Connor A, McConville JF, Adams ND, Arfons L, Bernard S, Bradley T, Buckley JD, Cohen E, Cornett P, Elkins S, Kopelman R, Luther VP, MacDonald J, McNeill DB, Omar B, Palapiano N, Roth T, Satko S, Fried ED, Muchmore EA. Adoption of a Uniform Start Date for Internal Medicine Fellowships and Other Advanced Training: An Alliance for Academic Internal Medicine (AAIM) White Paper. *Am J Med*. 2015 Jun 10.

10. Pavani Kolakalapudi and Bassam Omar. Diabetes and the Cardiovascular System. *J Endocrinol Metab.* 2015;5(6):313-320.
11. Sushee Gadde and Bassam Omar. Chest Pain with Apical Diverticulum in the Absence of Coronary Disease: Case Report and Review of the Literature. *Cardiol Res.* 2015;6(6):352-356.
12. Pavani Kolakalapudi and Bassam Omar. Case Study: Specialized Use of a Niacin-Statins Combination in Lipid Management. *LipidSpin.* Volume 14, Issue 2. March 2016. P: 21 – 26.

## **II. PUBLISHED ABSTRACTS/ POSTER PRESENTATIONS**

1. Cohen MV, Yang X-M, Cui L, Wilson GL, Alexeyev M, Gillespie MN, Downey JM: Is mitochondrial DNA fragmentation a major contributor to necrosis in myocardial infarction?
2. Massey CV, Maltese C, Watson R, Sawyer E, Paragone C, Mestas L. Quality improvement in cardiac surgery: Translating systems-based research into practice. 6<sup>th</sup> Annual Evidence-Based Practice/Research Conference 2014; 2014 Sept 15; New Orleans, LA.
3. Moses A, Karumbaiah K, Omar B. Paradoxical blood pressure response following a brief rest period. Alabama American College of Cardiology Chapter Meeting in Birmingham, AL. January 17<sup>th</sup>, 2015.
4. Kolakalapudi P, Omar B. Prevalence and significance of left versus right bundle branch block. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL. January 17<sup>th</sup>, 2015.
5. Gadde S, Omar B. Pulse Pressure and pulsatile stress age differences in hypertensive subjects. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL. January 17<sup>th</sup>, 2015.
6. Ul Haq E, Omar B. Variations in blood pressure control by gender and race in a cardiology clinic. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL for January 17<sup>th</sup>, 2015.
7. P. Kolakalapudi, B. Omar. Weight and Blood Pressure Trends in Elderly versus Young Patients. *J Am Soc Hypertens.* 9(4S) (2015) e105.
8. S. Gadde, B. Omar. Pressure-rate Product and Pulse Pressure in Elderly versus Young Hypertensive Patients. *J Am Soc Hypertens.* 9(4S) (2015) e64 – e65.

9. P. Kolakalapudi, B. Omar. Overcoming Lipid Management Obstacles in a University-Based Cardiology Clinic. J Clin Lipidol. (2015) Volume 9, Issue 3, Page 468.
10. Abimbola Shofu, G. Mustafa Awan, Bassam Omar. Obesity Trends by Race in a Primary Cardiology Clinic. To be presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL for January 9<sup>th</sup>, 2016.
11. Andrew Moses, Ghazanfar Qureshi, Bassam Omar. Prevalence and Type of Errors in Electrocardiographic Recordings. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL. January 9<sup>th</sup>, 2016.
12. Clare Carney, Donna Bennett, Bassam Omar. Disparity in Control of Cardiac Risk Factors According to Gender. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL. January 9<sup>th</sup>, 2016.
13. Ehtesham Ul Haq, Bassam Omar, Tamas Szombathy. Predictive Value of Electrocardiographic Criteria in Severe Left Ventricular Hypertrophy. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham, AL. January 9<sup>th</sup>, 2016.
14. Sushee Gadde, Christopher Malozzi, Bassam Omar. Lipid Management Challenges in Different Clinical Settings. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham. January 9<sup>th</sup>, 2016. Won 3<sup>rd</sup> place in poster competition.
15. Sushee Gadde, Christopher Malozzi, Bassam Omar. Lipid Management Challenges in Different Clinical Settings. Presented at the Alabama American College of Cardiology Chapter Meeting in San Destin, FL. June 11<sup>th</sup>, 2016
16. Mazen Omar, Pavani Kolakalapudi, Christopher Malozzi. Comparison of Gated SPECT, Echocardiography and Angiography Ejection Fractions. Presented at the Alabama American College of Cardiology Chapter Meeting in Birmingham. January 9<sup>th</sup>, 2016. Accepted into the Finals of the 2016 Alabama Chapter ACP Student poster competition.
17. Mazen Omar, Pavani Kolakalapudi, Christopher Malozzi. Comparison of Gated SPECT, Echocardiography and Angiography Ejection Fractions. Presented at the Alabama American College of Physicians Meeting in Birmingham. June 4<sup>th</sup>, 2016
18. Andrew Moses, Christopher Malozzi, Bassam Omar. Prevalence of ECG Recording Errors in a University Hospital ECG Database. Circulation: Cardiovascular Quality and Outcomes. 2016; 9: A236.

19. Sushee Gadde, Christopher Malozzi, Bassam Omar. Variation in Cholesterol Documentation and Control in Different Clinics Run by the Same Provider. *Circulation: Cardiovascular Quality and Outcomes*. 2016; 9: A262.
20. Sushee Gadde, Donna Bennett, Ghazanfar Qureshi and Bassam Omar. Gender and Race Variation of Widened Pulse Pressure with Age. Presented. *J Am Soc Hypertens*. 10 (4S) (2016) e44 – e45.
21. Abimbola Shofu, Landai Nguyen, Ghazanfar Qureshi and Bassam Omar. Gender and Race Related Variations in Weight and Cholesterol Control. *J Clin Lipidol*. (2016) Volume 10, Issue 3, Page 668.
22. Pavani Kolakalapudi, Mazen Omar, Christopher Malozzi, and Bassam Omar. Correlation of Weight and LDL Level Changes with Age in Males versus Females. Presented. *J Clin Lipidol*. (2016) Volume 10, Issue 3, Pages 689 - 690.
23. Ehtesham Ul Haq, Christopher Malozzi, and Bassam Omar. Weight and BMI Correlation According to Race and Gender. Submitted. *J Clin Lipidol*. (2016) Volume 10, Issue 3, Page 721.
24. Andrew Moses, Landai Nguyen, G. Mustafa Awan, Bassam Omar. Race-Related Variations in Lipid Parameters in a Cardiology Clinic. *J Clin Lipidol*. (2016) Volume 10, Issue 3, Page 689.
25. Clare Carney, Mazen Omar, Christopher Malozzi, Bassam Omar. Disparity in Lipid Control between Cardiology Attending and Cardiology Fellow Clinics. *J Clin Lipidol*. (2016) Volume 10, Issue 3, Pages 682 – 683.
26. Sushee Gadde, Donna Bennett, Bassam Omar. Impact of Recent Cholesterol and Hypertension Guidelines on Lipid and BP control. Presented. *J Clin Lipidol*. (2016) Volume 10, Issue 3, Pages 683.

### **III. INVITED PRESENTATIONS**

1. Massey C. Invited speaker: Improving patient outcomes - Through Evidence & Collaboration. Annual Medical Association of Alabama. April 17, 2015. Montgomery, AL
2. Ghazanfar Qureshi. Invited Speaker: CHIP: Hemodynamic Support and Complex PCI. 2016 January 23, Fort Lauderdale, FL.
3. Ghazanfar Qureshi. Invited Speaker: “Stent vs. Scalpel: Left Main Disease Dilemma” Indus Hospital, Karachi Pakistan, 2016 August 04.

4. Bassam Omar. Invited Speaker. Anticoagulation in atrial fibrillation. 3/29/2016. James A. Haley VA Hospital, Tampa FL.

#### **IV. NATIONAL PROFESSIONAL RECOGNITION**

1. Barbara Burckhardt. Heart failure team received 2016 American Heart Association Get With The Guidelines (GWTG) Heart Failure Gold Plus Quality Achievement Award.
2. Bassam Omar. The American College of Cardiology, Alabama Chapter, meeting planning and educational committee membership, and abstract grading committee member 2015/2016.
3. Bassam Omar. The American Heart Association Spotlight Series speakership on atrial fibrillation 2015/2016.
4. Bassam Omar. Awarded Fellowship; The American Heart Association (Silver Heart Member), Council on Clinical Cardiology 2015.
5. Christopher Malozzi. Awarded Fellowship; The American College of Cardiology 2015.
6. Michael Cohen. Basic Research in Cardiology; editorial board member.

#### **VI. BRIEF SUMMARY OF DEPARTMENT ACTIVITIES AND PROGRESS.**

##### **A. Research**

Research endeavors have steadily increased in the Division of Cardiology. Currently, we participate in several multi-center internationally recognized clinical trials, overseen by Dr. Michael Cohen, and Cherie Revere. The Division, represented by Dr. Christopher Malozzi, a co-investigator, continues to foster the collaborative effort with the Department of Biochemistry to evaluate the efficacy of HSP27 as a marker of atherosclerotic plaquing, a project with an NIH P20 grant funding for five years. Establishment of a dedicated Research Committee this year, directed by Dr. Ghazanfar Qureshi, has resulted in an increase in the Divisional research projects. This year, the Division sponsored two medical students for summer research projects, resulting in abstract presentations during Student Research Day. Several other small projects involving Cardiology fellows, residents and students are ongoing, with anticipated increase in the Division's publications. Dedicated websites were

established for Clinical Trials and the Research Committee.

## B. Education

The educational mission of the Division remains of primary importance. The faculty of the Division of Cardiology continue to focus on teaching guideline-based approaches to various disease processes. We now have a unified front in promoting patient-centered evidence based delivery of cardiovascular care. Our cardiovascular disease fellowship training program holds continued accreditation by the ACGME. Under the direction of Dr. Bassam Omar, the fellowship director, we have expanded the fellowship curriculum that is available immediately online and expanded our online offerings for students and residents. An online resource, “cardiofellows.com” was established to help trainees find quick references for guideline-directed medical therapy. The Curriculum Committee meets every two months to discuss matters pertaining to education and plan for continuous improvement in the process of education. In an effort to improve the Division’s conference offerings, the Friday noon conferences have been elevated to Cardiology Grand Rounds, which, as of this year, became CME certified.

The Division of Cardiology continues to support the LCME curriculum. Dr. Mustafa Awan serves as a Co-Director of the cardiovascular module, and continues to actively participate in the course offerings and assigns senior Cardiology fellows for various Team Based Learning activities. Board scores continue to attest to the success of this endeavor.

## C. Service

The Division of Cardiology continues to deliver high value, guideline-directed, and evidence-based cardiovascular care. The Heart Failure Team under the direction of Dr. Barbara Burckhardt continues to excel in high quality care with successful implementation of the AHA Get with the Guidelines Program for Heart Failure. This team has met CMS standards for the Gold Achievement Award for Heart Failure Management four years in a row, 2013 to 2016, receiving the Gold Plus Award. The Heart Failure Team has had a significant positive impact on outcome measures including prevention of hospital readmissions and has provided more robust support for patients and families regarding quality of life issues.

The USA Heart Team, in collaboration with the Division of Cardiothoracic Surgery, continues to provide outstanding patient-centered, guidelines-based and high-value care to patients undergoing cardiac surgery. The systems-delivered care has changed the culture from physician-based to team-based delivery of care. In addition to significantly improving patient outcomes, the effort has enhanced the educational

mission by driving home the importance of patient-centered, evidence-based, team-driven care. This endeavor, initiated and lead by Dr. Clara Massey, is currently directed by Dr. Mustapha Awan, following the retirement of Dr. Massey.

Our noninvasive laboratory continues to offer high-standard, patient-centered cardiac testing, with new leadership. The echocardiography laboratory, now directed by Dr. Christopher Malozzi, and the nuclear laboratory, now directed by Dr. Ghazanfar Qureshi, are both accredited by ICAEL (Intersocietal Accreditation Commision), which is an honorable recognition for upholding the highest standards in running these services. Both leaders are in the process of implementing continuous quality improvement for their respective services.

Dr. Mustapha Awan, Director of the Cardiac Catheterization Laboratory, and Dr. Ghazanfar Qureshi, Co-director, have advanced the standards in the Cath Lab by embracing the novel radial approach for cardiac catheterization. The Cath Lab is now in the top tier in the country for the use of this technique, which reduces bleeding and improves patient satisfaction. They have also implemented a high-risk coronary intervention program, with the use of the Impella support device to ensure patient safety and improve outcomes, a service unique in our region. Efforts are underway to expand our peripheral vascular disease service to enhance early detection and intervention.