

Curriculum Vitae

Name: Scott Anthony LeMaire, M.D.

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Education:

Undergraduate: Quincy College 1984-1988
Quincy, Illinois
B.S. in Biology, June 1988
Minors in Chemistry and English

Medical: Northwestern University Medical School 1988-1992
Chicago, Illinois
M.D., June 1992

Postgraduate: Baylor College of Medicine
Houston, Texas
Residency in General Surgery 1992-1997
Residency in Cardiothoracic Surgery 1997-1999
Clinical Scientist Training Program Certificate of
Added Qualification, May 2006 2005-2006

Academic Appointments:

Geisinger
Danville, Pennsylvania
Associate Chief Scientific Officer 2023-
Professor of Cardiothoracic Surgery
Heart & Vascular Institute and Research
Institute 2023-

Geisinger Commonwealth School of Medicine
Scranton, Pennsylvania
Associate Dean for Research 2023-

Baylor College of Medicine
Houston, Texas
Assistant Professor of Surgery 1999-2004
Associate Professor of Surgery 2004-2009
Director of Clinical and Translational Research,
Division of Cardiothoracic Surgery 2006-2007
Director of Research, Division of Cardiothoracic
Surgery 2008-2023
Professor of Surgery (tenured) 2009-2023
Professor of Integrative Physiology (formerly
Molecular Physiology and Biophysics) 2010-2023
Vice Chair for Research, Michael E. DeBakey
Department of Surgery 2013-2023

	The Texas Heart Institute Houston, Texas	
	▪ Professional Staff, Department of Cardiovascular Surgery	2005-2020
	▪ Physician Associate	2020-2023
	▪ Academic Professional Staff	2023
	Quincy University Quincy, Illinois	
	▪ Board of Trustees	2017-present
	○ Vice-chair, Academic Affairs Committee	2017-2018
	○ Chair, Tenure Subcommittee	2017-present
	○ Member, Nominating Committee	2017-present
	○ Chair, Academic Affairs Committee	2018-present
	○ Member, Executive Committee	2018-present
Clinical Appointments:	Baylor College of Medicine Houston, Texas	
	▪ Director, Hyperhidrosis Treatment Center	2016-2023
Hospital Affiliations:	Geisinger Health System	
	▪ Active Staff	2023-present
	Baylor St. Luke's Medical Center (formerly St. Luke's Episcopal Hospital) Houston, Texas	
	▪ Provisional Staff	2005-2006
	▪ Active Staff	2006-2023
	Houston Veterans Affairs Medical Center Houston, Texas	
	▪ Consultant/Attending Staff	1999-2019
	Ben Taub General Hospital Harris County Hospital District Houston, Texas	
	▪ Active Medical Staff	2000-2018
	The Methodist Hospital The Methodist DeBakey Heart Center Houston, Texas	
	▪ Provisional Staff	1999-2001
	▪ Active Staff	2001-2005
	▪ Courtesy Staff	2005-2006
Board Certification:	National Board of Medical Examiners No. 34105973	1993
	American Board of Surgery No. 42950 (expired July 1, 2008)	1998
	American Board of Thoracic Surgery No. 6398	2000 Recertified, 2010 & 2020

Licensure:	Commonwealth of Pennsylvania No. MD483160	2023
	State of Texas No. K8288	1999
	State of Michigan No. 4301070921 (expired January 13, 2016)	1997

Honors and Awards:

Summa Cum Laude, Quincy College, 1988

Northwestern University Medical School Medical Student Representative to the American College of Surgeons Clinical Congress, 1991

Coauthor, The Society of Thoracic Surgeons J. Maxwell Chamberlain Memorial Paper. Coselli JS, **LeMaire SA**, Köksoy C, Schmittling ZC, Conklin LD. Surgical repair of extent II thoracoabdominal aortic aneurysms: evaluation of morbidity and mortality. Presented by Dr. Coselli at the 37th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, Louisiana, January 29, 2001

Coauthor, The Southern Thoracic Surgical Association President's Award for Best Scientific Paper. Coselli JS, **LeMaire SA**, DiBardino DJ, Stacey RB, Adams GJ. Left heart bypass during descending thoracic aortic aneurysm repair does not prevent paraplegia. Presented by Dr. Coselli at the 49th Annual Meeting of the Southern Thoracic Surgical Association, Miami Beach, Florida, November 9, 2002

Finalist, Hans G. Borst Award for Thoracic Aortic Surgery. **LeMaire SA**, Alankar S, Coselli JS. Deployment of balloon expandable stents during open repair of thoracoabdominal aortic aneurysms: a new strategy for managing renal and mesenteric artery lesions. Presented at the 2nd Joint Meeting of the European Association for Cardio-thoracic Surgery/European Society of Thoracic Surgeons, Vienna, Austria, October 14, 2003

Coauthor, Best Paper. Coselli JS, Volguina IV, **LeMaire SA**. Contemporary results of extent II thoracoabdominal aortic aneurysm repair in patients with Marfan syndrome. Presented by Dr. Coselli at the 14th Annual Winter Meeting of the Peripheral Vascular Surgery Society, February, 2004

The James E. Thompson Award for Best Paper by a New Member. Thoracic aortic aneurysms after dissection: evidence supporting proteolytic mechanisms. Presented at the 174th Meeting of the Texas Surgical Society, October 1, 2004

Departmental Service Award, Michael E. DeBakey Department of Surgery, Baylor College of Medicine, June 18, 2005

Michael E. DeBakey Department of Surgery Faculty Research Achievement Award, Baylor College of Medicine, December 16, 2005

Michael E. DeBakey Department of Surgery Faculty Research Achievement Award, Baylor College of Medicine, December 15, 2006

The Inaugural Association for Academic Surgery International Visiting Professorship Award, August 17, 2007

Michael E. DeBakey Department of Surgery Faculty Research Achievement Award, Baylor College of Medicine, December 14, 2007

Elected Secretary of the Association for Academic Surgery, February 2008

Michael E. DeBakey Department of Surgery Faculty Research Achievement Award, Baylor College of Medicine, December 19, 2008

American Heart Association Research Administration Volunteer Recognition Award, October 1, 2009

Michael E. DeBakey Department of Surgery Faculty Research Achievement Award, Baylor College of Medicine, December 18, 2009

Elected President of the Association for Academic Surgery, February 4, 2010

St. Luke's Episcopal Hospital 2011 Distinguished Scientist Award, December 19, 2011

Thoracic Surgery Foundation for Research and Education Alley-Sheridan Scholarship, 2013

Michael E. DeBakey, M.D., Excellence in Research Award, Baylor College of Medicine, July 2, 2014

Fulbright & Jaworski L. L. P. Faculty Excellence Award for Teaching and Evaluation, Baylor College of Medicine, May 19, 2016

DeBakey Distinguished Service Award, Michael E. DeBakey Department of Surgery, Baylor College of Medicine, June 23, 2017

The Jimmy and Roberta Howell Endowed Professorship in Cardiovascular Surgery, March 28, 2018

Winner, American Association for Thoracic Surgery Cardiac Surgery Biology Club Cup, April 28, 2018

Elected Vice President of the Michael E. DeBakey International Surgical Society, 2018

Michael E. DeBakey, M.D., Excellence in Research Award, Baylor College of Medicine, August 17, 2022

Elected President of the Texas Surgical Society, September 30, 2022

Elected First Vice President of the Southern Thoracic Surgical Association, November 4, 2023

Honors and Awards for Residents, Students, and Research Staff:

Lori Conklin, MD – First Prize Presentation. Conklin LD, **LeMaire SA**, Casar GJ, Coselli JS. Tracheal erosion by a prosthetic innominate artery graft: presentation and surgical repair. Presented by Dr. Conklin at the Annual Meeting of the Southern Chapter of the American College of Chest Physicians, Washington, D.C., November 15, 2002

Shirong Chang, BS – Outstanding Clinical Poster. Chang S, **LeMaire SA**, Kreml S, Conklin LD, Coselli JS. Validation of renal dysfunction scores following thoracoabdominal aortic aneurysm repair. Presented by Ms. Chang at the 4th Annual Baylor College of Medicine James K. Alexander Student Research Symposium, Houston, Texas, February 20, 2003

Jonathan Wilks, BS – Biochemistry/Molecular Biology Award from the University of Texas Medical Branch Department of Human Biological Chemistry & Genetics. Wilks J, Wang X, Carter S, Wen S, Leonardelli D, Anand G, Conklin L, Loebe M, Wang XL, Coselli J, **LeMaire S**. Proteases in thoracic aortic aneurysms: are patients undergoing coronary artery bypass appropriate controls? Presented by Mr. Wilks at the 45th Annual National Student Research Forum, April 2, 2004

Heather Bartsch, BS – Finalist, the 3rd Annual Medical Student Section Research Poster Award. Bartsch HR, Wilks JA, Wang X, Carter SA, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. Increased MMP-9 expression in thoracic aortic aneurysms due to chronic dissection. Presented by Ms. Bartsch at the American Medical Association Medical Student Section Interim Meeting, Atlanta, Georgia, December 4, 2004

Heather Bartsch, BS – Honorable Mention Clinical Poster. Bartsch HR, Chang KW, Wang X, Wilks JA, Carter SA, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. Proteolytic imbalance in acute and chronic aortic dissection. Presented by Ms. Bartsch at the 6th Annual Baylor College of Medicine James K. Alexander Student Research Symposium, Houston, Texas, February 17, 2005

Susan Green, MPH – Young Investigator Award. Green SY, **LeMaire SA**, Sharma K, Cheung CK, Sameri A, Tsai PI, Adams G, Coselli JS. Aortic root replacement with stentless porcine xenografts: early and late outcomes in 132 patients. Presented by Ms. Green at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston Texas, December 19, 2008

Marisa Martinovich Jones, BS – Young Investigator Award. Jones MM, Conklin LD, Carter SA, Raskin SA, Coselli JS, **LeMaire SA**. Cold blood and cold crystalloid renal perfusion afford similar protection against acute renal injury during thoracoabdominal aortic aneurysm repair: results of a randomized trial. Presented by Ms. Jones at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston Texas, December 19, 2008

Xiauyang Hou, MD – Young Investigator Award. Hou X, Zhang X, Hou X, Russell L, Jones MM, Wang XL, Shen YH, Coselli JS, **LeMaire SA**. Altered expression of matrix metalloproteinases in chronic descending thoracic aortic dissection. Presented by Dr. Hou at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston Texas, December 19, 2008

Yuan Yuan Rong, MD – Second Place Research Poster. Rong Y, Zhang L, Zhang M, **LeMaire SA**, Wang XL, Coselli JS, Shen HY. Insulin stimulates and inhibits the expression of anticoagulant thrombomodulin through different pathways: implications for the development of prothrombotic state in metabolic syndrome. Presented by Dr. Rong at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston Texas, December 19, 2008

Matt Price, MS, RHIA – Young Investigator Award. Price MD, **LeMaire SA**, Parenti JL, Johnson ML, Lay AD, Preventza O, Huh J, Coselli JS. Early outcomes after aortic arch replacement by using the trifurcated graft technique. Presented by Mr. Price at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston Texas, December 18, 2009

Lin Zhang, MS – Third Place Research Presentation Award. Zhang L, Shen YH, Zhang X, Russell LR, Coselli JS, **LeMaire SA**. Impaired insulin signaling in descending thoracic aortic aneurysms with chronic dissection: a potential mechanism for dysregulation of MMPs/TIMPs and increase susceptibility to tissue destruction. Presented by Mr. Zhang at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston, Texas, December 18, 2009

Darrell Wu, MD – Finalist, the 2013 Association for Academic Surgery Foundation Research Fellowship Award. NLRP3-mediated vascular smooth muscle cell contractile dysfunction.

Darrell Wu, MD – First Place Society of University Surgeons Young Investigator Travel Award. Awarded for best plenary session presentation. Wu D, Choi JC, Coselli J, Shen HY, **LeMaire SA**. NLRP3 inflammasome activates matrix metalloproteinase-9: potential role in smooth muscle cell dysfunction in thoracic aortic disease. Presented by Dr. Wu at the 8th Academic Surgical Congress, New Orleans, Louisiana, February 5, 2013.

Justin Choi, MD – Best Poster Award. Awarded for best poster presentation by a clinical resident or fellow. Choi JC, Wu D, Sameri A, Nguyen MT, Minard CG, Coselli JS, Shen YH, **LeMaire SA**. Inflammatory cell infiltrates after thoracic aortic dissection. Presented by Dr. Choi at the 1st Annual Baylor College of Medicine Cardiovascular Research Institute Symposium, Houston, Texas, April 9, 2013.

Darrell Wu, MD – Best Poster Award. Awarded for best poster presentation by a clinical resident or fellow. Wu D, Xu G, Ren P, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. NLRP3 inflammasome cascade activates MMP-9 and induces smooth muscle cell contractile dysfunction and ECM destruction in thoracic aortic disease. Presented by Dr. Wu at the 1st Annual Baylor College of Medicine Cardiovascular Research Institute Symposium, Houston, Texas, April 9, 2013.

Darrell Wu, MD – Best Oral Presentation Award. Wu D, Xu G, Ren P, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. NLRP3 inflammasome cascade activates MMP-9 and induces smooth muscle cell contractile dysfunction and ECM destruction in thoracic aortic disease. Presented by Dr. Wu at the Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2013.

Darrell Wu, MD – Finalist, 2013 Society of University Surgeons Resident Research Scholarship. NLRP3 inflammasome cascade induces smooth muscle cell contractile dysfunction. Selected as one of the top 3 applications out of 50 submitted.

Darrell Wu, MD – 2014 Academic Surgical Congress Award for Best Cardiothoracic Abstract. Wu D, Zheng Y, Choi J, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. Blockade of the NLRP3 inflammasome cascade prevents thoracic aortic aneurysm and dissection formation.

Mohammed Aftab, MD – Third Place Adult Cardiac Surgery Poster. Aftab M, Songdechakraiwt T, Green SY, Zarda S, Price MD, Nalty CC, Preventza O, de la Cruz KI, **LeMaire SA**, Coselli JS. Contemporary outcomes of open thoracoabdominal aortic aneurysm repair in octogenarians. Presented by Dr. Aftab at the American Association for Thoracic Surgery Resident Poster Competition, Toronto, Canada, April 27, 2014.

Darrell Wu, MD – Finalist, C. Walton Lillehei Resident Forum Award. Wu D, Zheng Y, Hughes M, Zhang L, Shen YH, Coselli JS, **LeMaire SA**. NLRP3 inflammasome induces smooth muscle cell dedifferentiation leading to thoracic aortic biomechanical failure. Presented by Dr. Wu at the 94th Annual Meeting of the American Association for Thoracic Surgery, Toronto, Canada, April 28, 2014.

Darrell Wu, MD – Best Basic Science Presentation Award. Wu D, Zheng Y, Hughes M, Choi JC, Zhang L, Curci J, Coselli JS, Shen YH, **LeMaire SA**. Oxidative stress induces smooth muscle cell contractile dysfunction leading to aortic wall failure. Presented by Dr. Wu at the 2nd Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 4, 2014.

Michael Hughes, BM – Third Place Best Overall Poster. Hughes M, Zheng Y, Zhang L, Krishnamoorthy S, Coselli JS, Shen YH, **LeMaire SA**. Genetic deficiency and pharmacologic inhibition of ADAMTS4 prevent abdominal aortic aneurysms and dissections in a mouse model. Presented by Mr. Hughes at the 56th National Student Research Forum, Galveston, Texas, April 23-24, 2015.

Yanqiu Zheng, BS – American Society for Biochemistry and Molecular Biology Outstanding Poster Award. Zheng Y, Hughes M, Wu D, Krishnamurthy S, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. NLRP3 inflammasome cascade and STING/IRF3 pathway induce vascular smooth muscle cell phenotypic switch in aortic aneurysms and dissections. Presented by Mr. Zheng at the 56th National Student Research Forum, Galveston, Texas, April 23-24, 2015.

Gregory Pattakos, MD – Second Place Resident Poster. Pattakos G, Preventza O, Simpson K, Price MD, Rammou A, de la Cruz K, Weldon S, **LeMaire S**, Coselli J. Time to re-examine the benefits of deep hypothermia: Higher temperatures during hypothermic circulatory arrest are associated with lower rates of stroke and bleeding in aortic surgery. Presented by Dr. Pattakos at the 97th Annual Meeting of the American Association for Thoracic Surgery, Boston, Massachusetts, April 29-May 3, 2017.

Pingping Ren, MD – Best Abstract Award. Ren P, Luo W, Zhang C, Guo J, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. Targeting necroptosis to prevent the development of sporadic aortic aneurysm and dissection in mice. Presented by Dr. Ren at the 6th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 10, 2018.

Lin Zhang, MS – Best Poster, Clinical and Research Staff. Zhang L, Luo W, Ren P, Azares A, Wang Y, Zhang C, Coselli JS, Shen YH, **LeMaire SA**. Ciprofloxacin increases susceptibility to aortic dissection and rupture in mice. Presented by Mr. Zhang at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.

Jacqueline K. Olive, BS – Best Student Quick Shot Presentation. Olive JK, Orozco-Sevilla V, Price MD, Amarasekara HS, Cheong BY, Simpson K, de la Cruz KI, **LeMaire SA**, Coselli JS, Preventza O. Acute type I aortic dissection: Propensity-score analysis for patients who underwent traditional versus hybrid procedure with antegrade endovascular stent. Presented by Ms. Olive at the 6th Annual Baylor College of Medicine Michael E. DeBakey Resident Research Day, Houston, Texas, June 6, 2018.

Pingping Ren, MD – Finalist, Association for Academic Surgery Resident/Fellow Quick Shot Competition. Ren P, Hughes M, Zhang L, Zheng Y, Krishnamoorthy S, Coselli J, Shen Y, **LeMaire S**. Inhibition of ADAMTS-4 prevents the development of aortic aneurysms and dissections in mouse. Presented by Dr. Ren at the 14th Annual Academic Surgical Congress, Houston, Texas, February 6, 2019.

Waleed Ageedi, MD – Best Poster, Postdoctoral Fellow. Ageedi W, Ren P, Wang Y, Guo J, Coselli J, Shen Y, **LeMaire S**. Critical role of AIM2 inflammasome in the development of sporadic aortic dissection. Presented by Dr. Ageedi at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 10 2019.

William Frankel – Educational Scholarship Recognition Award for Best Poster. Frankel WC, Scott BG, Massarweh NN, Silberfein EJ, Zhang Q, Rosengart TK, **LeMaire SA**, Trautner BW. A multifaceted research engagement program improved general surgery residents' academic productivity. Presented by Mr. Frankel at the Annual Showcase of Educational Scholarship, Baylor College of Medicine, Houston, Texas, September 20, 2019.

Richard Appel – The George J. Schroepfer, Jr. Award for Excellence in Undergraduate Research in Biochemistry, Rice University, May 15, 2020.

Richard Appel – The Distinction in Research and Creative Work Award, Rice University, May 15, 2020.

Heidi Krause – Best Clinical Poster, Student. Krause HM, Coselli JS, Green SY, Zhang Q, Amarasekara HS, Price MD, Preventza O, **LeMaire SA**. A 23-year experience with the reversed elephant trunk technique for staged repair of extensive thoracic aortic aneurysms. Presented by Ms. Krause at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.

Chen Zhang, PhD – Best Poster Presentation by a Resident or Fellow. Zhang C, Li Y, Dawson AE, Li Y, Chakraborty A, Vasquez H, Zhang L, **LeMaire SA**, Shen YH. Single-cell RNA sequencing reveals the heterogeneity of aortic fibroblasts during aortic disease development in mice. Presented by Dr. Zhang at the 9th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, June 1, 2021.

Ashley Dawson, MD – Best Basic Science Research Presentation by a Resident or Fellow. Dawson A, Li Y, Zhang C, Vasquez H, Azares A, Mattar A, Coselli JS, Daugherty A, Shen YH, **LeMaire SA**. Single-cell analysis reveals paradoxical TGF-beta signaling and increased expression of elastin in the aortic wall specific to ascending aortic aneurysms in patients with Marfan syndrome. Presented by Dr. Dawson at the 9th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, June 2, 2021.

Kimberly Rebello, MD, MSc – Best Clinical Postdoctoral Fellow Poster Award. Rebello KR, Chakraborty A, Shen YH, **LeMaire SA**. Role of RIPK3-mediated smooth muscle cell death in sporadic aortic aneurysm and dissection development. Presented by Dr. Rebello at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.

Kimberly Rebello, MD, MSc – Nicholas T. Kouchoukos Award for Best Basic Science Paper. Rebello KR, Chakraborty A, Li Y, Zhang Chen, **LeMaire SA**, Shen YH. Role of RIPK3-mediated smooth muscle cell death in the development of sporadic aortic aneurysms and dissections. Presented by Dr. Rebello at the American Association for Thoracic Surgery Aortic Symposium Workshop, Boston, Massachusetts, May 14, 2022.

Kimberly Rebello, MD, MSc – Best Basic Science Presentation by a Resident or Fellow. Rebello KR, Chakraborty A, Li Y, Zhang Chen, **LeMaire SA**, Shen YH. Role of RIPK3-mediated smooth muscle cell death in sporadic aortic aneurysm and dissection development. Presented by Dr. Rebello at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, June 1, 2022.

Samantha Xu, MPH – Outstanding Rapid Fire Presentation. Xu S, Li Y, Rebello K, **LeMaire SA**, Shen YH. Mitochondrial metabolism dynamics in sporadic aortic aneurysms and acute dissections. 25th Gill Heart and Vascular Institute Cardiovascular Research Day, University of Kentucky Saha Cardiovascular Research Center, Lexington, Kentucky, October 28, 2022.

Kimberly Rebello, MD, MSc – 2nd Place Award for Outstanding Postdoctoral Fellow Poster Presentation. Rebello KR, Chakraborty A, Zhang C, Li Y, Li Y, Ren P, Luo W, **LeMaire SA**, Shen YH. Role of RIPK3-mediated smooth muscle cell death in the development of sporadic aortic aneurysms and dissections. 25th Gill Heart and Vascular Institute Cardiovascular Research Day, University of Kentucky Saha Cardiovascular Research Center, Lexington, Kentucky, October 28, 2022.

Samantha Xu, MPH – ATVB Travel Grant for Early Career Investigators. Xu S, Li Y, Zhang C, Vasquez HG, Rebello K, Coselli JS, Milewicz D, Daugherty A, **LeMaire S**, Shen YH. Transcriptomic profile of macrophage-mediated energy metabolism in sporadic aortic aneurysms and acute dissections. Vascular Discovery: From Genes to Medicine, Boston, Massachusetts, May 13, 2023.

Samantha Xu, MPH – First Place Young Investigator Award. Xu S, Li Y, Zhang C, Vasquez HG, Rebello K, Coselli JS, Milewicz D, Daugherty A, **LeMaire S**, Shen YH. Transcriptomic profile of macrophage-mediated energy metabolism in sporadic aortic aneurysms and acute dissections. Chinese American Academy of Cardiology Symposium, Boston, Massachusetts, May 13, 2023.

Samantha Xu, MPH – Best Quick Shot Presentation by a Resident or Fellow. Xu S, Li Y, Zhang C, Vasquez HG, Rebello KR, Coselli JS, Milewicz DM, Shen YH, **LeMaire SA**. Energy metabolism dynamics in sporadic aortic aneurysms and acute dissections. The 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, June 10, 2023.

Chen Zhang, MD – Deneys Van Der Westhuyzen 1st Place Best Graduate Student Poster Presentation Award. Zhang C, Vela DC, Devkota L, Li Y, Xu S, Zhang L, Chakraborty A, Li Y, Rebello KR, Vasquez HG, Ghaghada KB, Daugherty A, Milewicz DM, **LeMaire SA**, Shen YH. Critical role of endothelial injury in the initiation of aortic dissection. The 25th University of Kentucky Cardiovascular Research Day, Lexington, Kentucky, October 20, 2023.

Samantha Xu, MPH – 1st Place Best Medical Student Poster Presentation Award. Xu S, Li Y, Zhang C, Vasquez HG, Rebello K, Coselli JS, Lu HS, Daugherty A, Milewicz D, **LeMaire S**, Shen YH. Shifts in glycolytic phenotype in smooth muscle cells of sporadic aortic aneurysms and acute dissections. The 25th University of Kentucky Cardiovascular Research Day, Lexington, Kentucky, October 20, 2023.

Visiting Professorships, Named Lectureships, and Keynote Addresses:

Visiting Professor, Gill Heart Institute, University of Kentucky, Lexington, Kentucky, January 7, 2005

Visiting Professor, Division of Vascular Surgery, Northwestern University Feinberg School of Medicine, Chicago, Illinois, August 29, 2005

Keynote Address, The 39th Annual Midwest Student Biomedical Research Forum, Omaha, Nebraska, March 1, 2008

Visiting Professor, The Younger Fellows Committee of the Royal Australasian College of Surgeons, Hong Kong, China, May 2008 (supported via the Inaugural Association of Academic Surgery International Visiting Professorship Award)

The William J. Pokorny Surgical Science Lectureship. Presented at the Annual Meeting of the American College of Surgeons South Texas Chapter, Houston, Texas, February 20, 2009

Keynote Speaker, The Perfusion Downunder Winter Meeting, Hayman Island, Australia, August 4-7, 2011

Association for Academic Surgery Presidential Address: Toward self-actualization in academic surgery. Presented at the 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 15, 2012

Distinguished Invited Speaker, The 81st Annual Scientific Congress of the Royal Australasian College of Surgeons, Cardiothoracic Surgery Section, Kuala Lumpur, Malaysia, May 7-10, 2012

Visiting Professor, Department of Surgery, Stony Brook University School of Medicine, April 16, 2013

Keynote Speaker, American Association for Thoracic Surgery Cardiac Surgery Biology Club, Toronto, Canada, April 26, 2014

Medical Board International Visiting Professor, Royal Prince Alfred Hospital, Sydney, Australia, September 3-5, 2015

Visiting Professor, Department of Surgery, University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin, February 10-11, 2016

Lester R. Dragstedt Visiting Professorship, University of Florida Department of Surgery, Gainesville, Florida, April 11-12, 2017

Distinguished Lecturer, Creighton University School of Medicine, Omaha, Nebraska, September 19-20, 2017

Sluscher Visiting Professor, Oregon Health & Science University Knight Cardiovascular Institute, Portland, Oregon, December 7, 2017

Visiting Professor, Saha Cardiovascular Research Center, University of Kentucky, Lexington, Kentucky, February 8-9, 2018

Dana and Albert "Cubby" Broccoli Lecturer in Aortic Disease, The Johns Hopkins Department of Surgery, Baltimore, Maryland, November 14-15, 2018

Visiting Professor, University of Alabama Department of Surgery, Birmingham, Alabama, May 20-21, 2019

Invited Guest Speaker, San Joaquin General Hospital and California Northstate University Research Day, French Camp, California, June 28, 2019

Abramson Visiting Professor, Department of Surgery at Louisiana State University Health Shreveport, Shreveport, Louisiana, December 2-3, 2019

Visiting Professor, Department of Molecular Pharmacology and Physiology, University of South Florida Morsani College of Medicine, Tampa, Florida, February 27-28, 2020.

Visiting Professor [virtual], Department of Surgery, Albert Einstein College of Medicine-Montefiore Medical Center, Bronx, New York, January 15, 2021.

Kickoff Lecturer at the 18th Association for Academic Surgery Early Career Development Course, San Diego, California, October 14, 2022.

Invited Guest Speaker, Department of Surgery 19th Annual Research Day, University of Buffalo Jacobs School of Medicine and Biomedical Science, Buffalo, New York, May 18, 2023.

Postdoctoral Training:

Cardiac Surgery Postgraduate Course, 82nd Annual Clinical Congress of the American College of Surgeons, San Francisco, California, October 7-10, 1996

Medtronic Cardiac Surgery Residents Program, Orlando, Florida, February 5-7, 1998

Symposium on Developing the Academic Surgeon, 79th Annual Meeting of the American Association for Thoracic Surgery, New Orleans, Louisiana, April 17, 1999

Symposium on Adult Cardiac Surgery, 79th Annual Meeting of the American Association for Thoracic Surgery, New Orleans, Louisiana, April 18, 1999

Baxter Cardiac Residents Program, Newport Beach, California, October 14-16, 1999

St. Jude Medical Toronto SPV Valve Symposium, St. Louis, Missouri, January 21-22, 2000

American College of Surgeons Young Surgical Investigators Conference, Chantilly, Virginia, March 11-13, 2000

34th Annual Postgraduate Program, 37th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, Louisiana, January 28, 2001

American College of Surgeons Clinical Trials Methods Course, Chicago, Illinois, December 6-11, 2001

International Society of Cardio-Thoracic Surgeons Postgraduate Course: Troubleshooting for Stents in Thoracic and Cardio-Vascular Surgery, Lucerne, Switzerland, March 3, 2002

American College of Surgeons Young Surgical Investigators Conference, Leesburg, Virginia, March 8-10, 2002

R&D Systems Inc. ELISA/ELISpot Workshop, Minneapolis, Minnesota, September 10-12, 2003

Symposium on Aortic Valve Sparing Surgery, Charlotte, North Carolina, September 26, 2003

Thoracoscopic Sympathectomy Course for the Treatment of Hyperhidrosis, Dallas, Texas, December 5, 2003

Gordon Research Conference on Elastin and Elastic Fibers, Waterville Valley, New Hampshire, July 31-August 5, 2005

Clinical Scientist Training Program, Baylor College of Medicine, Houston, Texas, 2005-2007

- Fundamentals of Clinical Investigation, Baylor College of Medicine, July 2005
- Clinical Investigation for the Career Scientist, Baylor College of Medicine, Fall 2005-Spring 2006
- Seminar Series, Baylor College of Medicine, Fall 2005-Spring 2006

- Intermediate Biometrics I, University of Texas School of Public Health, Fall 2005
- Intermediate Biostatistical Methods II, University of Texas School of Public Health, Spring 2006
- Extracellular Matrix, Rice University, Spring 2006
- Molecular Methods, Graduate School of Biomedical Sciences at Baylor College of Medicine, Term 1, 2006
- Introduction to Immunology, Graduate School of Biomedical Sciences at Baylor College of Medicine, Term 2, 2006
- Gene Regulation, Graduate School of Biomedical Sciences at Baylor College of Medicine, Term 3, 2007
- Human Genetics, Graduate School of Biomedical Sciences at Baylor College of Medicine, Term 4, 2007

Presenting Data and Information, Houston, Texas, January 31, 2006.

GORE TAG Thoracic Endoprosthesis Clinical Training Program, Pittsburgh, Pennsylvania, February 2-3, 2006

NHLBI Genomics and Proteomics Hands-On Workshop, Denver, Colorado, July 8-17, 2009

The 9th Annual International Nuss Pectus Excavatum and Carinatum Lecture Series, Children's Hospital of the King's Daughters, Norfolk, Virginia, June 23-24, 2011

The 11th Annual International Nuss Thoracic Deformity Lecture Series, Children's Hospital of the King's Daughters, Norfolk, Virginia, March 21, 2013

American Association for Thoracic Surgery Leadership Academy, Minneapolis, Minnesota, May 2, 2013

Leadership Program in Health Policy and Management, The Brandeis University Heller School for Social Policy and Management, Waltham, Massachusetts, June 9-15, 2013

Critical Appraisal Skills Programme: Introduction to Critical Appraisal and Train the Trainer Workshop, Kellogg College, University of Oxford, Oxford, UK, November 27-29, 2013

American College of Surgeons Surgeons as Leaders: From Operating Room to Boardroom, Chicago, Illinois, June 7-10, 2015

American Heart Association Research Leaders Academy, Salt Lake City, Utah, August 13-15, 2018

Leading Healthcare Quality and Safety, The George Washington University, online 5-week course through Coursera, April-May 2020

American Association of Medical Colleges Leadership and Management Foundations for Academic Medicine and Science Seminar, Washington, DC, March 27-29, 2024

Professional Society Membership, Service, and Leadership:

Michael E. DeBakey International Surgical Society, 1994-present

- Program Committee, 2000
- Treasurer, Local Arrangements Committee, 2000
- Chair, Abstract Subcommittee, Joint Session of the 6th Current Trends in Cardiothoracic Surgery Conference and the 17th Congress of the Michael E. DeBakey International Surgical Society, 2007-2008

- Planning Committee, First Joint Session of the Denton A. Cooley Cardiovascular Surgical Society and the Michael E. DeBakey International Surgical Society, 2010
- Planning Committee, Second Joint Session of the Michael E. DeBakey International Surgical Society and the Denton A. Cooley Cardiovascular Surgical Society, 2012
- Program Organizer, Planning Committee, Michael E. DeBakey Department of Surgery Alumni Symposium/20th Congress of the International Surgical Society, 2013-2014
- Board of Directors, 2014-2022
- Planning Committee, 21st Congress of the Michael E. DeBakey International Surgical Society, 2016
- Program Committee, 22st Congress of the Michael E. DeBakey International Surgical Society, 2017
- Program Committee and Scientific Program Chair, Michael E. DeBakey Department of Surgery Alumni Symposium and 23rd Congress of the Michael E. DeBakey International Surgical Society, 2021
- Vice President, 2018-2022
- President, 2023

American College of Surgeons

- Candidate Group, 1996-1999
- Associate Fellow, 1999-2002
- Fellow, 2002-present
- Surgery Journal Editors Group, 2015-present [Co-chair, 2019-2020]

The Marfan Foundation (formerly National Marfan Foundation), 1997-present

- Clinical Council, 2009-present
- Scientific Advisory Board, 2016-present

Society of Thoracic Surgeons

- Candidate Member, 1999-2004
- Active Member, 2004-present
- Workforce on Research and Clinical Trials, 2010-2011
- Looking to the Future Mentor, 2015-2017
- Perfusion Guidelines Workgroup, 2014-2022
- Faculty and Trainee Mentor, STS Mentorship Program, 2021
- Task Force on Evidence Based Adult Cardiac Surgery, 2022-2025
- Membership Committee, 2023-2026

Candidate and Associate Society of the American College of Surgeons, 1999-2002

American Medical Association, 2000-2010

Texas Medical Association, 2000-2010

Harris County Medical Society, 2000-2010

American Heart Association

- Council on Cardiovascular Surgery and Anesthesia, 2000-present
- Council on Arteriosclerosis, Thrombosis, and Vascular Biology, 2004-present
- Fellow, 2006-present
- Scientific Sessions abstract grader, 2008
- Council on Functional Genomics and Translational Biology, 2010-2017
- Silver Heart Member, 2014-present

European Association for Cardio-Thoracic Surgery

- Junior Member, 2000-2004

- International Member, 2004-2023

International Society for Applied Cardiovascular Biology, 2001-2020

Association for Academic Surgery, 2001-present

- Program Committee, 2001-2003
- Local Arrangements Planning Committee, 2003-2004
- Committee on Issues, 2004-2006 [Chair, 2005-2006]
- Career Development Task Force, 2005
- Executive Council, 2005-2006, 2007-2015
- Leadership Committee, 2006-2008 [Co-chair, 2007-2008]
- Audit Committee, 2007
- Secretary, 2008-2010
- Nominating Committee, 2008-2012 [Chair, 2011-2012]
- AAS Foundation Board of Directors, 2008-2010 & 2011-2012
- AAS/Royal Australasian College of Surgeons Course Task Force, 2009-2010 [Chair]
- Academic Surgical Congress Core Committee, 2010-2012
- President-Elect, 2010-2011
- President, 2011-2012
- Italian Course Task Force, 2012-2013
- Senior Member Advisory Task Force, 2013-2015
- Senior Member Council, 2015-2019
- Publications Committee (ex officio), 2016-2017
- The SECOND Trial Mentorship Network, 2021-2023

Society of Critical Care Medicine, Surgical Section, 2002-2010

- Research Committee, 2004-2010
- Abstract reviewer, 37th Critical Care Congress, 2007

South Texas Chapter of the American College of Surgeons, 2002-2023

North American Vascular Biology Organization, 2002-2020

Foundation for Aneurysm Rupture Research, 2003-2009

- Scientific Advisory Committee, 2003-2009

Houston Surgical Society, 2003-2012

Southern Thoracic Surgical Association, 2003-present

- Program Committee, 2011-2013, 2018-2023 [Co-chair, 2013]
- Continuing Medical Education Committee, 2013, 2016-2023 [Chair, 2018-2023]
- Postgraduate Committee, 2014-2016, 2018-2022 [Co-chair, 2016]
- Director, Continuing Medical Education, 2018-2023
- Clifford van Meter Award Committee for Best Adult Cardiac Paper, 2018-present
- Hawley H. Seiler Award Committee for Best Resident Paper, 2018-present
- Diversity and Inclusion Task Force, 2020-2022
- Brooks Scholar Mentor, 2021
- Diversity Scholar Mentor, 2021
- Diversity and Inclusion Committee, 2022-present
- Second Vice President, 2023-2024

Texas Surgical Society

- Active Fellow, 2004-2021
- Local Arrangements Chair, Fall Meeting, 2013
- Councilor, 2018-2020 [Council Chair, 2020]

- Senior Fellow, 2021-present
- President-Elect, 2023
- President, 2024

American College of Chest Physicians

- Member, 2005-2023
- Fellow, 2005-2023

American Society for Matrix Biology, 2005-2020

Society of University Surgeons

- Active Member, 2006-2020
- Audit Committee, 2008, 2010
- Nominating Committee, 2017, 2022
- Senior Member, 2020-present

Society for Vascular Surgery, 2006-present

American Association for Thoracic Surgery, 2007-present

- Cardiac Surgery Biology Club, 2010-present
- Ad Hoc Reviewer, Abstract Committee, 2013-2014
- Adult Cardiac Chair, American Association for Thoracic Surgery Annual Meeting Video Committee, 2014-2016
- Mentor, AATS Member for a Day Program, 2015
- Endocarditis Guidelines Writing Group, 2015-2017
- Education Committee, 2016-2019
- Connective Tissue Disorders and Thoracic Aorta Surgery Guidelines Writing Group, 2016-2017
- Publications Committee, 2017-2019
- Annual Meeting Abstract Reviewer, 2018-2024
- Peer Reviewer for multi-society expert consensus document, "Expert Consensus Recommendations on 18F-FDG PET-CT and Radiolabeled Leukocyte SPECT-CT Imaging for the Evaluation of Cardiovascular Infection in the Multimodality Context"
- Ad Hoc Reviewer, Cardiac Surgical Resident Investigator Awards, 2023-2024

Denton A. Cooley Cardiovascular Surgical Society, 2009-present

- Program Co-director, 2009
- Planning Committee, First Joint Session of the Denton A. Cooley Cardiovascular Surgical Society and the Michael E. DeBakey International Surgical Society, 2010
- Planning Committee, Second Joint Session of the Michael E. DeBakey International Surgical Society and the Denton A. Cooley Cardiovascular Surgical Society, 2012

Cooley Hands, Honorary Member, 2010-present

Surgical Outcomes Club, 2011-2023

Thoracic Surgery Foundation (formerly Thoracic Surgery Foundation for Research and Education)

- Grant Review Panel, 2013
- Research and Education Committee, 2014-2018 [Chair, 2016-2018]
- Board of Directors, 2019-2025
- Finance Committee, 2019-2023
- Executive Committee, 2021-2023
- Secretary, 2021-2023

The John Ritter Foundation for Aortic Health

- Professional Advisory Board, 2013-2015

Surgery Biology Club II, 2015-present

National Organization for Aortic Awareness

- Advisory Board, 2015-2018

American Surgical Association, Fellow, 2016-present

- Contributing Reviewer, Task Force on Equity, Diversity, and Inclusion, 2018

Cochrane Collaboration, Member, 2018

Society of Asian Academic Surgeons, Member, 2018-present

Thoracic Surgery Directors Association

- Early Specialization Committee, 2022-2024

Extramural Grants and Awards Peer Review:

Singapore Biomedical Research Council

- Ad Hoc Reviewer, Agency for Science, Technology & Research, 2002

Society of Critical Care Medicine

- Patient Safety Grant Review Group, 2004
- Pharmacy Fellowship Grant Task Force, 2004-2007
- Joe Dasta Critical Care Research Grant Task Force, 2004-2007
- Vision Grant Review Group, 2005-2010

American Heart Association

- Member, Bioengineering/Biotechnology Peer Review Study Section, 2006-2009
- Co-chair, Bioengineering/Biotechnology Peer Review Study Section, 2008
- Chair, Bioengineering/Biotechnology Peer Review Study Section, 2009
- Member, Surgery Basic Science Peer Review Study Section, 2013-2016
- Co-chair, Surgery Basic Science Peer Review Study Section, 2013-2015
- Ad hoc member, Collaborative Science Award LOI Committee, 2014-2015
- Chair, Surgery Basic Science Peer Review Study Section, 2016
- Ad hoc member, Collaborative Science Award LOI Committee, 2023

National Institutes of Health

- Member, NIH Center for Scientific Review Special Emphasis Panel, Small Business Cardiovascular Devices (ZRG1 SBTSE/SBIB), 2006-2015 [Alternate chair, 2014]
- Ad Hoc Reviewer, NIH Bioengineering, Technology and Surgical Sciences (BTSS) Study Section, 2008
- Ad Hoc Reviewer, NIDDK Special Emphasis Panel, Translation of Common Disease Genetics into Clinical Applications (ZDK1 GRB-G), 2009
- Ad Hoc Reviewer, Challenge Grants Panel (ZRG1 SBIB-V), 2009
- Ad Hoc Reviewer, BTSS/SBTS Member Conflict Study Section, 2009
- Ad Hoc Reviewer, Clinical and Integrative Cardiovascular Sciences Study Section, 2010
- Ad Hoc Reviewer, NHLBI Program Project Grant Special Emphasis Panel Review, Therapeutic Target for Aortic Aneurysm, 2016-2017
- Mail Reviewer, Kidney Molecular Biology and Genitourinary Development (KMBD) Study Section, 2016
- Ad Hoc Reviewer, NHLBI Outstanding Investigator Award (R35) Study Section, 2017

- Ad Hoc Reviewer, NHLBI Special Emphasis Panel, Institutional Training Grants (ZHL1 CSR-P [O1]), 2019
- Ad Hoc Reviewer, CSR Special Emphasis Panel, Fellowships: Physiology and Pathobiology of the Vascular and Hematological Systems (ZRG1 F10C-A 20 L), 2019
- Ad Hoc Reviewer, Atherosclerosis and Inflammation of the Cardiovascular System Study Section (2020/10 AICS), 2020
- Ad Hoc Reviewer, Special Emphasis Panel/Scientific Review Group: NHLBI Conference Grants - R13 (2022/01 ZHL1 CSR-I [F1] 2), 2021
- Ad Hoc Reviewer, Special Emphasis Panel/Scientific Review Group: NHLBI Conference Grants - R13 (ZHL1 CSR-L [O2]), 2022
- Ad Hoc Reviewer, Bioengineering, Technology and Surgical Sciences Study (BTSS) Section, 2022-2023
- Member, Bioengineering, Technology and Surgical Sciences Study (BTSS) Section, 2024-2028

Australian Heart Foundation

- Ad Hoc Reviewer, 2007

Association for Academic Surgery

- International Visiting Professorship Awards Selection Committee, 2008-2014
- Student Research Awards Selection Committee, 2008-2015 [Chair, 2010]
- Student Travel Award Selection Committee, 2008-2015 [Chair, 2010]
- Joel J. Roslyn, MD, Faculty Research Award Selection Committee, 2010-2015 [Chair, 2010]
- AAS Foundation Research Fellowship Award Selection Committee, 2010-2015 [Chair, 2010]

National Student Research Forum

- Manuscript Review Panel, 2008, 2012, 2014
- Faculty Judge, 2009-2011, 2016

Scottish Government Chief Scientist Office

- Ad Hoc Reviewer, Experimental and Translational Medicine Research Committee, 2010

Thoracic Surgery Foundation (formerly Thoracic Surgery Foundation for Research and Education)

- Grant Review Panel, 2013
- Research and Education Committee, 2014-2018 [Chair, 2016-2018]

Austrian Science Fund

- Ad Hoc Reviewer, 2013

The Prince Charles Hospital Foundation (Queensland, Australia)

- Ad Hoc Reviewer, 2014

Department of Veterans Affairs

- Ad Hoc Reviewer, Merit Review Cardiology B Panel (CARB; vascular disease), 2014-2015
- Subject Matter Expert Reviewer, VA Cooperative Studies Program, 2020

National Institute of Academic Anaesthesia (UK)

- Ad Hoc Reviewer, 2015

MUI-START Program, Innsbruck Medical University (Austria)

- Ad Hoc Reviewer, 2015

Scientific Judge, Elsevier Surgical Specialties Innovation Challenge, 2015

The Marfan Foundation, Scientific Advisory Board, 2016-present

Health Research Council of New Zealand

- External Reviewer, 2016, 2018

German Federal Ministry for Education and Research

- External Reviewer, 2018

University of Nebraska Collaboration Initiative

- External Reviewer, 2021

American Association for Thoracic Surgery

- Ad Hoc Reviewer, Cardiac Surgical Resident Investigator Awards, 2023

Journal Editorial Leadership and Peer Review:

Editorial Board, Journal of Surgical Research, 2005-2010

Guest Section Editor, Texas Heart Institute Journal, 2009

Guest Editor, Thoracoabdominal Aortic Aneurysm Repair Issue, Annals of Cardiothoracic Surgery, 2012

Associate Editor, Annals of Cardiothoracic Surgery, 2012-2015

Editorial Board, AORTA, 2012-present

Guest Co-editor, Proceedings of the Aortic Symposium 2014, The Journal of Thoracic and Cardiovascular Surgery (J Thorac Cardiovasc Surg 2015;149:2S:S1-S183)

Editorial Board, Annals of Thoracic Surgery, 2015-present

Co-Editor-in-Chief, Journal of Surgical Research, 2015

Editor-in-Chief, Journal of Surgical Research, 2016-present

Appointed member, NIH National Library of Medicine Literature Selection Technical Review Committee, 2016-2021 [Chair, 2020-2021]

Editorial Board, Shanghai Chest, 2018-2020

Co-chair, Surgery Journal Editors Group, American College of Surgeons, 2019-2020

Guest Associate Editor, Journal of the American College of Cardiology, 2020, 2022

Invited Journal Reviews:

- American Journal of Hypertension
- American Journal of Medical Genetics
- The Anatomical Record
- Angiology
- Annals of Surgery

- Annals of Thoracic Surgery
- AORTA
- Arteriosclerosis, Thrombosis, and Vascular Biology
- Artificial Organs
- Asia-Pacific Journal of Cardiology
- Cardiovascular Revascularization Medicine
- Circulation
- Circulation Research
- Clinical and Applied Thrombosis/Hemostasis
- Cochrane Vascular
- Critical Care Medicine
- Cytokine
- Drug Safety
- European Journal of Cardio-thoracic Surgery
- European Journal of Clinical Investigation
- European Journal of Echocardiography
- European Surgical Research
- Frontiers in Physiology
- Future Cardiology
- Heart International
- Heart Surgery Forum
- Heart and Vessels
- International Journal of Biomedical Science
- Interventional Cardiology
- JAMA Surgery
- JCI Insight
- Journal of the American College of Cardiology
- Journal of the American College of Surgeons
- Journal of Cardiothoracic Surgery
- Journal of Cardiovascular Surgery
- Journal of Endovascular Therapy
- Journal of Heart Valve Disease
- Journal of Pediatric Intensive Care
- Journal of Surgical Oncology
- Journal of Surgical Research
- Journal of Thoracic and Cardiovascular Surgery
- Journal of Thoracic and Cardiovascular Surgery Open
- Journal of Vascular Surgery
- Laboratory Investigation
- Medical Science Monitor
- Molecular Biology Reports
- Nature Reviews Cardiology
- Oncotarget
- Pediatric Pulmonology
- PLOS ONE
- Scientific Reports
- Scientific Research and Essays
- Surgery
- Texas Heart Institute Journal
- Tohoku Journal of Experimental Medicine

Grants:

1. Grant: Northwestern University Medical School Cellular and Molecular Neuroscience Medical Student Summer Training Program Grant

- Study: The role of mast cells in experimental allergic encephalomyelitis
 Role: Research Assistant
 Preceptor: Philip Y. Paterson, MD
 Period: Summer 1989
2. Grant: National Marfan Foundation Research Grant
 Study: Aortic gene therapy: in vivo gene transfer into the aortic root during cardiopulmonary bypass
 Role: Principal Investigator
 Period: 2000-2001
 Amount: \$10,000
 3. Grant: American Heart Association Texas Affiliate Grant-In-Aid
 Study: HIV-based regulable vectors for gene transfer in a rabbit model of hindlimb ischemia
 Role: Co-investigator (R. Sutton, PI)
 Period: 2001-2003
 Amount: \$124,000
 4. Grant: Baylor College of Medicine Junior Faculty Seed Funding Competition (Funded by the Gillson Longenbaugh Foundation)
 Study: Comparing cold blood to cold crystalloid renal perfusion
 Role: Principal Investigator
 Period: September 2002-September 2003
 Amount: \$25,000
 5. Grant: The Methodist Hospital Foundation Grant
 Study: Matrix metalloproteinases in thoracic aortic dissection
 Role: Principal Investigator
 Period: January 2003-December 2004
 Amount: \$60,000
 6. Grant: Baylor College of Medicine General Clinical Research Center Medical Student Research Fellowship
 Study: Matrix metalloproteinases in thoracic aortic dissection
 Role: Principal Investigator & Faculty Supervisor (J. Wilks, Student Grant Recipient)
 Period: July 2003-June 2004
 Amount: \$20,000 (stipend support)
 7. Grant: American Medical Association Foundation Seed Grant Research Program
 Study: Topographic matrix metalloproteinase expression in thoracic aortic aneurysms
 Role: Faculty Supervisor (J. Wilks, Student Grant Recipient)
 Period: 2004
 Amount: \$2,500
 8. Grant: Baylor College of Medicine General Clinical Research Center Medical Student Research Fellowship
 Study: Matrix metalloproteinases in thoracic aortic dissection
 Role: Principal Investigator & Faculty Supervisor (H. Bartsch, Student Grant Recipient)
 Period: July 2004-June 2005
 Amount: \$20,000 (stipend support)

9. Grant: Alpha Omega Alpha Carolyn L. Kuckein Student Research Fellowship
 Study: The effect of matrix metalloproteinase-9 on vascular smooth muscle cell apoptosis
 Role: Co-investigator (H. Bartsch, Student Grant Recipient; X.L. Wang, PI)
 Period: 2005
 Amount: \$4,500

10. Grant: American Medical Association Foundation Seed Grant Research Program
 Study: The effect of matrix metalloproteinase-9 on vascular smooth muscle cell apoptosis
 Role: Co-investigator (H. Bartsch, Student Grant Recipient; X.L. Wang, PI)
 Period: 2005
 Amount: \$2,500

11. Grant: NIH/NHLBI – K08 HL080085
 Study: Matrix metalloproteinases in thoracic aortic dissection
 Role: Principal Investigator
 Period: May 2005-March 2010
 Amount: \$681,750

12. Grant: Thoracic Surgery Foundation for Research and Education/National Heart, Lung, and Blood Institute Co-sponsored Mentored Clinical Scientist Development Award (HL080085)
 Study: Matrix metalloproteinases in thoracic aortic dissection
 Role: Principal Investigator
 Period: May 2005-March 2010
 Amount: \$375,000

13. Grant: National Marfan Foundation Target Grant
 Study: Aortic valve operative outcomes in Marfan patients
 Sponsor: National Marfan Foundation
 Role: Co-investigator and Publications Committee Member (J. Coselli, PI)
 Period: 2005-2009
 Amount: \$413,369

14. Grant: St. Luke's Episcopal Hospital Roderick Duncan MacDonald Research Fund Award (05RMD010)
 Study: The role of matrix metalloproteinases in aortic manifestations of Marfan syndrome
 Role: Principal Investigator
 Period: 2006-2007
 Amount: \$50,000

15. Grant: NIH Specialized Center of Clinically Oriented Research (SCCOR) Award (P50 HL083794)
 Study: Thoracic aortic aneurysms and dissections: genetics of thoracic aortic aneurysms and dissection (Project 5)
 Sponsor: NIH (NHLBI)
 Role: Project Principal Investigator (D. Milewicz, SCCOR PI)
 Period: May 2006-April 2011
 Amount: \$1,929,026

16. Grant: NIH Specialized Center of Clinically Oriented Research (SCCOR) Award (P50 HL083794)
 Core: Thoracic aortic aneurysms and dissections: tissue banking core (Core C)
 Sponsor: NIH (NHLBI)
 Role: Principal Investigator, Baylor Core (D. Guo, PI, University of Texas Health Science Center at Houston Core; D. Milewicz, SCCOR PI)
 Period: May 2006-April 2011
 Amount: \$184,481
17. Grant: NIH HHSN268200648199C and NHLBI-HV-05-09
 Study: National registry of genetically triggered thoracic aortic aneurysms and other cardiovascular conditions (GenTAC)
 Role: Principal Investigator, Baylor subcontract and Steering Committee Member (B. Kroner, PI)
 Period: 2006-2010
 Amount: \$142,639
19. Grant: St. Luke's Episcopal Hospital Roderick Duncan MacDonald Research Fund Award
 Study: The role of adventitial myofibroblasts in aortic aneurysms and dissection
 Role: Co-investigator (X.L. Wang, PI)
 Period: 2007
 Amount: \$50,000
20. Grant: St. Luke's Episcopal Hospital Roderick Duncan MacDonald Research Fund Award (07RDM011)
 Study: Late outcomes after aortic root replacement using porcine bioroots
 Role: Co-investigator (J.S. Coselli, PI)
 Period: 2007-2009
 Amount: \$50,000
21. Grant: NIH/NHLBI – R01 HL085341-01
 Study: Extracellular matrix metabolism in thoracic aortic aneurysm and dissection
 Role: Principal Investigator (Co-PI with J. Coselli, 2008-2010)
 Period: 2008-2013
 Amount: \$1,535,000
22. Grant: NIH/NHLBI – RC1 HL100608-01
 Study: Microfibril Fragments: Biomarkers of Aortic Disease
 Role: Principal Investigator, Baylor subcontract (L. Sakai, PI)
 Period: 2009-2011
 Amount: \$101,829
23. Grant: NIH HHSN268201000048C and NHLBI-N01-HV-08238
 Study: National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions (GenTAC)
 Role: Clinical Center PI (BCM) & Steering Committee Member (B. Kroner, PI)
 Period: 2010-2016
 Amount: \$1,097,597
24. Grant: NIH T32HL007676
 Study: Molecular Physiology of the Cardiovascular System

- Role: Faculty/Mentor (S. Hamilton, PD)
 Period: 2011-present
 Amount: \$89,019
25. Grant: St. Luke's Episcopal Hospital Roderick Duncan MacDonald Research Fund Award (12RDM001)
 Study: AKT Signaling-Mediated Inhibition of Aortic Destruction
 Role: Principal Investigator
 Period: 2012-2013
 Amount: \$50,000
26. Grant: BCM Cardiovascular Research Institute Pilot Award
 Study: Validation of a new imaging biomarker to predict adverse cardiovascular events in connective tissue disorders
 Role: Co-investigator (S. Morris, PI)
 Period: 2013
 Amount: \$30,000
27. Grant: St. Luke's Episcopal Hospital Roderick Duncan MacDonald Research Fund Award (13RDM006)
 Study: Blockade of NLRP3 inflammasome attenuates aortic aneurysm and dissection formation
 Role: Co-investigator (J. Coselli, PI)
 Period: 2013-2014
 Amount: \$50,000
28. Grant: Howard Hughes Medical Institute Medical Research Fellows Program
 Study: Targeting ADAMTS-4 for the treatment of aortic aneurysms and dissections
 Role: Faculty mentor (M. Hughes, Student Grant Recipient)
 Period: 2014-2015
 Amount: \$40,000
29. Grant: St. Luke's Episcopal Hospital Roderick Duncan MacDonald Research Fund Award (14RDM002)
 Study: Role of the NLRP3 inflammasome in vascular smooth muscle cell phenotypic switch in aortic aneurysms and dissections
 Role: Principal Investigator
 Period: 2014-2015
 Amount: \$40,000
30. Grant: American Heart Association Predoctoral Fellowship (14PRE20480143)
 Study: Targeting ADAMTS-4 for the treatment of aortic aneurysms and dissections
 Role: Faculty Co-sponsor (M. Hughes, Student Grant Recipient; Sponsor: D. Milewicz)
 Period: 2014-2015
 Amount: \$25,000 (declined)
31. Grant: BCM Cardiovascular Research Institute Pilot Award
 Study: Auto-reactive T cells in smokers with thoracic aortic aneurysm and dissection
 Role: Co-PI (F. Kharadmand, PI)
 Period: 2014-2015
 Amount: \$25,000

32. Grant: American Heart Association Grant-in-Aid (15GRNT23040007)
Study: Destructive role of ADAMTS-4 in aortic aneurysms and dissections
Role: Co-investigator (Y. Shen, PI)
Period: 2015-2017
Amount: \$140,000
33. Grant: NIH/NHLBI Mentored Patient-Oriented Research Career Development Award (K23-HL127266)
Study: Evaluation of a novel imaging biomarker in children and young adults with aortopathy
Role: Advisor (S. Morris, PI)
Period: 2015-2020
34. Grant: NIH/NHLBI High Priority, Short-Term Project Award (R56-HL127111)
Study: Targeting the inflammasome to prevent thoracic aortic aneurysms and dissections
Role: Principal Investigator
Period: 2015-2016
Amount: \$396,250
35. Grant: NIH/NHLBI R01 (R01-HL127111)
Study: Targeting the inflammasome to prevent thoracic aortic aneurysms and dissections
Role: Principal Investigator
Period: 2016-2020
Amount: \$1,585,000
36. Grant: NIH/NHLBI R01 (R01-HL131980)
Study: Targeting ER stress to treat aortic aneurysms and dissections
Role: Co-principal Investigator (Y. Shen, Co-PI)
Period: 2016-2020
Amount: \$1,585,000
37. Grant: American Heart Association Postdoctoral Fellowship (17POST33410763)
Study: Targeting the infammasome to prevent ascending thoracic aortic aneurysms and dissection
Role: Faculty Sponsor (P. Ren, Fellowship Grant Recipient)
Period: 2017-2019
Amount: \$102,550 (declined)
38. Grant: NIH/NHLBI R01 Diversity Supplement (R01-HL131980-01S1)
Study: Targeting ER stress to treat aortic aneurysms and dissections
Role: Co-principal Investigator (Y. Shen, Co-PI; C. Guardado, Predoctoral Grant Recipient)
Period: 2017-2018
Amount: \$74,007
39. Grant: St. Luke's Medical Center Roderick Duncan MacDonald Research Fund Award (17RDM004)
Study: Effects of Ciprofloxacin use on the susceptibility to aortic aneurysm and dissection
Role: Co-principal Investigator (Y. Shen, Co-PI)
Period: 2017-2018
Amount: \$45,000

40. Grant: American Heart Association Strategically Focused Vascular Disease Research Network (18SFRN33960114)
 Study: University of Kentucky-Baylor College of Medicine Aortopathy Research Center: Molecular signature of sex chromosome genes associated with sex-dependent susceptibility to ascending aortic aneurysms (Project 3)
 Role: Project Principal Investigator (A. Daugherty, Program Director)
 Period: 2018-2023
 Amount: \$1,042,800
41. Grant: St. Luke's Medical Center Roderick Duncan MacDonald Research Fund Award (18RDM001)
 Study: Potential effects of ciprofloxacin use on the susceptibility to aortic aneurysm and dissection development in Marfan syndrome
 Role: Co-investigator (Y. Shen, PI)
 Period: 2018-2019
 Amount: \$30,000
42. Grant: NIH/NHLBI T32 (T32-HL139430)
 Program: Research training program in cardiovascular surgery
 Role: Co-director (T. Rosengart, Program Director)
 Period: 2018-2028
 Amount: \$3,203,169
43. Grant: NIH/NHLBI R01 (R01-HL143359)
 Study: Mitochondrial damage-induced necroptotic cell death in sporadic ascending thoracic aortic aneurysms and dissections
 Role: Co-principal Investigator (Y. Shen, Co-PI)
 Period: 2018-2022
 Amount: \$1,585,000
44. Grant: American Heart Association Collaborative Sciences Award (19CSLOI34660145)
 Study: Early detection of aortic degeneration using nanoparticle contrast-enhanced CT imaging
 Role: Co-principal Investigator (K. Ghaghada and Y. Shen, Co-PIs)
 Period: 2019-2022
 Amount: \$749,956
45. Grant: St. Luke's Medical Center Roderick Duncan MacDonald Research Fund Award (20RDM002)
 Study: Does Ciprofloxacin increase the susceptibility to arterial aneurysm and rupture in vascular Ehlers-Danlos Syndrome?
 Role: Co-investigator (Y. Shen, PI)
 Period: 2022-2023
 Amount: \$47,000
46. Grant: NIH/NHLBI R01 (R01-HL149404)
 Study: Role of RIP3-laden extracellular vesicles in thrombosis and aortic aneurysms
 Role: Co-investigator (B. Liu, PI)
 Period: 2020-2024
 Amount: \$138,868 (BCM subcontract)
47. Grant: The Marfan Foundation Victor A. McKusick Fellowship

- Study: ScRNA-seq reveals crosstalk between SMC-like cells and macrophages in aortic tissues from Marfan syndrome patients
 Role: Faculty Co-mentor (Y. Li, Fellowship Grant Recipient; Y. Shen, Co-mentor)
 Period: 2021-2022
 Amount: \$100,000
48. Grant: NIH/NHLBI R01 (R01-HL158157)
 Study: Pro-inflammatory pyroptotic cell death in aortic degeneration
 Role: Co-principal Investigator (Y. Shen, Co-PI)
 Period: 2021-2025
 Amount: \$2,404,360
49. Grant: BCM Cardiovascular Research Institute Pilot Award
 Study: Lipid Nanoparticles for SMC Gene Silencing in Aortic Aneurysm and Dissection
 Role: Co-principal Investigator (K. Ghaghada and Y. Shen, Co-PIs)
 Period: 2021-2022
 Amount: \$15,000
50. Grant: NIH/NHLBI R01 (R01-HL159988)
 Study: Endothelial Dysfunction in the Development of Aortic Degeneration, Dissection, and Rupture
 Role: Co-principal Investigator (Y. Shen and K. Ghaghada, Co-PIs)
 Period: 2022-2026
 Amount: \$2,591,042
51. Grant: Leducq Foundation for Cardiovascular Research International Networks of Excellence Program (22CVD03)
 Study: Cellular and Molecular Drivers of Acute Aortic Dissections
 Role: Network Site Co-principal Investigator (Y. Shen and K. Ghaghada, Co-PIs; D. Milewicz and T. Suzuki, Program Directors)
 Period: 2023-2027
 Amount: \$1,450,182
52. Grant: The Marfan Foundation Innovator Award
 Study: Prediction of Aortic Dissection and Rupture in Marfan Syndrome Using Nano-Radiomics
 Role: Co-investigator (K. Ghaghada, PI)
 Period: 2023-2025
 Amount: \$100,000
53. Grant: Anonymous Donor
 Study: Aortic Valve Operative Outcomes in Marfan Patients (AVOMP) Multi-Center International Study
 Role: Co-investigator (J. Coselli, PI)
 Period: 2023-2031
 Amount: \$2,214,829
54. Grant: NIH/NHLBI Mentored Clinical Scientist Research Career Development Award (K08-HL165084)
 Study: Towards Precision Medicine for Thoracic Aortic Disease: Defining the Clinical and Genomic Drivers of Bicuspid Aortopathy
 Role: Co-mentor (J. Glotzbach, PI)
 Period: 2023-2028

Research Registry Participation:

1. Registry: Aortic Valve Operative Outcomes in Marfan Patients
 Role: Co-investigator (J. Coselli, PI)
 Sponsor: The Marfan Foundation (formally National Marfan Foundation), Baylor College of Medicine, Stanford University
 Period: 2005-2023
2. Registry: National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions (GenTAC)
 Role: Clinical Center Principal Investigator (BCM) & Steering Committee Member (B. Kroner, PI)
 Sponsor: NIH
 Period: 2006-2016
3. Registry: International Aortic Arch Surgery Study Group (IAASSG) ARCH Projects Database
 Role: Site co-investigator (J. Coselli, Site PI)
 Sponsor: None
 Period: 2013-2023
4. Registry: Montalcino Aortic Consortium (MAC)
 Role: Site co-investigator (S. Morris, Site PI)
 Sponsor: Genetic Aortic Disorders Association Canada, The Temerty Family Foundation
 Period: 2016-2023
5. Registry: International Registry of Acute Aortic Dissection (IRAD)
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: None
 Period: 2017-2023
6. Registry: GenTAC Alliance
 Role: Member, Clinical Science Working Group
 Sponsor: None
 Period: 2018-present

Industry Sponsored Research:

1. Study: BioGlue surgical adhesive efficacy and safety trial as a surgical adjunct in the treatment of type A aortic dissection
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: CryoLife, Inc.
 Period: 1998-2000
2. Study: BioGlue in congenital heart surgery: effects on anastomotic growth, phrenic nerve conduction and sinoatrial node function
 Role: Study Principal Investigator
 Sponsors: CryoLife, Inc.; The Michael E. DeBakey Department of Surgery Seed Fund, Baylor College of Medicine; The Division of Congenital Heart Surgery, Baylor College of Medicine
 Period: 1999-2000

3. Study: Use of near infrared spectroscopy (NIRS) to measure spinal cord oxygenation during ligation of intercostal and lumbar arteries
Role: Study Principal Investigator
Sponsor: Somanetics Corporation (\$3,299)
Period: 1999-2001
4. Study: Clinical study comparing use of the thoracic Excluder endoprosthesis to open surgical repair in the primary treatment of descending thoracic aneurysms
Role: Site co-investigator (J. Coselli, PI)
Sponsor: W.L. Gore & Associates, Inc.
Period: 1999-2001
5. Study: BioGlue surgical adhesive effectiveness and safety trial as a surgical adjunct in cardiac and vascular surgical repairs
Role: Site co-investigator (J. Coselli, PI)
Sponsor: CryoLife, Inc.
Period: 2000
6. Study: Protection of the phrenic nerve and the sinoatrial node from an albumin-glutaraldehyde surgical adhesive (BioGlue)
Role: Study Principal Investigator
Sponsors: CryoLife, Inc.; The Michael E. DeBakey Department of Surgery Seed Fund, Baylor College of Medicine (\$15,628)
Period: 2000-2001
7. Study: Evaluation of surgical adhesive leak through suture-line needle holes in prosthetic grafts
Role: Study Principal Investigator
Sponsors: Vascutek USA, Inc., W.L. Gore & Associates, Inc., and CryoLife, Inc.
Period: 2002-2004
8. Study: An observational, prospective evaluation of the St. Jude Medical Toronto bioprosthesis with Bilinx
Role: Site co-investigator (J. Coselli, PI)
Sponsor: St. Jude Medical, Inc.
Period: 2002-2008
9. Study: Zenith TX2 thoracic TAA endovascular graft clinical trial
Role: Site co-investigator (J. Coselli, PI)
Sponsor: Cook, Inc.
Period: 2004-2014
10. Study: A prospective, observational evaluation of the St. Jude Medical Epic porcine valve
Role: Site co-investigator (D. Cooley, PI)
Sponsor: St. Jude Medical, Inc.
Period: 2005-2008
11. Study: Zenith TX2 TAA endovascular graft continued access study
Role: Site co-investigator (J. Coselli, PI)
Sponsor: Cook, Inc.
Period: 2007-2008
12. Study: Valor II: The Valiant thoracic stent graft system clinical study

- Role: Site co-investigator (J. Coselli, PI)
 Sponsor: Medtronic Vascular, Inc.
 Period: 2008-2011
13. Study: An observational, prospective evaluation of the Trifecta valve
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: St. Jude Medical, Inc.
 Period: 2008-2011
14. Study: Historical mortality rates following treatment of complicated, acute type B aortic dissection (Medtronic dissection trial control arm)
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: Medtronic Vascular, Inc.
 Period: 2009
15. Study: Descending thoracic aortic aneurysm endovascular repair post approval study (THRIVE)
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: Medtronic Vascular, Inc.
 Period: 2009-2017
16. Study: Evaluation of the Gore Conformable TAG® thoracic endoprosthesis for treatment of acute complicated type B aortic dissection
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: W.L. Gore & Associates, Inc.
 Period: 2010-2014
17. Study: Evaluation of the Gore Conformable TAG® thoracic endoprosthesis for the primary treatment of aneurysm of the descending thoracic aorta
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: W.L. Gore & Associates, Inc.
 Period: 2010-2017
18. Study: Evaluation of the clinical performance of the Valiant thoracic stent graft with the Captivia delivery system for the treatment of acute, complicated type B aortic dissections
 Role: Site co-investigator (J. Coselli, PI)
 Sponsor: Medtronic Vascular, Inc.
 Period: 2010-2011
19. Study: Validation of near-infrared spectroscopy for neuromonitoring during moderate hypothermic circulatory arrest for total aortic arch replacement: A comparison of two technologies with jugular venous bulb oximetry
 Role: Study co-investigator (W. Pan, PI)
 Sponsor: Nonin Medical, Inc.
 Period: 2010
20. Study: GSK PPO116097: A Phase II, randomized, placebo-controlled, double-blind (sponsor open) study of GSK 1278863, a HIF-prolyl hydroxylase inhibitor, to reduce ischemic events in patients undergoing thoracic aortic aneurysm repair
 Role: Site sub-investigator (J. Coselli, PI)
 Sponsor: GlaxoSmithKline
 Period: 2013-2015

21. Study: Thoraflex retrospective study: Outcomes after elephant trunk repair of the aortic arch
 Role: Study Principal Investigator
 Sponsor: Vascutek Terumo (\$37,266)
 Period: 2015
22. Study: CytoSorb reduction of free hemoglobin during cardiac surgery (REFRESH)
 Role: Site Co-Principal Investigator (L. Kane, PI)
 Sponsor: CytoSorbents
 Period: 2016-2018
23. Study: Thoraflex hybrid clinical trial
 Role: Site Co-Principal Investigator and Publications Committee Member (J. Coselli, National and Site PI)
 Sponsor: Terumo Aortic
 Period: 2016-2022
24. Study: CytoSorb reduction of free hemoglobin/acute kidney injury during cardiac surgery (REFRESH II)
 Role: Site Principal Investigator
 Sponsor: CytoSorbents
 Period: 2018-2022
25. Study: Retrospective study to collect data on patients who have received treatment for extent I, II, III or IV thoracoabdominal aneurysm or dissection
 Role: Study Principal Investigator
 Sponsor: Terumo Aortic (\$50,116)
 Period: 2020-2021

Industry Consulting Activities:

1. Johnson & Johnson Wound Management Biosurgicals Innovations Summit, Dallas, Texas, February 21, 2008
2. Baxter Bioscience TachoSil® Cardiovascular and Cardiothoracic Advisory Board, January 22-23, 2009; October 18, 2009
3. Quark Pharmaceuticals, Inc., Consultant, July 2009-August 2009
4. Baxter BioSurgery Institute Live Tissue Training and Advisory Board, November 12-13, 2010
5. Medtronic Surgical Technologies, Consultant, September 25, 2012
6. Medtronic Surgical Technologies, Consultant, September 9, 2013
7. Baxter Healthcare Corporation Cardiovascular Surgery Advisory Board, May 10, 2014
8. Medtronic Surgical Technologies, Consultant, May 27, 2014
9. Baxter Healthcare Corporation Hemostasis Study Advisory Board, February 28, 2015

10. Vascutek Terumo, Consultant and Presenting Medical Expert. Request for new ICD-10-PCS code to describe a surgical device procedure using a single device that replaces the ascending thoracic aorta and aortic arch and restricts the descending thoracic aorta. Presented at ICD-10 Coordination and Maintenance Committee Meeting, Center for Medicare & Medicaid Services, Baltimore, Maryland, March 7, 2017
11. Biom'up HEMOBLAST Bellows Cardiothoracic Advisory Board, May 4, 2018
12. Acer Therapeutics Advisory Board, November 12, 2018
13. Terumo Aortic, Consultant. Request for new ICD-10-PCS code to describe a surgical device procedure using a single device that replaces the ascending thoracic aorta and aortic arch and restricts the descending thoracic aorta, 2021
14. Cerus Corporation, Consultant, INTERCEPT Fibrinogen Complex Scientific Advisory Board, April 2021-present.

Publications:

Papers:

1. Pearce WH, Slaughter MS, **LeMaire S**, Salyapongse AN, Feinglass J, McCarthy WJ, Yao JST. Aortic diameter as a function of age, gender, and body surface area. *Surgery* 1993; 114: 691-7.
2. Coselli JS, **LeMaire SA**, Büket S. Marfan syndrome: The variability and outcome of operative management. *J Vasc Surg* 1995; 21: 432-43.
3. Coselli JS, **LeMaire SA**, Büket S, Berzin E. Subsequent proximal aortic operations in 123 patients with previous infrarenal abdominal aortic aneurysm surgery. *J Vasc Surg* 1995; 22: 59-67.
4. Coselli JS, **LeMaire SA**, Van Cleve GD. Rupture of a dissecting thoracic aortic aneurysm into the pulmonary artery: Successful surgical repair. *Cardiovasc Surg* 1995; 3: 697-701.
5. **LeMaire SA**, Coselli JS. Marfan syndrome: A guide to diagnosing cardiovascular complications. *Consultant* 1996; 36: 601-4.
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10. Coselli JS, **LeMaire SA**. Current status of thoracoabdominal aortic aneurysm repair in Marfan syndrome. *Card Surg* 1997; 12: 167-72.

11. Coselli JS, **LeMaire SA**. Experience with retrograde cerebral perfusion during proximal aortic surgery in 290 patients. *J Card Surg* 1997; 12: 322-5.
12. Howell JF, **LeMaire SA**, Kirby RP. Thoracoabdominal fenestration for aortic dissection with ischemic colonic perforation. *Ann Thorac Surg* 1997; 64: 242-4.
13. Coselli JS, Poli de Figueiredo LF, **LeMaire SA**. Impact of previous thoracic aneurysm repair on thoracoabdominal aortic aneurysm management. *Ann Thorac Surg* 1997; 64: 639-50.
14. Coselli JS, **LeMaire SA**, Ledesma DF, Ohtsubo S, Tayama E, Nosé Y. Initial experience using the Nikkiso centrifugal pump during thoracoabdominal aortic aneurysm repair. *J Vasc Surg* 1998; 27: 378-83.
15. **LeMaire SA**. Regarding "Secondary aorto-esophageal fistula" [letter] *J Vasc Surg* 1998; 27: 387.
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17. Coselli JS, **LeMaire SA**, Walkes JC. Surgery for acute type A dissection. *Operative Tech Thorac Cardiovasc Surg* 1999; 4: 13-32.
18. **LeMaire SA**. Regarding "Early history of aortic surgery" [letter] *J Vasc Surg* 1999; 29: 575.
19. Reardon MJ, Vinnerkvist A, **LeMaire SA**. Mitral valve homograft for mitral valve replacement in acute bacterial endocarditis. *J Heart Valve Dis* 1999; 8: 71-3.
20. Coselli JS, **LeMaire SA**. Quick simple clamping technique in descending thoracic aortic aneurysm repair [invited commentary] *Ann Thorac Surg* 1999; 67: 1043-4.
21. Coselli JS, **LeMaire SA**. Thoracic aortic disasters: Keys to expediting therapy – improving outcome. *Consultant* 1999; 39: 1411-28.
22. Coselli JS, Hekier RJ, **LeMaire SA**. Abdominal aortic disasters: Keys to prompt recognition, tenets of therapy. *Consultant* 1999; 39: 1809-21.
23. Coselli JS, **LeMaire SA**. Left heart bypass reduces paraplegia rates following thoracoabdominal aortic aneurysm repair. *Ann Thorac Surg* 1999; 67: 1931-4.
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26. Coselli JS, Schmittling ZC, **LeMaire SA**. Syphilis: A "lost cause" of thoracic aortic aneurysms [reply] *Consultant* 1999; 39: 2950.
27. Coselli JS, **LeMaire SA**. Surgical techniques: Thoracoabdominal aorta. *Cardiol Clin* 1999; 17: 751-65.

28. Coselli JS, Ledesma DF, **LeMaire SA**, Tayama E, Raskin SA, Ohtsubo S, Harlin S, Browning NG, Nosé Y. Comparison of Nikkiso and Bio-Medicus pumps in thoracoabdominal aortic surgery. *Asian Cardiovasc Thorac Ann* 1999; 7: 353-8.
29. Coselli JS, **LeMaire SA**, Miller CC III, Schmittling ZC, Pagan J, Köksoy C, Curling PE. Mortality and paraplegia after thoracoabdominal aortic aneurysm repair: A risk factor analysis. *Ann Thorac Surg* 2000; 69: 404-14.
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33. Coselli JS, **LeMaire SA**, Schmittling ZC, Köksoy C. Cerebrospinal fluid drainage in thoracoabdominal aortic surgery. *Semin Vasc Surg* 2000; 13: 308-14.
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40. Coselli JS, **LeMaire SA**, Conklin LD, Köksoy C, Schmittling ZC. Morbidity and mortality after extent II thoracoabdominal aortic aneurysm repair. *Ann Thorac Surg* 2002; 73: 1107-16. ** *The Society of Thoracic Surgeons J. Maxwell Chamberlain Memorial Paper* **
41. Coselli JS, **LeMaire SA**, Köksoy C, Schmittling ZC, Curling PE. Cerebrospinal fluid drainage reduces paraplegia after thoracoabdominal aortic aneurysm repair: Results of a randomized clinical trial. *J Vasc Surg* 2002; 35: 635-9.
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53. **LeMaire SA**, Jamison AL, Carter SA, Wen S, Alankar S, Coselli JS. Deployment of balloon expandable stents during open repair of thoracoabdominal aortic aneurysms: A new strategy for managing renal and mesenteric artery lesions. *Eur J Cardio-thorac Surg* 2004; 26: 599-607.
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465. Ageedi W, Koksoy C, Rebello K, Green SY, Amarasekara HS, Etheridge G, **LeMaire SA**, Coselli JS. Thoracic aortic repair in patients refusing blood products. Proceedings of the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, 2023:70.
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467. Bini T, Orozco-Sevilla V, Cook IO, Rebello KR, Etheridge GM, Green SY, Moon M, **LeMaire SA**, Coselli JS. The severity of chronic obstructive pulmonary disease is associated with outcomes after open thoracoabdominal aortic aneurysm repair. Proceedings of the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, 2023:85.
468. Cook IO, Rebello KR, Green SY, Amarasekara HS, Zea-Vera R, Moon M, **LeMaire SA**, Coselli JS. Open thoracoabdominal aortic aneurysm repair: Does chronic dissection differ from aneurysm? Proceedings of the Society for Vascular Surgery Vascular Annual Meeting, 2023.
469. Cook IO, Green SY, Bindal M, Preventza O, Orozco-Sevilla V, Moon M, **LeMaire SA**, Coselli JS. Management of visceral artery patch aneurysms and segmental artery patch aneurysms following open thoracoabdominal aortic aneurysm repair. Proceedings of the Society for Vascular Surgery Vascular Annual Meeting, 2023.
470. Li Y, Zhang C, Vasquez HG, Li Y, Chakraborty A, Rebello R, Xu S, Zhang L, Sawada H, Zhou Z, Chen R, Li Y, Eisenberg SB, Lu HS, Cassis LA, Coselli JS, Daugherty A, Milewicz DM, Shen YH, **LeMaire SA**. Dynamic phenotypic transition of smooth muscle cells during human ascending thoracic aortic disease progression: From compensation in aortic aneurysm to decompensation in aortic dissection. Proceedings of the American Heart Association Scientific Sessions, 2023.
471. Zhang C, Zhang L, Devkota L, L YM, Vela D, Li Y, Chakraborty A, Rebello KR, Xu S, Vasquez HG, Ghaghada KB, **LeMaire SA**, Shen YH. Critical role of endothelial injury in the initiation of aortic dissection. Proceedings of the American Heart Association Scientific Sessions, 2023.
472. Xu S, Li Y, Zhang C, Vasquez HG, Rebello KR, Coselli JS, Milewicz DM, Daugherty A, **LeMaire SA**, Shen YH. Transcriptomic profile of macrophage-mediated energy metabolism in sporadic aortic aneurysms and acute dissections. Proceedings of the American Heart Association Scientific Sessions, 2023.

473. Sandhu H, Miller C, **LeMaire SA**, Preventza O, Prakash S, Oderich GS, Coselli JS, Safi HJ, Estrera AL, Afifi RO. Sex differences in aortic dissection outcomes in the Houston Aortic Collaborative experience. Proceedings of the American Heart Association Scientific Sessions, 2023.
474. Zhang C, Vela DC, Devkota L, Li Y, Xu S, Zhang L, Chakraborty A, Li Y, Rebello KR, Vasquez HG, Ghaghada KB, Daugherty A, Milewicz DM, **LeMaire SA**, Shen YH. Critical role of endothelial injury in the initiation of aortic dissection. Proceedings of the 25th University of Kentucky Cardiovascular Research Day, 2023: 3.
475. Xu S, Li Y, Zhang C, Vasquez HG, Rebello K, Coselli JS, Lu HS, Daugherty A, Milewicz D, **LeMaire S**, Shen YH. Shifts in glycolytic phenotype in smooth muscle cells of sporadic aortic aneurysms and acute dissections. Proceedings of the 25th University of Kentucky Cardiovascular Research Day, 2023: 43.
476. Li Y, Zhang C, Vasquez HG, Li Y, Chakraborty A, Rebello K, Xu S, Zhang L, Sawada H, Zhou Z, Chen R, Li Y, Eisenberg SB, HS, Cassis LA, Coselli JS, Daugherty A, Milewicz DM, Shen YH, **LeMaire SA**. Dynamic phenotypic transition of smooth muscle cells during human ascending thoracic aortic disease progression: from compensation in aortic aneurysm to decompensation in aortic dissection. Proceedings of the 25th University of Kentucky Cardiovascular Research Day, 2023: 64.
477. Tubbs D, White E, Buchanan D, Matusko N, Evans J, Smink DS, Lillemoe KD, Chen H, **LeMaire S**, Behrns K, Wexner S, Weaver L, Sandhu G. Gender disparities among top peer reviewers in surgery: Whose work counts? Proceedings of the 19th Annual Academic Surgical Congress, 2024: in press.

Podium Abstract Presentations (Presenting Author):

1. Abnormal α_1 -antitrypsin genotypes in patients with thoracic aortic aneurysms. Presented at the Society of University Surgeons 40th Annual University Surgical Residents' Conference, Milwaukee, Wisconsin, February 14, 1998.
2. Comparison of distal aortic and femoral arterial cannulation for left heart bypass during thoracoabdominal aortic aneurysm repair. Presented at the 8th World Congress of the International Society of Cardio-Thoracic Surgeons, Houston, Texas, November 4, 1998.
3. Retrograde cerebral perfusion during hypothermic circulatory arrest is associated with improved early and long-term survival following proximal aortic surgery in adults. Presented at the Outcomes '99 meeting, Key West, Florida, May 29, 1999.
4. A mutation causing subclinical alpha 1-antitrypsin deficiency is associated with thoracic aortic aneurysms. Presented at the 24th World Congress of the International Society for Cardiovascular Surgery, Melbourne, Australia, September 15, 1999.
5. Potential uses and concerns regarding a new surgical adhesive (BioGlue). Presented at the 18th Annual Houston Conference on Biomedical Engineering Research, Houston, Texas, February 11, 2000.
6. Adverse outcomes after hypothermic circulatory arrest for elective repair of ascending aortic and transverse aortic arch aneurysms. Presented at the Outcomes 2000 Meeting, Key West, Florida, May 25, 2000.

7. Cerebrospinal fluid drainage during thoracoabdominal aortic aneurysm repair prevents spinal cord ischemia. Presented at the Outcomes 2000 Meeting, Key West, Florida, May 25, 2000.
8. Subacute aortic dissection and its impact on thoracoabdominal aortic surgery. Presented at 10th World Congress of the International Society of Cardio-Thoracic Surgeons, Vancouver, British Columbia, August 14, 2000.
9. Retrograde cerebral perfusion does not reduce S100 elevation after thoracic aortic surgery performed with hypothermic circulatory arrest. Presented at the 2nd International Conference on Biochemical Markers for Brain Damage, Lund, Sweden, September 15, 2000.
10. Bovine albumin-glutaraldehyde surgical adhesive (BioGlue) impairs aortic growth and causes anastomotic stricture. Presented at the 37th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, Louisiana, January 29, 2001.
11. Repair of proximal aortic dissection using bovine-albumin glutaraldehyde surgical adhesive [movie] Presented at the 37th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, Louisiana, January 29, 2001.
12. Multiple organ failure after thoracic aortic surgery: is it related to transfusion of packed red blood cells after prolonged storage time? Presented at the 9th Annual Meeting of the Asian Society for Cardiovascular Surgery, Nagoya, Japan, March 29, 2001.
13. Use of near infrared spectroscopy to monitor spinal cord oxygenation during intercostal artery ligation: preliminary experimental results. Presented at the Outcomes 2001 Meeting, Key West, Florida, May 25, 2001.
14. Thoracoabdominal aortic repair after failed endovascular stent graft procedures [movie] Presented at the 48th Annual Meeting of the Southern Thoracic Surgical Association, San Antonio, Texas, November 7, 2001.
15. Thoracoabdominal aortic aneurysms: outcome of surgical repair in 1,415 patients. Presented at the Scientific Sessions of the American Heart Association, Anaheim, California, November 14, 2001.
16. Chlorohexidine gluconate gel protects exposed nerves during the application of BioGlue surgical adhesive. Presented at the 35th Annual Meeting of the Association for Academic Surgery, Milwaukee, Wisconsin, November 17, 2001.
17. Transcutaneous near infrared spectroscopy detects intraoperative regional spinal cord ischemia. Presented at the 12th World Congress of the International Society of Cardio-thoracic Surgeons, Lucerne, Switzerland, March 6, 2002.
18. Proximal aortic reoperations in patients with composite valve grafts. Presented at Aortic Surgery Symposium VIII, New York, New York, May 2, 2002.
19. Perfusion of the renal arteries with cold blood: a new adjunct for renal protection during thoracoabdominal aortic aneurysm surgery. Presented at the Outcomes 2002 Meeting, Key West, Florida, May 24, 2002.
20. Regional spinal cord monitoring using transcutaneous near infrared spectroscopy. Presented at the Outcomes 2002 Meeting, Key West, Florida, May 24, 2002.

21. The threat of surgical adhesive embolization: does BioGlue leak through anastomotic needle holes in synthetic grafts? Presented at the Annual Techno-College of the European Association for Cardio-Thoracic Surgery, Monte Carlo, Monaco, September 20, 2002.
22. Prospective validation of renal dysfunction scores after thoracoabdominal aortic surgery. Presented at the 36th Annual Meeting of the Association for Academic Surgery, Boston, Massachusetts, November 8, 2002.
23. Propensity score analysis regarding distal aortic perfusion during descending thoracic aortic aneurysm repair. Presented at the Outcomes 2003 Meeting, Key West, Florida, May 22, 2003.
24. Evidence supporting the potential for adhesive embolization during cardiovascular surgery. Presented at the Outcomes 2003 Meeting, Key West, Florida, May 23, 2003.
25. Renal dysfunction scores are a valid surrogate measure of renal injury after thoracoabdominal aortic surgery. Presented at the Outcomes 2003 Meeting, Key West, Florida, May 23, 2003.
26. Expanded polytetrafluoroethylene (ePTFE) suture does not eliminate the risk of adhesive leakage in ePTFE grafts. Presented at the Tissue Sealant and Adhesives Meeting, Orlando, Florida, September 20, 2003.
27. Deployment of balloon expandable stents during open repair of thoracoabdominal aortic aneurysms: a new strategy for managing renal and mesenteric artery lesions. Presented at the 2nd Joint Meeting of the European Association for Cardio-thoracic Surgery/European Society of Thoracic Surgeons, Vienna, Austria, October 14, 2003.
28. The threat of adhesive embolization: BioGlue leaks through anastomotic needle holes in aortic tissue and prosthetic grafts. Presented at the 40th Annual Meeting of The Society of Thoracic Surgeons, San Antonio, Texas, January 27, 2004.
29. Acute proximal aortic dissection is associated with local expression of matrix metalloproteinases-2 and -9. Presented at the 22nd International Cardiovascular Surgical Symposium, Zürs, Austria, March 1, 2004.
30. A predictive model for accurately estimating group mortality risk after thoracoabdominal aortic aneurysm repair: results of a 4.5-year prospective validation study. Presented at the 26th World Congress of the International Society for Cardiovascular Surgery, Wailea, Hawaii, March 24, 2004.
31. Initial experience with visceral arterial stenting during thoracoabdominal aortic operations. Presented at the 15th Congress of the Michael E. DeBakey International Surgical Society, Houston, Texas, May 17, 2004.
32. Evolving experience with combined antegrade and retrograde cerebral perfusion during aortic arch repair. Presented at Outcomes 2004, Key West, Florida, May 20, 2004.
33. Direct visceral artery stenting during open thoracoabdominal aortic aneurysm repair. Presented at Outcomes 2004, Key West, Florida, May 21, 2004.
34. Thoracic aortic aneurysms after dissection: evidence supporting proteolytic mechanisms. Presented at the fall meeting of the Texas Surgical Society, South Padre,

Texas, October 1, 2004. ** *The James E. Thompson Award for Best Paper by a New Member* **

35. The elephant trunk technique for treatment of complex aneurysms of the entire thoracic aorta: 144 patients. Presented at the 51st Annual Meeting of the Southern Thoracic Surgical Association, Cancun, Mexico, November 5, 2004.
36. Adhesive embolization during cardiovascular surgery. Presented at the 175th Semi-annual Meeting of the Texas Surgical Society, San Antonio, Texas, April 2, 2005.
37. Stage two of the elephant trunk repair: descending thoracic and thoracoabdominal aortic operations after aortic arch replacement. Presented at Outcomes 2005, Key West, Florida, May 20, 2005.
38. Elevated aortic matrix metalloproteinase-12 levels in Marfan patients with thoracoabdominal aneurysms. Presented at the 7th International Research Symposium on the Marfan syndrome, Ghent, Belgium, September 16, 2005.
39. Results of the surgical treatment of 275 patients with the Marfan syndrome. Presented at the 7th International Research Symposium on the Marfan syndrome, Ghent, Belgium, September 17, 2005.
40. Increased collagen deposition and elevated expression of connective tissue growth factor in human thoracic aortic dissection. Presented at the Scientific Sessions of the American Heart Association, Dallas, Texas, November 15, 2005.
41. Outcomes in patients with delayed paraplegia following thoracoabdominal aortic operations. Presented at Outcomes 2006, Key West, Florida, May 19, 2006.
42. Aortic root replacement with stentless porcine xenografts: early and midterm results in 132 patients. Presented at spring meeting of the Texas Surgical Society, Lubbock, Texas, April 5, 2008.
43. Cold blood and cold crystalloid renal perfusion afford similar protection against acute renal injury during thoracoabdominal aortic aneurysm repair: results of a randomized trial. Presented at fall meeting of the Texas Surgical Society, San Antonio, Texas, September 27, 2008.
44. Altered expression of matrix metalloproteinases in chronic descending thoracic aortic dissection. Presented at the 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 5, 2009.
45. Altered expression of matrix metalloproteinases in chronic descending thoracic aortic dissection. Presented at the spring meeting of the Texas Surgical Society, Houston, Texas, April 4, 2009.
46. Matrix metalloproteinase levels are elevated in patients with Marfan syndrome and chronic descending thoracic aortic dissection. Presented at the 5th Annual Academic Surgical Congress, San Antonio, Texas, February 3, 2010.
47. Abnormal descending thoracic aortic matrix metalloproteinase levels in Marfan syndrome patients with chronic dissection. Presented at the spring meeting of the Texas Surgical Society, Fort Worth, Texas, April 10, 2010.

48. *FBN1* genetic variants associated with ascending aortic aneurysms and aortic dissections. Presented at the fall meeting of the Texas Surgical Society, Galveston, Texas, September 25, 2010.
49. Akt confers protection against aortic aneurysm formation. Presented at the spring meeting of the Texas Surgical Society, Tyler, Texas, April 2, 2011.
50. Vascular remodeling in thoracic aortic aneurysms and dissections: Are mesenchymal stem cells involved? Presented at the 58th Annual Meeting of the Southern Thoracic Surgical Association, San Antonio, Texas, November 11, 2011.
51. Stem cells in thoracic aortic aneurysms and dissections. Presented at the spring meeting of the Texas Surgical Society, Dallas, Texas, April 14, 2012.
52. ADAMTS: Another culprit in thoracic aortic aneurysms and dissections? Presented at the fall meeting of the Texas Surgical Society, San Antonio, Texas, October 13, 2012.
53. AKT2 regulates bone marrow cell-mediated aortic protection in mice. Presented at the 51st Annual Meeting of the Society of Thoracic Surgeons, San Diego, California, January 26, 2015.
54. The inflammasome: a new target in aortic aneurysms and dissections. Presented at the 200th meeting of the Texas Surgical Society, Galveston, Texas, April 12, 2015.
55. AKT2 regulates bone marrow cell-mediated aortic protection in mice. Presented at the spring meeting of the Texas Surgical Society, Waco, Texas, April 2, 2016.
56. Characteristics and predictors of unplanned readmissions after open thoracoabdominal aortic aneurysm repair. Presented at the 53rd Annual Meeting of the Society of Thoracic Surgeons, Houston, Texas, January 24, 2017.
57. Unplanned readmissions after open thoracoabdominal aortic operations: Characteristics and risk factors. Presented at the 201st meeting of the Texas Surgical Society, San Antonio, Texas, October 7, 2017.
58. Ciprofloxacin increases susceptibility to aortic dissection and rupture in mice. Presented at the American Heart Association Scientific Sessions 2017, Anaheim, California, November 14, 2017.
59. Ciprofloxacin increases susceptibility to aortic dissection and rupture in mice. Presented at the 202nd meeting of the Texas Surgical Society, Houston, Texas, April 7, 2018.
60. Incentivizing academic productivity of surgery faculty members through an academic RVU system. Presented at the 138th Annual Meeting of the American Surgical Association, Phoenix, Arizona, April 20, 2018.
61. Ciprofloxacin increases susceptibility to aortic dissection and rupture in mice. Presented at the 22nd Congress of the Michael E. DeBakey International Surgical Society, Grapevine, Texas, August 23, 2018.
62. Redo-sternotomy in 235 patients undergoing aortic root replacement. Presented at the 204th meeting of the Texas Surgical Society, McAllen, Texas, April 6, 2019.

63. NLRP3 inflammasome inhibitor MCC950 prevents aortic destruction by preventing caspase-1-mediated MMP-9 activation. Presented at the 204th meeting of the Texas Surgical Society, McAllen, Texas, April 6, 2019.
64. A 20-year experience with the reversed elephant trunk technique for staged repair of extensive thoracic aortic aneurysm. Presented at the 99th Annual Meeting of the American Association for Thoracic Surgery, Toronto, Canada, May 5, 2019.
65. A 20-year experience with the reversed elephant trunk technique for staged repair of extensive thoracic aortic aneurysm. Presented at the 205th Meeting of the Texas Surgical Society, Galveston, Texas, October 5, 2019.
66. Ciprofloxacin accelerates aortic enlargement and causes aortic rupture in Marfan syndrome mice. Presented at the 206th Semi-annual Meeting of Texas Surgical Society, Austin, Texas, April 10, 2021.
67. Computed tomography with a novel nanoparticle contrast agent allows early detection of aortic wall degeneration in a mouse model of aneurysm and dissection. Presented at the 208th Semi-annual Meeting of Texas Surgical Society, Lubbock, Texas, April 22, 2022.
68. An update on heritable thoracic aortic diseases: Progress toward a personalized approach to surgical decision making. Presented at the 209th Semi-annual Meeting of Texas Surgical Society, Dallas, Texas, September 30, 2022.
69. Risk factors for readmission after aortic root replacement: A retrospective cohort analysis. Presented at the 210th Semi-annual Meeting of Texas Surgical Society, Tyler, Texas, April 14, 2023.

Poster Sessions:

1. Coselli JS, **LeMaire SA**, Köksoy C. Distal aortic cannulation: an alternative technique for left heart bypass during thoracoabdominal aortic aneurysm repair. Presented at the Joint Annual Meeting of the International Society for Cardiovascular Surgery/Society for Vascular Surgery, San Diego, California, June 7-10, 1998.
2. **LeMaire SA**, Coselli JS. Retrograde cerebral perfusion during hypothermic circulatory arrest is associated with improved early and long-term survival following proximal aortic surgery in adults. Presented at the Outcomes '99 meeting, Key West, Florida, May 29, 1999.
3. Hekier RJ, **LeMaire SA**, Köksoy C, Coselli JS. Increasing age of transfused packed red blood cells does not increase multiple organ dysfunction in thoracic aortic surgery patients. Presented at the 65th Annual International Scientific Assembly of the American College of Chest Physicians, Chicago, Illinois, November 1-3, 1999.
4. Walkes JCM, **LeMaire SA**, Curling PE, Coselli JS. Severe bilateral bronchial obstruction due to coexisting descending thoracic aortic aneurysm and histoplasmosis-induced fibrosing mediastinitis: successful surgical treatment. Presented at the 93rd Annual Scientific Assembly of the Southern Medical Association, Dallas, Texas, November 10-14, 1999.
5. Hekier RJ, **LeMaire SA**, Roehm JO Jr, Whigham CJ Jr, Coselli JS. Acute hepatic ischemia due to aortic dissection: successful treatment with suprarenal aortic stenting.

Presented at the 93rd Annual Scientific Assembly of the Southern Medical Association, Dallas, Texas, November 10-14, 1999.

6. Bhama JK, **LeMaire SA**, Schmittling ZC, Oberwalder PJ, Köksoy C, Raskin SA, Curling PE, Coselli JS. Elevated S100 β levels are associated with neurologic complications after thoracic aortic surgery requiring hypothermic circulatory arrest. Presented at the Outcomes 2000 Meeting, Key West, Florida, May 25, 2000.
7. Schmittling ZC, **LeMaire SA**, Miller CC III, Köksoy C, Curling PE, Coselli JS. Estimating mortality and paraplegia rates in groups of patients undergoing thoracoabdominal aortic aneurysm repair. Presented at the Outcomes 2000 Meeting, Key West, Florida, May 26, 2000.
8. Schmittling ZC, **LeMaire SA**, Köksoy C, Coselli JS. Risk factors associated with stroke during thoracoabdominal aortic aneurysm repair. Presented at the Outcomes 2000 Meeting, Key West, Florida, May 26, 2000.
9. Ündar A, **LeMaire SA**, Schmittling ZC, Coselli JS, Köksoy C, Deady BA, Fraser CD Jr. Use of near-infrared spectroscopy to measure the effects of infrarenal aortic cross clamping on regional cerebral oxygen saturation in a piglet model. Presented at the Outcomes 2000 Meeting, Key West, Florida, May 26, 2000.
10. Coselli JS, **LeMaire SA**, Schmittling ZC, Miller CC III. Stroke during surgical repair of thoracoabdominal aortic aneurysms: incidence, risk factors, and relationship to distal aortic perfusion. Presented at the Joint Annual Meeting of the North American Chapter of the International Society for Cardiovascular Surgery and Society for Vascular Surgery, Toronto, Ontario, June 11-14, 2000.
11. Coselli JS, **LeMaire SA**, Köksoy C, Schmittling ZC, Miller CC III, Oberwalder PJ, Curling PE. Cerebrospinal fluid drainage during thoracoabdominal aortic aneurysm repair prevents spinal cord ischemia. Presented at the Houston Surgical Society Poster Night, Houston, Texas, September 12, 2000.
12. Curling PE, Coselli JS, Frenzel JC, Pagan J, **LeMaire SA**. Thoracoabdominal aortic aneurysms: consultant physician anesthesia care is safer than the physician-CRNA anesthesia care team. Presented at the Annual Meeting of the American Society of Anesthesiologists, San Francisco, California, October 16, 2000.
13. **LeMaire SA**, Schmittling ZC, Ündar A, Coselli JS, Köksoy C, Deady BA, Clubb FJ, Fraser CD Jr. A new surgical adhesive (BioGlue) causes acute phrenic nerve injury and diaphragmatic paralysis. Presented at the 34th Annual Meeting of the Association for Academic Surgery, Tampa, Florida, November 2-4, 2000.
14. **LeMaire SA**, Schmittling ZC, Ündar A, Coselli JS, Deady BA, Köksoy C, Clubb FJ Jr, Fraser CD Jr. A new surgical adhesive (BioGlue) causes immediate and prolonged bradycardia due to sinoatrial node degeneration. Presented at the American College of Chest Physicians Cardiac & General Thoracic Surgery Update 2000, Cancun, Mexico, December 6-8, 2000.
15. Bhama JK, **LeMaire SA**, Oberwalder PJ, Schmittling ZC, Raskin SA, Coselli JS. Impact of retrograde cerebral perfusion on S100 β release during hypothermic circulatory arrest for thoracic aortic surgery. Presented at the Outcomes 2001 Meeting, Key West, Florida, May 24, 2001.

16. DiBardino DJ, Bhama JK, **LeMaire SA**, Coselli JS. Neurologic outcome in octogenarians following aortic arch repair with hypothermic circulatory arrest. Presented at the Outcomes 2001 Meeting, Key West, Florida, May 24, 2001.
17. Conklin LD, **LeMaire SA**, Köksoy C, Raskin SA, Coselli JS. Renal perfusion during thoracoabdominal aortic surgery: cold crystalloid is superior to normothermic blood. Presented at the Outcomes 2001 Meeting, Key West, Florida, May 24, 2001.
18. **LeMaire SA**, Ündar A, Junkerman J, Schmittling ZC, Wolinsky JP, Fraser CD Jr, Coselli JS. Use of near infrared spectroscopy to monitor spinal cord oxygenation during intercostal artery ligation: preliminary experimental results. Presented at the Outcomes 2001 Meeting, Key West, Florida, May 25, 2001.
19. Conklin LD, **LeMaire SA**, Coselli JS. Neurologic complications after graft replacement of the entire thoracoabdominal aorta. Presented at the Outcomes 2001 Meeting, Key West, Florida, May 25, 2001.
20. **LeMaire SA**, Schmittling ZC, Ündar A, Coselli JS, Köksoy C, Deady BA, Clubb FJ Jr, Fraser CD Jr. Bovine-albumin-glutaraldehyde surgical adhesive impairs growth and causes strictures at aortic anastomoses in neonatal piglets. Presented at the 3rd World Congress of Pediatric Cardiology and Cardiac Surgery, Toronto, Ontario, Canada, May 28, 2001.
21. **LeMaire SA**, Schmittling ZC, Ündar A, Coselli JS, Köksoy C, Deady BA, Clubb FJ Jr, Fraser CD Jr. Bovine-albumin-glutaraldehyde surgical causes acute phrenic nerve injury and paralysis of the diaphragm in young pigs. Presented at the 3rd World Congress of Pediatric Cardiology and Cardiac Surgery, Toronto, Ontario, Canada, May 28, 2001.
22. **LeMaire SA**, Schmittling ZC, Ündar A, Coselli JS, Deady BA, Köksoy C, Clubb FJ Jr, Fraser CD Jr. Topical bovine-albumin-glutaraldehyde surgical adhesive causes sinoatrial node degeneration and persistent bradycardia in young pigs. Presented at the 3rd World Congress of Pediatric Cardiology and Cardiac Surgery, Toronto, Ontario, Canada, May 28, 2001.
23. **LeMaire SA**, Aoki N, Coselli JS. Prospective validation of a predictive model for estimating group mortality risk after thoracoabdominal aortic aneurysm repair. Presented at the American Heart Association 3rd Scientific Forum on Quality of Care and Outcomes Research in Cardiovascular Disease and Stroke, Washington, D.C., September 30, 2001.
24. **LeMaire SA**, Conklin LD, Schmittling ZC, Ündar A, Coselli JS, Clubb FJ Jr, Deady BA, Fraser CD Jr. Chlorohexidine gluconate gel protects the myocardium and sinoatrial node during application of BioGlue surgical adhesive. Presented at the 35th Annual Meeting of the Association for Academic Surgery, Milwaukee, Wisconsin, November 15-17, 2001.
25. **LeMaire SA**, Conklin LD, Raskin SA, Coselli JS. Cold blood perfusion of the renal arteries during thoracoabdominal aortic aneurysm repair. Presented at the 8th Annual Cardiothoracic Techniques & Technologies Meeting, Miami Beach, Florida, January 23-26, 2002.
26. **LeMaire SA**, Conklin LD, Raskin SA, Coselli JS. Combined intermittent antegrade and retrograde cerebral perfusion during hypothermic circulatory arrest: initial experience

- with a new cerebral protection strategy. Presented at the 22nd Annual San Diego Cardiothoracic Surgery Symposium, San Diego, California, February 21-23, 2002.
27. Conklin LD, **LeMaire SA**, Coselli JS. Extensive aortic and arterial replacement in a patient with severe Marfan syndrome. Presented at the 54th Annual Meeting of the Southwestern Surgical Congress, Coronado, California, April 7-10, 2002.
 28. **LeMaire SA**, Conklin LD, Ledesma DF, Richards CS, Adams G, Coselli JS. The alpha 1-antitrypsin S mutation is not associated with thoracic aortic aneurysms. Presented at the American Heart Association 42nd Annual Conference on Cardiovascular Disease Epidemiology and Prevention, Honolulu, Hawaii, April 25, 2002.
 29. Coselli JS, **LeMaire SA**. Thoracoabdominal aortic aneurysm repair in patients with Marfan syndrome: a 15-year experience. Presented at Aortic Surgery Symposium VIII, New York, New York, May 2-3, 2002.
 30. Conklin LD, **LeMaire SA**, Raskin SA, Pisimisis GT, Coselli JS. Aortic arch repair with a new cerebral protection strategy: combined intermittent antegrade and retrograde cerebral perfusion. Presented at the Outcomes 2002 Meeting, Key West, Florida, May 23, 2002.
 31. **LeMaire SA**, Won T, Conklin LD, Wang X, Coselli JS. The threat of surgical adhesive embolization: does BioGlue leak through anastomotic needle holes in synthetic grafts? Presented at Cambridge Healthtech Institute's 7th Annual Tissue Sealants and Adhesives Meeting, San Francisco, California, October 5-6, 2002.
 32. **LeMaire SA**, Conklin LD, Schmittling ZC, Ündar A, Clubb FJ Jr, Coselli JS, Fraser CD Jr. Nerve and conduction tissue injury due to contact with BioGlue: confirmation of toxicity and evaluation of a protective strategy. Presented at Cambridge Healthtech Institute's 7th Annual Tissue Sealants and Adhesives Meeting, San Francisco, California, October 5-6, 2002.
 33. **LeMaire SA**, Won T, Conklin LD, Wang X, Coselli JS. BioGlue surgical adhesive leaks through anastomotic needle holes in polytetrafluoroethylene grafts. Presented at the American College of Chest Physicians Cardiac & Thoracic Surgical Update, Cancun, Mexico, December 4-6, 2002.
 34. **LeMaire S**, Voloyiannis T, Conklin L, Coselli J, Frangogiannis N. Increased chemokine expression and inflammatory infiltrates after aortic dissection: preliminary findings. Presented at Karolinska Symposium on Abdominal Aortic Aneurysms, Stockholm, Sweden, January 31-February 1, 2003.
 35. Chang S, **LeMaire SA**, Kreml S, Conklin LD, Coselli JS. Validation of renal dysfunction scores following thoracoabdominal aortic aneurysm repair. Presented at the 4th Annual Baylor College of Medicine James K. Alexander Research Symposium, Houston, Texas, February 20, 2003. *** Awarded Outstanding Clinical Poster ***
 36. Conklin LD, **LeMaire SA**, Won T, Wang X, Coselli JS. The threat of surgical adhesive embolization: does BioGlue surgical adhesive leak through anastomotic needle holes in synthetic graft? Presented at the 44th Annual National Student Research Forum, Galveston, Texas, April 3-5, 2003.
 37. Kreml S, **LeMaire SA**, Conklin LD, Chang S, Coselli JS. Prospective validation of renal dysfunction scores after thoracoabdominal aortic surgery. Presented at the 44th Annual National Student Research Forum, Galveston, Texas, April 3-5, 2003.

38. Conklin LD, **LeMaire SA**, Kreml S, Coselli JS. A unique case involving thoracoabdominal aortic aneurysm repair in a patient with Kommerell's diverticulum and prior coronary artery bypass grafting. Presented at the 55th Annual Meeting of The Southwestern Surgical Congress, Tucson, Arizona, April 27-30, 2003.
39. **LeMaire S**, Conklin L, Wang X, Schmittling Z, Anand G, Coselli J. *In vivo* adenoviral transfection of the ascending aorta during cardiopulmonary bypass. Presented at the 13th World Congress of the International Society of Cardio-Thoracic Surgeons, San Diego, California, November 1-5, 2003.
40. Conklin LD, **LeMaire SA**, Coselli JS, McAninch RE, Sutton RE. HIV-based vectors for therapeutic angiogenesis in a rabbit model of hindlimb ischemia. Presented at the 37th Annual Meeting of the Association for Academic Surgery, Sacramento, California, November 14, 2003.
41. Wang X, Wilks JA, Carter SA, Chen C, Fu W, Wen S, Conklin LD, Wang X, Coselli JS, **LeMaire SA**. Proteases in thoracic aortic aneurysms: ascending aneurysms in patients with bicuspid aortic valves have altered tissue levels of matrix metalloproteinases. Presented at the Baylor College of Medicine Molecular Surgeon Research Day, Houston, Texas, December 12, 2003.
42. Wilks JA, Wang X, Carter SA, Wen S, Leonardelli DG, Anand GS, Conklin LD, Loebe M, Wang X, Coselli JS, **LeMaire SA**. A critical evaluation of ascending aortic "control tissue." Presented at the Baylor College of Medicine Molecular Surgeon Research Day, Houston, Texas, December 12, 2003.
43. Wilks JA, Wang X, Carter SA, Wen S, Leonardelli DG, Anand G, Conklin LD, Loebe M, Wang X, Coselli JS, **LeMaire SA**. A critical evaluation of ascending aortic "control tissue." Presented at the 5th Annual James K. Alexander Research Symposium, Houston, TX, February 19, 2004.
44. Wilks JA, Wang X, Carter SA, Chen C, Fu W, Wen S, Conklin LD, Wang X, Coselli JS, **LeMaire SA**. Ascending aneurysms in patients with bicuspid aortic valves have altered tissue levels of matrix metalloproteinases. Presented at the 5th Annual James K. Alexander Research Symposium, Houston, TX, February 19, 2004.
45. Wilks JA, Wang X, Carter SA, Wen S, Leonardelli DG, Anand GS, Conklin LD, Wang X, Coselli JS, **LeMaire SA**. Proteases in thoracic aortic dissection: increased matrix metalloproteinase-9 is associated with chronic distal dissection. Presented at the 5th Annual James K. Alexander Research Symposium, Houston, TX, February 19, 2004.
46. Coselli JS, **LeMaire SA**, MacArthur R, Carter SA, Jamison A, Conklin LD. Evolving experience with combined intermittent antegrade and retrograde cerebral perfusion during aortic arch repair. Presented at Aortic Surgery Symposium IX, New York, New York, April 22-23, 2004.
47. **LeMaire SA**, Wilks JA, Wang X, Carter SA, Wen S, Conklin LD, Wang XL, Coselli JS. Thoracic aortic aneurysms due to chronic dissection have altered tissue levels of matrix metalloproteinase-9 and its inhibitors. Presented at Aortic Surgery Symposium IX, New York, New York, April 22-23, 2004.
48. **LeMaire S**, Wang X, Wilks J, Carter S, Wen S, Won T, Leonardelli D, Anand G, Conklin L, Wang XL, Coselli J. Quantitative differences in ascending aortic aneurysm matrix metalloproteinase levels in patients with bicuspid vs. trileaflet aortic valves. Presented

at the 5th Annual American Heart Association Conference on Arteriosclerosis, Thrombosis and Vascular Biology, San Francisco, California, May 8, 2004.

49. Senthil D, Raveendran M, Shen Y, Utama B, Dudley D, **LeMaire S**, Coselli J, Xang J, Wang XL. Involvement of Hsp90 and caveolin-1 in endothelial nitric oxide synthase (eNOS) expression. Presented at the 5th Annual American Heart Association Conference on Arteriosclerosis, Thrombosis and Vascular Biology, San Francisco, California, May 8, 2004
50. Raveendran M, Senthil D, Shen Y, Utama B, Dudley D, **LeMaire S**, Coselli J, Xang J, Wang XL. Genotype contributions to functional expression of endothelial nitric oxide synthase (eNOS) in cultured endothelial cells in vitro. Presented at the 5th Annual American Heart Association Conference on Arteriosclerosis, Thrombosis and Vascular Biology, San Francisco, California, May 8, 2004
51. Wang X, Wilks JA, Carter SA, Wen S, Won T, Leonardelli D, Anand G, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. The impact of aortic valve morphology on matrix metalloproteinase expression in ascending aortic aneurysms. Presented at the 15th Congress of the Michael E. DeBakey International Surgical Society, Houston, Texas, May 15-17, 2004.
52. Wilks JA, Wang X, Carter SA, Wen S, Leonardelli DG, Anand GS, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. Expression of gelatinase-b and its inhibitors in descending thoracic aortic aneurysms with chronic dissection. Presented at the 15th Congress of the Michael E. DeBakey International Surgical Society, Houston, Texas, May 15-17, 2004.
53. Carter SA, Ochoa LN, Schmittling ZC, Coselli JS, **LeMaire SA**. Postoperative neurologic complications in patients with subacute thoracoabdominal aortic dissection. Presented at Outcomes 2004, Key West, Florida, May 20, 2004.
54. Kreml S, Carter SA, Coselli JS, **LeMaire SA**. Prospective validation of a predictive model for accurately estimating group mortality risk after thoracoabdominal aortic aneurysm repair. Presented at Outcomes 2004, Key West, Florida, May 21, 2004.
55. Carter SA, Won T, Wang X, Conklin LD, Coselli JS, **LeMaire SA**. Surgical adhesive embolization: BioGlue leaks through needle holes in aortic tissue and prosthetic grafts. Presented at Outcomes 2004, Key West, Florida, May 21, 2004.
56. Wilks J, Wang X, Carter S, Wen S, Leonardelli D, Anand G, Conklin L, Loebe M, Wang XL, Coselli J, **LeMaire S**. Investigating protease imbalance in ascending aortic aneurysms: what is the optimal control? Presented at the XIIIth International Vascular Biology Meeting, Toronto, Canada, June 1-5, 2004.
57. **LeMaire S**, Wilks J, Wang X, Carter S, Wen S, Conklin L, Wang XL, Coselli J. Ascending aortic aneurysms exhibit increased expression of CD68 and matrix metalloproteinase-9. Presented at the XIIIth International Vascular Biology Meeting, Toronto, Canada, June 1-5, 2004.
58. Wang X, **LeMaire SA**, Shen YH, Gan Y, Wilks JA, Carter SA, Wen S, Coselli JS, Wang XL. Connective tissue growth factor expression is decreased in acute ascending aortic dissections and increased in degenerative ascending aortic aneurysms. Presented at the 38th Annual Association for Academic Surgery Meeting, Houston, Texas, November 11-13, 2004.

59. Bartsch HR, Wilks JA, Wang X, Carter SA, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. Increased MMP-9 expression in thoracic aortic aneurysms due to chronic dissection. Presented at the American Medical Association Medical Student Section Interim Meeting, Atlanta, Georgia, December 4, 2004. *** Finalist for the 3rd Annual Medical Student Section Research Poster Award ***
60. Wang X, **LeMaire SA**, Chen L, Shen YH, Gan Y, Utama B, Wilks JA, Bartsch H, Carter SA, Coselli JS, Wang XL. Decreased expression of fibulin-5 correlates with reduced elastin in thoracic aortic dissection. Presented at the 66th Annual Meeting of the Society of University Surgeons, Nashville, Tennessee, February 10, 2005.
61. Bartsch HR, Chang KW, Wang X, Wilks JA, Carter SA, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. Proteolytic imbalance in acute and chronic aortic dissection. Presented at the 6th Annual James K. Alexander Research Symposium, Houston, TX, February 17 2005. *** Awarded Honorable Mention Clinical Poster ***
62. Carter SA, Coselli JS, Kreml SS, Bartsch HR, **LeMaire SA**. Acute proximal aortic dissection: is presentation precluding surgical repair more common in women? Presented at the American Heart Association 2nd International Conference on Women, Heart Disease, and Stroke, February 17-18, 2005.
63. Bartsch HR, Chang KW, Wang X, Wilks JA, Carter SA, Conklin LD, Wang XL, Coselli JS, **LeMaire SA**. Proteolytic imbalance in acute and chronic thoracic aortic dissection. Presented at the 55th Annual Convention of the American Medical Student Association, Washington, DC, March 17, 2005.
64. **LeMaire SA**, Bartsch HR, Chang KW, Wang X, Carter SA, Wilks JA, Wang XL, Coselli JS. Abnormal protease expression in acute and chronic aortic dissection. Presented at the Joan L. & Julius H. Jacobson Research Initiatives in Vascular Disease Conference, Washington, D.C., April 7, 2005.
65. Carter SA, Coselli JS, Kreml SS, Rudloff LD, **LeMaire SA**. Acute proximal aortic dissection: gender disparities among "high-risk" patients. Presented at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 29-30, 2005.
66. Shen YH, Gan Y, Wang X, Utama B, Ou H, Wang J, Chen L, **LeMaire SA**, Coselli JS, Wang XL. Prolonged resistin treatment inhibits insulin signaling-mediated eNOS activation through up-regulation of PTEN in human endothelial cells. Presented at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 29-30, 2005.
67. Wang X, **LeMaire SA**, Chen Li, Shen YH, Gan Y, Bartsch H, Carter SA, Utama B, Ou H, Coselli JS, Wang XL. Increased collagen deposition and elevated expression of connective tissue growth factor in human thoracic aortic dissection. Presented at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 29-30, 2005.
68. Wang X, **LeMaire SA**, Chen Li, Shen YH, Gan Y, Utama B, Bartsch H, Carter SA, Coselli JS, Wang XL. Decreased expression of fibulin-5 correlates with reduced elastin in thoracic aortic dissection. Presented at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 29-30, 2005.
69. Wang X, Senthil D, Shen YH, Utama B, Gan Y, Wilks J, Carter SA, Wen S, **LeMaire SA**, Coselli JS, Wang XL. Aortic gene expression profile of ascending aortic aneurysms and

- acute proximal aortic dissections. Presented at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 29-30, 2005.
70. Carter SA, **LeMaire SA**, Jamison AL, Coselli JS. Stage one of the elephant trunk repair: aortic arch replacement in patients with aneurysms involving the entire thoracic aorta. Presented at Outcomes 2005, Key West, Florida, May 20, 2005.
 71. **LeMaire SA**, Jamison AL, Carter SA, Coselli JS. Stage two of the elephant trunk repair: descending thoracic and thoracoabdominal aortic operations after aortic arch replacement. Presented at Outcomes 2005, Key West, Florida, May 20, 2005.
 72. **LeMaire SA**, Bartsch HR, Carter SA, Wilks JA, Wang X, Wang XL, Coselli JS. Plasma matrix metalloproteinase-9 and cytokine levels after acute aortic dissection. Presented at the Joint Meeting of the North American Vascular Biology Organization and the Society for Vascular Medicine and Biology, Chicago, Illinois, June 17, 2005.
 73. **LeMaire SA**, Bartsch HR, Carter SA, Wilks JA, Wang X, Wang XL, Coselli JS. Elevated aortic matrix metalloproteinase-12 levels in Marfan patients with thoracoabdominal aneurysms. Presented at the 7th International Research Symposium on the Marfan Syndrome, Ghent, Belgium, September 14-17, 2005.
 74. **LeMaire SA**, Carter SA, Bartsch HR, Bao J, Wang XL, Coselli JS. Plasma matrix metalloproteinase-9 levels in acute and chronic aortic dissection. Presented at the 6th PanPacific Connective Tissue Societies Symposium, Kohala Coast, Hawaii, November 30-December 5, 2005.
 75. **LeMaire SA**, Chen L, Wang X, Carter SA, Shen YH, Bartsch HR, Thompson RW, Coselli JS, Wilcken DL, Wang X. A single nucleotide polymorphism in the matrix metalloproteinase-9 gene (-8202A→G) is associated with thoracic aortic aneurysms and dissection. Presented at the 1st Annual Academic Surgical Congress, San Diego, California, February 9, 2006.
 76. **LeMaire S**, Coselli J, Carter S, Pannu H, Fadulu VT, Milewicz D. Extensive aneurysmal disease associated with transforming growth factor-beta receptor type II mutation. Presented at Aortic Surgery Symposium X, New York, New York, April 27-28, 2006.
 77. **LeMaire S**, Carter S, Bartsch H, Bao J, Wang XL, Coselli J. Biomarkers for aortic dissection: are plasma matrix metalloproteinase-9 levels elevated in acute or chronic dissection? Presented at Aortic Surgery Symposium X, New York, New York, April 27-28, 2006.
 78. **LeMaire S**, Carter S, Bartsch H, Wang X, Chang K, Wilks J, Thompson R, Wang XL, Coselli J. Abnormal protease expression in aortic dissection. Presented at Aortic Surgery Symposium X, New York, New York, April 27-28, 2006.
 79. Carter SA, **LeMaire SA**, Bozinovski J, Volguina IV, Coselli JS. Organ protection and outcomes in 178 thoracoabdominal aortic aneurysm repairs in patients with Marfan syndrome. Presented at Outcomes 2006, Key West, Florida, May 19, 2006.
 80. **LeMaire SA**, Carter SA, Bozinovski J, Borsato GW, Vaughn WK, Coselli JS. Outcomes in patients with delayed paraplegia following thoracoabdominal aortic operations. Presented at Outcomes 2006, Key West, Florida, May 19, 2006.
 81. Nadvoretzkiy VV, Shung K, Lie GR, **LeMaire SA**, Wang XL, Zhai Q, Kearney DL, Pignatelli RH, Eidem BX, Vick GW, Kovalchin JP, Ayres NA, Taylor MD, Coselli JS,

- Towbin JA, Ge S. Quantification of aortic wall abnormalities in Marfan syndrome by ultrasound backscatter analysis: an in vitro study using a clinical ultrasound system. Presented at the 17th Annual Scientific Sessions of the American Society of Echocardiography, Baltimore, Maryland, June 4, 2006.
82. **LeMaire SA**, Bartsch HR, Carter SA, Bozinovski J, Wang XL, Coselli JS. Aortic matrix metalloproteinase-12 levels are elevated in patients with chronic thoracic aortic dissection but not in patients with acute aortic dissection. Presented at 2nd Annual Academic Surgical Congress, Phoenix, Arizona, February 9, 2007.
 83. Wong DR, Coselli JS, Bozinovski J, Carter SA, Murariu D, **LeMaire SA**. Axillary artery perfusion in surgery for acute and subacute ascending aortic dissections. Presented at the Canadian Cardiovascular Congress 2007, Québec City, Québec October 20-24, 2007.
 84. **LeMaire S**, Akay M, Murariu D, Coselli J. Thoracoabdominal aortic aneurysm repair in patients with left internal thoracic artery grafts. Presented at the Summit on Acute Aortic Diseases: Lux et Veritas, New Haven, Connecticut, November 1-2, 2007.
 85. Yoon JS, Zhang L, Shen YH, Criddell M, **LeMaire SA**, Milewicz DM, Coselli JS, Wang XL. Adventitial fibroblasts in thoracic aortic aneurysm and dissection (TAAD) [quick shot oral presentation] Presented at the 3rd Annual Academic Surgical Congress, Huntington Beach, California, February 15, 2008.
 86. Chu D, Bakaeen F, Wang XL, **LeMaire SA**, Coselli JS, Huh J. The impact of peripheral vascular disease on long-term survival after coronary artery bypass graft surgery. Presented at the 60th Annual Meeting of the Southwest Surgical Congress, Acapulco, Mexico, March 30, 2008.
 87. Green S, **LeMaire SA**, Amerman K, Parenti J, Cheng C, Coselli JS. Thoracic aortic pseudoaneurysms and patch aneurysm in patients with Marfan syndrome: mid-term results after endovascular repair. Presented at the Houston Aortic Symposium: Frontiers in Cardiovascular Diseases Meeting, Houston, Texas, April 4-6, 2008.
 88. Palmero C, Wong DR, Jones MM, Bozinovski J, Carter SA, Murariu D, **LeMaire SA**, Coselli JS. Axillary artery perfusion in surgery for acute and subacute ascending aortic dissections. Presented at the Houston Aortic Symposium: Frontiers in Cardiovascular Diseases Meeting, Houston, Texas, April 4-6, 2008.
 89. Akay M, Murariu D, Jones MM, **LeMaire SA**, Coselli JS. Left carotid to subclavian artery bypass before thoracoabdominal aortic aneurysm repair enables safe aortic clamping in patients with left internal thoracic artery grafts. Presented at the Houston Aortic Symposium: Frontiers in Cardiovascular Diseases Meeting, Houston, Texas, April 4-6, 2008.
 90. Jones MM, Wong DR, Bozinovski J, Carter SA, Murariu D, **LeMaire SA**, Coselli JS. Axillary artery perfusion in surgery for acute and subacute ascending aortic dissections. Presented at the 6th Current Trends in Cardiothoracic Surgery/Michael E. DeBakey International Surgical Society 17th Congress Joint Session, Houston, Texas, April 30-May 3, 2008.
 91. Green SY, **LeMaire SA**, Amerman K, Parenti J, Cheng C, Coselli JS. Thoracic aortic pseudoaneurysms and patch aneurysm in patients with Marfan syndrome: mid-term results after endovascular repair. Presented at the 6th Current Trends in

Cardiothoracic Surgery/Michael E. DeBakey International Surgical Society 17th Congress Joint Session, Houston, Texas, April 30-May 3, 2008.

92. Akay M, Murariu D, Jones MM, **LeMaire SA**, Coselli JS. Left carotid to subclavian artery bypass before descending thoracic and thoracoabdominal aortic aneurysm repair enables safe aortic clamping in patients with left internal thoracic artery grafts. Presented at the 6th Current Trends in Cardiothoracic Surgery/Michael E. DeBakey International Surgical Society 17th Congress Joint Session, Houston, Texas, April 30-May 3, 2008.
93. Li X, Zhang L, Hou X, Zhang X, Song J, **LeMaire SA**, Coselli JS, Wang XL, Shen YH. Metformin reduces intracellular ROS level by induction of thioredoxin system through AMPK-FOXO pathway. Presented at the 68th Scientific Sessions of the American Diabetes Association, San Francisco, CA, June 7, 2008.
94. Nadvoretzkiy V, **LeMaire S**, Xie M, Wu S, Geng YJ, Coselli J, Towbin J, Ge S. Noninvasive ultrasonic detection of structural abnormalities in degenerative thoracic aortic aneurysm and dissection. Presented at the American Society of Echocardiography, Toronto, Canada, June 10, 2008.
95. Chu D, Bakaeen FG, Wang X, Coselli JS, **LeMaire SA**, Huh J. The impact of excessive grafting on long-term survival in coronary artery bypass operations. Presented at the 34th Annual Meeting of the Western Thoracic Surgical Association, Kona, Hawaii, June 25-28, 2008.
96. The GenTAC Registry Consortium. GenTAC: The National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions. Presented at the 58th Annual Meeting of the American Society of Human Genetics, Philadelphia, Pennsylvania, November 11-15, 2008.
97. Song J, Li X, **LeMaire SA**, Coselli JS, Shen YH. Descending thoracic aortic perivascular adipose tissue: possible involvement in the development of thoracic aortic aneurysms. Presented at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston, Texas, December 19, 2008.
98. Rong Y, Zhang L, Zhang M, **LeMaire SA**, Wang XL, Coselli JS, Shen HY. Insulin stimulates and inhibits the expression of anticoagulant thrombomodulin through different pathways: implications for the development of prothrombotic state in metabolic syndrome. Presented at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston, Texas, December 19, 2008. *** Second Place Research Poster ***
99. Volguina IV, Miller DC, **LeMaire SA**, Palmero LC, Wang XL, Connolly HM, Sundt TM, Bavaria JE, Dietz HC, Milewicz DM, Coselli JS. Valve-sparing and valve replacement techniques for aortic root operations in Marfan syndrome patients: analysis of early outcome. Presented at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston, Texas, December 19, 2008.
100. Palmero LC, Russell LB, Jones MM, Adams GJ, Coselli JS, **LeMaire SA**. The IRAD score does not accurately predict in-hospital mortality after surgical treatment of acute Type A aortic dissection. Presented at the Baylor College of Medicine 2008 Molecular Surgeon Research Day, Houston, Texas, December 19, 2008.

101. Bakaeen FGF, Chu D, Omer S, Sansgiry S, Kar B, Paniagua D, Carabello BA, **LeMaire SA**, Coselli JS, Huh J [quick shot oral presentation] Presented at the 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 4, 2009.
102. Choi J, Bakaeen FG, Huh J, Dao TK, **LeMaire SA**, Coselli JS, Chu D. Outcomes of coronary artery bypass operations at a Veterans Affairs hospital versus other hospitals in 49,000 patients [quick shot oral presentation] Presented at the 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 4, 2009.
103. Hawes L, Chu D, Misselbach T, Chi C, Lin PH, Kougiyas P, **LeMaire SA**, Coselli JS, Huh J, Bakaeen F. Cardiac surgery in patients with major lower extremity amputation [quick shot oral presentation] Presented at the 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 4, 2009.
104. Gopaldas RR, Huh J, Bakaeen FG, Wang X, Coselli JS, **LeMaire SA**, Chu D. The impact of resident work-hour restrictions on outcomes of cardiac surgical procedures [quick shot oral presentation] Presented at the 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 4, 2009.
105. Chu D, Bakaeen F, Wang XL, **LeMaire SA**, Coselli JS, Huh J. The impact of serum albumin level on long-term survival after coronary artery bypass grafting surgery: a 10-year experience. Presented at the 61st Annual Meeting of The Southwestern Surgical Congress, San Diego, California, March 22-24, 2009.
106. Volguina IV, Miller DC, **LeMaire SA**, Palmero LC, Wang XL, Connolly HM, Sundt TM, Bavaria JE, Dietz HC, Milewicz DM, Coselli JS. Valve-sparing and valve-replacing techniques for aortic root replacement in Marfan syndrome patients: analysis of early outcome. Presented at the 7th Current Trends in Aortic and Cardiothoracic Surgery Meeting, Houston, Texas, May 1-2, 2009.
107. **LeMaire SA**, Palmero LC, Russell LB, Jones MM, Adams GJ, Coselli JS. The IRAD score does not accurately predict in-hospital mortality after surgical treatment of acute Type A aortic dissection. Presented at the Royal Australasian College of Surgeons Annual Scientific Congress, Brisbane, Australia, May 6-9, 2009.
108. Choi JC, Bakaeen FG, Huh J, Dao TK, **LeMaire SA**, Coselli JS, Chu D. Outcomes of coronary surgery at a Veterans Affairs hospital versus other hospitals. Presented at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston, Texas, December 18, 2009.
109. de la Cruz KI, Gopaldas RR, Chu D, Huh J, **LeMaire SA**, Coselli JS, Bakaeen FG. Operative mortality after aortic valve replacement: predictions made by surgeons versus risk model. Presented at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston, Texas, December 18, 2009.
110. Del Prete JC, Bakaeen FG, Dao TK, Huh J, **LeMaire SA**, Coselli JS, Chu D. The impact of obesity on long-term survival after coronary artery bypass grafting. Presented at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston, Texas, December 18, 2009.
111. Li XN, Song J, Zhang L, Hou X, Wang XL, **LeMaire SA**, Coselli JS, Shen YH. Activation of the AMPK-FOXO3 pathway reduces fatty acid-induced increase in intracellular reactive oxygen species by upregulating thioredoxin. Presented at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston, Texas, December 18, 2009.

112. Song J, Hou X, Wang XL, Li X, **LeMaire SA**, Coselli JS, Shen YH. Activation of AMPK pathway by metformin reduces macrophage lipid accumulation by inhibiting FOXO1-mediated transcription of fatty acid binding protein 4. Presented at the Baylor College of Medicine 2009 Molecular Surgeon Research Day, Houston, Texas, December 18, 2009.
113. **LeMaire SA**, Russell L, Barshes NR, Allison PM, Haas DE, Shen YH, Milewicz DM, Coselli JS. D-dimer level remains a highly sensitive test for acute aortic dissection beyond the first 24 hours after onset. Presented at the American Association for Thoracic Surgery Aortic Symposium 2010, New York, New York, April 29-30, 2010.
114. Gopaldas RR, Bakaeen FG, **LeMaire SA**, Dao TK, Beadle TJ, Huh J, Chu D, Coselli JS. Superior nationwide outcomes of carotid endarterectomy compared to carotid artery stenting: 10-year analysis. Presented at the 2010 Vascular Annual Meeting, Boston, Massachusetts, June 10-13, 2010.
115. Gopaldas RR, Chu D, Beadle TJ, Bakaeen FJ, Dao TK, Huh J, **LeMaire SA**, Coselli JS. The impact of co-morbid abdominal aortic aneurysm on outcomes after coronary artery bypass grafting. Presented at the 2010 Vascular Annual Meeting, Boston, Massachusetts, June 10-13, 2010.
116. Díez JD, Ibrahim H, Rao A, **LeMaire SA**, Adams G, Coselli JS. Impact of prior ascending aortic repair on catheterization complexity. Presented at the Transcatheter Cardiovascular Therapeutics Conference 2010, Washington, DC, September 22, 2010.
117. Díez JD, Ibrahim H, Lee V, **LeMaire SA**, Coselli JS. An architectural classification of the aortic arch morphology when distorted by thoracic aortic aneurysms. Presented at the Transcatheter Cardiovascular Therapeutics Conference 2010, Washington, DC, September 22, 2010.
118. Scherer S, Milewicz D, **LeMaire S**, Volguina I, Palmero L, Bainbridge M, Reid J, Muzny D, Coselli J, Gibbs R. Characterization of a new dominant Marfan-like phenotype by deep whole genome sequencing. Presented at the 60th Annual American Society of Human Genetics meeting, Washington, DC, November 3, 2010.
119. Gopaldas RR, Bakaeen FG, Dao TK, Huh J, **LeMaire SA**, Coselli JS, Chu D. Socioeconomic disparity in thoracic aortic dissection. Presented at the 47th Annual Meeting of the Society of Thoracic Surgeons, San Diego, California, January 30, 2011.
120. Gopaldas RR, Huh J, Dao TK, Price MD, Preventza OA, **LeMaire SA**, Coselli JS. Incidence, predictors, and impact of acute mesenteric ischemia in patients who undergo aortic surgery. Presented at the 47th Annual Meeting of the Society of Thoracic Surgeons, San Diego, California, January 30, 2011.
121. Liao JM, Bakaeen FG, Cornwell LD, Dao TK, Coselli JS, **LeMaire SA**, Huh J, Chu D. Early outcomes of primary transverse sternal plate reinforcement for morbidly obese patients after cardiac surgery [quick shot oral presentation] Presented at the 6th Annual Academic Surgical Congress, Huntington Beach, California, February 1, 2011.
122. Wu D, Coselli JS, GJ Adams, Jones MM, Huh J, **LeMaire SA**. Trends in hepatopancreatobiliary laboratory values after elective thoracoabdominal aortic aneurysm repairs [quick shot oral presentation] Presented at the 6th Annual Academic Surgical Congress, Huntington Beach, California, February 1, 2011.

123. Gopaldas RR, Bakaeen FG, Dao TK, Coselli JS, **LeMaire SA**, Huh J, Chu D. Multivessel percutaneous coronary intervention versus multivessel coronary artery bypass grafting: nationwide propensity-score matching analysis of index hospitalization cost [quick shot oral presentation] Presented at the 6th Annual Academic Surgical Congress, Huntington Beach, California, February 1, 2011.
124. Bakaeen FG, Chu D, Misselbeck T, Huh J, **LeMaire SA**, Sansgiry S, Coselli JS. Mortality after high risk coronary artery bypass surgery: predictions made by surgeons vs. risk model in a veteran population [quick shot oral presentation] Presented at the 6th Annual Academic Surgical Congress, Huntington Beach, California, February 1, 2011.
125. Song HK, Kindem M, Holmes K, Kroner BL, Devereux RB, Maslen C, Bavaria JE, **LeMaire SA**. Long-term implications of emergency vs. elective proximal aortic surgery in Marfan syndrome patients in the GenTAC registry. Presented at the 37th Annual Meeting of the Western Thoracic Surgical Association, Colorado Springs, Colorado, June 22-25, 2011.
126. Carlson EJ, Charbonneau NL, Snyder C, Hayflick SJ, Marshall L, **LeMaire S**, Sakai LY. Circulating fibrillin-2 and fibulin-4 fragments as biomarkers for aneurysms. Presented at the Translational Opportunities for the Heritable Disorders of Connective Tissue Meeting, Portland, Oregon, July 13, 2011.
127. Youngblood SC, Tolpin DA, Coselli JS, **LeMaire SA**, Cooper JR. Connective tissue disease is a risk factor for post-dural puncture headache after cerebrospinal fluid drainage. Presented at the Annual Meeting of the American Society of Anesthesiologists, Chicago, Illinois, October 15-19, 2011.
128. Yechoor P, Blaustein AS, Bakaeen FG, Cornwell LD, Coselli JS, **LeMaire SA**, Chu D. The natural history of moderate aortic stenosis in a veteran population [quick shot oral presentation] Presented at the 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 14, 2012.
129. Albini PT, Wu D, Segura AM, Liu G, Song J, Zhang L, Coselli JS, Milewicz DM, Shen YH, **LeMaire SA**. Atherosclerosis in sporadic ascending aortic aneurysms [quick shot oral presentation] Presented at the 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 14, 2012.
130. Fajardo R, Albo D, Abuanza H, Kibbe M, Rugeles S, Escallon J, **LeMaire S**, Pawlik TM, Kao L, Hill A, Anaya DA. Implementing a career development course in Colombia: characteristics of the target audience and course evaluation [quick shot oral presentation] Presented at the 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 16, 2012.
131. Tantawy EM, Asch FM, Weissman G, Weigold WG, **LeMaire SA**, Devereux R, Pyeritz R, Eagle K, Kroner B, Taylor AJ. Relationship between aortic and PA diameter among individuals with genetic conditions of the thoracic aorta: a report from the NIH GenTAC registry. Presented at the Arteriosclerosis, Thrombosis, and Vascular Biology 2012 Scientific Sessions, Chicago, Illinois, April 18-20, 2012.
132. **LeMaire SA**, Zou S, Ren P, Zhang L, Zhang S, Coselli JS, Shen YH. Aortic dissection induces recruitment of bone marrow-derived stem cells. Presented at the American Association for Thoracic Surgery Aortic Symposium 2012, New York, New York, April 26-27, 2012. **** Editors' Choice ****

133. Wu D, Xu G, Xie W, Ren P, Zhang L, Palmero L, Coselli JS, Shen YH, **LeMaire SA**. Amplification of NLRP3 inflammasome cascade in thoracic aortic aneurysm and dissection: potential matrix metalloproteinase activation. Presented at the second GenTAC Thoracic Aortic Disease Summit, Chicago, Illinois, August 1, 2012.
134. Ren P, Zhang L, Xu G, Palmero L, Coselli JS, Shen YH, **LeMaire SA**. ADAMTS-1 and ADAMTS-4 are elevated in thoracic aortic aneurysm and dissection. Presented at the second GenTAC Thoracic Aortic Disease Summit, Chicago, Illinois, August 1, 2012.
135. Ren P, Zou S, Nguyen MT, Coselli JS, Shen YH, **LeMaire SA**. ADAMTS-4 deficiency attenuates aortic aneurysm and dissection in mice. Presented at the second GenTAC Thoracic Aortic Disease Summit, Chicago, Illinois, August 1, 2012.
136. **LeMaire SA**, Zhang L, Nguyen MT, Ren P, Wu D, Coselli JS, Shen YH. Akt2-deficient mice are susceptible to developing aortic aneurysm and dissection. Presented at the second GenTAC Thoracic Aortic Disease Summit, Chicago, Illinois, August 1, 2012.
137. Zou S, Ren P, Nguyen M, Coselli JS, Shen YH, **LeMaire SA**. Notch signalling in thoracic aortic aneurysm and dissection. Presented at the second GenTAC Thoracic Aortic Disease Summit, Chicago, Illinois, August 1, 2012.
138. Pratt A, **LeMaire SA**. AKT induced inhibition of TGF-beta signaling in thoracic aortic aneurysms and dissection. Presented at the Annual Biomedical Research Conference for Minority Students, San Jose, California, November 7-10, 2012.
139. Wu D, Choi JC, Coselli JS, Shen YH, **LeMaire SA**. AKT2 deficient aortas exhibit reduced residual strain [quick shot oral presentation] Presented at the 8th Annual Academic Surgical Congress, New Orleans, Louisiana, February 5, 2013.
140. Choi JC, Wu D, Sameri A, Albin P, Nguyen MT, Palmero LC, Coselli JS, Shen YH, **LeMaire SA**. Inflammatory infiltrate in thoracic aortic dissection [quick shot oral presentation] Presented at the 8th Annual Academic Surgical Congress, New Orleans, Louisiana, February 5, 2013.
141. Pisklak P, Youngblood S, Tolpin D, **LeMaire S**, Anton J, Collard D, Coselli J, Pan W. Performance of near infrared spectroscopy during hypothermic circulatory arrest and correlation with jugular venous saturation. Presented at the 35th Annual Meeting & Workshops of the Society for Cardiovascular Anesthesiologists, Miami Beach, Florida, April 8, 2013.
142. Albin PT, Wu D, Segura AM, Minard CG, Liu G, Nguyen MT, Palmero L, Zhang L, Song J, Coselli JS, Milewicz DM, Shen YH, **LeMaire SA**. Advanced atherosclerosis is associated with increased medial degeneration in sporadic ascending aortic aneurysms. Presented at the 1st Annual Baylor College of Medicine Cardiovascular Research Institute Symposium, Houston, Texas, April 9, 2013.
143. Choi JC, Wu D, Sameri A, Nguyen MT, Minard CG, Coselli JS, Shen YH, **LeMaire SA**. Inflammatory cell infiltrates after thoracic aortic dissection. Presented at the 1st Annual Baylor College of Medicine Cardiovascular Research Institute Symposium, Houston, Texas, April 9, 2013. *** Awarded Best Poster Presentation by a Clinical Resident or Fellow ***
144. Wu D, Xu G, Ren P, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. NLRP3 inflammasome cascade activates MMP-9 and induces smooth muscle cell contractile dysfunction and ECM destruction in thoracic aortic diseases. Presented at the 1st Annual Baylor College

of Medicine Cardiovascular Research Institute Symposium, Houston, Texas, April 9, 2013. **** Awarded Best Poster Presentation by a Clinical Resident or Fellow ****

145. Holmes KW, Preiss L, Silberbach, GM, **LeMaire SA**, Ravekes WR, Song HK and the GenTAC consortium. Bicuspid aortic valve and Marfan syndrome: two strikes? Presented at the American Heart Association Scientific Sessions, 2013, Dallas, Texas, November 16-20, 2013.
146. Omer S, Cornwell LD, Preventza O, Vunnamadala K, Lo C, **LeMaire SA**, Coselli JS, Rosengart T, Bakaeen FG. Toward eliminating re-exploration for bleeding after CABG [quick shot oral presentation] Presented at the 9th Academic Surgical Congress, San Diego, California, February 4, 2014.
147. Asch FM, Devereux RB, Roman MJ, Islam F, Silberbach GM, Song H, Pyeritz RE, Bavaria JE, Ravekes W, Holmes K, Milewicz D, Prakash S, **LeMaire SA**, McDonnell N, Eagle KA, Preiss L, Weinsaft JW. Incidence and structural predictors of aortic dissection among patients with genetically mediated aortic aneurysms – multicenter follow-up results from the GenTAC (National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions) Registry. Presented at the American College of Cardiology 63rd Annual Scientific Session, Washington, DC, March 29-31, 2014.
148. Choi JC, Wu D, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. Stress-induced activation of TGF β signaling during acute ascending aortic stress. Presented at the 2nd Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, March 25, 2014.
149. Wu D, Choi JC, Zheng Y, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. Blockade of the NLRP3 inflammasome cascade prevents thoracic aortic aneurysm and dissection formation. Presented at the 2nd Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, March 25, 2014.
150. **LeMaire SA**, Ren P, Zou S, Krishnamoorthy S, Zhang L, Hou X, Lu X, Wu D, Choi J, Coselli JS, Shen YH. ADAMTS-4 deficiency attenuates aortic aneurysm and dissection formation in mice. Presented at the American Association for Thoracic Surgery Aortic Symposium 2014, New York, New York, April 24-25, 2014. **** Selected for Plenary Citation ****
151. Ouzounian M, **LeMaire SA**, Price MD, Zarda S, Preventza O, de la Cruz KI, Coselli JS. The modified Crawford classification: how are extent V thoracoabdominal aortic repairs different? Presented at the American Association for Thoracic Surgery Aortic Symposium 2014, New York, New York, April 24-25, 2014. **** Director's Choice Presentation ****
152. Songdechakraiwt T, Aftab M, **LeMaire SA**, Nalty CC, Zarda S, Price MD, Green SY, Preventza O, de la Cruz KI, Coselli JS. Respiratory failure necessitating tracheostomy after thoracoabdominal aortic aneurysm repair: predictors and consequences. Presented at the American Association for Thoracic Surgery Aortic Symposium 2014, New York, New York, April 24-25, 2014.
153. Aftab M, Songdechakraiwt T, Green SY, Zarda S, Price MD, Nalty CC, Preventza O, de la Cruz KI, **LeMaire SA**, Coselli JS. Contemporary outcomes of open thoracoabdominal aortic aneurysm repair in octogenarians. Presented at the American Association for Thoracic Surgery Resident Poster Competition, Toronto, Canada, April 27, 2014. **** Third Place Adult Cardiac Surgery Poster ****

154. Morris SA, Oda S, Asch FM, Payne W, **LeMaire SA**, Prakash S, Devereux RB, Kroner BL, Moodie DS, Maslen CL, Pyeritz RE, Ravekes W, Holmes KW, Roman MJ, McDonnell NB, Lacro RV, Dietz HC, Eagle KA, Krishnamurthy R, Milewicz DM, GenTAC Registry Consortium. Vertebral artery tortuosity index is a novel biomarker of surgery and aortic dissection or rupture in children and young adults: findings from the National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions (GenTAC). Presented at the Arteriosclerosis Thrombosis, and Vascular Biology 2014 Scientific Sessions, Toronto, Canada, May 1-3, 2014.
155. Hughes MS, Coselli JS, Green SY, Zarda S, Nalty C, Price MD, Preventza O, de la Cruz K, **LeMaire SA**. Open repair of descending thoracic or thoracoabdominal aortic aneurysms in patients with chronic DeBakey type I dissection: early and long-term outcomes. Presented at the 3rd Thoracic Aortic Disease Summit, Baltimore, Maryland, July 9-10, 2014.
156. Zheng Y, Wu D, Hughes M, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. NLRP3 inflammasome degrades contractile proteins leading to biomechanical failure in a murine model. Presented at the 3rd Thoracic Aortic Disease Summit, Baltimore, Maryland, July 9-10, 2014.
157. Coselli JS, Preventza O, de la Cruz KI, Price MD, Nalty CC, Green SY, **LeMaire SA**. Outcomes of reoperative aortic arch repair in patients with chronic DeBakey type I dissection. Presented at the 51st Annual Meeting of the Society of Thoracic Surgeons, San Diego, California, January 25, 2015.
158. Hughes M, Zheng Y, Zhang L, Krishnamoorthy S, Coselli JS, Shen YH, **LeMaire SA**. Genetic deficiency and pharmacologic inhibition of ADAMTS4 prevent abdominal aortic aneurysms and dissections in a mouse model. Presented at the 56th National Student Research Forum, Galveston, Texas, April 23-24, 2015. **** Awarded Third Place Best Overall Poster ****
159. Zheng Y, Hughes M, Wu D, Krishnamurthy S, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. NLRP3 inflammasome cascade and STING/IRF3 pathway induce vascular smooth muscle cell phenotypic switch in aortic aneurysms and dissections. Presented at the 56th National Student Research Forum, Galveston, Texas, April 23-24, 2015. **** Received American Society for Biochemistry and Molecular Biology Outstanding Poster Award ****
160. Morris SA, Kancherla K, Oda S, Asch FM, Sami S, Payne WA III, Dodd NA, Eagle KA, Pedroza C, Pyeritz RE, Ravekes WJ, Roman MJ, Holmes KW, Tyson JE, Lacro R, **LeMaire SA**, Krishnamurthy R, Milewicz DM. Arterial tortuosity is present in multiple genetic conditions associated with aortopathy, a study from the National Registry of Genetically Triggered Thoracic Aortic Aneurysms and Cardiovascular Conditions (GenTAC). Presented at the American Heart Association Scientific Sessions, Orlando, Florida, November 10, 2015.
161. Roman MJ, Pugh NL, Bavaria JE, Devereux RB, Eagle KA, Holmes K, **LeMaire SA**, Morris SA, Pyeritz R, Ravekes WJ, Asch FM. Aortic aneurysm associated with bicuspid aortic valve: relation to gender, hemodynamics, and valve morphology: the NHLBI GenTAC Registry. Presented at the American Heart Association Scientific Sessions, Orlando, Florida, November 10, 2015.
162. Roman MJ, Whitworth RE, Bavaria JE, Devereux RB, Dietz H, Holmes K, Eagle KA, **LeMaire SA**, Morris SA, Pyeritz R, Ravekes WJ, Silberbach M. Aortic complications

associated with pregnancy in Marfan syndrome: the NHLBI GenTAC Registry. Presented at the American Heart Association Scientific Sessions, Orlando, Florida, November 10, 2015.

163. de la Cruz KI, Trocciola SM, Deshpande NS, Lea AS, Green SY, Robertson AC, Preventza O, **LeMaire SA**, Coselli JS. Surgical treatment of mycotic aortic aneurysms: have the results changed over the last twenty-five years? Presented at the American Association for Thoracic Surgery Aortic Symposium 2016, New York, New York, May 12-13, 2016. *** Directors' Choice Presentation ***
164. Wu D, Akvan S, Chesnokova A, Price MD, Sugarbaker DJ, Coselli JS, **LeMaire SA**. Postoperative chylothorax after thoracoabdominal aortic aneurysm repair. Presented at the American Association for Thoracic Surgery Aortic Symposium 2016, New York, New York, May 12-13, 2016.
165. Dolapoglu A, Volguina IV, Price MD, Coselli JS, **LeMaire SA**. Cardiac arrhythmias after open thoracoabdominal aortic aneurysm repair. Presented at the American Association for Thoracic Surgery Aortic Symposium 2016, New York, New York, May 12-13, 2016. *** Directors' Choice Presentation ***
166. de la Cruz KI, Trocciola SM, Deshpande NS, Lea AS, Green SY, Price MD, Robertson AC, Preventza OA, **LeMaire SA**, Coselli JS. Surgical treatment of mycotic aortic aneurysms: have the results changed over the last twenty-five years? Presented at the American Association for Thoracic Surgery Aortic Symposium 2016, New York, New York, May 12-13, 2016. *** Directors' Choice Presentation ***
167. Shalhub S, **LeMaire SA**, Eagle KA, Pugh N, Milewicz. Fate of the descending thoracic aorta after DeBakey type I aortic dissection in patients with genetically-triggered thoracic aortic disease. Presented at the 2016 Vascular Annual Meeting, Washington, DC, June 10, 2016.
168. Prakash S, GenTAC Registry Investigators, Bondy C, Lin A, BAVCon Investigators, Perrone L, Limongelli G, Michelena H, **LeMaire S**, Body S, Milewicz DM. Common autosomal variants modify the penetrance of left-sided cardiac lesions in Turner syndrome. To be presented at the American Heart Association Scientific Sessions, New Orleans, Louisiana, November 15, 2016.
169. Shalhub S, Eagle KA, **LeMaire SA**, Pugh N, Milewicz DM, GenTAC investigators. Fate of DeBakey type I residual dissected aorta in patients with genetically-triggered thoracic aortic disease. Presented at the 4th GenTAC Thoracic Aortic Summit, Washington, DC, September 22, 2016.
170. Shalhub S, Asch FM, **LeMaire SA**, Eagle KA, Milewicz DM, GenTAC investigators. Endovascular thoracic aortic repair in patients with genetically-triggered thoracic aortic dissection. Presented at the 4th GenTAC Thoracic Aortic Summit, Washington, DC, September 22, 2016.
171. Guo DC, Regalado ES, **LeMaire SA**, Prakash SK, Fan YX, Wallace SW, Hostetler EH, Zhao R, Estrera AL, Safi HJ, Coselli JS, GenTAC Investigators, Smith JD, Bamshad MJ, Nickerson DA, Liu XM, Milewicz DM. Increased burden of rare variants in known aortopathy genes in individuals with early onset thoracic aortic dissections. Presented at the 66th Annual Meeting of American Society of Human Genetics, Vancouver, Canada, October 18-22, 2016.

172. Morris SA, Dodd NA, Oda S, Kancherla K, Asch FM, Payne W, **LeMaire SA**, Krishnamurthy R, Devereux RB, Kroner BL, Maslen CL, Pyeritz RE, Ravekes W, Eagle K, Holmes KW, Roman MJ, Prakash S, Dietz HC, Lacro RV, Tyson J, Pedroza C, GenTAC Registry Consortium, Milewicz DM. Arterial tortuosity and cardiovascular outcomes in Marfan syndrome and Loeys-Dietz syndrome. Presented at the American Heart Association Scientific Sessions, New Orleans, Louisiana, November 15, 2016.
173. Roman MJ, Devereux RB, Preiss LR, Asch FM, Bavaria JE, Eagle KA, Holmes K, **LeMaire SA**, Maslen C, Milewicz DM, Morris SA, Prakash S, Pyeritz RE, Ravekes WJ, Shohet RV, Song HK, Weinsaft JW, GenTAC Investigators. Influence of age and gender on Marfan phenotype: the NHLBI GenTAC Registry. Presented at the American Heart Association Scientific Sessions, New Orleans, Louisiana, November 15, 2016.
174. Ren P, Hughes M, Krishnamoorthy S, Zou S, Zhang L, Wu D, Curci JA, Coselli JS, **LeMaire SA**, Shen YH. Critical role of ADAMTS-4 in the development of sporadic thoracic and abdominal aortic aneurysm and dissection. Presented at the American Heart Association Scientific Sessions, New Orleans, Louisiana, November 15, 2016.
175. Mao Y, Zhang L, Ren P, Krishnamoorthy S, Zhang M, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Critical role of endoplasmic reticulum stress-STING-IRF3 pathway in smooth muscle cell phenotype switch in aortic aneurysm and dissection. Presented at the American Heart Association Scientific Sessions, New Orleans, Louisiana, November 15, 2016.
176. Prakash S, GenTAC Investigators, Lin A, BAVCon Investigators, Perrone L, Limongelli G, Michelena H, **LeMaire S**, Body S, Milewicz D. Common autosomal variants modify the penetrance of left-sided cardiac lesions in Turner syndrome. Presented at the American Heart Association Scientific Sessions, New Orleans, Louisiana, November 15, 2016.
177. Luo W, Zhang L, Mao Y, Ren P, Zhang C, Guardado C, Zhang M, Coselli JS, **LeMaire SA**, Shen YH. Cytosolic DNA sensor STING is involved in smooth muscle cell necroptosis and development of aortic aneurysms and dissections. Presented at the 5th Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, April 4, 2017.
178. Ren P, Appel R, Zhang L, Zhang C, Luo W, Robertson A, Mao Y, Coselli JS, Cooper MA, Shen YH, **LeMaire SA**. Inflammasome inhibitor MCC950 prevents the development of sporadic thoracic and abdominal aortic aneurysms and dissections in mice. Presented at the 5th Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, April 4, 2017.
179. Zhang C, Mao Y, Zhang L, Ren P, Lou W, Krishnamoorthy S, Zhang M, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Critical role of the STING-IRF3 pathway in the phenotype switch of smooth muscle cells in aortic aneurysm and dissection. Presented at the 5th Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, April 4, 2017.
180. Pattakos G, Preventza O, Simpson KH, Price MD, Rammou A, de la Cruz KI, Weldon SA, **LeMaire SA**, Coselli JS. Time to re-examine the benefits of deep hypothermia: Higher temperatures during hypothermic circulatory arrest are associated with lower rates of stroke and bleeding in aortic surgery. Presented at the 97th Annual Meeting of the American Association for Thoracic Surgery, Boston, Massachusetts, April 29-May 3, 2017. ****Second place Cardiothoracic Surgery Resident Poster Competition****

181. **LeMaire SA**, Trautner BW, Rosengart TK. Building a surgery department research core team to support surgical investigators. Presented at the American College of Surgeons Clinical Congress 2017, San Diego, California, October 23, 2017.
182. Luo W, Zhang L, Mao Y, Ren P, Zhang C, Guardado C, Zhang M, Coselli JS, **LeMaire SA**, Shen YH. Activation of the cytosolic DNA sensor STING contributes to the development of aortic aneurysms and dissections. Presented at the American Heart Association Scientific Sessions 2017, Anaheim, California, November 13, 2017.
183. Knadler JJ, **LeMaire SA**, Morris SA. Characteristics and post-operative outcomes in pediatric and young adult patients with Marfan syndrome undergoing aortic and mitral valve surgeries. Presented at the American Heart Association Scientific Sessions 2017, Anaheim, California, November 14, 2017.
184. Ren P, Luo W, Wang Y, Zhang C, Guo J, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. Targeting necroptosis to prevent the development of sporadic aortic aneurysm and dissection in mice. Presented at the 2018 Gulf Coast Vascular Research Consortium Meeting, College Station, Texas, March 23, 2018.
185. Luo W, Zhang L, Wang Y, Mao Y, Ren P, Zhang C, Guardado C, Zhang M, Coselli JS, **LeMaire SA**, Shen YH. Activation of the cytosolic DNA sensor STING signaling contributes to the development of aortic aneurysms and dissections. Presented at the 2018 Gulf Coast Vascular Research Consortium Meeting, College Station, Texas, March 23, 2018.
186. Wang Y, Luo L, Zhang L, Ren P, Guo J, Zhang C, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Cytosolic DNA sensor STING mediates macrophage activation induced by smooth muscle cell damage during aortic aneurysm and dissection development. Presented at the 2018 Gulf Coast Vascular Research Consortium Meeting, College Station, Texas, March 23, 2018.
187. Wang Y, Luo L, Zhang L, Ren P, Guo J, Zhang C, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Cytosolic DNA sensor STING mediates macrophage activation induced by smooth muscle cell damage during aortic aneurysm and dissection development. Presented at the 6th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 10, 2018.
188. Frankel WC, Trautner BW, Spiegelman A, Grigoryan L, **LeMaire SA**. Patients at risk for aortic rupture are often exposed to fluoroquinolones during hospitalization. Presented at the Society for Healthcare Epidemiology of America Spring 2018 Conference, Portland, Oregon, April 18-20, 2018.
189. Chatterjee S, **LeMaire SA**, Green S, Amarasekara H, Price MD, Woodside S, Jesudasan S, Zhang Q, Preventza O, de la Cruz KI, Coselli JS. Do racial and socioeconomic disparities impact outcomes after thoracoabdominal aortic aneurysm repair? Presented at the American Association for Thoracic Surgery Aortic Symposium, New York, New York, April 26-27, 2018. *** Selected as a Directors' Choice Abstract ***
190. Wu D, Green SY, Price MD, Amarasekara HS, Zhang Q, de la Cruz KI, Preventza O, **LeMaire SA**, Coselli JS. Redo sternotomy in 235 patients who underwent aortic root replacement. Presented at the American Association for Thoracic Surgery Aortic Symposium, New York, New York, April 26-27, 2018.
191. Tan C, Preventza O, Price M, Green S, Weldon S, Amarasekara HS, de la Cruz KI, **LeMaire SA**, Coselli JS. Reoperative surgery on the thoracoabdominal aorta.

Presented at the 98th Annual Meeting of the American Association for Thoracic Surgery, San Diego, California, April 29, 2018.

192. Zhang L, Luo W, Ren P, Azares A, Wang Y, Zhang C, Coselli JS, Shen YH, **LeMaire SA**. Ciprofloxacin increases susceptibility to aortic dissection and rupture in mice. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
193. Zhang C, Guo J, Ren P, Luo W, Wang Y, Zhang L, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Central role of smooth muscle cell specific YAP in inducing aortic adaptive response to hemodynamic stress and maintaining aortic homeostasis. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
194. Frankel WC, Trautner BW, Spiegelman A, Grigoryan L, **LeMaire SA**. Patients at risk for aortic rupture are often exposed to fluoroquinolones during hospitalization. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
195. Luo W, Wang Y, Zhang L, Ren P, Guardado C, Zhang C, Guo J, Coselli JS, **LeMaire SA**, Shen YH. Activation of cytosolic DNA sensor STING signaling contributes to aortic aneurysm, dissection and rupture in mice. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
196. Luo W, Zhang L, Ren P, Guo J, Zhang C, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Cytosolic DNA sensor STING mediates macrophage activation induced by smooth muscle cell damage during aortic aneurysm and dissection development. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
197. Whitlock RS, Orozco V, Amarasekara H, Price M, Green SY, Zhang Q, **LeMaire SA**, Coselli JS. Aortic root replacement surgery in patients with coronary artery disease. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
198. Wu, D, Green SY, Price MD, Amarasekara HS, Zhang Q, de la Cruz KI, Preventza O, **LeMaire SA**, Coselli JS. Redo sternotomy in 235 patients who underwent aortic root replacement. Presented at the 6th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Resident Research Day, Houston, Texas, June 5, 2018.
199. Ren P, Luo W, Wang Y, Zhang C, Guo J, Zhang L, Coselli JS, Shen YH, **LeMaire SA**. Targeting Necroptosis to Prevent the Development of Sporadic Aortic Aneurysm and Dissection in Mice. Presented at the American Heart Association Scientific Sessions 2018, Chicago, IL, November 10, 2018.
200. Wang Y, Luo W, Zhang L, Ren P, Guo J, Zhang C, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Self DNA from damaged smooth muscle cells drives inflammatory response in macrophages by activating cytosolic DNA sensor STING—An implication in vascular injury and inflammation. Presented at the American Heart Association Scientific Sessions 2018, Chicago, IL, November 10, 2018.
201. Frankel WC, Song HK, Milewski RK, Shalhub S, Pugh N, Eagle KA, Roman MJ, Pyeritz RE, Maslen C, Ravekes W, Holmes KW, Desvigne-Nickens P, Tolunay E, Kroner BL, **LeMaire SA**, GenTAC Investigators. Open thoracoabdominal aortic aneurysm repair in

- patients with genetically-triggered aortic disease: report from the GenTAC registry. Presented at the 55th Annual Meeting of the Society for Thoracic Surgeons, San Diego, California, January 27-29, 2019.
202. Ageedi W, Ren P, Wang Y, Guo J, Coselli J, Shen Y, **LeMaire S**. Critical role of AIM2 inflammasome in the development of sporadic aortic dissection. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 203. Zhang C, Guo J, Ren P, Li Y, Luo W, Wang Y, Zhang L, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Central role of smooth muscle cell specific YAP in inducing aortic adaptive response to hemodynamic stress and maintaining aortic homeostasis. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 204. Ghaghada K, Ren P, Devkota L, Starosolski Z, Stupin I, Tanifum E, Annapragada A, Shen YH, **LeMaire SA**. Computed tomography imaging of aortic wall injury in a mouse model of aortic sporadic aneurysm and dissection. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 205. Wang Y, Luo W, Ren P, Zhang C, Zhang L, Coselli JS, LeMaire SA, Shen YH. DNA Released from damaged smooth muscle cells drives inflammatory response in macrophages by activating the cytosolic DNA sensor pathway: An implication in vascular injury and inflammation. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 206. Ren P, Hughes M, Zhang L, Zheng Y, Krishnamoorthy S, Coselli JS, Shen YH, **LeMaire SA**. Pharmacologic inhibition of ADAMTS-4 prevents the development of sporadic aortic aneurysms and dissections in a mouse model. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 207. Appel R, Ren P, Vasquez H, Shen Y, **LeMaire S**. Inflammasome pathway proteins caspase-1 and NLRP3 are not upregulated in Marfan thoracic aortic dissection patients. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 208. Luo W, Wang Y, Zhang L, Ren P, Zhang C, Guardado C, Coselli JS, **LeMaire SA**, Shen YH. Endoplasmic reticulum stress increases susceptibility to sporadic aortic aneurysm and dissection in mice. Presented at the 7th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 10, 2019.
 209. Appel R, Ren P, Vasquez H, Shen YH, **LeMaire SA**. Inflammasome pathway proteins are not upregulated in Marfan thoracic aortic dissection patients. Presented at the 7th Annual Michael E. DeBakey Department of Surgery Resident Research Day, Baylor College of Medicine, June 4, 2019.
 210. Frankel WC, Scott BG, Massarweh NN, Silberfein EJ, Zhang Q, Rosengart TK, **LeMaire SA**, Trautner BW. A multifaceted research engagement program improved general surgery residents' academic productivity. Presented at the 7th Annual Michael E. DeBakey Department of Surgery Resident Research Day, Baylor College of Medicine, June 4, 2019.
 211. Ageedi W, Ren P, Wang Y, Guo J, Coselli JS, Shen YH, **LeMaire SA**. Critical role of AIM2 inflammasome in the development of sporadic ascending aortic dissection.

Presented at the Gordon Research Conference: Elastin, Elastic Fibers and Microfibrils, Manchester, New Hampshire, July 21-26, 2019.

212. Dawson A, Li Y, Ren P, Vasquez H, Ageedi W, Zhang C, Luo W, Zhang L, Coselli JS, Shen Y, **LeMaire S**. Differential gene expression between men and women in ascending aortic aneurysms in single cell transcriptome analysis: A Marfan syndrome subset analysis. Presented at the American Heart Association Strategically Focused Vascular Disease Research Network Annual Meeting, Baltimore, Maryland, September 18, 2019.
213. Stephens S, Shalhub S, Dodd N, Oda S, Kancheria K, Doan T, Weigand J, Zachariah JP, Asch F, Beecroft T, Cecchi A, Shittu T, Preiss L, **LeMaire SA**, Devereux RB, Pyeritz RE, Holmes KW, Roman MJ, Lacro RV, Shohet R, Krishnamurthy R, Eagle K, Byers PH, Milewicz DM, Morris SA. Vertebral artery tortuosity is a biomarker for arterial events in children and young adults with vascular Ehlers Danlos syndrome. Presented at the American College of Cardiology 69th Annual Scientific Session, Chicago, Illinois, March 28-30, 2020. [Presented online during COVID-19 pandemic]
214. Chatterjee S, **LeMaire SA**, Shi A, Yoon L, Amarasekara HS, Zhang Q, Green SY, Preventza O, Coselli JS. Does sarcopenia affect outcomes after thoracoabdominal aortic aneurysm repair? Selected for presentation at the American Association for Thoracic Surgery Aortic Symposium, New York, New York, April 23-24, 2020. [Meeting cancelled during COVID-19 pandemic] ***Selected for Plenary Citation***
215. Schutz A, Qi W, Krajcer Z, **LeMaire SA**, Plana JC, Dougherty K, Strickman N, Silva G, Coselli JS, Preventza O. General versus monitored anesthesia care in patients undergoing transcatheter aortic valve replacement and its effect on mortality, morbidity, and length of hospital stay. Presented at the 57th Annual Meeting of the Society of Thoracic Surgeons, Virtual Conference, January 29-31, 2021.
216. Chattopadhyay A, Kwartler CS, Saw K, Li Y, Kaw A, Chen J, **LeMaire SA**, Shen YH, Milewicz DM. An unfolded protein response drives cholesterol-induced phenotypic modulation of smooth muscle cells to macrophage/fibroblast-like cells. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
217. Li Y, Abhijit C, Zhang C, Li Y, Dawson A, Zhang L, **LeMaire SA**, Shen YH. TBK1 mediates metabolic rewiring in M1 macrophage by phosphorylating pyruvate dehydrogenase-potential implication in aortic inflammation. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
218. Chakraborty A, Zhang C, Yanming L, Yang L, Dawson A, Zhang L, Coselli JS, **LeMaire SA**, Shen YH. Mitochondrial damage contributes to smooth muscle cell phenotype change, aortic degeneration, and aortic aneurysm and dissection formation through MTDNA-CGAS-STING signaling. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
219. Dawson A, Yanming L, Zhang C, Vasquez HG, Azares A, Mattar A, Coselli JS, Daugherty A, Shen YH, **LeMaire SA**. Single-cell analysis reveals paradoxical TGF- β signaling and increased expression of elastin in the aortic wall specific to ascending aortic aneurysms in patients with Marfan syndrome. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.

220. Dawson A, Yanming L, Zhang C, Vasquez HG, Azares AR, Mattar A, Coselli JS, Daugherty A, Shen YH, **LeMaire SA**. Single-cell RNA sequencing of aneurysmal ascending aortic tissue reveals evidence of endothelial dysfunction in patients with Marfan syndrome. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
221. Li Y, Ren P, Vasquez HG, Cheng C, Schulze KV, Lu HS, Cassis LA, Coselli JS, Daugherty A, Shen YH, **LeMaire SA**. Sex-specific DNA methylation and expression profiles of X-chromosome genes in human aortic smooth muscle cells. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
222. Zhang C, Li Y, Dawson A, Chakraborty A, Zhang L, **LeMaire SA**, Shen YH. Single-Cell RNA sequencing reveals the heterogeneity of aortic fibroblasts during aortic disease development in mice. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
223. Amin A, Ghanta RK, Zhang Q, Zea-Vera R, Rosengart TK, Preventza O, **LeMaire SA**, Coselli JS, Chatterjee S. Ninety-day readmission after open surgical repair of Stanford type A aortic dissection. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
224. Krause HM, Coselli JS, Green SY, Zhang Q, Amarasekara HS, Price MD, Preventza O, **LeMaire SA**. A 23-year experience with the reversed elephant trunk technique for staged repair of extensive thoracic aortic aneurysms. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021. *** Awarded Best Clinical Poster Presentation by a Student ***
225. Devkota L, Zhang C, Bhandari P, Starosolski Z, Shen YH, **LeMaire SA**, Ghaghada KB. Effect of nanoparticle size on detection of aortic degeneration using nanoparticle contract-enhanced computed tomography imaging. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
226. Frankel WC, Green SY, Amarasekara HS, Zhang Q, Preventza O, **LeMaire SA**, Coselli JS. Early gastrointestinal complications after open thoracoabdominal aortic aneurysm repair. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
227. Koksoy C, Orozco-Sevilla V, Preventza O, **LeMaire SA**, Coselli JS. Thoracoabdominal aortic repair for acute and chronic aortic dissections. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
228. Kothari R, Coselli JS, Jobe A, Amarasekara HS, Green SY, Orozco-Sevilla V, Preventza O, **LeMaire SA**. Thoracic aortic repair in patients of Jehovah's Witness faith. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
229. Orozco-Sevilla V, Coselli JS, Preventza O, **LeMaire SA**, Green SY, Etheridge GM. Spinal cord deficit after 1114 extent II open thoracoabdominal aortic aneurysm repairs. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021. *** Awarded Best Clinical Poster Presentation by Faculty***

230. Nguyen TN, Coselli JS, Kothari RS, Amarasekara HS, Akpan-Smart E, Green SY, Preventza O, **LeMaire SA**. Contemporary experience with the implantation or repair of homografts in 117 proximal aortic repairs. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
231. Devkota L, Zhang C, Bhandari P, Starosolski Z, Shen YH, **LeMaire SA**, Ghaghada KB. Effect of nanoparticle size on detection of aortic degeneration using nanoparticle contrast-enhanced computed tomography imaging. Presented at the 8th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 8, 2021.
232. Maduka R, Chen H, Wexner S, Behrns K, Lillemoe K, **LeMaire S**, Smink D, Sandhu G. How diverse are the editorial boards of surgical research journals? A report of baseline demographics. Presented at the Association for Surgical Education Annual Conference, April 30, 2021.
233. Li Y, Ren P, Vasquez HG, Cheng C, Schulze KV, Lu HS, Cassis LA, Coselli JS, Daugherty A, Shen YH, **LeMaire SA**. Sex-specific DNA methylation and expression profiles of X-chromosome genes in human aortic smooth muscle cells. Proceedings of the 9th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, 2021.
234. Zhang C, Li Y, Dawson AE, Li Y, Chakraborty A, Vasquez H, Zhang L, **LeMaire SA**, Shen YH. Single-cell RNA sequencing reveals the heterogeneity of aortic fibroblasts during aortic disease development in mice. Proceedings of the 9th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, 2021. ***Awarded Best Poster Presentation by a Resident or Fellow ***
235. Amin A, Ghanta RK, Zhang Q, Zea-Vera R, Rosengart TK, Preventza O, **LeMaire SA**, Coselli JS, Chatterjee S. Stanford type A aortic dissections: A ninety-day readmission analysis. Proceedings of the 9th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, 2021.
236. Chakraborty A, Zhang C, Li Y, Li Y, Dawson A, Zhang L, Coselli JS, **LeMaire SA**, Shen YH. Mitochondrial damage causing change to smooth muscle cell phenotype, aortic degeneration, and aortic aneurysm and dissection formation through cGAS-STING signaling. Proceedings of the 9th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, 2021.
237. Rebello KR, Chakraborty A, Shen YH, **LeMaire SA**. Role of RIPK3-mediated smooth muscle cell death in sporadic aortic aneurysm and dissection development. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022. *** Awarded Best Clinical Postdoctoral Fellow Poster ***
238. Chakraborty A, Zhang C, Li Y, Rebello KR, Zhang L, Coselli JS, **LeMaire SA**, Shen YH. STING pathway activation promotes the epigenetic induction of smooth muscle cell phenotypic alterations in the aortic wall. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
239. Li Y, Zhang C, Vasquez HG, Li Y, Chakraborty A, Rebello K, Zhang L, Ren P, Zhou Z, Azares AR, Chen R, Li Y, Lu HS, Cassis LA, Coselli JS, Milewicz D, Daugherty A, Shen YH, **LeMaire SA**. Single-cell transcriptome analysis reveals differential profiles of vascular smooth muscle cells in human acute ascending aortic dissection and

- ascending aortic aneurysm. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
240. Zhang C, Li Y, Chakraborty A, Li Y, Ren P, Rebello KR, Zhang L, Lu HS, Cassis LA, Coselli JS, Daugherty A, **LeMaire SA**, Shen YH. Aortic stress activates an adaptive program in thoracic aortic smooth muscle cells that maintains aortic strength and protects against dissection. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
241. Starosolski ZA, Davkota L, Zhang C, Bhandari P, Shen YH, **LeMaire SA**, Ghaghada KB. Prediction of aortic rupture in a mouse model of sporadic aortic aneurysm and dissection: Preliminary investigations using nano-radiomics. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
242. Onyemkpa C, Etheridge G, Amarasekara H, Orozco-Sevilla V, Preventza O, **LeMaire SA**, Coselli JS. Redo operations after failed Ross procedures. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
243. Zea-Vera R, Amarasekara HS, Green SY, Orozco-Sevilla V, Preventza O, **LeMaire SA**, Coselli JS. Mid-term outcomes after primary repair of chronic type A aortic dissection. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
244. Ramkumar N, Coselli JS, **LeMaire SA**, Connolly HM, Volguina IV, Green SY, Zhang Q, Miller DC. Aortic regurgitation after root replacement surgery in patients with Marfan syndrome. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
245. Riggan ND, Coselli JS, Volguina IV, **LeMaire SA**, Connolly HM, Sundt TM, Milewicz DM, Dietz HC, Amarasekara HS, Green SY, Zhang Q, Schaff HV, Miller CD. Midterm outcomes of aortic root surgery in patients with Marfan syndrome: A prospective, multicenter, comparative study. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
246. Li Y, Luo W, Abhijit C, Zhang C, Li Y, Rebello K, Zhang L, Coselli JS, **LeMaire SA**, Shen YH, CGAS-STING pathway-mediated cholesterol metabolism promotes the development of atherosclerosis. Presented at the 9th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, April 6, 2022.
247. Volguina I, Coselli JS, **LeMaire SA**, Connolly H, Green S, Zhang Q, Craig Miller DC. Aortic regurgitation after root replacement surgery in patients with Marfan syndrome. Presented at the American Association for Thoracic Surgery Aortic Symposium Workshop, Boston, Massachusetts, May 13-14, 2022.
248. Etheridge G, Onyemkpa C, Amarasekara A, Orozco-Sevilla V, Preventza O, Scott **LeMaire SA**, Coselli JS. Redo operations after failed Ross procedures. Presented at the American Association for Thoracic Surgery Aortic Symposium Workshop, Boston, Massachusetts, May 13-14, 2022.
249. Green S, Coselli JS, Amarasekara H, Preventza O, **LeMaire SA**. Reintervention on degenerated homografts after proximal aortic repair. Presented at the American Association for Thoracic Surgery Aortic Symposium Workshop, Boston, Massachusetts, May 13-14, 2022.

250. Green S, Kothari R, Jobe A, Amarasekara H, Preventza O, **LeMaire SA**, Coselli JS. Thoracic aortic repair in patients refusing blood products. Presented at the American Association for Thoracic Surgery Aortic Symposium Workshop, Boston, Massachusetts, May 13-14, 2022.
251. Akpan-Smart E, Preventza O, Cornwell L, Simpson K, Amarasekara H, Weldon S, **LeMaire SA**, Coselli JS. Racial disparities in proximal aortic surgery: Myth or reality? Presented at the 102nd Annual Meeting of the American Association for Thoracic Surgery, Boston, Massachusetts, May 16, 2022.
252. Chakraborty A, Zhang C, Li Yanming, Li Yang, Rebello K, Zhang L, Coselli JS, **LeMaire SA**, Shen YH. STING pathway activation promotes the epigenetic induction of smooth muscle cell phenotypic alterations in the aortic wall. Presented at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Symposium, Houston, Texas, May 31, 2022.
253. Li Yang, Luo W, Abhijit C, Zhang C, Li Yanming, Rebello K, Zhang L, Coselli JS, **LeMaire SA**, Shen YH. cGAS-STING pathway-mediated cholesterol metabolism promotes the development of atherosclerosis. Presented at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Symposium, Houston, Texas, May 31, 2022.
254. Ramkumar N, **LeMaire SA**, Zhang Q, Coselli JS, Connolly HM, Volguina IV, Green SY, Miller DC. Aortic regurgitation after root replacement surgery in patients with Marfan syndrome. Presented at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Symposium, Houston, Texas, May 31, 2022.
255. Zhang C, Li Yanming, Chakraborty A, Li Yang, Ren P, Rebello KR, Zhang L, Lu HS, Cassis LA, Coselli JS, Daugherty A, **LeMaire SA**, Shen YH. Aortic stress activates and adaptive program in thoracic aortic smooth muscle cells that maintains aortic strength and protects against dissection. Presented at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Symposium, Houston, Texas, May 31, 2022.
256. Onyemkpa C, Etheridge GM, Amarasekara H, Orozco-Sevilla V, Preventza O, **LeMaire SA**, Coselli JS. Redo operations after failed Ross procedures. Presented at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Symposium, Houston, Texas, May 31, 2022.
257. Brlecic PE, Whitlock RS, Zhang Q, **LeMaire SA**, Rosengart TK. Dispersion of NIH funding to surgical departments is contracting. Presented at the 10th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Symposium, Houston, Texas, May 31, 2022.
258. Clinical history and outcomes of patients carrying TGFB2 gene variants. Niaz T, De Backer J, Hanna N, Le Goff C, Hostetler E, Beecroft R, **LeMaire SA**, Elena C, Shalhub S, Lindsay ME, Braverman A, Milewicz DM, Morris SA on behalf of the Montalcino Aortic Consortium. Presented at the International Symposium on Marfan Syndrome, LDS, and Related Conditions, Paris, France, August 30, 2022.
259. Ouzounian M, Morris SA, Schulte L, Braverman AC, De Backer J, Jeremy R, Yetman A, Liang D, **LeMaire S**, Torrez WV, Shalhub S, Milewicz D or the Montalcino Aortic Consortium. Aortic dissection in TGF- β related vasculopathies: results from the

- montalcino aortic consortium (MAC). Presented at the International Symposium on Marfan Syndrome, LDS, and Related Conditions, Paris, France, August 30, 2022.
260. Shalhub S, Morris A, Kachroo P, Schulte L, Braverman A, De Backer J, Lang D, Yetman A, Jeremy R, Cervi E, Lindsay ME, Marcadier J, **LeMaire SA**, Ouzounian M, Milewicz D on behalf of the MAC Consortium. Distal aortic repair post aortic dissection in heritable thoracic aortic disease patients with ACTA2 pathogenic variants: Results from the montalcino aortic consortium (MAC). Presented at the International Symposium on Marfan Syndrome, LDS, and Related Conditions, Paris, France, August 30, 2022.
 261. Walter VT, Koefoed A, DeBacker J, **LeMaire SA**, Lindsay ME, Yetman A, Jeremy R, Liang D, Morris S, Shalhub S, Ouzounian M, Braverman A, Milewicz D. Aortic versus arterial events in individuals with pathogenic variants in genes encoding proteins in the TGF β signaling pathway: findings from the Montalcino Aortic Consortium (MAC). Presented at the International Symposium on Marfan Syndrome, LDS, and Related Conditions, Paris, France, August 30, 2022.
 262. Li Y, Zhang C, Vasquez HG, Li Yang, Chakraborty A, Rebello KR, Xu S, Zhang L, Zhou Z, Lu HS, Cassis LA, Coselli JS, Daugherty A, Milewicz D, Shen YH, **LeMaire SA**. Dynamic smooth muscle cell phenotypic transition during human thoracic aortic disease progression – from compensation in aortic aneurysm to decompensation in aortic dissection. Presented at the 10th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 5, 2023.
 263. Xu S, Li Y, Zhang C, Vasquez HG, Rebello KR, Coselli JS, Milewicz DM, Daugherty A, **LeMaire SA**, Shen YH. Energy metabolism dynamics in smooth muscle cells of sporadic aortic aneurysms and acute dissections. Presented at the 10th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 5, 2023.
 264. Blackburn KW, Nguyen TT, Kuncheria A, Khouqeer AF, Green SY, Moon MR, **LeMaire SA**, Coselli JS. Outcomes of thoracoabdominal aortic aneurysm repair in patients with a prior myocardial infarction. Presented at the 10th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 5, 2023. *** Awarded Best Clinical Student Poster Presentation ***
 265. Rebello KR, Green SY, Weldon SA, Willis AF, Koksoy C, Moon MR, **LeMaire SA**, Coselli JS. Outcomes and predictors of early mortality after open Crawford Extent III thoracoabdominal aortic aneurysm repair: Do women differ from men? Presented at the 10th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 5, 2023.
 266. Rebello KR, Li Y, Zhang L, Chakraborty A, Zhang C, Li Y, Xu S, **LeMaire SA**, Shen YH. Role of GSDMD-mediated pyroptosis in aortic aneurysm and dissection formation. Presented at the 10th Annual Symposium of the Cardiovascular Research Institute at Baylor College of Medicine, Houston, Texas, April 5, 2023.
 267. Devkota L, Zhang C, Bhandari P, Vela D, Starosolski Z, Shen YH, **LeMaire SA**, Ghaghada KB. Interrogation of endothelial permeability in aortic aneurysm and dissection using nanoparticle contrast-enhanced computed tomography. Presented at Vascular Discovery 2023, Boston, Massachusetts, May 10-13, 2023.
 268. Barron LK, Vidal NR, Rebello KR, Green SY, **LeMaire SA**, Moon RM, Coselli JS. Outcomes and risk in proximal aortic replacement with concomitant coronary artery bypass grafting. Presented at the 11th Annual Baylor College of Medicine Michael E.

- DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
269. Zhang C, Zhang L, Devkota L, Li Y, Li Y, Chakraborty A, Rebello KR, Xu S, Vasquez HG, Ghaghada KB, **LeMaire SA**, Shen YH. Critical role of endothelial injury in the initiation of aortic dissection. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 270. Mohan N, Orozco-Sevilla V, Jobe AC, Alonso K, Green SY, Etheridge GM, Moon MR, **LeMaire SA**, Coselli JS. Redo aortic root replacement in patients with infected composite valve grafts. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 271. Zea-Vera R, Green SY, Amarasekara HS, Orozco-Sevilla V, Preventza O, **LeMaire SA**, Coselli JS. Contemporary midterm outcomes after primary repair of chronic type A aortic dissection. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 272. Halas M, Coselli JS, Green SY, Amarasekara HS, **LeMaire SA**. Reintervention on degenerated homografts after proximal aortic repair. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 273. Henry JA, Apkan-Smart E, Simpson KK, Cornwell LD, Green SY, Chatterjee S, **LeMaire SA**, Coselli JS, Preventza O. The impact of community socioeconomic factors along with gender on outcomes in patients who undergo thoracic aortic surgery. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 274. Ageedi W, Koksoy C, Rebello K, Green SY, Amarasekara HS, Etheridge G, **LeMaire SA**, Coselli JS. Thoracic aortic repair in patients refusing blood products. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 275. Cook IO, Rebello KR, Green SY, Amarasekara HS, Zea-Vera R, Moon MR, **LeMaire SA**, Coselli JS. Open thoracoabdominal aortic aneurysm repair: does chronic dissection differ from aneurysm? Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 276. Bini T, Orozco-Sevilla V, Cook IO, Rebello KR, Etheridge GM, Green SY, Moon M, **LeMaire SA**, Coselli JS. The severity of chronic obstructive pulmonary disease is associated with outcomes after open thoracoabdominal aortic aneurysm repair. Presented at the 11th Annual Baylor College of Medicine Michael E. DeBakey Department of Surgery Research Day Symposium, Houston, Texas, June 9-10, 2023.
 277. Cook IO, Green SY, Bindal M, Preventza O, Orozco-Sevilla V, Moon M, **LeMaire SA**, Coselli JS. Management of visceral artery patch aneurysms and segmental artery patch aneurysms following open thoracoabdominal aortic aneurysm repair. Presented at the Society for Vascular Surgery Vascular Annual Meeting, National Harbor, Maryland, June 14-17, 2023.

278. Zhang C, Vela DC, Devkota L, Li Y, Xu S, Zhang L, Chakraborty A, Li Y, Rebello KR, Vasquez HG, Ghaghada KB, Daugherty A, Milewicz DM, **LeMaire SA**, Shen YH. Critical role of endothelial injury in the initiation of aortic dissection. Presented at the 25th University of Kentucky Cardiovascular Research Day, Lexington, Kentucky, October 20, 2023.
279. Xu S, Li Y, Zhang C, Vasquez HG, Rebello K, Coselli JS, Lu HS, Daugherty A, Milewicz D, **LeMaire S**, Shen YH. Shifts in glycolytic phenotype in smooth muscle cells of sporadic aortic aneurysms and acute dissections. Presented at the 25th University of Kentucky Cardiovascular Research Day, Lexington, Kentucky, October 20, 2023.
280. Li Y, Zhang C, Vasquez HG, Li Y, Chakraborty A, Rebello K, Xu S, Zhang L, Sawada H, Zhou Z, Chen R, Li Y, Eisenberg SB, HS, Cassis LA, Coselli JS, Daugherty A, Milewicz DM, Shen YH, **LeMaire SA**. Dynamic phenotypic transition of smooth muscle cells during human ascending thoracic aortic disease progression: from compensation in aortic aneurysm to decompensation in aortic dissection. Presented at the 25th University of Kentucky Cardiovascular Research Day, Lexington, Kentucky, October 20, 2023.
281. Sandhu H, Miller C, **LeMaire SA**, Preventza O, Prakash S, Oderich GS, Coselli JS, Safi HJ, Estrera AL, Afifi RO. Sex differences in aortic dissection outcomes in the Houston Aortic Collaborative experience. Presented at the American Heart Association Scientific Sessions, Philadelphia, Pennsylvania, November 11-13, 2023.
282. Zhang C, Zhang L, Devkota L, L YM, Vela D, Li Y, Chakraborty A, Rebello KR, Xu S, Vasquez HG, Ghaghada KB, **LeMaire SA**, Shen YH. Critical role of endothelial injury in the initiation of aortic dissection. Presented at the American Heart Association Scientific Sessions, Philadelphia, Pennsylvania, November 11-13, 2023.
283. Xu S, Li Y, Zhang C, Vasquez HG, Rebello KR, Coselli JS, Milewicz DM, Daugherty A, **LeMaire SA**, Shen YH. Transcriptomic profile of macrophage-mediated energy metabolism in sporadic aortic aneurysms and acute dissections. Presented at the American Heart Association Scientific Sessions, Philadelphia, Pennsylvania, November 11-13, 2023.

Movie Sessions:

1. Coselli JS, **LeMaire SA**, Köksoy C. Thoracoabdominal aortic aneurysm repair using the reversed elephant trunk technique. Presented at the 46th Annual Meeting of the Southern Thoracic Surgical Association, San Juan, Puerto Rico, November 3, 1999.
2. Coselli JS, **LeMaire SA**, Köksoy C, Rice DC. Repair of proximal aortic dissection using bovine-albumin glutaraldehyde surgical adhesive. Presented at the 37th Annual Meeting of the Society of Thoracic Surgeons in New Orleans, Louisiana, January 29, 2001.
3. Coselli JS, **LeMaire SA**, Köksoy C, Miller JS, Huynh TT. Thoracoabdominal aortic resection and graft repair after failed endovascular aortic stent graft. Presented at the 48th Annual Meeting of the Southern Thoracic Surgical Association, San Antonio, Texas, November 7, 2001.
4. Conklin LD, **LeMaire SA**, Espada R, Coselli JS, Reardon MJ. Autotransplantation for cardiac sarcoma. Presented at the 54th Annual Meeting of The Southwestern Surgical Congress, Coronado, California, April 10, 2002.

5. Coselli JS, **LeMaire SA**, Köksoy C, Miller JS, Huynh TT. Thoracoabdominal aortic resection and graft repair after failed endovascular aortic stent graft. Presented at Aortic Surgery Symposium VIII, New York, New York, May 2-3, 2002.
6. Coselli JS, **LeMaire SA**, MacArthur RG. Thoracoabdominal aortic aneurysm repair using a multi-branched graft. Presented at Aortic Surgery Symposium IX, New York, New York, April 22-23, 2004.
7. Coselli JS, **LeMaire SA**. Surgical treatment of the aortic arch with circulatory arrest. Presented at Aortic Surgery – “How To Do It” Symposium, Milan, Italy, December 15-18, 2004.
8. Coselli JS, **LeMaire SA**. Surgical treatment of extent II thoracoabdominal aortic aneurysm. Presented at Aortic Surgery – “How To Do It” symposium, Milan, Italy, December 15-18, 2004.
9. Coselli JS, Bozinovski J, **LeMaire SA**, Weldon SA. Open surgical treatment of type IV thoracoabdominal aortic aneurysms. Presented at the Aortic Surgery ‘How to Do It’ II Meeting 2006, Milan, Italy, December 15, 2006.
10. Coselli JS, Bozinovski J, **LeMaire SA**, Weldon SA. Open surgery for type I and II thoracoabdominal aortic aneurysms with the branched Coselli graft. Presented at the Aortic Surgery ‘How to Do It’ II Meeting 2006, Milan, Italy, December 15, 2006.
11. Coselli JS, Huh J, **LeMaire SA**, Weldon SA. Extent IV thoracoabdominal aortic repair after failed endovascular treatment of aneurysm. Presented at the Fifth Postgraduate Course on Surgery of the Thoracic Aorta, Bologna, Italy, December 1, 2009.
12. Coselli JS, Huh J, **LeMaire SA**, Weldon SA. Removal of an infected abdominal aortic stent-graft and in situ thoracoabdominal aortic reconstruction. Presented at the American Association for Thoracic Surgery Aortic Symposium 2010, New York, New York, April 29-30, 2010.
13. Coselli JS, Huh J, **LeMaire SA**, Weldon SA. Aortic root and ascending aneurysm repair utilizing valve-sparing technique. Presented at the 2010 Heart Valve Summit, Chicago, Illinois, October 8, 2010.
14. Coselli JS, Huh J, Weldon SA, Preventza O, **LeMaire SA**. Valve-sparing operation for aneurysm of the aortic root, ascending aorta, and proximal aortic arch. Presented at the American Association for Thoracic Surgery Aortic Symposium 2012, New York, New York, April 26-27, 2012.
15. Coselli JS, Huh J, **LeMaire SA**, Weldon SA. Removal of an infected abdominal aortic stent-graft and in situ thoracoabdominal aortic reconstruction. Presented at the 7th Postgraduate Course of Surgery of The Thoracic Aorta, Bologna, Italy, November 11-12, 2013.
16. Coselli JS, Preventza O, Huh J, **LeMaire SA**, Weldon SA. Aortic root and ascending aneurysm repair utilizing valve-sparing technique. Presented at the 7th Postgraduate Course of Surgery of The Thoracic Aorta, Bologna, Italy, November 11-12, 2013.
17. Coselli JS, **LeMaire SA**, Weldon SA. Extent II repair of thoracoabdominal aortic aneurysm secondary to chronic dissection. Presented at the 7th Postgraduate Course of Surgery of The Thoracic Aorta, Bologna, Italy, November 12, 2013.

18. Preventza O, Al-Najjar R, **LeMaire SA**, Weldon S, Coselli JS. Total arch replacement with frozen elephant trunk technique. Presented at the 7th Postgraduate Course of Surgery of The Thoracic Aorta, Bologna, Italy, November 12, 2013.
19. Coselli JS, Preventza O, Weldon SA, de la Cruz KI, **LeMaire SA**. Complex aortic case: Arch replacement with frozen elephant trunk. Presented at the American Association for Thoracic Surgery 95th Annual Meeting, Seattle, Washington, April 25-29, 2015.
20. Coselli JS, **LeMaire SA**, Preventza O, de la Cruz KI, Rosu C, Pattakos G, Weldon S. Open surgical repair for the removal of an atrial septal Amplatzer™ device eroding the aortic root. Presented at the 64th Annual Meeting of the Southern Thoracic Surgical Association, San Antonio, Texas, November 10, 2017.
21. Coselli JS, **LeMaire SA**, Preventza O, de la Cruz KI, Rosu C, Pattakos G, Weldon S. Open surgical repair for the removal of an atrial septal device eroding the aortic root. Presented at the 9th Surgery of the Thoracic Aorta Postgraduate Course, Bologna, Italy, November 14, 2017.

Educational Activities:

Mentorship and Training:

Faculty:

R21 and K23 research and career development advisor for Shaine Morris, MD, MPH. (Department of Pediatrics, Baylor College of Medicine, Houston, Texas), 2014-2020

Mentor for Sanford Ziegler, MD (Medical University of South Carolina), Society of Thoracic Surgeons Mentorship Program, 2021

K23 research and career development advisor for Carl Walther, MD, MS. (Department of Medicine, Baylor College of Medicine, Houston, Texas), 2022-present

K08 research and career development co-mentor for Jason Paul Glotzbach, MD. (Department of Surgery, University of Utah), 2023-2028

Advisor for Master's Practicum in Biomedical Informatics for Carmen de La Penha, MD. (Department of Surgery, Baylor College of Medicine), 2022-2023

Residents:

Research Mentor for Zachary C. Schmittling, MD (Baylor College of Medicine, Houston, Texas), 1999-2000

Research Mentor for Lori D. Conklin, MD (Baylor College of Medicine, Houston, Texas), 2001-2003 [Currently Associate Professor, Department of Anesthesiology, University of Virginia, Charlottesville, Virginia]

Research Mentor for Darrell Wu, MD (Baylor College of Medicine, Houston, Texas), 2011-2014

Research Mentor for Paul Albini, MD (Baylor College of Medicine, Houston, Texas), 2011-2013

Research Mentor for Justin Choi, MD (Baylor College of Medicine, Houston, Texas), 2012-2014

Mentor for Brandi Scully, MD (Baylor College of Medicine, Houston, Texas), 2013-present

Mentor for Doug Farmer, MD (Tripler Army Medical Center, Honolulu, Hawaii), Society of Thoracic Surgeons Looking to the Future Program, San Diego, California, January 23-27, 2015

Mentor for Akbarshakh Akhmerov, MD (Cedars-Sinai Medical Center, Los Angeles, California), Society of Thoracic Surgeons Looking to the Future Program, Phoenix, Arizona, January 24-26, 2016

Mentor for William Whited, MD (University of Louisville, Louisville, Kentucky), Society of Thoracic Surgeons Looking to the Future Program, Houston, Texas, January 22-24, 2017

Research Mentor for Ashley Dawson, MD (University of Texas McGovern Medical School, Houston, Texas), American Heart Association Strategically Focused Vascular Disease Research Network Fellowship, 2019-2021

Mentor for Swara Bajpi, MD (University of Alabama at Birmingham, Birmingham, Alabama), Association for Academic Surgery/SECOND Trial Mentorship Network Program, 2021

Mentor for Donald Chang, MD, PhD (Henry Ford Hospital, Detroit, Michigan), Southern Thoracic Surgical Association Brooks Scholar Program, Atlanta, Georgia, November 4-6, 2021

Research Mentor for Kimberly Rebello, MD, MS (Case Western Reserve - University Hospitals, Cleveland, Ohio), NIH T32 Research Training Program in Cardiovascular Surgery, 2021-2023

Mentor for Jenny Bui, MD, MPH (Henry Ford Hospitals, Detroit, Michigan), Association for Academic Surgery/SECOND Trial Mentorship Network Program, 2023

Research Mentor for Robert Seniors, III, MD (University of Texas McGovern Medical School, Houston, Texas), NIH T32 Research Training Program in Cardiovascular Surgery, 2023-2025

Postdoctoral Fellows:

Research Mentor for Pingping Ren, MD (Baylor College of Medicine, Houston, Texas), 2016-2019

Research Mentor for Waleed Ageedi, MD (Baylor College of Medicine, Houston, Texas), NIH T32 Research Training Program in Cardiovascular Surgery, 2018-2020

Mentor for Yanming Li, PhD (Baylor College of Medicine, Houston, Texas), 2018-present

Medical Students:

Research Mentor for Jonathan Wilks (Baylor College of Medicine, Houston, Texas), Baylor College of Medicine Medical Student Research Tract, 2003-2004 [Currently Assistant Professor, Department of Anesthesiology and Perioperative Medicine, University of Texas MD Anderson Cancer Center, Houston, Texas]

Research Mentor for Heather Bartsch (Baylor College of Medicine, Houston, Texas), Baylor College of Medicine Medical Student Research Tract, 2004-2005 [Currently Assistant Professor, Departments of General Internal Medicine and Pediatrics, Baylor College of Medicine, Houston, Texas]

Research Supervisor for Varun Chowdhary (University of Texas Medical Branch, Galveston, Texas), July - August 2010

Research Supervisor for Neha Deshpande (Baylor College of Medicine, Houston, Texas), March 2012 [Currently Clinical Instructor, Department of General Internal Medicine, University of Washington, Seattle, Washington]

Research Mentor for Michael Hughes (University of Texas Health Science Center, Houston, Texas), 2013 - 2015

- American Association for Thoracic Surgery Summer Intern Scholarship recipient, July 2013
- Howard Hughes Medical Institute Fellowship recipient, July 2014 - June 2015

Research Mentor for Yanqiu Zheng (Baylor College of Medicine, Houston, Texas), February 2013-2016

- Baylor College of Medicine Medical Student Research Track, July 2014 - June 2015

Mentor for Sujay Kulshrestha (The University of Chicago Pritzker School of Medicine, Chicago, Illinois), Society of Thoracic Surgeons Looking to the Future Program, San Diego, California, January 23-27, 2015

Mentor for Ryan Dickey (Baylor College of Medicine, Houston, Texas), American Association for Thoracic Surgery Member for a Day Program, Seattle, Washington, April 25-27, 2015

Mentor for Jun Elegino (Lake Erie College of Osteopathic Medicine, Erie, Pennsylvania), Society of Thoracic Surgeons Looking to the Future Program, Phoenix, Arizona, January 24-26, 2016

Mentor for Daud Lodin (San Juan Bautista School of Medicine, Caguas, Puerto Rico), Society of Thoracic Surgeons Looking to the Future Program, Houston, Texas, January 21-24, 2017

Mentor for Alexander Merriman (University of California San Francisco, San Francisco, California), Society of Thoracic Surgeons Mentorship Program, 2021

Research mentor for Samantha Xu (Case Western Reserve University School of Medicine), Sarnoff Cardiovascular Research Foundation Fellowship Program, 2022-2023

Graduate Students:

Research Supervisor for Eiffel Manzano (Baylor College of Medicine, Houston, Texas), Department of Molecular Physiology and Biophysics, January - March 2011

Research Supervisor for Zhijuan Cao (Baylor College of Medicine, Houston, Texas), Department of Molecular Physiology and Biophysics, March - April 2011

College Students:

Preceptor for Jamie Junkerman (Quincy University, Quincy, Illinois), summer 2000

Research Mentor for David Barron (Rice University, Houston, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2001

Preceptor for Leah Marsot (Quincy University, Quincy, Illinois), summer 2001

Preceptor for Matt Spector (Quincy University, Quincy, Illinois), summer 2001

Preceptor for Matthew Wang (University of Illinois at Chicago, Chicago, Illinois), Baylor College of Medicine Michael E. DeBakey Summer Surgery Program (SMART), 2001

Preceptor for Qaali Hussein (University of Texas – Austin, Austin, Texas), Baylor College of Medicine/Rice University Honors Premedical Academy Minority Medical Education Program, 2002

Research Mentor for Dominic Gomez-Leonardelli (University of Colorado, Denver, Colorado), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2003

Preceptor for Hanna Garth (Rice University, Houston, Texas), Baylor College of Medicine/Rice University Honors Premedical Academy Minority Medical Education Program, 2003

Preceptor for Ashley Dale (University of Texas – Brownsville, Brownsville, Texas), Baylor College of Medicine/Rice University Honors Premedical Academy Minority Medical Education Program, 2004

Research Mentor for Katherine Chang (University of Texas – Austin, Austin, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2004

Research Mentor for Jean Bao (Rice University, Houston, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2005

Preceptor for Suselina Acosta (Columbia University, New York, New York), Baylor College of Medicine/Rice University Honors Premedical Academy Medical Education Program, 2005

Preceptor for Stephanie Contag (Carleton College, Northfield, Minnesota), Baylor College of Medicine Michael E. DeBakey Summer Surgery Program (SMART), 2005

Preceptor for Brady Simons (Midwestern State University, Wichita Falls, TX), Baylor College of Medicine/Rice University Honors Premedical Academy Medical Education Program, 2006

Preceptor for Rania Hanna (University of Texas – Austin, Austin, Texas), Baylor College of Medicine Michael E. DeBakey Summer Surgery Program, 2006

Research Mentor for Faduma Hassan (Stanford University, Palo Alto, California), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2006

Preceptor for Mary Mrdutt (Colorado State University, Fort Collins, Colorado), Baylor College of Medicine Michael E. DeBakey Summer Surgery Program, 2007

Research Mentor for Luis Suarez Rodriguez (University of Puerto Rico, Cayey, Puerto Rico), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2007

Research Supervisor for Constantina Toyia (National and Capodistrian University of Athens, Athens, Greece), February-March, 2008

Preceptor for Neha Deshpande (Rice University, Houston, Texas), Baylor College of Medicine Michael E. DeBakey Summer Surgery Program, 2008 [Currently Clinical Instructor, Department of General Internal Medicine, University of Washington, Seattle]

Research Mentor for Aryan Sameri (Rice University, Houston, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2009

Research Mentor for Allison Pratt (Spelman College, Atlanta, Georgia), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2012

Research Mentor for Raul Dominguez (Amherst College, Amherst, Massachusetts), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2012

Research Mentor for Allison Pratt (Spelman College, Atlanta, Georgia), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2013

Research Mentor for Omare Okotie-Eboh (Rice University, Houston, Texas), Baylor College of Medicine Summer Medical and Research Training Program, and Rice University Laboratory Research Experience Independent Study Course (BIOC 310), 2014

Research Mentor for Richard Appel (Rice University, Houston, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, 2016-2020

Research Mentor for Audrey Odwuor (Rice University, Houston, Texas), Rice University Howard Hughes Medical Institute Sustaining Excellence in Research Scholars Program, 2015

Research Mentor for David Zhang (Rice University, Houston, Texas), Rice University Laboratory Research Experience Independent Study Course (BIOC 310), 2015

Research Mentor for Christopher Guardado (University of St. Thomas, Houston, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2015

Research Mentor for Audrey Odwuor (Rice University, Houston, Texas), Rice University Laboratory Research Experience Independent Study Course (BIOC 310), 2016

Research Mentor for Aziza Salako (Rice University, Houston, Texas), Rice University Howard Hughes Medical Institute Sustaining Excellence in Research Scholars Program, 2016

Research Mentor for Binyam Hundito (University of Maryland, Baltimore, Maryland), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2016

Research Mentor for Roseanne Dávila Rivera (University of Puerto Rico at Aguadilla, Puerto Rico), NIH Short-Term Research Experience for Underrepresented Persons (STEP-UP) Program and Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2017

Research Mentor for Phillip Acosta (University of Tulsa, Tulsa, Oklahoma), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2017

Research Mentor for Brandon Martinez (St. Mary's University, San Antonio, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2018

Research Mentor for Zeenat Loya (The University of Houston, Houston, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, 2018-2020

Research Mentor for Victoria Milosek (The University of Texas-at Austin, Texas), Baylor College of Medicine Summer Medical and Research Training Program (SMART), 2019

Research Mentor for Terran David Stenger (The University of Minnesota-Twin Cities, Minneapolis, Minnesota), Baylor College of Medicine Summer Medical and Research Training (SMART) Program, 2021

Research Mentor for MaCalia Augustus (Grand Canyon University, Phoenix, Arizona), Baylor College of Medicine Human Genome Sequencing Center (HGSC) Genetics/Genomics Research Education and Training Program (G/GREAT) Summer Research Program, 2021

Research Mentor for Calah Burros (Prairie View A&M University, Prairie View, Texas), Baylor College of Medicine Summer Medical and Research Training (SMART) Program, 2022

Research Mentor for Lauryn Adams (Troy University, Troy, Alabama), Baylor College of Medicine Human Genome Sequencing Center (HGSC) Genetics/Genomics Research Education and Training Program (G/GREAT) Summer Research Program, 2022

Research Mentor for Suran Somawardana (Rice University, Houston, Texas), Baylor College of Medicine Summer Medical and Research Training (SMART) Program, 2023

High School Students:

Research Mentor for Gobind Anand (Lamar High School, Houston, Texas), Baylor College of Medicine Summer Science for Seniors Program, 2000

Research Mentor for Amy Wang (Westfield Senior High School, Westfield, New Jersey), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, August 2013

Research Mentor for Richard Appel (St. John's High School, Houston, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, 2015

Research Mentor for Phillip Zou-Zheng (Seven Lakes High School, Katy, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, July-August 2014 and July-August 2015

Research Mentor for Michelle Zheng (Glenda Dawson High School, Pearland, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, July-August 2014 and July-August 2015

Research Mentor for Marisa Wang (Westfield Senior High School, Westfield, New Jersey), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, June 2015

Research Mentor for Kinal Patel (Glenda Dawson High School, Pearland, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, July-August 2016

Research Mentor for Nicholas Zhang (Glenda Dawson High School, Pearland, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, July-August 2016 and June-July 2018

Research Mentor for Anish Ganti (Cypress Falls High School, Houston, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, June-August 2017

Research Mentor for Anik Shah (Lawrence E. Elkins High School, Missouri City, Texas), Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, June-August 2017

Invited Lectures – Local:

1. BioGlue surgical adhesive: Potential applications and concerns in cardiovascular surgery. Presented at the Department of Surgery Grand Rounds, Baylor College of Medicine, May 13, 2000.
2. Update on BioGlue surgical adhesive. Presented at the Vascular Surgery Residents' Conference, Baylor College of Medicine, September 28, 2000.
3. Upcoming advances in aortic surgery. Presented at the 13th Bi-annual Scientific Meeting of the Michael E. DeBakey International Surgical Society, Houston, Texas, November 21, 2000.
4. Research update. Presented at the Vascular Surgery Residents' Conference, Baylor College of Medicine, March 15, 2001.
5. Tracheal erosion by innominate artery graft. Presented at the Vascular Surgery Residents' Conference, Baylor College of Medicine, August 2, 2001.
6. Aneurysms of the ascending aorta and transverse aortic arch. Presented at the Cardiothoracic Surgery Residents' Lecture Series, Baylor College of Medicine, December 11, 2002.
7. Surgical adhesives for cardiothoracic and vascular surgery: pros and cons. Presented at Baylor College of Medicine's Current Trends in Cardiothoracic Surgery 2003, Houston, Texas, March 22, 2003.
8. BioGlue surgical adhesive: improving safety while expanding applications. Presented at the Department of Cardiothoracic and Vascular Surgery Grand Rounds, The University of Texas Medical School at Houston, April 11, 2003.
9. Cerebral protection in aortic surgery. Presented at Update in Perfusion Technology, Houston, Texas, October 25, 2003.
10. BioGlue for cardiovascular operations: are the risks justified? Presented at the Methodist Hospital Thoracic Surgery Conference, November 17, 2003.
11. Chronic thoracic and thoracoabdominal aortic disease. Presented at the Cardiothoracic Surgery Residents' Lecture Series, Baylor College of Medicine, April 14, 2004.
12. Preventing ischemic complications during thoracic aortic surgery. Presented at Baylor College of Medicine's Current Trends in Cardiothoracic Surgery 2004, Houston, Texas, May 14, 2004.
13. Unusual cases in cardiothoracic surgery: a case panel. Panel member at Baylor College of Medicine's Current Trends in Cardiothoracic Surgery 2004, Houston, Texas, May 15, 2004.
14. Aortic disease: aneurysms and dissection. Presented at the Cardiology Fellows' Lecture Series, Baylor College of Medicine, July 22, 2004.
15. Surgical treatment of thoracic aortic dissection. Presented at the Fondren Operating Room Nurses' Educational Lecture Series, The Methodist DeBakey Heart Center, September 29, 2004.

16. Thoracic aortic surgery: operative approaches and immediate postoperative care. Presented at Cardiovascular Recovery and ICU Nursing In-service, St. Luke's Episcopal Hospital, December 8 and 13, 2004.
17. Thoracic aortic disease: surgical treatment and postoperative management. Presented at Acute Care Nursing In-service, St. Luke's Episcopal Hospital, December 15 and 20, 2004.
18. Perfusion strategies for thoracic aortic surgery. Presented at Perfusion Technology Section In-service, Texas Heart Institute at St. Luke's Episcopal Hospital, January 3, 2005.
19. Surgical techniques for thoracic aortic repair. Presented at Cardiovascular Operating Room Staff In-service, Texas Heart Institute at St. Luke's Episcopal Hospital, January 9 and 14, 2005.
20. Thoracic aortic dissection: a new paradigm for disease progression. Presented at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 29, 2005.
21. What would you do? Challenging cases in cardiothoracic surgery. Panel member at the 3rd Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, April 30, 2005.
22. Direct renal and mesenteric arterial stenting during thoracoabdominal aortic surgery. Presented at the Combined Surgical/Medical/Radiology Peripheral Vascular Conference, Texas Heart Institute at St. Luke's Episcopal Hospital, May 3, 2005.
23. Aortic dissection: current approaches to management. Presented at the Basic Science Conference, Baylor College of Medicine Cardiology Fellowship Program at St. Luke's Episcopal Hospital, June 3, 2005.
24. Perioperative management of patients with thoracic aortic aneurysms and dissection. Presented at Intensive Care Unit Staff In-service, Texas Heart Institute at St. Luke's Episcopal Hospital, June 8 and 10, 2005.
25. Thoracic aortic aneurysms and dissection. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, August 12, 2005.
26. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine, August 17, 2005.
27. Career paths in cardiothoracic surgery. Presented at the Baylor Student Surgical Society Conference, October 10, 2005.
28. Invited docent for the Houston Museum of Natural Science Bodyworlds 3 Exhibit, Association of Medical Illustrators Southwest Regional Event, Houston, Texas, May 5, 2006.
29. Aortic dissection: What have we learned from IRAD? Presented at the 4th Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, June 9, 2006.
30. Thoracoscopic treatment of hyperhidrosis. Presented at the 4th Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, June 10, 2006.

31. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine, August 16, 2006.
32. Aortic aneurysms and dissections. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, September 27, 2006.
33. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, November 15, 2006.
34. Aortic dissection. Presented at the Methodist Hospital Cardiac Catheterization Conference, December 8, 2006.
35. Mechanisms of disease progression after thoracic aortic dissection. Presented at the Michael E. DeBakey Department of Surgery 2006 Molecular Surgeon Research Day, Houston, Texas, December 15, 2006.
36. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, May 1, 2007.
37. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, August 17, 2007.
38. Diseases of the thoracic aorta. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, August 29, 2007.
39. Current options for managing acute aortic dissection. Presented at the Denton A. Cooley Cardiovascular Surgical Society 15th International Symposium, Houston, Texas, October 26, 2007.
40. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, November 12, 2007.
41. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, April 29, 2008.
42. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, July 30, 2008.
43. Diseases of the thoracic aorta. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, August 27, 2008.
44. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, September 22, 2008.
45. Molecular targets in thoracic aortic disease: past, present and future. Presented at the Baylor College of Medicine Michael E. DeBakey Department of Surgery Grand Rounds, January 21, 2009.

46. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, April 8, 2009.
47. Current approaches to the surgical treatment of aortic dissection. Presented at the 7th Current Trends in Aortic and Cardiothoracic Surgery Meeting, Houston, Texas, May 1, 2009.
48. Thoracic aortic aneurysms: Update on clinical and translational research. Presented at the St. Luke's Episcopal Hospital Clinical Research Symposium, May 14, 2009.
49. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, August 12, 2009.
50. Diseases of the thoracic aorta. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, August 12, 2009.
51. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, September 30, 2009.
52. Chest wall, lung, mediastinum, and pleura. Presented at General Surgery Resident's Wednesday Review Forum, Baylor College of Medicine, January 20, 2010.
53. Molecular targets in thoracic aortic disease. Presented at Cardiology Grand Rounds, St. Luke's Episcopal Hospital, February 19, 2010.
54. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, March 31, 2010.
55. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, July 28, 2010.
56. Diseases of the thoracic aorta. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, August 2, 2010.
57. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, September 29, 2010.
58. Aortic disease and repair: Bioengineering perspectives. Presented at Bioengineering and Cardiac Surgery Course (BIOE 615), Rice University, November 2, 2010.
59. Strategies for visceral and renal perfusion during TAAA repair. Presented at the Houston Aortic Symposium, March 25, 2011.
60. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, April 6, 2011.
61. The evolution of open aortic arch repair. Presented at the Michael E. DeBakey Department of Surgery Grand Rounds, Baylor College of Medicine, June 1, 2011.

62. Diseases of the thoracic aorta. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, August 25, 2011.
63. The evolution of open aortic arch repair. Presented at Cardiology Grand Rounds, St. Luke's Episcopal Hospital, August 26, 2011.
64. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, September 14, 2011.
65. Technical advances in open aortic arch repair. Presented at the Department of Surgery Grand Rounds, University of Texas Health Science Center in Houston, September 15, 2011.
66. Giving effective research presentations. Presented at the Surgery Residents' Research Seminar, Baylor College of Medicine, October 11, 2011.
67. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, October 19, 2011.
68. Open repair of the aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, November 14, 2011.
69. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, November 28, 2011.
70. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, April 18, 2012.
71. Thoracic aortic dissection: Genes, molecules, and the knife. Presented at the Second Joint Session of the Michael E. DeBakey International Surgical Society and the Denton A. Cooley Cardiovascular Surgical Society, Austin, Texas, June 21, 2012.
72. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, August 22, 2012.
73. Aortic disease and repair: Bioengineering perspectives. Presented at Bioengineering and Cardiac Surgery Course (BIOE 615), Rice University, September 6, 2012.
74. Diseases of the thoracic aorta. Presented at the Cardiology Fellows' Core Lecture Series, Baylor College of Medicine, September 10, 2012.
75. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, October 17, 2012.
76. Open repair of the aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, December 3, 2012.

77. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, December 10, 2012.
78. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute at St. Luke's Episcopal Hospital, February 13, 2013.
79. Open surgical repair of complicated acute type B dissection: Techniques and outcomes. Presented at the Houston Aortic Symposium, March 22, 2013.
80. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, August 21, 2013.
81. Planning research projects. Presented at the Surgical Research Lecture Series for General Surgery Residents, Baylor College of Medicine, September 25, 2013.
82. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, September 30, 2013.
83. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, November 18, 2013.
84. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, February 24, 2014.
85. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, March 31, 2014.
84. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, September 22, 2014.
85. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, October 6, 2014.
86. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 11, 2015.
87. GenTAC: Update 2015. Presented at the Houston Aortic Symposium, Houston, Texas, March 6, 2015.
88. Why every surgeon can and should be a surgeon scientist. Presented at Baylor College of Medicine Student Surgical Society Forum, April 16, 2015.
89. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, April 17, 2015.
90. Evolution of thoracoabdominal aortic aneurysm repair: A half-century of continuous innovation. Presented at the Baylor College of Medicine Cardiology Fellowship Programs Grand Rounds, April 17, 2015.

91. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, September 9, 2015.
92. Introduction to grant writing. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, September 23, 2015.
93. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, October 23, 2015.
94. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, October 25, 2015.
95. Formulating your research question. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, November 4, 2015.
96. The hypothesis and specific aims. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, November 18, 2015.
97. Significance and scientific approach. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, December 2, 2015.
98. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 4, 2016.
99. The candidate, biosketches, and training plan. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, March 30, 2016.
100. The environment and mentor's letter. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, May 4, 2016.
101. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, June 9, 2016.
102. Biomarkers for acute aortic dissection. Presented at the 21st Congress of the Michael E. DeBakey International Surgical Society, Fajardo, Puerto Rico, June 25, 2016.
103. Introduction to grant writing. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, August 10, 2016.
104. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, October 5, 2016.
105. Mechanisms of aortic wall damage and repair in sporadic thoracic aortic disease. James T. Willerson, M.D., Cardiovascular Seminar presented at the Texas Heart Institute, October 6, 2016.
106. Formulating your research question. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, October 17, 2016.
107. The hypothesis and specific aims: Part I. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, November 16, 2016.

108. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, November 17, 2016.
109. The hypothesis and specific aims: Part II. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, November 30, 2016.
110. Aortic surgery in patients with Marfan syndrome. Presented at The Marfan Foundation Houston Regional Symposium on Marfan Syndrome and Related Disorders, December 3, 2016.
111. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, December 5, 2016.
112. Thoracic aortic disease and the balance between aortic wall damage and repair. Presented at the Department of Surgery Grand Rounds, Baylor College of Medicine, December 7, 2016.
113. Significance and scientific approach. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, February 15, 2017.
114. The candidate, biosketches, and training plan. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, March 1, 2017.
115. Top 10 characteristics of an accepted manuscript. Presented at the Surgery Residents' Research Seminar, Baylor College of Medicine, March 1, 2017.
116. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, March 20, 2017.
117. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, March 24, 2017.
118. Aortic disease and repair: Bioengineering perspectives. Presented at Bioengineering and Cardiac Surgery Course (BIOE 615), Rice University, April 6, 2017.
119. Indications and techniques for thoracic sympathectomy. Presented at the 11th Current Trends in Aortic, Cardiac, and General Thoracic Surgery Meeting, Houston, Texas, September 8, 2017.
120. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, September 25, 2017.
121. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, October 4, 2017.
122. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, November 1, 2017.
123. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 22, 2018.

124. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, March 21, 2018.
125. Fluoroquinolones and aortic disease: Cause for concern? Presented at the 6th Annual Cardiovascular Research Institute Symposium, Baylor College of Medicine, April 10, 2018.
126. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, September 19, 2018.
127. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, September 24, 2018.
128. Introduction to grants. Presented in the General Surgery Research Curriculum, Baylor College of Medicine, December 19, 2019.
129. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 14, 2019.
130. Fluoroquinolones and aneurysms. Presented at the Houston Aortic Symposium: Frontiers in Cardiovascular Diseases, March 8, 2019.
131. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, March 20, 2019.
132. Aortic disease and repair: Bioengineering perspectives. Presented at Bioengineering and Cardiac Surgery Course (BIOE 615), Rice University, April 17, 2019.
133. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, September 23, 2019.
134. Do fluoroquinolones increase the risk of aortic aneurysm and dissection? Presented at the Texas Heart Institute James T. Willerson, MD Cardiovascular Sciences Seminar, October 10, 2019.
135. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, November 22, 2019.
136. Getting published: The *Journal of Surgical Research* perspective. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, December 5, 2019.
137. The final hurdle: Responding to reviewers and revising your paper. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, December 19, 2019.
138. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 13, 2020.
139. Aortic disease. Presented lecture as part of Cardiovascular Diseases (GS-DD-6210) course, Baylor College of Medicine, January 30, 2020.

140. Organization and workflow strategies in academic surgery. Presented at the Surgery Residents' Research Seminar, Baylor College of Medicine, February 26, 2020.
141. Caution! Fluoroquinolones accelerate aortic complications in Marfan syndrome. Presented at Houston Aortic Symposium, March 6, 2020.
142. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, April 1, 2020. [Virtual presentation]
143. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, September 9, 2020. [Virtual presentation]
144. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, September 23, 2020. [Virtual presentation]
145. Getting published: The *Journal of Surgical Research* perspective. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, November 12, 2020. [Virtual presentation]
146. How to deliver an effective research presentation. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, November 19, 2020. [Virtual presentation]
147. Do fluoroquinolones trigger aortic disease? Key steps in conducting impactful research. Presented at the Michael E. DeBakey Department of Surgery Grand Rounds, Baylor College of Medicine, January 12, 2021.
148. Aortic disease. Presented lecture as part of Cardiovascular Diseases (GS-DD-6210) graduate course, Baylor College of Medicine, January 26, 2021. [Virtual presentation]
149. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 27, 2021. [Virtual presentation]
150. Fluoroquinolones and aortic disease: evolving evidence. Presented at the Center for Translational Research on Inflammatory Diseases seminar, Baylor College of Medicine, March 4, 2021. [Virtual presentation]
151. How to write an effective scientific abstract. Presented at General Surgery Residents' Core Curriculum Seminar, Baylor College of Medicine, May 19, 2021.
152. Acute aortic dissection. Presented at the Thoracic Surgery Residency Core Curriculum Conference, Baylor College of Medicine and the Texas Heart Institute, June 16, 2021. [Virtual presentation]
153. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, July 21, 2021. [Virtual presentation]

154. Getting published: Perspectives from an editor. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, September 30, 2021. [Virtual presentation]
155. Surgical repair of the ascending aorta and aortic arch. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, October 13, 2021. [Virtual presentation]
156. Getting published: Perspectives from an editor. Presented at the Surgery Residents' Research Seminar, Baylor College of Medicine, November 10, 2021.
157. Thoracoabdominal aortic aneurysm repair. Presented at the Cardiovascular Anesthesiology Fellowship Lecture Series, Baylor College of Medicine, January 5, 2022. [Virtual presentation]
158. Aortic disease. Presented lecture as part of Cardiovascular Diseases (GS-DD-6210) graduate course, Baylor College of Medicine, January 25, 2022.
159. Perfusion for thoracic aortic surgery. Presented at Texas Heart Institute School of Perfusion Technology, Texas Heart Institute, February 23, 2022. [Virtual presentation]
160. Fluoroquinolones and aortic disease: What is the evidence? Presented at the Texas Heart Institute Cardiology Grand Rounds, Texas Heart Institute, March 25, 2022. [Virtual presentation]
161. Delivering an effective research presentation: Principles and practice. Presented at the Surgery Residents' Research Curriculum Series, Baylor College of Medicine, May 4, 2022.
162. How to get your manuscript published: Perspectives from an editor. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, October 6, 2022. [Virtual presentation]
163. Getting published: Perspectives from an editor. Presented at the Surgery Residents' Research Seminar, Baylor College of Medicine, October 26, 2022.
164. The final hurdle: Responding to reviewers and revising your paper. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, December 8, 2022.
165. Aortic disease: Principles, surgery, and science. Presented lecture as part of Cardiovascular Diseases (GS-DD-6210) graduate course, Baylor College of Medicine, January 10, 2023.
166. Getting published: Perspectives from an editor. Presented at the Surgery Residents' Research Seminar, Baylor College of Medicine, September 14, 2023.
167. How to get your manuscript published: Perspectives from an editor. Presented at the Center for Surgical Trials and Evidence-Based Practice (C-STEP) seminar at the University of Texas Health Science Center at Houston, September 21, 2023. [Virtual presentation]

168. Optimizing manuscript acceptance: An editor's perspective. MD Anderson Division of Surgery Clinical Trials Course, MD Anderson Cancer Center, November 17, 2023. [Virtual presentation]

Invited Lectures – Regional:

1. The transition from residency to practice. Presented at the Sulzer Carbomedics Residents' Conference, Austin, Texas, May 12, 2000.
2. Contemporary management of thoracic aortic dissection. Presented at ESP Pharma Regional Meeting, Dallas, Texas, July 26, 2005.
3. Thoracic aortic disease: mechanisms and clinical implications. The William J. Pokorny Surgical Science Lectureship, Presented at the Annual Meeting of the South Texas Chapter of the American College of Surgeons, Houston, Texas, February 20, 2009.
4. Invited discussant, Antegrade versus retrograde cerebral perfusion for hemi-arch replacement utilizing DHCA: Does it matter? A propensity-matched analysis. Presented at the 60th Annual Meeting of the Southern Thoracic Surgical Association, Scottsdale, Arizona, November 1, 2013.
5. Invited discussant, Erythropoietin attenuates spinal cord ischemia injury in a β cR-receptor-dependent fashion. Presented at the 63rd Annual Meeting of the Southern Thoracic Surgical Association, Naples, Florida, November 11, 2016.
6. Invited discussant, Outcomes of planned 2-stage hybrid aortic repair with Dacron replaced proximal landing zone. Presented at the 64th Annual Meeting of the Southern Thoracic Surgical Association, San Antonio, Texas, November 10, 2017.
7. Rewarding sim-lab faculty: Implimentation of academic RVUs. Presented at the Texas Association of Surgical Skills Laboratories Symposium, Houston, Texas, September 7, 2018.
8. Invited discussant, Giant left main coronary atery aneurysm: Evaluation and surgical repair [video]. Presented at 65th Annual Meeting of the Southern Thoracic Surgical Association, Amelia Island, Florida, November 8, 2018.
9. Aortic surgery: The science behind the case. The 66th Annual Meeting of the Southern Thoracic Surgical Association, Marco Island, Florida, November 6, 2019.
10. How to get your work published: Perspectives from an editor. Presented at the University of Texas Southwestern Department of Surgery Surgical Research Seminar, March 29, 2021 [virtual presentation].
11. Invited discussant, Machine learning analysis of 40,000 manuscripts reveals increased focus on clinical research among academic cardiac surgeons. Presented at 70th Annual Meeting of the Southern Thoracic Surgical Association, Orlando, Florida, November 3, 2023.

Invited Lectures – National:

1. Adhesives in cardiothoracic surgery: promise and pitfalls. Presented at the 9th Annual Cardiothoracic Techniques & Technologies Meeting, Miami Beach, Florida, March 19, 2003.

2. Aortic valve sparing surgery: a single surgeon's experience. Presented at the 2003 Southern Biomedical Engineering Conference and Symposium on Aortic Valve Sparing Surgery, Charlotte, North Carolina, September 26, 2003.
3. Complications of endovascular thoracic aortic aneurysms repair. Presented at the 26th World Congress of the International Society for Cardiovascular Surgery, Wailea, Hawaii, March 25, 2004.
4. Organ protection during thoracic aortic surgery. Presented at Outcomes 2004, Key West, Florida, May 20, 2004.
5. Update on surgical adhesives: albumin crosslinked with glutaraldehyde. Presented at the Clinical Congress of the American College of Surgeons, New Orleans, Louisiana, October 12, 2004.
6. The Baylor thoracic aortic surgery research program: building a foundation towards reducing lethality. Presented at the 38th Annual Meeting of the Association for Academic Surgery, Houston, Texas, November 11, 2004.
7. Update on thoracic aortic aneurysms. Presented at the University of Kentucky Cardiovascular Seminar Series, Lexington, Kentucky, January 7, 2005.
8. Current strategies for thoracoabdominal aortic aneurysm repair. Presented at The Division of Vascular Surgery Grand Rounds at the Northwestern University Feinberg School of Medicine, Chicago, Illinois, August 29, 2005.
9. Aortic matrix remodeling in patients with bicuspid aortic valve. Presented at the Scientific Sessions of the American Heart Association, Dallas, Texas, November 13, 2005.
10. Combining open and endovascular approaches to complex aneurysms. Presented at Abdominal Aortic Aneurysm: Genetics, Pathophysiology, and Molecular Biology - Tenth Anniversary Symposium, New York Academy of Sciences, New York, New York, April 4, 2006.
11. Surgical treatment options for aortic repair. Presented at the 28th Annual Meeting & Workshops of the Society of Cardiovascular Anesthesiologists, San Diego, California, May 1, 2006.
12. Latest advances in surgical adhesives and sealants: albumin and glutaraldehyde. Presented at the 92nd Annual Clinical Congress of the American College of Surgeons, Chicago, Illinois, October 9, 2006.
13. Invited discussant, Murine carotid aneurysms develop without down regulation of Nogo-B expression: a novel model for human thoracic aneurysms. Surgical Forum, Cardiothoracic Surgery, 92nd Annual Clinical Congress of the American College of Surgeons, Chicago, Illinois, October 10, 2006.
14. Hemostasis during congenital heart surgery: is BioGlue an option? Presented at the 3rd International Conference on Pediatric Mechanical Circulatory Support Systems and Pediatric Cardiopulmonary Perfusion, Hershey, Pennsylvania, May 17, 2007.
15. Using the laboratory to save lives: translational research in aortic dissection. Keynote Address, presented at the 39th Annual Midwest Student Biomedical Research Forum, Omaha, Nebraska, March 1, 2008.

16. GenTAC: national registry of genetically triggered thoracic aortic aneurysms and cardiovascular conditions. Presented at the Ehlers-Danlos National Foundation Learning Conference, Houston, Texas, July 31 and August 1, 2008.
17. Thoracic aortic surgery in patients with connective tissue disorders. Presented at the Ehlers-Danlos National Foundation Learning Conference, Houston, Texas, August 2, 2008.
18. What is a surgeon-scientist? Presented at the 4th Annual Association for Academic Surgery Career Development Course, San Francisco, California, October 10, 2008.
19. Invited discussant, Pressure-induced aortic remodeling is impaired in nonatherosclerotic thoracic aortic aneurysms secondary to abnormal ROS signaling and MMP activity. Surgical Forum, Cardiothoracic Surgery I, 93rd Annual Clinical Congress of the American College of Surgeons, San Francisco, California, October 14, 2008.
20. Albumin and glutaraldehyde: Surgical applications in 2008. Presented at the 93rd Annual Clinical Congress of the American College of Surgeons, San Francisco, California, October 14, 2008.
21. Invited discussant, Accelerated intimal hyperplasia distal to a focal stenosis: A new paradigm in vein graft remodeling. Association for Academic Surgery Plenary Session, 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 5, 2009.
22. Genomics and proteomics. Presented at the 20th Annual Fundamentals of Surgical Research Course, Chicago, Illinois, October 9, 2009.
23. What is an academic surgeon? What types of research are available? Presented at the 5th Annual Association for Academic Surgery Career Development Course, Chicago, Illinois, October 10, 2009.
24. Combined open and endovascular repair of complex aneurysms. Presented at the 34th Annual Northwestern University Vascular Symposium, Chicago, Illinois, December 12, 2009.
25. Discussing conflicts with conflicts of interest. Presented at the 5th Academic Surgical Congress, San Antonio, Texas, February 4, 2010.
26. Why be an academic surgeon? Presented at the 6th Annual Association for Academic Surgery Career Development Course, Washington, DC, October 2, 2010.
27. Invited discussant, Statins reduce molecular markers of angiogenesis in patients. Surgical Forum, Cardiothoracic Surgery II, 95th Annual Clinical Congress of the American College of Surgeons, Washington, DC, October 5, 2010.
28. Visceral perfusion during thoracoabdominal aortic aneurysm repair. Presented at the 35th Annual Northwestern University Vascular Symposium, Chicago, Illinois, December 10, 2010.
29. Research pathways: outcomes, translational, basic science. Which one is right for you? Presented at the 7th Annual Association for Academic Surgery Career Development Course, San Francisco, California, October 22, 2011.

30. Prevention and treatment of paraplegia with aortic surgery. Presented at the 41st Critical Care Congress, Houston, Texas, February 6, 2012.
31. Alternative funding sources for the young investigator in the era of diminished NIH funding prospects. Presented at the 8th Annual Association for Academic Surgery Career Development Course, Chicago, Illinois, September 29, 2012.
32. The NIH: organization, institutes, study sections, CSR, award types. Presented at the Inaugural Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, New Orleans, Louisiana, February 8, 2013.
33. Anatomy and classification of aortic disease. Presented at the Southern Chapter of the Puerto Rican Society of Cardiology 2013 Ponce Cardiovascular Symposium: Understanding and Managing Diseases of the Aorta, Ponce, Puerto Rico, February 23, 2013.
34. Management of type A dissection. Presented at the Southern Chapter of the Puerto Rican Society of Cardiology 2013 Ponce Cardiovascular Symposium: Understanding and Managing Diseases of the Aorta, Ponce, Puerto Rico, February 23, 2013.
35. Treatment options for thoracoabdominal aortic disease. Presented at the Southern Chapter of the Puerto Rican Society of Cardiology 2013 Ponce Cardiovascular Symposium: Understanding and Managing Diseases of the Aorta, Ponce, Puerto Rico, February 23, 2013.
36. Why every surgeon can and should be a surgeon scientist. Presented at Department of Surgery, Stony Brook University School of Medicine, April 16, 2013.
37. How to deliver an effective research presentation. Presented at the Association for Academic Surgery 24th Annual Fundamentals of Surgical Research Course, Washington, DC, October 4, 2013.
38. The NIH: Organization, institutes, study sections, CSR, award types. Presented at the 2014 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, San Diego, California, February 2, 2014.
39. The role of ADAMTS proteins in thoracic aortic disease. Presented at the 3rd Thoracic Aortic Disease Summit, Baltimore, Maryland, July 9, 2014.
40. Update from the Aortic Valve Operative Outcomes in Marfan Patients Study. Presented at the 3rd Thoracic Aortic Disease Summit, Baltimore, Maryland, July 10, 2014.
41. How to deliver an effective research presentation. Presented at the Association for Academic Surgery 25th Annual Fundamentals of Surgical Research Course, San Francisco, California, October 24, 2014.
42. How to stay updated in basic/translational research. Presented at the Association for Academic Surgery 25th Annual Fundamentals of Surgical Research Course, San Francisco, California, October 24, 2014.
43. The NIH: Organization, institutes, study sections, CSR, award types. Presented at the Association for Academic Surgery/Society of University Surgeons Surgical

- Investigators' Course: The Grant Writing Workshop, Las Vegas, Nevada, February 1, 2015.
44. Invited discussant, Multidisciplinary histological and mechanical study of aortic aneurysm to investigate potential parameters for early diagnosis of high risk of rupture. Presented at the 95th Annual Meeting of the American Association for Thoracic Surgery, Seattle, Washington, April 28, 2015.
 45. Self actualization in academic surgery. Presented at the Association for Academic Surgery 11th Annual Early Career Development Course, Chicago, Illinois, October 3, 2015.
 46. How to deliver an effective research presentation. Presented at the Association for Academic Surgery 26th Annual Fundamentals of Surgical Research Course, Chicago, Illinois, October 3, 2015.
 47. Building a research core: A roadmap and lessons learned. Presented at the Association for Academic Surgical Administrators 28th Annual Conference, Chicago, Illinois, October 6, 2015.
 48. Invited discussant, Therapeutic potential and pitfalls of gene silencing in the arterial wall. Surgical Forum, Vascular Surgery I, Clinical Congress of the American College of Surgeons, Chicago, Illinois, October 6, 2015.
 49. Identifying the opportunities. Presented at the 4th Annual Society of University Surgeons Mid-career Professional Development Course, Jacksonville, Florida, February 1, 2016.
 50. Why is reviewing manuscripts important for your career? Presented at the 11th Annual Academic Surgical Congress, Jacksonville, Florida, February 4, 2016.
 51. Thoracic aortic aneurysms and dissections: insights into the balance between aortic wall damage and repair. Presented at the University of Wisconsin School of Medicine and Public Health Department of Surgery Grand Rounds, Madison, Wisconsin, February 11, 2016.
 52. Update on biomarkers for thoracic aortic disease. Presented at the American Association for Thoracic Surgery Aortic Symposium, New York, New York, May 12, 2016.
 53. Invited discussant, The impact of aortic size and false lumen status on long-term outcomes and the fate of the distal aorta in acute DeBakey 1 aortic dissection. 96th Annual Meeting of the American Association for Thoracic Surgery, Baltimore, Maryland, May 17, 2016.
 54. Reflections on team leadership. Presented at the Society of University Surgeons Leadership Agility Course, Northwestern University Kellogg School of Management, Evanston, Illinois, September 20, 2016.
 55. The current role of surgery in Marfan syndrome. Presented at the 4th GenTAC Aortic Summit, Washington, DC, September 23, 2016.
 56. The STING pathway in thoracic aortic disease. Presented at the 2016 meeting of Surgery Biology Club II, Washington, DC, October 16, 2016.

57. The NIH: Organization, institutes, funding, CSR, award types. Presented at the Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, Las Vegas, Nevada, February 5, 2017.
58. Characteristics of an accepted manuscript. Presented at the 12th Annual Academic Surgical Congress, Las Vegas, Nevada, February 9, 2017.
59. From mentee to mentor: A journey in surgical science. The Lester R. Dragstedt Visiting Professor Lecture presented at the University of Florida, Gainesville, Florida, April 12, 2017.
60. Thoracic aortic aneurysms and dissections: Underlying molecular mechanisms and future treatment strategies. Distinguished Lecture presented at Creighton University School of Medicine, Omaha, Nebraska, September 20, 2017.
61. Thoracoabdominal aortic aneurysms: Current approaches to open repair. Oregon Health & Science University Knight Cardiovascular Institute, Portland, Oregon, December 7, 2017.
62. Mortal combat: Guardians vs. assailants in the thoracic aorta. Sluscher Lecture presented at Grand Rounds, Oregon Health & Science University Knight Cardiovascular Institute, Portland, Oregon, December 7, 2017.
63. The final hurdle: Responding to reviewers and revising your paper. Presented at the 13th Annual Academic Surgical Congress, Jacksonville, Florida, January 31, 2018.
64. Thoracic aortic disease: What factors promote aortic wall destruction? Saha Cardiovascular Research Center Seminar Series, University of Kentucky, Lexington, Kentucky, February 9, 2018.
65. Aortic disease: Principles, surgery and science. Quincy University, Quincy, Illinois, February 23, 2018.
66. Planning an academic research career. Howard Hughes Medical Institute Medical Fellows' Professional Development Session at the Association of American Physicians, American Society for Clinical Investigation, and American Physician-Scientists Association Joint Meeting. Chicago, Illinois, April 22, 2018.
67. Lessons from GenTAC. American Association for Thoracic Surgery Aortic Symposium, New York, New York, April 26, 2018.
68. *Primum non nocere*: Are we causing aortic catastrophes by prescribing antibiotics? Presented at the American Association for Thoracic Surgery Cardiac Surgery Biology Club Meeting (CSBC Cup Competition), San Diego, California, April 28, 2018.
Competition winner
69. Invited discussant, Aberrant biomechanical properties and stress mapping dissection probability models in ascending aortas of patients sustaining acute type A aortic dissection during surveillance, 98th Annual Meeting of the American Association for Thoracic Surgery, San Diego, California, May 1, 2018.
70. Risk of using fluoroquinolones in patients with aortic disease. Presented at the 5th GenTAC Thoracic Aortic Disease Summit, Portland, Oregon, October 6, 2018.

71. Are we causing aortic catastrophes with antibiotics? Dana and Albert "Cubby" Broccoli Lecture in Aortic Disease presented at the Johns Hopkins Cardiac Surgery Grand Rounds, Baltimore, Maryland, November 15, 2018.
72. Can antibiotics cause aortic disease? Quincy University, Quincy, Illinois, November 30, 2018.
73. Why reviewing manuscripts is an essential part of your academic career. Presented at the 14th Annual Academic Surgical Congress, Houston, Texas, February 7, 2019.
74. Using reporting guidelines to strengthen your reviews. Presented at the 14th Annual Academic Surgical Congress, Houston, Texas, February 7, 2019.
75. Current surgical treatment of thoracoabdominal aortic aneurysms. Quincy University, Quincy, Illinois, February 22, 2019.
76. Invited discussant. Socioeconomic factors affect late re-admissions and midterm mortality following isolated CABG. Presented at the 99th Annual Meeting of the American Association for Thoracic Surgery, Toronto, Canada, May 7, 2019.
77. *Primum non nocere*: Uncovering how prescribing antibiotics can cause aortic catastrophes. Presented at the University of Alabama Department of Surgery Grand Rounds, Birmingham, Alabama, May 21, 2019.
78. Unravelling a new risk factor for aortic disease. Presented at Research Day, San Joaquin General Hospital and California Northstate University, French Camp, California, June 28, 2019.
79. Fluoroquinolones promote degeneration of the aortic extracellular matrix. Presented at Gordon Research Conference: Elastin, Elastic Fibers and Microfibrils, Manchester, New Hampshire, July 23, 2019.
80. Surgery and science: Key steps in conducting research with impact. Presented at Department of Surgery Grand Rounds, Louisiana State University Health Shreveport, Shreveport, Louisiana, December 3, 2019.
81. Invited discussant for the Richard E. Clark Memorial Paper for Adult Cardiac Surgery. The evolving burden of infective endocarditis due to illicit drug use in the United States: An analysis of the STS Adult Cardiac Surgery Database. The 56th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, Louisiana, January 28, 2020.
82. What happens to your manuscript after you click the submit button. Presented at the 15th Academic Surgical Congress, Orlando, Florida, February 5, 2020.
83. Fluoroquinolones and aortic disease: Using basic science to drive changes in clinical practice. Presented at the University of South Florida Morsani College of Medicine Department of Molecular Pharmacology and Physiology Bioscience Seminar, Tampa, Florida, February 28, 2020.
84. Use of calcium blockers and fluoroquinolones – What do we really know? Presented at GenTAC Aortic Summit 2020, October 10, 2020. [Virtual presentation]
85. The peer review process and manuscript publication: Perspectives from an editor. Presented at Department of Surgery Grand Rounds, Albert Einstein College of

- Medicine-Montefiore Medical Center, Bronx, New York, January 15, 2021. [Virtual presentation]
86. The peer-review landscape: 2021. Presented at the 16th Academic Surgical Congress, February 4, 2021. [Virtual presentation]
 87. Ciprofloxacin accelerates aortic enlargement and promotes dissection and rupture in Marfan mice. Presented at the DEFY Foundation 4th Scientific Meeting on Vascular Ehlers Danlos Syndrome, April 9, 2021. [Virtual presentation]
 88. Update on metformin and fluoroquinolones and their influence on aortic outcomes. Presented at Critical Issues America: Endovascular Grafting, April 16, 2021. [Virtual presentation]
 89. Invited discussant. Ex-vivo biaxial load testing analysis of aortic biomechanics demonstrates variation in energy distribution across aortic zone zero: Early results from the MATADORS Trial. Presented at the 101st Annual Meeting of the American Association for Thoracic Surgery, May 1, 2021. [Virtual presentation]
 90. Delivering an effective research presentation: Principles and practice. Presented at St. Barnabas Medical Center/Rutgers New Jersey Medical School, Livingston, New Jersey, September 1, 2021. [Virtual presentation]
 91. New insights into human aortic aneurysms and dissection: Dynamic cell populations and differential gene expression patterns. Presented at the American Heart Association Scientific Sessions, November 14, 2021. [Virtual presentation]
 92. Fluoroquinolones and aortic disease: What is the evidence? Presented at the 45th Annual Northwestern Vascular Symposium, Chicago, Illinois, December 9, 2021. [Virtual presentation]
 93. The risk of fluoroquinolones in aortic disease. Presented at the American Association for Thoracic Surgery Aortic Symposium Workshop, Boston, Massachusetts, May 13, 2022.
 94. Invited discussant. Diabetes mellitus is an independent predictor of spinal cord injury after descending thoracic and thoracoabdominal aneurysm repair: Conditional regression in a propensity-score matched cohort. Presented at the 102nd Annual Meeting of the American Association for Thoracic Surgery, Boston, Massachusetts, May 17, 2022.
 95. Creating your path: Managing opportunities in academic surgery. Kickoff lecture presented at the 18th Association for Academic Surgery Early Career Development Course, San Diego, California, October 14, 2022.
 96. Invited discussant. Risk profile and operative outcomes in Marfan syndrome patients undergoing thoracoabdominal aortic aneurysm repair. Presented at the 103rd Annual Meeting of the American Association for Thoracic Surgery, Los Angeles, California, May 9, 2023.
 97. Tending the bridge: Five steps for conducting impactful surgical research. Presented at the Department of Surgery 19th Annual Research Day, University of Buffalo Jacobs School of Medicine and Biomedical Science, Buffalo, New York, May 18, 2023.

98. Invited panelist, Starting your career in science and research. Panel discussion at Gordon Research Symposium: Elastin, Elastic Fibers and Microfibrils, Manchester, New Hampshire, July 23, 2023.
99. Dynamic changes involving elastic fiber genes in thoracic aortic aneurysm and dissection. Presented at Gordon Research Conference: Elastin, Elastic Fibers and Microfibrils, Manchester, New Hampshire, July 24, 2023.
100. Fluoroquinolones and aortic disease: An update on the evidence. Presented at the University of Kentucky Aortic Symposium, Lexington, Kentucky, October 21, 2023.
101. Sex-based differences in thoracic aortic aneurysms and dissections: An overview. Presented during the GentAC Alliance Webinar on Sexual Dimorphism in Thoracic Aortic Disease, February 8, 2024. [Virtual presentation]

Invited Lectures – International:

1. Thoracoabdominal aneurysm. Presented at the Pre-congress Seminar of the 8th Annual Meeting of the Asian Society for Cardiovascular Surgery, Fukuoka, Japan, September 6, 2000.
2. Recent advancement in aortic arch replacement. Presented at the 8th Annual Meeting of the Asian Society for Cardiovascular Surgery, Fukuoka, Japan, September 7, 2000.
3. Perfusion techniques for thoracic aortic surgery. Presented at the Registrars' Training Session at the 14th Annual Tongariro Cardiac Surgery Meeting, Taupo, New Zealand, March 18, 2005.
4. Aortic expansion and rupture after dissection: molecular mechanisms. Presented at the 14th Annual Tongariro Cardiac Surgery Meeting, Taupo, New Zealand, March 18, 2005.
5. Advances in managing acute aortic dissection. Presented at the 14th Annual Tongariro Cardiac Surgery Meeting, Taupo, New Zealand, March 19, 2005.
6. Surgical repair of thoracoabdominal aortic aneurysms. Presented at the 14th Annual Tongariro Cardiac Surgery Meeting, Taupo, New Zealand, March 20, 2005.
7. The pathobiology of aortic dissection. Presented at the International Heart Forum 2007, Beijing, China, September 22, 2007.
8. The Association for Academic Surgery and the Career Development Course. Presented at the Royal Australasian College of Surgeons Younger Fellows Forum, Hong Kong, China, May 12, 2008.
9. The surgeon-scientist. Presented at the Second Annual Developing a Career in Academic Surgery Course, Brisbane, Australia, May 5, 2009.
10. Building a career pathway in academic surgery: opportunities, obstacles and getting past them. Presented at the Developing a Career in Academic Surgery Course, Perth, Australia, May 3, 2010.
11. Open repair of thoracoabdominal aortic aneurysms. Presented at the Royal Australasian College of Surgeons Annual Scientific Congress, Perth, Australia, May 5, 2010.

12. Open repair of failed infrarenal and thoracic aortic endografts. Presented at the Royal Australasian College of Surgeons Annual Scientific Congress, Perth, Australia, May 5, 2010.
13. Academic surgery in the new millennium. Presented at the St. Vincent's Hospital Academic Surgery Inaugural Lecture, Melbourne, Australia, April 28, 2011.
14. Collaboration in academic surgery. Presented at the University of Melbourne Faculty of Medicine, Dentistry and Health Sciences Dean's Dinner, Melbourne, Australia, April 28, 2011.
15. Dovetailing research into residency training. Presented at the St. Vincent's Hospital Department of Orthopaedics 75th Anniversary Symposium, Melbourne, Australia, April 29, 2011.
16. Delivering an effective research presentation. Presented at the Third Annual Developing a Career in Academic Surgery Course, Adelaide, Australia, May 2, 2011.
17. Pathophysiology of aortic dissection and connective tissue disorders. Presented at the Royal Australasian College of Surgeons Annual Scientific Congress, Adelaide, Australia, May 5, 2011.
18. From bedside to bench to operating theater: how academia can shape the future of cardiac surgery. Presented at the Victorian Cardiac Surgical Journal Club, Melbourne, Australia, May 6, 2011.
19. Advances in our knowledge of thoracic aortic aneurysm pathology. Presented at the Victorian Cardiac Surgical Journal Club, Melbourne, Australia, May 6, 2011.
20. The nuts & bolts of scientific writing. Presented at the Fundamentals of Research and Career Development Course, Lagos, Nigeria, July 18, 2011.
21. The clinician scientist. Presented at the Fundamentals of Research and Career Development Course, Lagos, Nigeria, July 19, 2011.
22. BioGlue in 2011: What is its role in cardiac surgery 10 years after FDA approval? Presented at the Perfusion Downunder Winter Meeting, Hayman Island, Australia, August 4, 2011.
23. Perfusion techniques for renal protection during thoracoabdominal aortic surgery. Presented at the Perfusion Downunder Winter Meeting, Hayman Island, Australia, August 5, 2011.
24. Open aortic arch replacement: A technical odyssey. Presented at the Perfusion Downunder Winter Meeting, Hayman Island, Australia, August 6, 2011.
25. El rol del AAS en la cirugía académica. Presented at the Developing Careers in Academic Surgery Course at the 37th National Congress of Surgery of the Colombian Surgery Association, Bogotá, Colombia, August 12, 2011.
26. Estrategias para una presentación exitosa en congresos nacionales e internacionales. Presented at the Developing Careers in Academic Surgery Course at the 37th National Congress of Surgery of the Colombian Surgery Association, Bogotá, Colombia, August 12, 2011.

27. Evolución en el reparo quirúrgico del cayado de la aorta. Presented at the 37th National Congress of Surgery of the Colombian Surgery Association, Bogotá, Colombia, August 14, 2011.
28. The surgeon-scientist. Presented at the Forum de Recherche Chirurgicale de l'Académie Nationale de Chirurgie, 113th Congrès Français de Chirurgie, Paris, France, October 5, 2011.
29. Effective research presentations. Presented at the Forum de Recherche Chirurgicale de l'Académie Nationale de Chirurgie, 113th Congrès Français de Chirurgie, Paris, France, October 7, 2011.
30. Training in cardiothoracic surgery: The US perspective. Presented at the 81st Annual Scientific Congress of the Royal Australasian College of Surgeons, Kuala Lumpur, Malaysia, May 7, 2012.
31. New technology, new surgeons, new training. Keynote Lecture at the 81st Annual Scientific Congress of the Royal Australasian College of Surgeons, Kuala Lumpur, Malaysia, May 7, 2012.
32. Thoracic aortic disease: Genes, molecules and the knife. Keynote Lecture at the 81st Annual Scientific Congress of the Royal Australasian College of Surgeons, Kuala Lumpur, Malaysia, May 7, 2012.
33. Surgery for thoraco-abdominal aortic aneurysm: How we do it. Masterclass presentation at the 81st Annual Scientific Congress of the Royal Australasian College of Surgeons, Kuala Lumpur, Malaysia, May 8, 2012.
34. Perfusion strategies for renal protection during open TAAA repair. Presented at the 81st Annual Scientific Congress of the Royal Australasian College of Surgeons, Kuala Lumpur, Malaysia, May 10, 2012.
35. Why every physician can and should be a physician scientist. Presented at the Association for Academic Surgery Fundamentals of Research and Career Development Course, National Health Research Conference, Cernobbio, Italy, November 12, 2012.
36. Delivering effective research presentations. Presented at the Association for Academic Surgery Fundamentals of Research and Career Development Course, National Health Research Conference, Cernobbio, Italy, November 13, 2012.
37. Molecular mechanisms of thoracic aortic aneurysm and dissection. Presented at American Association for Thoracic Surgery Cardiac Surgery Biology Club, Toronto, Canada, April 26, 2014.
38. Invited discussant, Surveillance of moderate-size aneurysms of the thoracic aorta. Presented at the 94th Annual Meeting of the American Association for Thoracic Surgery, Toronto, Canada, April 29, 2014.
39. Open replacement of the thoracoabdominal aorta in Marfan syndrome. Presented at the 9th International Research Symposium on Marfan Syndrome and Related Disorders, Paris, France, September 25, 2014.
40. Invited panelist, CTSNet roundtable discussion: Size and dissection: What is the relation? Panel discussion at Liverpool Aortic Surgery Symposium VI, Liverpool, UK, June 26, 2015.

41. Invited panelist, Optimal brain protection method in aortic surgery. Panel discussion at Liverpool Aortic Surgery Symposium VI, Liverpool, UK, June 26, 2015.
42. US experience of developing an academic career. Presented at the Royal Prince Alfred Hospital 81st Annual Reunion Week Symposium, Sydney, Australia, September 2, 2015.
43. Funding challenges facing surgical research in the US. Presented at the Royal Prince Alfred Hospital 81st Annual Reunion Week Symposium, Sydney, Australia, September 3, 2015.
44. Mechanisms of aortic wall injury and repair in thoracic aortic disease. Presented at the 15th Biannual Meeting of the International Society of Applied Cardiovascular Biology, Banff, Canada, September 10, 2016.
45. Getting published: The *Journal of Surgical Research* perspective. Presented at the 10th Developing a Career in Academic Surgery Course, the 87th Annual Scientific Congress of the Royal Australasian College of Surgeons, Sydney, Australia, May 6, 2018.
46. Competing priorities: How I find time for leadership. Presented at the 10th Developing a Career in Academic Surgery Course, the 87th Annual Scientific Congress of the Royal Australasian College of Surgeons, Sydney, Australia, May 6, 2018.
47. Rheumatic heart disease in North America. Presented at the 87th Annual Scientific Congress of the Royal Australasian College of Surgeons, Sydney, Australia, May 7, 2018.
48. Aortic and vascular surgery: The latest. Presented at the Marfan Foundation's What's New in Genetic Aortic and Vascular Conditions meeting for affected patients and their families, Paris, France, August 28, 2022.
49. Gene-specific decision-making for surgical cut points. Presented at the GenTAC Aortic Summit, Paris, France, September 1, 2022.
50. The danger of fluoroquinolone antibiotics in patients with thoracic aortic disease. Presented at the Perfusion Downunder Winter Meeting, Queenstown, New Zealand, August 17, 2023.
51. Perfusion strategies for brain protection during aortic arch repair. Presented at the Perfusion Downunder Winter Meeting, Queenstown, New Zealand, August 19, 2023.

Invited Webinars – National and International:

1. Aortic disease: What dictates rupture risk and how can we protect and restore wall integrity? International Society for Applied Cardiovascular Biology Webinar Series. August 7, 2019.
2. Single-cell sequencing: Enhancing understanding of the mechanisms underlying aortic disease. GenTAC Alliance Basic and Translational Science Working Group Webinar Series. May 13, 2020.
3. Gene-specific decision-making for surgical cut points. The American Association for Thoracic Surgery Adult Cardiac Global Grand Rounds Webinar Series: Gene-Guided Management of Aortic Disease. November 2, 2022.

Program and Abstract Review Committees:

1. The 13th Bi-annual Scientific Meeting of the Michael E. DeBakey International Surgical Society, 2000
2. Association for Academic Surgery, 2001-2003
3. Cardiothoracic Techniques and Technologies Annual Meeting, 2002-2004
4. Baylor College of Medicine's Current Trends in Cardiothoracic Surgery Meeting, 2004-2007
5. Abstract reviewer, 37th Critical Care Congress, 2007
6. Chair, Abstract Subcommittee, Joint Session of the 6th Current Trends in Cardiothoracic Surgery Conference and the 17th Congress of the Michael E. DeBakey International Surgical Society, 2008
7. Abstract grader, American Heart Association Scientific Sessions, 2008
8. Baylor College of Medicine's 7th Current Trends in Aortic and Cardiothoracic Surgery Meeting, 2009
9. Abstract grader, American Heart Association Scientific Sessions, 2009
10. First Joint Session of the Denton A. Cooley Cardiovascular Surgical Society and the Michael E. DeBakey International Surgical Society, 2010
11. Abstract grader, American Heart Association Scientific Sessions, 2010
12. Baylor College of Medicine's 8th Current Trends in Cardiothoracic Surgery Meeting, 2011
13. Southern Thoracic Surgical Association Annual Meeting, 2011-2013 [Co-chair, 2013]
14. Abstract grader, American Heart Association Scientific Sessions, 2011
15. Second Joint Session of the Michael E. DeBakey International Surgical Society and the Denton A. Cooley Cardiovascular Surgical Society, 2012
16. Baylor College of Medicine's 9th Current Trends in Aortic and Cardiovascular Surgery and Interventions, 2013
17. Abstract grader, American Heart Association Scientific Sessions, 2012
18. Abstract grader, American Heart Association Scientific Sessions, 2013
19. Michael E. DeBakey Department of Surgery Alumni Symposium/20th Congress of the International Surgical Society, 2014
20. Ad Hoc Reviewer, Abstract Committee, American Association for Thoracic Surgery, 2013-2014
21. Abstract grader, American Heart Association Scientific Sessions, 2014

22. Adult Cardiac Chair, American Association for Thoracic Surgery Annual Meeting Video Committee, 2014-2015
23. Abstract grader, American Heart Association Scientific Sessions, 2015
24. Abstract reviewer, 4th Annual Cardiovascular Research Institute Symposium, Baylor College of Medicine, 2016
25. Abstract reviewer, 5th Annual Cardiovascular Research Institute Symposium, Baylor College of Medicine, 2017
26. 22nd Congress of the Michael E. DeBakey Department International Surgical Society, 2017-2018
27. Expert Abstract Reviewer for Adult Cardiac Database Research, Outcomes Evaluation and Education, and Aorta; American Association for Thoracic Surgery Annual Meeting Expert Abstract Review Committee, 2018
28. Abstract reviewer, 7th Annual Cardiovascular Research Institute Symposium, Baylor College of Medicine, 2019
29. Abstract Reviewer, American Association for Thoracic Surgery Annual Meeting, 2020
30. Abstract Reviewer, American Association for Thoracic Surgery Annual Meeting, 2021
31. Abstract Reviewer, American Association for Thoracic Surgery Annual Meeting, 2022
32. Abstract Reviewer, American Association for Thoracic Surgery Annual Meeting, 2023
33. Abstract Reviewer, American Association for Thoracic Surgery Annual Meeting, 2024

Program Leadership:

1. Course co-chair, 3rd Annual Association for Academic Surgery Career Development Course, New Orleans, Louisiana, October 5-6, 2007
2. Course co-director, Inaugural Developing a Career in Academic Surgery Course, Brisbane, Australia, May 5, 2009
3. Symposium co-director, Denton A. Cooley Cardiovascular Surgical Society International Symposium, Galveston, Texas, June 4-7, 2009
4. Course co-director, Developing a Career in Academic Surgery Course, Perth, Australia, May 3, 2010
5. Core committee, 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 6-8, 2012
6. Program Co-chair, Southern Thoracic Surgical Association Annual Meeting, 2013
7. Course co-director, Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Conference: The Grant Writing Workshop, February 8, 2013

8. Program co-director, Southern Chapter of the Puerto Rican Society of Cardiology 2013 Ponce Cardiovascular Symposium: Understanding and Managing Diseases of the Aorta, Puerto Rico, February 23, 2013
9. Course director, Surgical Research Lecture Series for General Surgery Residents, Baylor College of Medicine, 2013-present
10. Course director, Surgical Research Seminar Series for General Surgery Research Track Residents, Baylor College of Medicine, 2013-2017
11. Local arrangements chair, Texas Surgical Society Fall Meeting, Houston, Texas, September 20-22, 2013
12. Program co-director, Cardiothoracic Surgery Research Laboratory Visiting Scholars Program, 2013-present
13. Program organizer, Michael E. DeBakey Department of Surgery Alumni Symposium/20th Congress of the International Surgical Society, Houston, Texas, May 16-17, 2014
14. Adult Cardiac Chair, American Association for Thoracic Surgery Annual Meeting Video Committee, 2014-2016
15. Program Co-chair, Southern Thoracic Surgical Association Postgraduate Course, 2016
16. Scientific Program Chair, Michael E. DeBakey Department of Surgery Alumni Symposium and 23rd Congress of the Michael E. DeBakey International Surgical Society, 2020

Sessions as Chair/Moderator:

1. Moderator, Critical Care/Vascular Surgery Combined Parallel Session at the 36th Annual Meeting of the Association for Academic Surgery, Boston, Massachusetts, November 9, 2002.
2. Symposium Moderator, Expanding Our Adhesive Armamentarium: Innovations in Hemostasis and Tissue Repair. The 9th Annual Cardiothoracic Techniques & Technologies Meeting, Miami Beach, Florida, March 19, 2003.
3. Session Co-chair, Valve Sparing Session at the 2003 Southern Biomedical Engineering Conference and Symposium on Aortic Valve Sparing Surgery, Charlotte, North Carolina, September 26, 2003.
4. Moderator, Transplant/Cardiothoracic Surgery Oral Poster Session at the 37th Annual Meeting of the Association for Academic Surgery, Sacramento, California, November 14, 2003.
5. Moderator, Vascular Surgery Parallel Session at the 37th Annual Meeting of the Association for Academic Surgery, Sacramento, California, November 15, 2003.
6. Moderator, Scientific Session I at the 10th Annual Cardiothoracic Techniques & Technologies Meeting, Miami Beach, Florida, March 11, 2004.

7. Moderator, Advances in Aortic and Endovascular Therapy Session at the 10th Annual Cardiothoracic Techniques & Technologies Meeting, Miami Beach, Florida, March 12, 2004.
8. Moderator, Poster Session I. Outcomes 2004, Key West, Florida, May 20, 2004.
9. Moderator, Cardiothoracic Parallel Session I. The 38th Annual Meeting of the Association for Academic Surgery, Houston, Texas, November 12, 2004.
10. Panel Chair, Strategies for Planning your Activities at Work. Career Development Course, Association for Academic Surgery Fall Meeting, San Francisco, California, October 14, 2005.
11. Session Chair, Young Investigator Presentations II, Michael E. DeBakey Department of Surgery Molecular Surgeon Research Day, Houston, TX, December 16, 2005.
12. Session Chair, Health Care Policy in Academic Surgery. The 1st Academic Surgical Congress, San Diego, California, February 8, 2006.
13. Moderator, Session II, the 4th Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, June 9, 2006.
14. Moderator, Session IV, the 4th Annual Current Trends in Cardiothoracic Surgery Meeting, Houston, Texas, June 10, 2006.
15. Session Chair, Negotiating for Success. Career Development Course, Association for Academic Surgery Fall Meeting, Chicago, Illinois, October 7, 2006.
16. Session Moderator, Cardiothoracic III: Thoracic and Cardiomyopathy at the 3rd Annual Academic Surgical Congress, Huntington Beach, California, February 13, 2008.
17. Moderator, Adult Cardiac Surgery (Sessions III and IV). Joint Session of the 6th Current Trends in Cardiothoracic Surgery Conference and the Michael E. DeBakey International Surgical Society 17th Congress, Houston, Texas, May 1, 2008.
18. Session Chair, Young Investigator Presentations II, Michael E. DeBakey Department of Surgery Molecular Surgeon Research Day, Houston, TX, December 19, 2008.
19. Moderator, Cardiothoracic 2: Ischemia/Reperfusion at the 4th Annual Academic Surgical Congress, Fort Myers, Florida, February 5, 2009.
20. Moderator, Aortic Surgery IV: Aortic Dissection. The 7th Current Trends in Aortic and Cardiothoracic Surgery Meeting, Houston, Texas, May 1, 2009.
21. Session Chair, Building a Successful Career in Academic Surgery. The Inaugural Developing a Career in Academic Surgery Course at the 78th Annual Scientific Congress of the Royal Australasian College of Surgeons, Brisbane, Australia, May 5, 2009.
22. Moderator, Thoracic Aortic Disease – Are You Prepared? 16th International Symposium of the Denton A. Cooley Cardiovascular Surgical Society, Galveston, Texas, June 6, 2009.
23. Moderator, Controversies and Opportunities in the Surgical Management of Aortic Disease. Aortic Disease Summit, Baltimore, Maryland, September 23, 2009.

24. Moderator, Cardiothoracic 1: Aneurysms, Thoracic Oncology, and Transplant. The 5th Annual Academic Surgical Congress, San Antonio, Texas, February 3, 2010.
25. Moderator, Starting and Planning Your Research Career. Developing a Career in Academic Surgery Course, Perth, Australia, May 3, 2010.
26. Moderator, General Session. 26th Annual Conference of the National Marfan Foundation, Houston, Texas, July 10, 2010.
27. Moderator, Pectus Excavatum and Carinatum Workshop. 26th Annual Conference of the National Marfan Foundation, Houston, Texas, July 10, 2010.
28. Moderator, Association for Academic Surgery Plenary Session. The 6th Annual Academic Surgical Congress, Huntington Beach, California, February 2, 2011.
29. Moderator, Starting and Planning Your Research Career. Third Annual Developing a Career in Academic Surgery Course, Adelaide, Australia, May 2, 2011.
30. Workshop instructor, Study Design Workshop. Third Annual Developing a Career in Academic Surgery Course, Adelaide, Australia, May 2, 2011.
31. Moderator, Vascular Surgery Research Papers. Royal Australasian College of Surgeons Annual Scientific Congress, Adelaide, Australia, May 5, 2011.
32. Moderator, Research Presentations. Fundamentals of Research and Career Development Course, Lagos, Nigeria, July 18 and 19, 2011.
33. Moderator, Adult Cardiac Breakout Session. 58th Annual Meeting of the Southern Thoracic Surgical Association, San Antonio, Texas, November 11, 2011.
34. Moderator, Basic Science Plenary Session. The 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 14, 2012.
35. Moderator, Association for Academic Surgery Medical Student Quick Shot Session. The 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 14, 2012.
36. Moderator, Association for Academic Surgery Plenary Session. The 7th Annual Academic Surgical Congress, Las Vegas, Nevada, February 15, 2012.
37. Moderator, Starting and Planning Your Research Career. Fourth Annual Developing a Career in Academic Surgery Course, Kuala Lumpur, Malaysia, May 6, 2012.
38. Workshop instructor, Grant Writing Workshop. Fourth Annual Developing a Career in Academic Surgery Course, Kuala Lumpur, Malaysia, May 6, 2012.
39. Moderator, Sessions II & III. The Second Joint Session of the Michael E. DeBakey International Surgical Society and the Denton A. Cooley Cardiovascular Surgical Society, Austin, Texas, June 21, 2012.
40. Moderator, Surgical Motion Pictures. The 59th Annual Meeting of the Southern Thoracic Surgical Association, Naples, Florida, November 7, 2013.
41. Moderator, Basic Science Forum. The 59th Annual Meeting of the Southern Thoracic Surgical Association, Naples, Florida, November 9, 2013.

42. Moderator, Getting Started. The Association for Academic Surgery Fundamentals of Research and Career Development Course, National Health Research Conference, Cernobbio, Italy, November 12, 2012.
43. Facilitator, What is the best strategy to seek funding early in my career? The 8th Annual Academic Surgical Congress, New Orleans, Louisiana, February 6, 2013.
44. Group co-chair, Basic science mock study section. The Inaugural Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, New Orleans, Louisiana, February 8, 2013.
45. Facilitator, Grantsmanship workshop. The Inaugural Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, New Orleans, Louisiana, February 8, 2013.
46. Moderator, Aortic surgery IV: descending/thoracoabdominal. 9th Current Trends in Aortic and Cardiovascular Surgery and Interventions. Houston, Texas, April 26, 2013.
47. Moderator, Structural heart III: transplant/VADS. 9th Current Trends in Aortic and Cardiovascular Surgery and Interventions. Houston, Texas, April 27, 2013.
48. Moderator, Adult Cardiac Breakout Session. 60th Annual Meeting of the Southern Thoracic Surgical Association, Scottsdale, Arizona, November 1, 2013.
49. Facilitator, Grantsmanship workshop. The 2014 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, San Diego, California, February 2, 2014.
50. Moderator, Scoring, triage, summary statements, and resubmission. The 2014 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, San Diego, California, February 2, 2014.
51. Group co-chair, Basic science mock study section. The 2014 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, San Diego, California, February 3, 2014.
52. Moderator, General Cardiothoracic Integrated Quick Shot Session. The 9th Annual Academic Surgical Congress, San Diego, California, February 4, 2014.
53. Moderator, Session IV. 2nd Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, March 25, 2014.
54. Session Co-chair, GenTAC Research. 3rd Thoracic Aortic Disease Summit, Baltimore, Maryland, July 9, 2014.
55. Moderator, Postgraduate Program Adult Cardiac Breakout Session. 61st Annual Meeting of the Southern Thoracic Surgical Association, Tucson, Arizona, November 6, 2014.
56. Moderator, Aortic/Endovascular Surgery Simultaneous Scientific Session, 95th Annual Meeting of the American Association for Thoracic Surgery, Seattle, Washington, April 28, 2015.
57. Moderator, Session III. 10th Current Trends in Aortic, Cardiac and General Thoracic Surgery. Houston, Texas, May 8, 2015.

58. Facilitator, Laborator Research Workshop. Royal Prince Alfred Hospital 81st Annual Reunion Week Symposium, Sydney, Australia, September 3, 2015.
59. Session organizer and moderator, Modern Multidisciplinary Approach to Aortic Diseases. American College of Surgeons Clinical Congress, Chicago, Illinois, October 7, 2015.
60. Moderator, How Do Funding Agencies Work? The 2016 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, Jacksonville, Florida, January 31, 2016.
61. Group co-chair, Basic science mock study section. The 2016 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, Jacksonville, Florida, January 31, 2016.
62. Facilitator, Howard Hughes Medical Institute Mentoring Lunch, American Society of Clinical Investigation/Association of American Physicians Joint Meeting, Chicago, Illinois, April 16, 2016.
63. Moderator, Adult Cardiac Surgery Simultaneous Scientific Session, 96th Annual Meeting of the American Association for Thoracic Surgery, Baltimore, Maryland, May 16, 2016.
64. Moderator, Session II: Cardiothoracic Surgery, 21st Congress of the Michael E. DeBakey International Surgical Society, Fajardo, Puerto Rico, June 23, 2016.
65. Moderator, Special Topics in Cardiothoracic Surgery, Postgraduate Program of the 63rd Annual Meeting of the Southern Thoracic Surgical Association, Naples, Florida, November 10, 2016.
66. Moderator, Teaching the Technical Aspects of Cardiothoracic Surgery, Postgraduate Program of the 63rd Annual Meeting of the Southern Thoracic Surgical Association, Naples, Florida, November 10, 2016.
67. Facilitator, Grantsmanship workshop. The 2017 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, Las Vegas, Nevada, February 5, 2017.
68. Group co-chair, Basic science mock study section. The 2017 Association for Academic Surgery/Society of University Surgeons Surgical Investigators' Course: The Grant Writing Workshop, Las Vegas, Nevada, February 6, 2017.
69. Moderator, Basic Science: Cardiothoracic, Vascular, Transplantation Quickshot Session. The 12th Annual Academic Surgical Congress, Las Vegas, Nevada, February 7, 2017.
70. Moderator, Session VII. 5th Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, April 4, 2017.
71. Moderator, Aortic/Endovascular Surgery Simultaneous Scientific Session, The American Association for Thoracic Surgery Annual Meeting 2017, Boston, Massachusetts, May 2, 2017.
72. Moderator, Aortic Surgery II. The 11th Current Trends in Aortic, Cardiac, and General Thoracic Surgery Meeting, Houston, Texas, September 8, 2017.

73. Moderator, Cardiovascular Surgery Research: The Cutting Edge (Session SA.AOS.1979). The American Heart Association Scientific Sessions 2017, Anaheim, California, November 13, 2017.
74. Moderator, Basic Science: Cardiothoracic and Vascular Oral Session. The 13th Academic Surgical Congress, Jacksonville, Florida, January 31, 2018.
75. Session Co-chair, How to Get Your Paper Accepted: Tips from the Editors of *Surgery* and *Journal of Surgical Research*. The 13th Academic Surgical Congress, Jacksonville, Florida, January 31, 2018.
76. Session Co-chair, Making Research Feasible for Busy Surgeons Through Infrastructure Support: Pros, Cons, and Lessons Learned the Hard Way. The 13th Academic Surgical Congress, Jacksonville, Florida, February 1, 2018.
77. Moderator, Inaugural Aortic Surgery Forum. American Association for Thoracic Surgery Aortic Symposium, New York, New York, April 27, 2018.
78. Moderator, General Session II—Abstracts. The 22nd Congress of the Michael E. DeBakey International Surgical Society, Grapevine, Texas, August 23, 2018.
79. Moderator, Basic Science Forum. The 65th Annual Meeting of the Southern Thoracic Surgical Association, Amelia Island, Florida, November 8, 2018.
80. Moderator, Fourth Scientific Session—Adult Cardiac Breakout. The 65th Annual Meeting of the Southern Thoracic Surgical Association, Amelia Island, Florida, November 9, 2018.
81. Session Chair, How to Review a Paper for a Scientific Journal: Insights from the Editors. 14th Annual Academic Surgical Congress, Houston, Texas, February 7, 2019.
82. Moderator, Genetics/Imaging/Technology Session. The Houston Aortic Symposium: Frontiers in Cardiovascular Diseases, Houston, Texas, March 8, 2019.
83. Moderator, Grant Writing: Grant Opportunities. The 99th Annual Meeting of the American Association for Thoracic Surgery, Toronto, Canada, May 7, 2019.
84. Moderator, Fourth Scientific Session—Adult Cardiac Breakout. The 66th Annual Meeting of the Southern Thoracic Surgical Association, Marco Island, Florida, November 8, 2019.
85. Moderator, Adult Cardiac: General. The 56th Annual Meeting of the Society of Thoracic Surgeons, New Orleans, Louisiana, January 28, 2020.
86. Moderator, Clinical/Outcomes: Cardiothoracic Oral Session III. The 15th Academic Surgical Congress, Orlando, Florida, February 6, 2020.
87. Session Chair, Session II. 8th Annual Symposium of the Baylor College of Medicine Cardiovascular Research Institute, Houston, Texas, April 9, 2021 [virtual meeting].
88. Session Panelist, Aortic Symposium 4: Descending/Thoracoabdominal. 101st Annual Meeting of the American Association for Thoracic Surgery, April 30, 2021 [virtual meeting].

89. Moderator, Aortic Root and Ascending Aortic Replacement 2. 101st Annual Meeting of the American Association for Thoracic Surgery, May 1, 2021 [virtual meeting].
90. Moderator, Basic Science Forum. The 68th Annual Meeting of the Southern Thoracic Surgical Association, Atlanta, Georgia, November 4, 2021.
91. Session Chair, How to Write a Paper That Will Be Accepted for Publication: Tips From the Editors of *Surgery* and *Journal of Surgical Research*. 17th Academic Surgical Congress, Orlando, Florida, February 3, 2022.
92. Moderator, Adult Cardiac Rapid Fire Orals III. 102nd Annual Meeting of the American Association for Thoracic Surgery, Boston, Massachusetts, May 16, 2022.
93. Moderator, Adult Cardiac Poster Presentations. 102nd Annual Meeting of the American Association for Thoracic Surgery, Boston, Massachusetts, May 16, 2022.
94. Moderator, Should We Operate on Ascending Intramural Hematoma? GenTAC Aortic Summit, Paris, France, September 1, 2022.
95. Panel Co-chair, Non-traditional Leadership Roles. Society of Asian Academic Surgeons Annual Meeting, Honolulu, Hawaii, September 16, 2022.
96. Moderator, Plenary Session B. Society of Asian Academic Surgeons Annual Meeting, Honolulu, Hawaii, September 17, 2022.
97. Moderator, Basic Science Forum. The 70th Annual Meeting of the Southern Thoracic Surgical Association, Orlando, Florida, November 3, 2023.
98. Moderator, What Editor-In-Chiefs Prioritize. Association for Academic Surgery TweetChat (#AASChat), January 29, 2024.

Other Research and Educational Responsibilities:

Geisinger and Geisinger College of Health Sciences

- Chair, Research Institute Faculty Affairs Committee, 2024
- Appointments and Promotions Committee, 2024

Baylor College of Medicine

- Moderator, Vascular Surgery Journal Club, 2000-2002
- Director, Fondren-Brown cardiovascular surgical intensive care unit rotation for surgery residents (PGY-2) at the Methodist Hospital, 2002-2004
- Thoracic Surgery Residency Committee, 2003-2023
- Director, cardiovascular surgery and intensive care unit rotation for surgery residents (PGY-1 and 2) at St. Luke's Episcopal Hospital, 2005-2006
- Michael E. DeBakey Department of Surgery E*Value Electronic Evaluation Task Force, 2007
- Internal Steering Committee for the 2008 Molecular Surgeon Research Day
- Department of Molecular Physiology and Biophysics Recruiting Committee, 2010-2014
- Research Committee, Michael E. DeBakey Department of Surgery, 2011-2023 [Chair, 2013-2023]
- Cardiovascular Initiative Task Force, 2012
- Clinical Research Investigator Council, 2012
- Executive Committee, Cardiovascular Research Institute, 2012-2023

- Theme Leader, Aortopathy/Valvular Heart Disease, Cardiovascular Research Institute, 2012-2023
- Director, General Surgery Residency Research Track, 2013-2017
- Scientific Program Chair, Michael E. DeBakey Department of Surgery Research Day Symposium, 2013-2023
- Executive Committee, Michael E. DeBakey Department of Surgery, 2013-2023
- Education Committee, Michael E. DeBakey Department of Surgery, 2013-2023
- General Surgery Clinical Competency Committee, Michael E. DeBakey Department of Surgery, 2013-2023
- Communications Committee, Michael E. DeBakey Department of Surgery, 2013-2016
- Alumni Committee, Michael E. DeBakey Department of Surgery, 2013-2023
- Faculty Operating Committee (FOC) of the MD/PhD Medical Scientist Training Program, 2013-2019
- Faculty Search Committee, Executive Committee, Cardiovascular Research Institute, 2014-2017
- Search Committee, Chief of the Division of Vascular Surgery and Endovascular Therapy, Michael E. DeBakey Department of Surgery, 2014
- Global Surgery Curriculum Committee, Michael E. DeBakey Department of Surgery, 2014-2015
- Faculty Judge, the 15th Annual James K. Alexander Medical Student Research Symposium, 2015
- Co-chair, Search Committee, Chief of the Division of Cardiothoracic Transplantation and Circulatory Support, Michael E. DeBakey Department of Surgery, 2015
- Faculty member, Clinical Scientist Training Program, 2015-present
- Masters Thesis Advisory Committee, Jennifer Carpenter, MD, 2015-2016
- Review Committee, Chao Physician-Scientist Award Program, 2016-2019
- Co-chair, Faculty Appointments and Promotions Committee, Michael E. DeBakey Department of Surgery, 2016-2023
- Co-chair, Search Committee, Established Cardiovascular Investigator, Michael E. DeBakey Department of Surgery, 2016-2017
- Review Committee, Cardiovascular Research Institute Pilot Awards, 2016-2023
- Co-chair, Search Committee, Established Oncology Investigator, Michael E. DeBakey Department of Surgery, 2016-2017
- Faculty Judge, 5th Annual Cardiovascular Research Institute Symposium, 2017
- Masters Thesis Advisory Committee, Emily Steen, MD, 2017-2019
- Masters Thesis Advisory Committee, Katherine Baugh, MD, 2017-2019
- Faculty Appointments and Promotions Committee, 2018-2023
- Faculty Judge, 6th Annual Cardiovascular Research Institute Symposium, 2018
- Reviewer, Precision Medicine and Population Health Initiative Grants, 2018
- Faculty Operating Committee (FOC) of the Medical School Research Track, 2018-2023
- Faculty Judge, 7th Annual Cardiovascular Research Institute Symposium, 2019
- Joint Research Steering Committee, 2019-2023
- Co-chair, Search Committee, Chief of the Division of Acute Care Surgery, Michael E. DeBakey Department of Surgery, 2019-2022
- Social Equity Committee, 2019-2023
- Organizing Committee, 8th Annual Cardiovascular Research Institute Symposium, 2019-2020
- Education Committee, Cardiovascular Research Institute, 2020-2023
- Symposium & Seminar Committee, Cardiovascular Research Institute, 2020-2023
- Biobank Committee, Cardiovascular Research Institute, 2020-2023

The Texas Heart Institute

- Research Committee, 2006-2011
- Protocol Review Subcommittee, 2006-2007

- Thoracic Surgery Residency Committee, 2007-2023
- Editorial Board, Heart Watch Newsletter, 2008-2012
- CV Institute Research Subcommittee, 2023 [co-chair, 2023]

Member, Writing Group, Self-Education Self Assessment in Thoracic Surgery (SESATS) X, 2008

PhD Thesis Examiner, Melbourne School of Graduate Research, The University of Melbourne, Melbourne, Australia, 2014

Roderick Duncan MacDonald Fund Committee at Baylor St. Luke's Medical Center

- Member, 2017-2023
- Vice Chair, 2018-2023

The University of Texas Health Science Center at Houston/The University of Texas M.D. Anderson Cancer Center Graduate School of Biomedical Sciences

- PhD Advisory Committee, Alana Cecchi, 2022-present

Hospital Committee Service:

The Methodist Hospital

- Fondren-Brown Operating Room Instruments Subcommittee, 2000-2004
- Fondren-Brown Operating Room Subcommittee, 2001-2004
- Methodist DeBakey Heart Center Research Subgroup, 2002-2003
- Methodist DeBakey Heart Center Clinical Research Subcommittee, 2003-2004
- The Methodist Hospital SPRINT Research Task Group, 2004

Baylor St. Luke's Medical Center (formally St. Luke's Episcopal Hospital)

- Intensive Care Committee, 2005-2009
- Cardiovascular Surgery Peer Review Committee, 2006-2016
- Baylor St. Luke's Medical Center Research Oversight Committee, 2014-2023
- McNair Campus Steering Committee - Clinical Research Work Group, 2016-2017
- Service Line Chiefs Committee on Clinical Quality and Academic Enhancement, 2018-2021

CommonSpirit Health (National Organization)

- Cardiovascular Research Council, 2021

Revised 18-Apr-24