

Michael E. DeBakey Department of Surgery

8th Annual Research Day Symposium



June 3
2020

Webcast Live from the
Texas Medical Center

Baylor
College of
Medicine

MICHAEL E. DeBAKEY
DEPARTMENT OF
SURGERY

8th Annual Research Day Symposium



The Pursuit of Excellence is Our Objective

The overarching mission of the Michael E. DeBakey Department of Surgery is to be internationally recognized as the premier department of surgery in innovating breakthrough improvements in the quality and efficiency of patient care, and for training the next generation of surgical scientists, educators and innovators as leaders of our field.

We are excited to present our eighth annual Research Day Symposium, which highlights the academic achievements of our department trainees and staff. The mission of the department's research program is to conduct important research in surgical disease that will improve treatment and quality of life for affected patients and to train future leaders in academic surgery. This year's symposium underscores both aspects of this mission by highlighting the exciting research activities of our residents, fellows, staff, and students. Our trainees and staff will present work that spans our divisions and affiliated hospitals. Their accomplishments also reflect the outstanding mentorship provided by our faculty members.

Wednesday, June 3, 2020

7:00-7:10am **WELCOME** - Dr. Todd K. Rosengart

Announcement of Recipients: Quality Improvement Seed Grant Awards for Advanced Practice Providers

- Dr. Samir S. Awad

7:10-7:20 **INTRODUCTION AND RESIDENT AND FELLOW ABSTRACTS OF DISTINCTION** - Dr. Scott A. LeMaire

7:20-8:25 **RESIDENT AND FELLOW QUICK SHOT PRESENTATIONS**

Moderators: Drs. Sundeep G. Keswani and Crystal Shin

Coronary Artery Anomalies Are Associated with Increased Mortality After Truncus Arteriosus Repair

- Dr. Carlos Bonilla-Ramirez

Mentor: Dr. Michiaki Imamura

The Evolution of Intermediate Risk Oropharyngeal Cancer in a Veteran Population: A 15 Year Study

- Dr. David Wilde

Mentor: Dr. Vlad Sandulache

Pre-Operative Imaging Mapping of DIEP Perforators and Intra-Operative Selection: Does It Correlate?

Dr. Aspinder Singh

Mentor: Dr. Aldona Spiegel

Sex, Racial and Ethnic Disparities in Cardiovascular Trials in the United States: 2020 Landscape in Over 230,000

Patients - Dr. Andre Critsinelis

Mentor: Dr. Ourania Preventza

A Call for Standardization: Practice Patterns and Management of Critical Illness-Related Corticosteroid Insufficiency in Surgical Intensive Care Units

- Dr. Chun-Sing Huang

Mentor: Dr. James W. Suliburk

Single-cell Transcriptomics Reveals Dynamic Cell Populations and Differential Gene Expression Patterns in Control and Aneurysmal Human Aortic Tissue

- Dr. Yanming Li

Mentors: Drs. Ying Shen and Scott A. LeMaire

Outcomes of Aortic Valve Replacement for Chronic Aortic Insufficiency: Analysis of the Society of Thoracic Surgeons Database

- Dr. Christopher Ryan

Mentor: Dr. Ravi K. Ghanta

Modulatory Effect of Valvular Disease on Patients with Elevated Pulmonary Vascular Resistance Undergoing Left Ventricular Assist Device Implantation

- Dr. Riyad Kherallah

Mentors: Drs. Srikanth Koneru and Harveen Lamba

10-Year Nationwide Outcomes Show That Females Have a Higher Risk of Death, but a Lower Risk of Major Amputation After Revascularization for Acute Limb Ischemia

- Dr. Jessica Mayor

Mentor: Dr. Jay Chung

Transcatheter Valve-in-Valve Implantation for Degenerated Stentless Bioroots

- Dr. Davut Cekmecelioglu

Mentor: Dr. Joseph S. Coselli

8:25-9:10

**RESIDENT AND FELLOW
CLINICAL RESEARCH PRESENTATIONS**

Moderators: Drs. SreyRam Kuy and Alastair Thompson

Pediatrician Experience Using the American Academy of Pediatrics Firearm Infographic in the Delivery of Safe Firearm Anticipatory Guidance: A Qualitative Study

- Dr. Brittany Johnson

Mentor: Dr. Bindi Naik-Mathuria

Invited discussant: Dr. R. Mario Vera

Gender and Race Disparities in Early Operations for Symptomatic Carotid Disease in Texas Hospitals

- Dr. Harold Hsu

Mentors: Dr. Tony Lu

Invited discussant: Dr. Ourania Preventza

Even Scant Signet Ring Cell Component Portends Dismal Prognosis after Resection of Esophageal Adenocarcinoma

Dr. Erin Corsini

Mentor: Dr. Wayne Hofstetter

Invited discussant: Dr. Philip W. Carrott

Impact of Time Off Anticoagulation in Patients with Continuous Flow Left Ventricular Assist Devices

Dr. Christian Inchaustegui

Mentors: Drs. Andrew Civitello and Harveen Lamba

Invited discussant: Dr. Ernesto Jimenez

9:10-9:20

BREAK

9:20-10:05

**RESIDENT AND FELLOW
BASIC SCIENCE PRESENTATIONS**

Moderators: Drs. Swathi Balaji and R. Taylor Ripley

Pathway to Personalized Targeted Therapy for Refractory Hepatoblastoma - Dr. Richard Whitlock

Mentor: Dr. Sanjeev Vasudevan

Invited discussant: Dr. Cathy Yao

Critical Role of the Cytosolic DNA Sensor cGAS in Aortic Degeneration, Dissection, and Rupture

Dr. Wei Luo

Mentors: Drs. Ying Shen and Scott A. LeMaire

Invited discussant: Dr. Changyi Johnny Chen

Fibrin Polymerization Correlates with Progression of Disease in Pancreatic Ductal Adenocarcinoma

Dr. Lisa Brubaker

Mentor: Dr. Qizhi Cathy Yao

Invited discussant: Dr. Eric Silberfein

MAGIC II: A Jejunal-Ileal Partial Diversion Improves Insulin Resistance and Metabolic Syndrome in Nonhuman Primates

Dr. Vamsi Aribindi

Mentor: Dr. Michael Harrison

Invited discussant: Dr. S. Julie-Ann Lloyd

10:05-10:10 **CLINICAL, RESEARCH, AND EDUCATION STAFF
ABSTRACTS OF DISTINCTION**- Dr. Scott A. LeMaire

10:10-10:45 **CLINICAL, RESEARCH, AND EDUCATION STAFF
QUICK SHOT PRESENTATIONS**

Moderators: Drs. Christy Y. Chai and Atif Iqbal

**Effectiveness of Daily Home Electrical Stimulation as an
Adjunctive Therapy to Accelerate Wound Healing
in People with Diabetic Foot Ulcer – A Double Blinded
Randomized Control Trial** - Alejandro Zulbaran

Mentor: Dr. Bijan Najafi

**Diagnostic Laparoscopy Improves Accuracy for Staging of
Malignant Pleural Mesothelioma**

- Nihanth Palivela

Mentor: Dr. R. Taylor Ripley

**Association of Anterior Interosseous and Median Nerve
Neuropraxia with Pink Pulseless Hand in Type III
Supracondylar Humeral Fracture in Children**

- Luciana Narvaez

Mentor: Dr. Jayer Chung

**Endoscopic or Surgical Enteral Tube Placement in Patients
with Left Ventricular Assist Devices**

Samuel Hudson

Mentor: Dr. Gabriel Loor

**Efficacy of an Endovascular-First Approach after Prior
Failed Open Revascularization**

- Mohammad Shahbazi

Mentor: Dr. Miguel Montero-Baker



10:45-10:50 **STUDENT ABSTRACTS OF DISTINCTION**

- Dr. Scott A. LeMaire

10:50-11:25 **STUDENT QUICK SHOT PRESENTATIONS**

Moderators: Drs. Ronald Cotton and Harveen Lamba

Machine Learning Methods for Post-Transplant Survival Predictions - Rowland Pettit

Mentor: Dr. Abbas Rana

Epidemiological Data to Direct Abdominal Aortic Aneurysm Screening Efforts in Texas

- Deeksha Bidare

Mentor: Dr. Neal R. Barshes

Are You Ready to Negotiate Your First Employment Contract? Experience of Over 700 Plastic Surgeons

- Sarth Raj

Mentor: Dr. Edward M. Reece

Early Gastrointestinal Complications After Open Thoracoabdominal Aortic Aneurysm Repair

- William Frankel

Mentors: Drs. Joseph S. Coselli and Scott A. LeMaire

When Protocols and Procedures are Not Enough: An Analysis of Error in Acute Care Surgery

- Travis Miles

Mentor: Dr. James W. Suliburk

11:25-11:35 **AWARDS**

ABSTRACTS OF DISTINCTION

Resident and Fellow

“Evaluation of Ascending Thoracic Aortic Aneurysm and Dissection in Mice with Streptozocin-Induced Diabetes Mellitus”

Waleed Ageedi, Chen Zhang, Wei Luo, Pingping Ren, William C. Frankel, Ashley Dawson, Joseph S. Coselli, Yanming Li, Ying Hu Shen, Scott A. LeMaire

“General Surgery Resident Operative Experience in Vascular Trauma”

Tashinga Musonza, S. Rob Todd

“Lung Transplantation and Sex Differences”

Lourdes I. Chacon, William C. Frankel, Daoud Daoud, Rene Plascencia, Luiz C. Sampaio, Gabriel Loor, Doris A. Taylor

“Opioid Use and Length of Stay Following Minimally Invasive Pectus Excavatum Repair in 436 Patients—Benefits of an Enhanced Recovery Protocol”

David M. Holmes, Stephanie F. Polites, Penny L. Roskos, Christopher R. Moir

“Influence of Cardiovascular Disease and Chronic Kidney Disease on Long-Term Mortality following Major Operations in a National Cohort of Veterans”

Nader Zamani, Sherene E. Sharath, Panos Kougiass

Clinical, Research, and Education Staff

“Feasibility and Proof of Concept Validity of Remote Patient Monitoring to Identify Cancer-Related Fatigue in Cancer Survivors”

Saba P. Sharafkhaneh, Yvonne H. Sada, Olia Poursina, He Zhou, Biruh T. Workeneh, Sandhya V. Maddali, Bijan Najafi

“Effectiveness of Continuous Diffusion of Oxygen Adjunct Therapy to Improve Scar Reduction after Anterior Neck Surgery”

Anah Khan, Alejandro Zulbaran, Naima Rodriguez, Hector Elizondo, Sogol Golafshan, Bijan Najafi, James W. Suliburk

“Routine NeuroCognitive Testing In Thyroid and Parathyroid Surgery Identifies Non-Responders to Therapy”

Kirtan Brahmhatt, Raymond Grogan, James W. Suliburk

“Effect of Time of Extracorporeal Life Support (ECLS) During Lung Transplantation on Postoperative High-Grade Primary Graft Dysfunction and Bleeding”

Daoud Daoud, Qi Wei, Rene Plascencia, Hyewon Choi, Philip W. Carrott, Alexis E. Shafii, Abdussalam Elsenousi, Lourdes Chacon, Gabriel Loor

“A Practical Method to Determine Cognitive Frailty in Older Adults Using Wearables”

Anmol Momin, He Zhou, Michele York, Mark Kunik, Aanand Naik, Bijan Najafi

Student

“A Wavelet Noise Reduction Method for Improving Machine Learning Detection of Pediatric Epilepsy”

Emmett H. Kennady, Ryan D. Nguyen, Matthew D. Smyth, Dylan A. Fall, Liang Zhu, Anish Mitra, Rajan P. Patel, Jeremy Lankford, Gretchen Von Allmen, Michael W. Watkins, Michael E. Funke, Manish N. Shah

“An Innovative Platform Based on Wearable Sensors to Quantify Frailty Phenotypes”

Ada J. Sison, He Zhou, Bijan Najafi

“Sensor-Based Daily Physical Activity Level: Towards Prediction of Fear of Falling in People with Peripheral Neuropathy”

Alan Pham, Gu E. Kang, Ilse Torres, Maria Noun, Anmol Momin, Bijan Najafi

“Association of Doximity Rank and AAMC Matched Applicant Characteristics in Orthopedic Residency Programs”

Shiv Patel, Theodore Zhang, Rima Patel, Melvyn Harrington

“Toward Remote Patient Monitoring Using Mobile Health: A Practical Platform for In-Home Frailty Assessment”

Susan R. Varghese, Changhong Wang, Mohsen Zahiri, Manuel Gardea, Hung Nguyen, Amir Sharafkhaneh, Bijan Najafi

ABSTRACTS

Residents and Fellow

“Pedicled Rib Grafts for Posterior Lumbar Spinal Fusion: A Novel Approach”

Nikhil Agrawal, Edward M. Reece, Kathryn M. Wagner, Sarth Raj, Matthew J. Davis, Amjed Abu-Ghname, Rohil Shekher, Michael R. Raber, Sebastian Winocour, Michael A. Bohl, Alexander E. Ropper

“Outcomes after Extracorporeal Life Support Cannulation in Pediatric Patients with Trisomy 13 and Trisomy 18”

Elizabeth A. Alore, Sara C. Fallon, James A. Thomas, Adam M. Vogel

“Evaluation of 90-Day Readmissions Following Open Surgical Repair of Stanford Type A Aortic Dissections”

Arsalan Amin, Qianzi Zhang, Rodrigo Zea-Vera, Ravi K. Ghanta, Subhasis Chatterjee

“Vascularized Scapular Grafts: A Novel Approach for Spinal Fusion”
Edward Chamata, Edward M. Reece, Matthew J. Davis, Amjed Abu-Ghname, Sebastian Winocour, Scott L. Hansen, David Xu, Michael A. Bohl, Alexander E. Ropper

“Resection of Spinal Meningioma Using Ultrasonic BoneScalpel Microshaver: Cases, Technique, and Review of the Literature”

Tiffany M. Chan, Saeed S. Sadrameli, Virendra R. Desai, Jonathan J. Lee, Paul J. Holman

“Complications from Surgical Excision for the Treatment of Lymphatic Malformations: A 12-year Institutional Review”

Vivi W. Chen, Don Hoang, Lori Howell

“Craniofacial Phenotypes Associated with Robinow Syndrome’s Genotypes”

Christopher J. Conlon, Amjed Abu-Ghname, Matthew J. Davis, Diana E. Guillen, Reid Sutton, Claudia M.B. Carvalho, Renata Maricevich

“Personalized Graduate Medical Education and the Academic Global Surgeon: Training for Resource-Limited Settings”

Rachel W Davis, Youmna A. Sherif, Megan T. Vu, Holly C. Shilstone, Bradford Scott, Oluyinka O. Olutoye, Larry H. Hollier, Jr, Jed Nuchtern, Todd K. Rosengart

“Single-Cell Transcriptome Analysis Reveals Downregulation of Canonical TGF-beta Signaling in Aneurysmal Aortic Cells of Patients with Marfan Syndrome”

Ashley Dawson, Yanming Li, Pingping Ren, Chen Zhang, Wei Luo, Waleed Ageedi, Hernan Vasquez, Lin Zhang, Yang Li, Hong Lu, Lisa Cassis, Joseph S. Coselli, Alan Daugherty, Ying Shen, Scott A. LeMaire

“Inhaled Nitric Oxide and Lung Transplantation: Does it help?”

Abdussalam Elsenousi, Daoud Daoud, Qi Wei, Gabriel Loor, Rene Plascencia, Philip W Carrott, Alexis E. Shafii, Hyewon Choi, Puneet Garcha

“Clostridium Difficile Infection Rate in Patients Undergoing Colostomy Reversal”

Caleb Euhus, Samir Awad, Konstantinos Makris, Eugene Choi, David Lee, Nader N. Massarweh, Louisa Chiu, Natasha Becker, SreyRam Kuy, Athanasios Bramos, Christy Y. Chai

“Long-Term Outcomes of Veteran Patients Undergoing Transcatheter Aortic Valve Replacement”

Douglas Farmer, Hani Jneid, David Paniagua, Ali Denktas, Biswajit Kar, Lorraine Cornwell, Shuab Omer, Alvin Blaustein, Ourania Preventza, Ernesto Jimenez

“Acute Administration of Progesterone Enhances Recovery after Mild Traumatic Brain Injury”

Gabriel Glaun, Jacob VanLandingham

“Implementing Wifl and GLASS Classifications into the Clinical Care of Patients with Chronic Limb Threatening Ischemia.”

Natasha Hansraj, Mohammed Shahbazi, Zachary Pallister, Jayar Chung, Miguel Montero-Baker, Joseph L. Mills

“Correlation Between a Sensor-Based Upper Extremity Functional Performance and 6-Minute Walk Distance in Older Patients with Congestive Heart Failure and Chronic Obstructive Pulmonary Disease”

Gu Eon Kang, Ilse Ruiz, He Zhou, Christina K. Nguyen, Monthaporn Bryant, Saba Sharafkhaneh, Amir Sharafkhaneh, Bijan Najafi

“To Angio or Not to Angio: An Analysis from the AAST Proovit Study Group”

Ahmed Khouqeer, Nader Zamani, Sherene Sharath, Joseph Dubose, Ramyar Gilani

“cGAS-STING Pathway Activates SCAP-SREBP2 Complex to Tune Cholesterol Homeostasis in Macrophages”

Yang Li, Wei Luo, Lin Zhang, Chen Zhang, Yanming Li, Waleed Ageedi, Ashley Dawson, Joseph S. Coselli, Scott A. LeMaire, Ying H. Shen

“Blunt Vascular Injury Outcomes after Implementation of Screening and Treatment Guidelines”

William Lightle, James Weinberg, Sharon Webb

“Quality of Life, Symptom Burden, and Resource Utilization for Hepatocellular Carcinoma Patients”

Naveen V Manisundaram, Casey B. Duncan, Curtis J. Wray

“Diagnosis, Morbidity and Management of Primary Aortic Thrombosis with Distal Embolization”

Jorge A. Miranda, Zachary Pallister

“Developing Surgical Simulators for Complex and Rare Minimally-Invasive Operations in Infants to Enhance the Training of Pediatric Surgical Fellows”

Jared R. Mortus,
Bindi Naik-Mathuria

“CRISPR-Mediated Gene Editing for the Surgeon Scientist”

Stephen J. O’Brien, Brady Ekman,
Stephen E. Manek, Susan Galandiuk

“Hospital Multimodality Care as a Quality Measure for Gastric Cancer”

Jorge I. Portuondo, Hop S. Tran Cao,
Wilson L. da Costa, Alex H.S. Harris,
Nader N. Massarweh

“Hospital Density and Distribution Correlates with Rate of Early Revascularization for Symptomatic Carotid Artery Disease”

Andrew P. Russeau, Natasha Hansraj,
Panos Koungias, Joseph L. Mills,
Tony Lu, Neal R. Barshes

“Implementation of an Intraoperative Educational Timeout (LASER) is Associated with Improvement in Learner Satisfaction with Intraoperative Education”

Denny Scaria, Hop S. Tran Cao,
Nital Appelbaum, Alejandro De Leon
Castro, Bradford G. Scott,
Todd K. Rosengart, Philip W. Carrott,
N. Thao N. Galvan

“Surgical Non-Physician Clinicians in Sub-Saharan Africa: Identifying Deficiencies in Current Literature”

Younna A. Sherif, Monalisa A.
Hassan, Nader N. Massarweh,
Bip Nandi

“Aortic Root Injection of Indocyanine Green in an Arrested Porcine Model”

Zachary A. Spiegel, Iki Adachi

“Aortopexy for the Treatment of Tracheomalacia in a Pediatric Population”

Trung Tran, Carlos Bonilla-Ramirez,
Joshua Bedwell, Jeffrey S. Heinle

“Single-Cell RNA-Seq Reveals the Transcriptional Landscape and Heterogeneity of Aortic Smooth Muscle Cells in Murine Aortic Disease Development”

Chen Zhang, Yanming Li, Pingping
Ren, Ashley Dawson, Wei Luo, Waleed
Ageedi, Yang Li, Joseph S. Coselli,
Ying Shen, Scott A. LeMaire

“National Trends in Racial Disparities for CABG versus PCI Treatment of Coronary Artery Disease”

Rodrigo Zea-Vera, Rohan M.
Shah, Christopher T. Ryan, Subhasis
Chatterjee, Matthew J. Wall,
Joseph S. Coselli, Todd K. Rosengart,
Ravi K. Ghanta

Clinical, Research, and Education Staff

“Effectiveness of Continuous Diffusion of Oxygen Adjunct Therapy to Improve Success Rate of Lower Extremity Surgically Closed Wound – A Randomized Controlled Trial Study”

Sogol Golafshan, Alejandro Zulbaran, Naima Rodriguez, Jeffrey Ross, Miguel Montero-Baker, Brian Lepow, Joseph L. Mills, Bijan Najafi

“Impact of an Advance Practice Provider as Part of the Clinical Team to Improve Patient Satisfaction”

Logan Healy, Stacey A Carter

“Inflammation Modulating Biomesh for Surgical Hernia Repair”

Richard D Lee, Ghanashyam Acharya, Fernando Cabrera, Remya A Veetill, Aparna Adumbumkulath, Mahira Zaheer, Kirti Mhatre, Steven C Curley, Bradford G Scott, Crystal S Shin

“High-risk Combinations in Lung Transplantation between Donor and Recipient Patients”

Rene D Plascencia, Philip W Carrott, Daoud Daoud, Qi Wei, Gabriel Loor

“Safety and Efficacy of an Endovascular-First Approach to Acute Limb Ischemia (ALI)”

Olia Poursina, Hector Elizondo, Miguel Montero-Baker, Zachary S. Pallister, Joseph L. Mills, Jayar Chung

“Effectiveness of Lower Extremity Electrical Stimulation to Improve Skin Perfusion”

Naima Rodriguez, Alejandro Zulbaran, Hector Elizondo, Anmol Momin, Jeffrey Ross, Miguel Montero-Baker, Brian Lepow, Joseph L. Mills, Bijan Najafi

“The Effect of Frailty on Management of Diabetic Foot Ulcers: Comparative Effectiveness of Two Acellular Matrices Products (Dermacell vs Integra)– A Randomized Control Trial”

Geeva Thomas, Alejandro Zulbaran, Naima Rodriguez, Sogol Golafshan, Anah Khan, Jeffrey Ross, Miguel Montero-Baker, Brian Lepow, Jayar Chung, Joseph L. Mills, Bijan Najafi

“Harnessing Digital Health to Objectively Assess Motor Capacity in Patients with Chronic Obstructive Pulmonary Disease”

Ilse Torres Ruiz, He Zhou, Olia Poursina, Christina K. Nguyen, Monthaporn Bryant, Saba P. Sharafkhaneh, Amir Sharafkhaneh, Bijan Najafi

Student

“Clostridium Difficile Infection Takes Down Patients After Ileostomy Takedown”

Andrea L Gerberding, Samir S. Awad, Konstantinos Makris, Atif Iqbal, Nader N. Massarweh, Eugene A. Choi, Louisa W Chiu, David S. Lee, Natasha S. Becker, SreyRam Kuy, Athanasios Bramos, Christy Y. Chai

“Despite Compliance With CMS & VA Guidelines to Reduce CAUTI, CAUTI is Not a ‘Never Event’”

Rohit Gupta, SreyRam Kuy, Ryan Nowrouzi, Samir S. Awad

“An Innovative Platform Based on Wearable Sensor to Identify Cognitive and Dual-Task Ability Impairment”

Minh Chau N Ho, He Zhou, Bijan Najafi

“Characteristics of the Gait Initiation Phase in Older Adults with Diabetic Peripheral Neuropathy Compared to Control Older Adults”

Chantrel A Hutchings, Gu E. Kang, Maria Noun, Bijan Najafi

“The Controversial Yet Critical Role of Surgery in Stage IIIA Non-Small Cell Lung Cancer”

Niki Iranpour, Jacqueline K. Olive, Mara B. Antonoff

“Valve-sparing Aortic Root Replacement In Patients With Bicuspid Aortic Valve”

Rishabh S Kothari, Joseph S. Coselli, Hiruni S. Amarasekara, Elizabeth Akpan-Smart, Ourania Preventza, Scott A. LeMaire

“Heart Transplant Outcomes in Obese Patients BMI 35-39.9”

Yuangao Liu, Fernando A Padilla, Erik E Suarez, Edward A Graviss, Duc T Nguyen, Swami Gnanashanmugam

“Effect of Increased Cardiopulmonary Bypass Time on Morbidity and Mortality after Left Ventricular Assist Device Implantation”

Ethan Loftspring, Christopher T. Ryan, Harveen Lamba, Andrew B. Civitello, Subhasis Chatterjee, Kenneth K. Liao, Ajith P. Nair, Siavosh Saatee, Alexis E. Shafii, Leo Simpson, Gabriel Loor

“Multidisciplinary Care in Surgery: Are Team-Based Interventions Cost-Effective?”

Bryan C. Luu, Matthew J. Davis, Sarth Raj, Amjed Abu-Ghname, Edward P. Buchanan

“The Role of Mechanical Tension on Mesenchymal Stromal Cell Exosome-Mediated Wound Healing and Fibrosis”

Umang M. Parikh, Hima Vangapandu, Daniel Colchado, Hui Li, Matthew Robertson, Sundeep Keswani, Cristian Coarfa, Swathi Balaji

“A Systematic Review of Wellness in Plastic Surgery Training”

Ross M Reul, Luke Grome,
Sebastian Winocour

“Craniosynostosis: Risk Factors for Delayed Primary Surgery and Predictors of Early Operation”

Linden Shih, Matthew J. Davis, Acara E. Turner, Angela S. Volk, Elaine Dong, Michelle Roy, Lesley W. Davies, Edward P. Buchanan, Laura Monson

“In vitro evaluation of 3D Printed Hydroxyapatite, Beta-Tricalcium Phosphate, and Pore Architecture Gradients on Osteogenesis”

Brandon T. Smith, Sean M. Bittner, Emma Watson, Luis D. Gomez, Eric M. Molina, Mollie M. Smoak, Anthony J. Melchiorri, John P. Fisher, Mark E. Wong, Antonios G. Mikos

“Plastic Surgeons As Institutional Leaders: Climbing the Administrative Ladder”

Lauren Truong, Amjed Abu-Ghname, Matthew J. Davis, James R. Patrinely, Berkay Basagaoglu, Galen Perdikis, Edward M. Reece, Larry H. Hollier, Jr

“Pre-operative Hyponatremia as a Risk Factor for Mortality in Patients after Left Ventricular Assist Device Implantation”

Justin Vincent, Umang Parikh, Harveen Lamba, Andrew B. Civitello, Ajith Nair, Gabriel Loor, Alexis E. Shafii, Kenneth K. Liao, Subhasis Chatterjee

“Development of Nitric Oxide Releasing Polymer Matrix (NOmatrix) as an Antimicrobial Dressing”

Daniel C Wang, Ghanashyam Acharya, Crystal S. Shin

“Donor Gamma-Glutamyl Transferase Is Associated with Liver Allograft Discard and Failure”

Theodore S. Zhang, Brian Hickner, Ronald Cotton, N. Thao N. Galvan, John Vierling, Christine O'Mahony, John Goss, Abbas Rana

“Furlow versus Straight Line Repair with Intravelar Veloplasty: A 7-Year Single Institution Experience with Fistula Formation”

Maryshe S Zietsman, Matthew J. Davis, Angela S. Volk, Edward P. Buchanan, Laura Monson, Amjed Abu-Ghname

PROJECT PLANS

Resident and Fellow

“Factors Affecting Utilization of High Probability Discard Allografts”

Scott Alford, Abbas Rana

“The State of Women in Academic Surgery in East and South Africa”

Sukriti Bansal, Jed Nuchtern

“EVA (Exact Vascular Access) - A Novel Device for Vascular Access”

Rocky C. Browder, Andrew Anderson, Brian C. Dawson, Stuart J. Corr

“The Question of Question Banks: A Review of TrueLearn and SCORE usage and the Impact on ABSITE Score”

Zachary R Chizmar, Neal R. Barshes

“Evaluation of Vascular Injury Following Extremity Trauma in Children Using a Practice Guideline”

Lindsay M. Dean, Brittany Johnson, Daniel Rubalcava, Bindi Naik-Mathuria

“Evaluation of Risk Factors of Relapsed Hepatoblastoma”

Andres F Espinoza, Richard Whitlock, Sanjeev A. Vasudevan

“Predicting Wound Healing with Perfusion Angiography in Patients with Diabetic Foot Ulcers”

Courtney Grant, Tony Lu

“Perioperative Outcome in Patients Undergoing Minimally Invasive Mitral Valve Surgery vs Conventional Approach in Redo Sternotomy Patients”

Nabeel Habib Gul, Ravi K. Ghanta

“Preoperative Factors Associated With Non-Therapeutic vs Therapeutic Laparotomy?”

Eithan D Haim, Jeremy Ward

“Limb Amputations Secondary to Diabetic Foot Infections in Trauma Hospitals: A Retrospective Review”

Nawar Hudefi, R. Mario Vera

“Operative Management of Radiation Enteritis”

Anam Kesaria, Paul Minifree

“The Implementation of an Analgesia, Sedation, and Delirium Protocol in Pediatric Surgery”

Steven Mehl, Adam Vogel, Monica Lopez

“Studying Fetal Wound Healing To Create Novel Wound Healing Therapies”

Oluyinka O. Olutoye II, Sundeep G. Keswani

“The Value of Failure-to-Rescue in Determining Hospital Quality for Pediatric Trauma”

Eric Rosenfeld, Bindi Naik

“Penetrating Spinal Cord Injuries: A 5 Year Retrospective Analysis of Morbidity and Mortality at Ben Taub Hospital.”

John P Saydi, Chad Wilson

“Testing the Role of IL-10 in the Production of High Molecular Weight Hyaluronan to Attenuate Inflammation and Pulmonary Hypertension in Congenital Diaphragmatic Hernia”

Walker D. Short, Sundeep G. Keswani

“Postoperative Ambulation Care Established Protocol”

Christopher C. Taylor, Ashley Waldon, Denny Scaria, Atif Iqbal

“Fast-Track Discharge Program for Renal Transplant Patients Receiving Simulect Induction Therapy”

Mariatu A. Verla, N. Thao N. Galvan

“Transcarotid Versus Transfemoral Carotid Revascularization: An Analysis of Major Adverse Cardiovascular Events”

Jess Wise, Tony Lu

“Pressure Ulcer Management: Utilization of Fecal Diversion”

Matthew S. Yanoff, R. Mario Vera

Student and Staff

“First Foreign Body Reaction to PDLA Resorbable Plates used in Craniofacial Surgery”

Nicholas G. Cen, Matthew J. Davis, Amjed Abu-Ghname, Leslie W. Davies, Edward P. Buchanan

“Utilizing Pre-operative Social Work Consults to Reduce Hospital Length of Stay for Elective Surgery Patients”

William Johnston, Atif Iqbal, Ashley Waldon, Christopher Taylor

“Standardizing Communication for Handoff Report between Perioperative and Postoperative Intensive Care Staff”

Katrina R. Zahorik, Lauren Powell, Robert E. Southard

PAST AWARDEES

2019

Best Poster - Resident and Fellow - Dr. Jessica Mayor, "Sex-Based Differences in Ten-Year Nationwide Outcomes of Carotid Revascularization"

Mentor: Dr. Jaye Chung

Best Poster - Clinical and Research Staff - Jacqueline Yang, "Operationalizing a Sensor-Based Frailty Index to Assess Functional Status in the Older Population"

Mentor: Dr. Bijan Najafi

Best Poster - Student - Meredith McDowell, "Sensing Intracellular Temperature with a BODIPY Molecular Rotor"

Mentor: Dr. Stuart Corr

Best Quick Shot Scientific Presentation - Dr. Emily Steen, "A Saliva-based Proteomic Approach for Biomarker Discovery: A Novel View into Gastrochisis Outcomes"

Mentor: Dr. Sundeep G. Keswani

Best Scientific Presentation – Clinical Research - Dr. Nader Zamani, "Effect of Postoperative Permissive Anemia and Cardiovascular Risk Status on Outcomes after Major General and Vascular Surgery Interventions"

Mentor: Dr. Panos Kougias

Best Scientific Presentation – Basic Science - Daniel Colchado and Dr. Hima Vangapandu, "Mechanical Tension Influences the Regulatory Landscape of MSC-Derived Exosomes During Wound Healing"

Mentor: Dr. Swathi Balaji

Best Student Quick Shot Presentation - Sri Gopakumar, "Intra-Operative Delivery of Oncolytic Virotherapy using Stem Cells after Surgical Resection for the Treatment of Glioblastoma"

Mentor: Dr. Frederick Lang

2018

Best Poster – Residents and Fellows - Dr. Elaine Vo, "Atypical ductal hyperplasia and rate of upgrade to carcinoma on excision at a safety net hospital"

Mentor: Dr. Eric Silberfein

Best Poster – Clinical and Research Staff - Lin Zhang, "Ciprofloxacin increases susceptibility to aortic dissection and rupture in mice"

Mentors: Drs. Scott A. LeMaire and Ying Shen

Best Poster – Medical Students - Evelyn Pan, "Cold ischemia time is an important risk factor for post-liver transplant prolonged length of stay"

Mentor: Dr. Abbas Rana

Best Student Quick Shot Presentation - Jacqueline Olive, "Acute type I aortic dissection: Propensity-score analysis for patients who underwent traditional versus hybrid procedure with antegrade endovascular stent"

Mentor: Dr. Ourania Preventza

Best Quick Shot Presentation - Dr. Emily Steen, "Altered shear forces precipitate fibrotic remodeling in discrete subaortic stenosis"

Mentor: Dr. Sundeep G. Keswani

Best Basic Science Presentation - Dr. Patricio Lau, "Increase in nitric oxide formation and near-infrared spectroscopy values, while NEC incidence decreases with arginine and citrulline supplementation in a premature piglet model"

Mentor: Dr. Oluyinka O. Olutayo

Best Clinical Research Presentation - Dr. Nader Zamani, "Addressing postoperative wound complications following lower extremity revascularization: a propensity-adjusted analysis"

Mentor: Dr. Neal R. Barshes

2017

Best Quick Shot Presentation – Dr. Bradley Jacobsen, "Rabbit Model of Ocular Indirect Photodynamic Therapy"

Mentor: Dr. Charles Gomer

Best Clinical Research Presentation – Dr. Yangyang Yu, "A Prospective Same Day Discharge Protocol for Pediatric Appendicitis: Adding Value to a Common Surgical Condition"

Mentor: Dr. Monica Lopez

Best Basic Science Presentation – Dr. Sarah Woodfield, "MDM4 Inhibition as a Therapy to Reactivate p53 in Liver Cancer"

Mentor: Dr. Sanjeev Vasudevan

Best Student Quick Shot Presentation – Phoebe Lewis, "Blocking CTLA-4 Enhances HIV-specific B-cell Responses in HIV VLP Vaccination"

Mentor: Dr. Cathy Yao

2016

Best Quick Shot Scientific Presentation -
Dr. Celia Robinson, "The Effect of a Preoperative
Decontamination Protocol on Surgical Site
Infections in Elective Surgery"
Mentor: Dr. Samir S. Awad

Best Clinical Research Presentation - Dr. Jennifer
Moffett, "Probability of Transplant (POT) Index:
A Novel Method to Predict the Likelihood of an
Adult Liver Transplant"
Mentor: Dr. Abbas Rana

Best Basic Science Presentation - Dr. Vivek Patel,
"Unlocking Reprogramming Capability:
Silencing Antiplasticity Gene p63 Enhances the
Reprogramming of Fibroblasts into Induced
Cardiomyocytes"
Mentor: Dr. Todd K. Rosengart

Best Student Quick Shot Presentation - Phoebe
Lewis, "Combination Therapy of miR-198 with
Gemcitabine Reduces Tumor Progression in
Patient-derived Xenografts (PDX) Models for
Pancreatic Ductal Adenocarcinoma (PDAC)"
Mentor: Dr. Qizhi Yao

2015

Best Quick Shot Scientific Presentation - Dr. Yan
Shi, "MDM4 is a Potential Novel Therapeutic
Target in Hepatocellular Malignancy"
Mentor: Dr. Sanjeev A. Vasudevan

Best Clinical Research Presentation - Dr.
Gala M. Barden, "Association of Surgical Site
Infection with Survival and Receipt of Adjuvant
Chemotherapy after Curative Resection for Non-
metastatic Colon Cancer"
Mentor: Dr. Daniel Anaya

Best Basic Science Presentation - Dr. Somala
Mohammed, "Improving Chimeric Antigen
Receptor-modified T cell Function by
Reversing the Immunosuppressive Tumor
Microenvironment of Pancreatic Cancer"
Mentor: Dr. William E. Fisher

Best Student Quick Shot Presentation - Omar
Merchant, "Potential of Highly Angiogenic
Peptides for Ischemic Tissue Disease"
Mentor: Dr. Jeffrey Hartgerink (Rice University)

2014

Best Quick Shot Scientific Presentation -
Dr. Somala Mohammed, "Improving Chimeric
Antigen Receptor Modified T-cell Function
by Reversing the Immunosuppressive Tumor
Microenvironment of Pancreatic Cancer"
Mentor: Dr. William E. Fisher

Best Clinical Research Scientific Presentation -
Dr. Nicole Tapia, "Checklist-enhanced Handoffs:
A Randomized Controlled Trial of Standardized
Surgical Resident Handoff"
Mentor: Dr. James W. Suliburk

Best Basic Science Scientific Presentation - Dr.
Darrell Wu, "Oxidative Stress Induces Smooth
Muscle Cell Contractile Dysfunction Leading to
Aortic Wall Failure"
Mentors: Dr. Scott A. LeMaire and Dr. Ying Shen

Best Student Quick Shot Presentation - Kelsey
Lau, "The Impact of a Regional Hepato-
pancreaticoduodenal Surgical Program on
Clinical Volume, Quality of Cancer
Care, and Outcomes in the VA System"
Mentor: Dr. Daniel Anaya

2013

Best Oral Presentation - Dr. Darrell Wu,
"NLRP3 Inflammasome Cascade Activates
MMP-9 and Induces Smooth Muscle Cell
Contractile Dysfunction and ECM Destruction
in Thoracic Aortic Disease"
Mentors: Dr. Scott A. LeMaire and Dr. Ying Shen

Best Poster Presentation - Dr. Irene T. Ma,
"DUSP26 Inhibition: A Potential Therapeutic
Pathway in Neuroblastoma"
Mentor: Dr. Sanjeev A. Vasudevan

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