


# Michael E. DeBakey

Surgical Society Alumni Symposium

and

## 11<sup>th</sup> Annual Research Day



June 9-10  
**2023**

Texas Medical Center

Baylor  
College of  
Medicine

MICHAEL E. DEBAKEY  
DEPARTMENT OF  
SURGERY

## Program Chairs



**Todd K. Rosengart, M.D.**

Professor and Chair  
Michael E. DeBakey  
Department of Surgery  
DeBakey-Bard Chair of Surgery  
Baylor College of Medicine

Professor of Heart and Vascular Disease  
Texas Heart Institute



**Scott A. LeMaire, M.D.**

Professor and Vice-Chair for Research  
Michael E. DeBakey  
Department of Surgery  
Director of Research  
Division of Cardiothoracic Surgery  
Jimmy and Roberta Howell Professor in  
Cardiovascular Surgery  
Baylor College of Medicine

## Research Day Scientific Committee

Bryan Burt, M.D.  
E. Ramsay Camp, M.D.  
Johnny Changyi Chen, M.D.  
Livia Eberlin, Ph.D.  
Ravi Ghanta, M.D.  
Ramyar Gilani, M.D.  
Erin Greenleaf, M.D.  
Raymon Grogan, M.D.  
Sundeep Keswani, M.D.  
Kenneth K. Liao, Ph.D., M.D.  
Samer Mattar, M.D.  
Bijan Najafi, M.D.  
Jed G. Nuchtern, M.D.  
Alastair Thompson, M.D.  
Sanjeev Vasudevan, M.D.  
Qizhi Cathy Yao, M.D., PhD.  
Holly Church Shilstone  
Scott Holmes, CMI  
Lara Landry, Ph.D., PharmD  
Jaye Chambers

# Michael E. DeBakey Surgical Society Alumni Symposium

A group of Dr. Michael E. DeBakey's trainees came together in 1976 with the goal of founding an organization to honor his innovative leadership, provide a forum for international scientific exchange, recognize superior surgeons, and provide financial support for surgeons seeking postgraduate training at Baylor College of Medicine. The Michael E. DeBakey International Surgical Society was founded on January 20, 1977 to perpetuate Dr. DeBakey's vision through education, training, and recognition. Moving forward, the mission of the Michael E. DeBakey Surgical Society is to celebrate the legacy of Dr. DeBakey by supporting the community of former and current trainees and faculty members of the Department of Surgery. This biennial meeting provides the opportunity for education and international exchange of scientific advances and technology.

## Alumni Symposium Scientific Committee

Bruce Applebaum, M.D.  
Francis P. Buckley, III, M.D.  
Chris Cribari, M.D.  
David Meagher, Jr, M.D.  
Eric J. Silberfein, M.D.  
John Aucar, M.D.  
James E. Harrell, Jr., M.D.  
Fareed Khouqeer, M.D.  
Kenneth L. Mattox, M.D.

Charles McCollum, M.D.  
Ronney Stadler, M.D.  
Matthew J. Wall, Jr., M.D.  
Alison Wilson, M.D.  
Holly Church Shilstone  
Scott Holmes, CMI  
Lara Landry, Ph.D., PharmD  
Jaye Chambers

## 11<sup>th</sup> Annual Research Day

We are excited to present our eleventh annual Research Day, 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.



## Venue

Baylor College of Medicine  
One Baylor Plaza  
Houston, Texas 77030  
United States

## Lodging

There are several convenient hotels located in or near the Texas Medical Center. Many Houston hotels and motels offer special discounts to visitors to the Texas Medical Center. Be sure to ask for Baylor College of Medicine discounts wherever you plan to stay.

Baylor rates for local hotels can be found here:



The goal of this meeting is to bring together expert surgeons in their surgical field that are world renowned to share this knowledge and expertise with our alumni and department. This meeting will promote the latest surgical knowledge, techniques, research, and education to those attending, which will bring this knowledge of information back to their practice groups and/or departments to disseminate further increasing the continual knowledge from this meeting as well as share with others and their specialties.

## Learning Objectives

At the conclusion of this activity, the participant will be able to:

- Apply new research and studies for quality improvement in the area of surgery and its divisions.
- Summarize the history and future goals at the Michael E. DeBakey Department of Surgery, Baylor College of Medicine, and alumni society across the nation.
- Outline new surgical techniques through innovative minimally invasive robotic surgeries with supportive research studies.
- Implement new clinical preoperative, operative and postoperative approaches to all disciplines in surgical fields.

## Target Audience

Physicians, Fellows, Residents, Physician Assistants, Nurses/Nurse Practitioners, Staff and Medical Students

## Educational Methods

Lecture, Panel Discussion, and Case Study

## Activity Evaluation

Evaluation by questionnaire will address program content, presentation, and possible bias.

## Accreditation and Credit Designation

Baylor College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians. Baylor College of Medicine designates this live activity for a maximum of 9.25 *AMA PRA Category 1 Credits*<sup>™</sup>. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## Available Credit

9.25 *AMA PRA Category 1 Credit*<sup>™</sup>  
9.25 Attendance



Friday, June 9, 2023

11:00-1:00 Michael E. DeBakey Surgical Society Advisory  
Committee Lunch Meeting

12:15-1:00 Registration and Check-In  
Baylor Main Campus, Cullen Building; Alkek Lobby

## Building on Dr. DeBakey's Legacy of Excellence and Innovation

### Session I Baylor Main Campus - Kleberg Auditorium

1:00-1:40 Welcome, Introduction, and State of the Department  
Dr. Todd Rosengart

1:40-1:50 Translational Innovation in Thoracic Surgery  
Dr. Bryan Burt

1:50-2:00 Abdominal Transplantation at Baylor  
Dr. John Goss

2:00-2:10 A Novel Delivery Mechanism for Postoperative  
Bupivacaine in Bariatric Patients  
Dr. Samer Mattar

2:10-2:20 Cardiac Surgery at Baylor and the Texas Heart Institute:  
The Past, Present, and Future  
Dr. Marc Moon

2:20-2:30 Technology Transforms Cardiac Surgery Practice  
Dr. Kenneth Liao

2:30-2:40 The Future of Acute Care Surgery at Baylor  
Dr. Martin Zielinski

2:40-3:00 Break – Visit exhibits and posters  
Alkek Lobby; Baylor Main Campus by the  
Michael E. DeBakey Library and Museum

### Session II Baylor Main Campus - Kleberg Auditorium

3:00-3:10 Becoming a DeBakey Surgeon: The Current State of  
Surgical Training at Baylor College of Medicine  
Dr. Ronald Cotton

3:10-3:20 The Baylor Global Surgery Residency: One of a Kind  
Dr. Rachel Davis

3:20-3:30 INSTINCT: Driving Breakthroughs in Surgical  
Innovation  
Dr. Livia Eberlin

3:30-3:40 Back to the Future: Advances in Spino-Plastic  
Reconstruction  
Dr. Sebastian Winocour

3:40-3:50 Scientific Advances in Surgical Oncology  
Dr. E. Ramsay Camp

3:50-4:00 Congenital Heart Surgery 2023  
Dr. E. Dean McKenzie

4:00-4:10 Baylor Division of Vascular Surgery and Endovascular  
Therapy Update: Building the Future on a Foundation  
of Excellence  
Dr. Joseph Mills

4:10-4:20 Developing an Innovative Approach to the Fetal Repair  
of Abdominal Wall Defects  
Dr. Sundeep Keswani

4:20-4:40 Break – Visit exhibits and posters  
Alkek Lobby; Baylor Main Campus by the  
Michael E. DeBakey Library and Museum

## Michael E. DeBakey Surgical Society Member Abstract Presentations

4:40-5:50

### Session I

Outcomes, Cost, and Readmission after Surgical Aortic or Mitral Valve Replacement at Safety-Net versus Non-Safety-Net Hospitals  
Dr. Christopher Sylvester

Partial Gluteus Muscle Flap for the Treatment of Complex Pilonidal Disease  
Dr. Souha Farhat

Sportsman Hernia Treatment Outcomes, Using Muschaweck Repair: Single Surgeons' Perspective  
Dr. Alexa De la Fuente Hagopian

Valve-Sparing Aortic Root Replacement for Aneurysm: Predictors for Long-Term Success  
Dr. Marc Moon

Enteric Neurons Sense Extrinsic Force Through the Mechanoreceptor Piezo1  
Dr. Lily Cheng

An Exploratory Analysis of Traumatic Abdominal Aortic Injuries—Results from the American Association for the Surgery of Trauma (AAST) Vascular Trauma Registry: The PROspective Observational Vascular Injury Trial (PROOVIT)  
Dr. Joshua Crapps

Heart Transplant in a DeBakey's International Initiated Cardiac Surgery Program: Current Status  
Dr. Fareed Khoqeer

5:50 Adjourn meeting

6:00-7:00 Poster Reception – Alkek Lobby

7:00-8:30 Informal Reception and Dinner  
Michael E. DeBakey Library and Museum

## Saturday, June 10, 2023

7:00-7:30 Continental Breakfast  
Alkek Lobby; Baylor Main Campus by the  
Michael E. DeBakey Library and Museum

### Research Day - Kleberg Auditorium

7:30-7:35 Welcome  
Dr. Scott LeMaire

7:35-7:40 Introduction of Keynote Speaker

7:40-8:30 **Keynote Address**  
**"Decadus Mirabilis: Michael DeBakey and the  
Ten Years that Made Vascular Surgery"**



Craig A. Miller, MD, FACS  
OhioHealth Heart, Lung and Vascular Surgeons,  
Riverside Methodist Hospital

Dr. Craig A. Miller was born in Columbus, Ohio and educated at Northwestern University, the Ohio State University, and the University of California, San Francisco. He is a board-certified vascular surgeon with OhioHealth Heart, Lung, and Vascular Surgeons at Riverside Methodist Hospital in Columbus.

He is the author of three books: The Making of a Surgeon in the 20th Century, which is in its fourth U.S. edition and has been translated into several languages, The Big Z: The Life of Robert M. Zollinger, which was nominated for the Welch Medal of the American Association for the History of Medicine as the most outstanding book on American medical history for 2015 and, most recently, A Time for All Things: The Life of Michael E. DeBakey, which was published in 2020 by the Oxford University Press. He has been Scholar-in-Residence at the Medical Heritage Center of the Ohio State University College of Medicine, and Michael E. DeBakey Fellow in the History of Medicine at the National Library of Medicine.

8:30-8:45     **University of Alabama at  
Birmingham Exchange Resident  
Presentation**

Deficiencies in Genetic Testing Among Patients Younger Than 50  
Years With Colorectal Cancer  
Dr. Hannah Ficarino  
Invited Discussant: Dr. Atif Iqbal

8:45-9:30     **Resident and Fellow Basic Science  
Abstracts of Distinction**

Investigating Sex-Based Differences in Congenital Diaphragmatic  
Hernia with a Novel Translational Model and Spatial Transcriptomics  
Dr. Oluyinka Olutoye, II  
Mentor: Dr. Sundeep Keswani  
Invited Discussant: Dr. Ying Shen

Lignin Composites with Sustained Oxygenation and Antioxidant  
Properties Improve Neovascularization and Healing of Diabetic  
Wounds  
Dr. Nabila Anika  
Mentor: Dr. Swathi Balaji  
Invited Discussant: Dr. Crystal Shin

Mitochondrial Transcription Factor-A (TFAM) Plays an Important  
Role in Protecting Smooth Muscle Cells and Preventing Aortic  
Aneurysm and Dissection Development  
Dr. Abhijit Chakraborty  
Mentor: Dr. Ying Shen  
Invited Discussant: Dr. Qizhi Cathy Yao

A 2-stage Approach to Craniofacial Reconstruction in an Infected  
Ovine Mandibular Defect Model  
Dr. Brandon Smith  
Mentor: Dr. Antonios Mikos  
Invited Discussant: Dr. Sebastian Winocour

9:30-9:45     **Break – Visit exhibits and posters**  
Alkek Lobby; Baylor Main Campus by the  
Michael E. DeBakey Library and Museum

9:45-10:30     **Resident and Fellow Clinical  
Research Abstracts of Distinction**

Tele-Medicine Based Interactive Exercise Program to Improve  
Balance and Cognition in Older Adults with Mild Cognitive  
Impairment or Dementia  
Dr. Catherine Park  
Mentor: Dr. Bijan Najafi  
Invited Discussant: Dr. Subha Chatterjee

Opportunities for Improvement in Liver Transplant Outcomes  
Modeling Using Machine Learning  
Dr. Travis Miles  
Mentor: Dr. Abbas Rana  
Invited Discussant: Dr. José Méndez Reyes

Lower Socioeconomic Status Adversely Affects Outcomes After  
Coronary Artery Bypass Grafting  
Dr. Paige Brlecic  
Mentor: Dr. Ravi Ghanta  
Invited Discussant: Dr. Ourania Preventza

Pleurectomy and Decortication is Associated with Better Survival for  
Bicavitary Cytoreductive Surgery for Mesothelioma Compared to  
Extrapleural Pneumonectomy  
Dr. Richard Whitlock  
Mentor: Dr. R. Taylor Ripley  
Invited Discussant: Dr. Lorraine Cornwell

10:30-11:30     **Resident and Fellow Quick Shot  
Scientific Presentations**

Characteristics of Infants Transferred for Management of Anterior  
Abdominal Wall Defects in Texas  
Dr. Sarah Peiffer  
Mentor: Dr. Alice King

Primary Hyperparathyroidism Causes Objectively Measurable  
Cognitive Dysfunction Which is Improved by Parathyroidectomy  
Dr. William Lightle  
Mentor: Dr. Raymon Grogan

Comparison of Smooth Muscle Cell Gene Expression in Human Ascending Aortic Aneurysm and Aortic Dissection - Revealed by Single-Cell Transcriptome Analysis

Dr. Yanming Li

Mentor: Drs. Ying Shen and Scott LeMaire

Development and Validation of a Wearable Sensor Technology to Objectively Measure Hand Dexterity for Cardiac Surgical Technical Proficiency

Dr. Gregory Boyajian

Mentor: Dr. Ravi Ghanta

Standardized Reporting and Analysis of Human Performance Deficiencies in Surgical Adverse Events Reduces Cognitive Bias During Execution

Dr. Ava Mokhtari

Mentor: Dr. James Suliburk

Machine Learning for Dynamic and Early Prediction of Acute Kidney Injury after Cardiac Surgery

Dr. Christopher Ryan

Mentor: Dr. Ravi Ghanta

Gasdermin D-Mediated Pyroptosis Contributes to the Development of Severe Aortic Disease

Dr. Kimberly Rebello

Mentor: Drs. Scott LeMaire and Ying Shen

Predictive Model for Children with Sepsis Using Transcriptomic Data

Dr. Axel Moreira

Mentor: Dr. Chris Amos

Primary vs Staged Repair Strategy for Tetralogy of Fallot - Impact on the Pulmonary Valve

Dr. Andres Fuentes-Baldemar

Mentor: Dr. Ziyad Binsalamah

Cumulative Sum for Early Detection of Hospital Perioperative Mortality

Dr. Vivi Chen

Mentor: Dr. Laura Petersen

11:30-12:45 Lunch – Baylor College of Medicine Courtyard

## 12:45-1:15 Student Quick Shot Presentations

The Rise in the Number of Potential Donors for Liver Transplantation Has Been Driven by an Exponential Increase in Extended Criteria Donors

Astitva Soni

Mentor: Dr. Abbas Rana

Energy Metabolism Dynamics in Sporadic Aortic Aneurysms and Acute Dissections

Samantha Xu

Mentor: Drs. Scott LeMaire and Ying Shen

Donor Exosome Analysis Reveals Novel Biomarker Candidates for Primary Graft Dysfunction in Transplants Utilizing Ex-Vivo Lung Perfusion

Ethan D'Silva

Mentor: Dr. Gabe Loor

An Abnormal Extracellular Environment May Contribute to Bowel Dysfunction in Hirschsprung Disease

Britney Hsu

Mentor: Dr. Lily Cheng

## 1:15-1:45 Clinical, Research, and Education Staff Quick Shot Presentations

The Immuno-peptidome of Malignant Pleural Mesothelioma

Jongmin Choi

Mentor: Dr. Bryan Burt

Electrical Stimulation to Regain Lower-Extremity Muscle Perfusion and Endurance in Patients with Post-Acute Sequelae of SARS CoV-2: A Randomized Control Trial

Dr. Alejandro Zulbaran-Rojas

Mentor: Dr. Bijan Najafi

Sphingosine-1-Phosphate Signaling Inhibition in Pancreatic Adenocarcinoma Induces Immune Remodeling

Harinarayanan Janakiraman

Mentor: Dr. E. Ramsay Camp



Co-targeting the Mitochondrial Proteins, Mcl-1 and Bcl-xL,  
Overcomes Treatment Resistance in Mesothelioma  
Cristian Medina  
Mentor: Dr. R. Taylor Ripley

1:45-2:55     **Michael E. DeBakey Surgical Society  
Member Abstract Presentations**

Session II

Intimate Partner Violence and Pregnancy: A Nationwide Analysis of  
Injury Patterns and Risk Factors  
Dr. Paul Albini

Four Decades of Complex Aortic Repair: The Experience of a  
Lifetime  
Dr. Joseph Coselli

Postsurgical Pain Management: Long Acting Injectable Nonopioid  
Microtherapeutics  
Dr. Crystal Shin

Prevalence and Risk Factors for Prolonged Opioid Use in Opiate  
Naïve Colorectal Surgery Patients  
Dr. Pamela Daher

Continuous or Interrupted Pledgeted Suture Technique in Stented  
Bioprosthetic Aortic Valve Replacement: A Comparison of In-  
Hospital Outcomes  
Dr. Jama Jahanyar

A Phase II Window of Opportunity Study of Neoadjuvant PD-L1  
versus PD-L1 plus CTLA-4 Blockade for Patients with Malignant  
Pleural Mesothelioma  
Dr. Hyun-Sung Lee

Biomarker Assessment During Portable Ex-Vivo Lung Perfusion  
Predicts Primary Graft Dysfunction  
Dr. Ramiro Fernandez

2:55-3:00     **Research Day Awards**

3:00             Adjourn Symposium

3:00-4:30     Optional Tours

7:00-9:00     Cocktails and Gala Dinner  
III by Wolfgang Puck  
6550 Bertner Avenue, 6th Floor

## POSTERS

### Michael E. DeBakey Surgical Society Member Posters

- 01 Dr. Lauren Barron: Outcomes and Risk in Proximal Aortic Replacement with Concomitant Coronary Artery Bypass Grafting
- 02 Dr. Lourdes Chacon-Alberty: Effect of Intraoperative Support Mode on Circulating Inflammatory Biomarkers After Lung Transplantation Surgery
- 03 Dr. Erin Greenleaf: The Impact of Head and Neck Malignancies in Patients with Atherosclerotic Carotid Artery Stenosis
- 04 Dr. Jama Jahanyar: Long-Term Durability of Bicuspid Aortic Valve Repair: A Matched Comparison of 2 Annuloplasty Techniques
- 05 Dr. Hee-Jin Jang: Therapeutic Targeting of Macrophage Plasticity Remodels the Tumor-Immune Microenvironment
- 06 Dr. Alice King: Project Planning – Integration of Patient Care and Quality Initiatives in Prospective Electronic Medical Record-Based Fetal Center Patient Registry Development
- 07 Dr. Nandan Mondal: Impairment of Mitochondrial Oxidative Phosphorylation in Heart Failure Patients with Prior Ischemic Stroke Undergoing CF-LVAD implantation
- 08 Dr. Clark Bonham: Fibroblast Transition to an Endothelial “Trans” State Improves Cell Reprogramming Efficiency and Post-infarct Cardiac Function
- 09 Dr. Ying Shen: Critical Role of Cytosolic DNA and its Sensing Adaptor STING in Aortic Degeneration, Dissection, and Rupture

- 10 Dr. Livia S. Eberlin: Developing a Mass Spectrometry Tissue Sensing System for Molecular-Based Intraoperative Surgical Guidance
- 11 Dr. Ronney Stadler: Colonic Malakoplakia Masquerading as Diverticulitis: A Case Report
- 12 Dr. Alastair Thompson: When is Cancer Not Really Cancer? The Underlying Biology and Developing a Test for DCIS Progression to Invasive Breast Cancer
- 13 Dr. Sarah Woodfield: An Indocyanine Green-Based Liquid Biopsy Test for Circulating Tumor Cells for Hepatoblastoma

### Resident and Fellow Posters

- 14 Dr. Jorge Portuondo: Margin Positive Resection in Gastric Cancer: Trends, Predictors, and Salvage
- 15 Dr. Andy Espinoza: Preclinical Testing Pipeline Reveals Novel Treatment Strategies for Chemotherapy Resistant Hepatoblastoma
- 16 Dr. Chen Zhang: Critical Role of Endothelial Injury in the Initiation of Aortic Dissection
- 17 Dr. Junsang Cho: Outcomes of Temporary Ventricular Assist Device: A Pediatric Institutional Experience Over 25 Years
- 18 Dr. Jiangling Dong: Oxaliplatin Chemoresistance is Associated with Cell Cycle Dysregulation and Mitochondrial Alteration in a Pancreatic Cancer Model
- 19 Dr. David Holmes: Outcomes of Wilms Tumor Therapy in Lilongwe, Malawi, 2016-2021: Successes and Ongoing Research Priorities
- 20 Dr. Dongliang Liu: Targeting Myeloid Cells Synergizes with Immune Checkpoint Inhibitor Treatment in Mesothelin High Pancreatic Cancer Mouse Models

- 21** Dr. Navyatha Mohan: Redo Aortic Root Replacement in Patients with Infected Composite Valve Grafts
- 22** Dr. Jennifer Chen: Implementation of a Structured General Surgery Robotics Curriculum: Resident Attitudes and Self Perceptions
- 23** Dr. Zachary Gao: Chemotherapy-Induced Tumor Immune Remodeling in Pancreatic Cancer
- 24** Rodrigo Zea-Vera: Contemporary Midterm Outcomes After Primary Repair of Chronic Type A Aortic Dissection
- 25** Dr. Alyssa Kalustian: Comparing Palliation Strategies for Single Ventricle Anatomy with Transposed Great Arteries and Systemic Outflow Obstruction
- 26** Dr. Yuan Xu: Asbestos Induces Metabolomic Changes Including Minority MOMP to Initiate Carcinogenesis in Mesothelioma
- 27** Dr. Myeounggon Lee: Associations Between Sensory-Feedback in Foot and Physical Activity in Frail Patients Undergoing Routine Hemodialysis - A Randomized Double-Blinded Controlled Trial
- 28** Dr. Walker Short: Impact of Telehealth on Patient Satisfaction in a Pediatric Surgery Population: Implications for Future Surgical Practice
- 29** Monika Halas: Reintervention on Degenerated Homografts after Proximal Aortic Repair
- 30** Dr. Brian Hickner: Complication Timing, Failure to Rescue, and Readmission After Inpatient Pediatric Surgery
- 31** Dr. Sophia Williams-Perez: Chalk Talk: A Novel Educational Initiative Using Open-Ended Discussion to Train Residents on High Impact Surgical Events
- 32** Dr. Graci Finco: Perceptions of Sensorized Offloading Boots for Diabetic Ulcers Using the Technology Acceptance Model
- 33** Dr. Jaymie Henry: The Impact of Community Socioeconomic Factors Along With Gender on Outcomes in Patients Who Undergo Thoracic Aortic Surgery
- 34** Dr. Steven Mehl: Hospital Variation in Mortality for High-Risk Neonatal Diagnoses
- 35** Dr. Martin Kosztowski: Geographic Variation in Rank Priority Waiting Time in the United States Heart Allocation System
- 36** Dr. Sara Larson: Comparison of Outcomes Amongst Patients with High Severity AAST Scores for Common EGS Diseases
- 37** Dr. Waleed Ageedi: Thoracic Aortic Repair in Patients Refusing Blood Products
- 38** Dr. Lisa Brubaker: Standardized Human Error Analysis Facilitates Trainee Associated Improvement of Education, Psychological Safety and Professionalism at Morbidity and Mortality Conference
- 39** Dr. Ian Cook: Open Thoracoabdominal Aortic Aneurysm Repair: Does Chronic Dissection Differ from Aneurysm?
- 40** Dr. Raymond Lopez: Rapid Deployment Aortic Valve Replacement at UAB: Short Term Outcomes of the Edwards Intuity Valve System
- 41** Dr. Gozde Cay: Smart Offloading for Diabetic Foot Ulcers: Defining the Adherence with Offloading Boots Using Smart Sensor

## Student Posters

**42** John Miggins: Donation After Circulatory Death Allografts: Are They Underutilized in Lung Transplantation?

**43** Grant Patrick: Trends in Survival for Adult Organ Transplantation

**44** Christopher Sylvester: Dantrolene Inhibits Lysophosphatidylcholine-Induced Valve Interstitial Cell Calcific Nodule Formation

**45** Saiabhiroop Govindu: Targeting the NRF2 Oncogenic Pathway Shows Efficacy with Hepatoblastoma

**46** Deeksha Bidare: A Critical Evaluation of Medical Student Exposure to Surgical Specialties During Pre-Clinical Years

**47** Pavan Kureti: Novel Patient-Derived Xenograft Mouse Models of Hepatoblastoma Replicate Unique Tumor Subclones

**48** Fayiz Faruk: Biodegradable Magnesium Metal Scaffolds Improve Wound Healing and Regeneration

**49** Aparna Adumbumkulath: 3D-Bioprinted Inflammation Modulating Polymer Scaffold for Wound Healing

**50** Michael DiLeo: Prolonged Length of Stay Following Pediatric Kidney Transplant May Be Predicted with Just Four Recipient Factors

**51** Tiffany Lee: The Impact of Prophylactic Nailing on Pathological Fracture Incidence

**52** Ruth Mizu: Post-operative Atrial Fibrillation After Cardiac Surgery Treated with Rhythm Control Strategy is Associated with Low Rates of Stroke and Recurrence

**53** Laurynn Garcia: Adoption and Comparative Outcomes of Robot vs. Laparoscopic Cholecystectomy

**54** Yasemin Sevilmis: Congenital Diaphragmatic Hernia and Surfactant Administration

**55** Belia Camarena: Relationship Between Donor Lung Pathogenic Organisms and Acute Rejection After Lung Transplantation

**56** Matthew Morones: The Impact of COVID-19 on Inflation and Resident Salaries with a Focus on Resident Surgeons

**57** Thomas Bini: The Severity of Chronic Obstructive Pulmonary Disease is Associated with Outcomes After Open Thoracoabdominal Aortic Aneurysm Repair

**58** Armando Martinez: Loss to Follow-Up in Adult Vs Pediatric Orthopaedic Conditions: A Scoping Review

**59** Haley Ponce: A Mixed Picture: Perceptions of Surgical Specialties in First Generation Medical Students Approaching Clinical Rotations

**60** Austin Williams: Predicting the Need for Surgical Intervention in Children with Chronic Idiopathic Constipation

**61** Rishabh Lohray: A Preliminary Pricing Analysis for Cardiovascular Procedures at 3 Major Hospitals in the Texas Medical Center

**62** Bryan Armbruster: Use of Indocyanine Green to Unambiguously Identify Liver Tumor Cells In Vitro

**63** Ronald Franzen: Comparing Utilization Rates and Post-Operative Outcomes of Intraoperative Cholangiography in Cholecystectomy

**64** Spoorthi Kamepalli: Early Changes in Liver Transplantation Outcomes Following Implementation of Acuity Circles

**65** Jake Lynn: Pediatric Heart Transplantation Allograft Discard Risk Index



- 66** Ashley Montgomery: A Modified Kidney Donor Risk Index for Pediatric Kidney Transplant Recipients
- 67** Bhavesh Sayal: Impact of Frailty on Outcomes After Transcatheter and Surgical Aortic Valve Replacement
- 68** Xiaoman Yu: Lymph Node Resection and Survival in Gastric Cancer: A Single Institution Experience
- 69** Ryan Sorensen: Risks and Benefits of Chalazion Excision Under General Anesthesia in Pediatric Patients
- 70** Elizabeth Hick: Frequency and Recurrence Risk of Systemic Antibiotic Use Prior to Chalazion Surgery in Pediatric Patients
- 71** Bolatito Adeyeri: Impact of Liver Transplant Donor Type on Pediatric Length of Stay
- 72** Tareck Haykal: The Value and Relevance of Social Media for Plastic Surgery Residencies in Rankings
- 73** Bhavana Kunisetty: Constructing an Intent-to-Treat Index to Predict Survival Outcomes in Pediatric Liver Transplant Recipients
- 74** John Treffalls: Impact of Concomitant Ablation of Non-Paroxysmal Atrial Fibrillation During Coronary Artery Bypass Grafting on Mortality and Readmissions
- 75** Pranav Bommekal: Mechanical Signaling Induced Changes in PKM2 and Hsp27 Phosphorylation in Dermal Fibroblasts Regulate Energy Metabolism and Fibrotic Responses
- 76** Jonathan Welsh: Biopsy-Based Analysis of Eyelid Lesions Masquerading as Chalazion in the Pediatric Population
- 77** Gianmarco Calderara: Evaluation of Airway CT Scans as a Diagnostic Tool for Suspected Foreign Body Aspiration in Pediatric Patients

## Clinical, Research and Education Staff Posters

- 78** Nesreen El-Refaei: User Perceptions of Innovative Shoes Designed to Improve Comfort: Older Adults with and Without Type II Diabetes
- 79** Naima Rodriguez: Frailty Evaluation by Physical Activity Monitor in Veterans with Cancer
- 80** Andres Leon-Pena: Portable Normothermic Perfusion Does Not Increase the Incidence of Graft Dysfunction in a Large Single-Center Study.
- 81** Iván Murrieta-Álvarez: Robot-Assisted Coronary Artery Bypass Grafting: Preliminary Results
- 82** Ilse Ruiz Torres: Machine-Learning to Risk Stratify Patients with Aortic Graft Infection
- 83** Marcelo Salan-Gomez: Does Intercostal Nerve Cryoablation in Lung Transplant Recipients Reduce Opioid Consumption? A Single-Center, Retrospective Cohort Study

POSTER COMPETITION

## Project Plans

- Dr. Mary Elizabeth Guerra: Exploring the Effect of Mechanical Force on Enteric Nervous System Form and Function
- Dr. Melissa Koci: Opening the Black Box: Faculty Promotion Trends Since Implementing Department-Wide Transparency Efforts
- Dr. Stephen Manek: Leg Amputation Rates After Implementation of a Multidisciplinary Team Approach and the Effect of the COVID-19 Pandemic
- Dr. Katherine Nordick: Effect of Cardiopulmonary Bypass Time on Clinical Outcomes after Left Ventricular Assist Device Implantation: An INTERMACS Database Analysis
- Dr. Nader Zamani: Correlating Non-invasive Pressure Measurements to Arterial Collateralization and Blood Flow in the Setting of Peripheral Artery Disease

Celebrating 68 Years  
of Excellence in Resident Education,  
Patient Care, Research and  
Innovation

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