Fourth Annual Resident Research Day Symposium
Michael E. DeBakey Department of Surgery

Wednesday, June 1, 2016
Denton A. Cooley Auditorium
We are pleased to welcome you to the Fourth Annual Michael E. DeBakey Department of Surgery Resident Research Day.

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. Today’s symposium underscores both aspects of this mission by highlighting the exciting research activities of our residents, fellows, and students. Our trainees will present work that spans all of our divisions and all of our affiliated hospitals. Their accomplishments also reflect the outstanding mentorship that our faculty members provide to our trainees.

We are honored to welcome Dr. Justin B. Dimick, George D. Zuidema Professor of Surgery, Chief of the Division of Minimally Invasive Surgery, and Associate Chair for Strategy & Finance at the University of Michigan, as our keynote speaker presenting, “Innovative Approaches for Improving Surgical Quality.”

We are extremely grateful to our panel of guest physician-scientists—Drs. Jun-ichi Abe, Jizhong Cheng Keigi Fujiwara, Yong-Jian Geng, Molly Horstman, AJ Marian, Whitney Mills, Nancy Petersen, David Sheikh-Hamad, Felicia Skelton and Huamin Wang—who have generously given their time to score the submitted scientific abstracts and serve as judges in today’s competitions.

Finally, we sincerely thank, Beryl Eve, Ronetta Eaton, Amy Silva, Holly Shilstone, Laurie Fondren, Scott Holmes, and Kim Macellaro for their invaluable assistance in organizing this event.

We hope that you will join us in congratulating all of today’s participants on their achievements.

Todd K Rosengart MD
Chairman

Scott A LeMaire MD
Vice Chair for Research

Changyi (Johnny) Chen MD PhD
Chief, Division of Surgical Research

Barbara Trautner MD PhD
Director of Clinical Research

Today, the Department has over 130 full-time faculty, who are organized into the following surgical divisions: Abdominal Transplantation, Cardiothoracic Surgery, Cardiothoracic Transplantation & Circulatory Support, Congenital Heart Surgery, General Surgery, General Thoracic Surgery, Pediatric Surgery, Plastic Surgery, Surgical Oncology, Surgical Research, and Vascular Surgery & Endovascular Therapy. Each year, patients from around the world seek the surgical care of our faculty. In all, the Department serves the surgical needs of more than 100,000 patients annually at six affiliated institutions. These modern facilities, all located within the Texas Medical Center, are fully equipped to support state-of-the-art surgical techniques and surgical care.
Justin B. Dimick, M.D., M.P.H. is the George D. Zuidema Professor of Surgery, Chief of the Division of Minimally Invasive Surgery, and Associate Chair for Strategy & Finance at the University of Michigan. Dr. Dimick is a graduate of Cornell University and Johns Hopkins Medical School. He completed his surgical training at the University of Michigan and a health services research fellowship at the Dartmouth Institute for Health Policy & Clinical Practice.

Dr. Dimick’s clinical practice is primarily devoted to advanced laparoscopy, including treatment of morbid obesity, gastroesophageal reflux (GERD), paraesophageal hernias, abdominal wall hernias, and other benign and neoplastic diseases of the stomach, spleen, and foregut. He is the editor of a new surgical textbook, Clinical Scenarios in Surgery: Decision Making and Operative Technique, published by Lippincott (2012).

Dr. Dimick serves as Director of the Center for Healthcare Outcomes & Policy at the University of Michigan, where he has an active research program. With funding from the Agency for Healthcare Research and Quality (AHRQ) and National Institutes of Health (NIH), his research focuses on quality measurement, policy evaluation, and large-scale, innovative quality improvement interventions. He has more than 200 peer-reviewed publications, including papers in NEJM, JAMA, Health Affairs, and the leading surgical journals.

Dr. Dimick currently serves in several leadership positions, including immediate past-President of the Association for Academic Surgery (AAS), on the Board of Directors of the Surgical Outcomes Club (SOC), and on the Executive Committee of the Michigan Bariatric Surgery Collaborative (MBSC). He is an Associate Editor at Annals of Surgery and the Surgical Innovation Editor at JAMA Surgery. He has served as an advisor on quality and health policy for several organizations, including the BlueCross BlueShield Association (BCBSA), the American College of Surgeons-National Surgical Quality Improvement Program (ACS-NSQIP), US News and World Reports “Best Hospital” Rankings, and the Medicare Payment Advisory Commission (MedPAC).
Program Schedule

6:30 – 7:00  Breakfast

7:00 – 7:10  Welcome
Dr. Todd K. Rosengart

7:10 – 7:20  Opening Remarks
Dr. Jennifer Christner
Dean, School of Medicine,
Baylor College of Medicine

7:20 – 8:05  Keynote Address
“Innovative Approaches for Improving Surgical Quality”
Dr. Justin B Dimick

8:05 – 9:05  Quick Shot Scientific Presentations
(3 min + 3 min questions)
Moderators: Drs. Lisa Haubert and Miguel Montero

“National Quality Forum Colon Cancer Metric Performance—Does Hospital Performance Matter?”
Dr. Meredith C Mason

“Profiling Immunologic Risk for Acute Rejection in Liver Transplantation: Recipient Age is a Robust Risk Factor”
Dr. Michael Kueht

“The Impact of Robotic Rectal Cancer Resection on Short-term Patient Outcomes: Update of Experience at a Single Institution”
Dr. Carlos Palacio Lascano

“Adjuvant Chemotherapy for Adenocarcinoma of the Small Intestine in a Veteran Population: Minimal Impact on Survival”
Dr. Somala Mohammed

“Analyses of Serum Intestinal-Fatty Acid Binding Protein Levels in Infants with Necrotizing Enterocolitis”
Dr. Patricio Lau

“Computational Analysis of Abdominal NIRS Can Predict the Onset of Necrotizing Enterocolitis in Piglets Prior to the Onset of Symptoms”
Dr. Stephanie Cruz

“Biliary Atresia - 15 Years of Experience and Management”
Dr. Jennifer Carpenter

“Age <18 Years and Surgical Resection Predict the Best Outcome for Alveolar Soft Part Sarcoma: An Analysis of the National Cancer Database”
Dr. Yan Shi

“The Effect of a Preoperative Decontamination Protocol on Surgical Site Infections in Elective Surgery”
Dr. Celia Robinson

“Trends in Treatment and Outcomes for Rectal Adenocarcinoma in the United States: A Population Based Study from 1975 to 2012”
Dr. Elaine Vo
9:05 – 9:45  Scientific Presentations-Clinical Research  
(7 min + 3 min questions)  
*Moderators: Drs. Christy Chai and R. Mario Vera*

“Association of Surgical Site Infection Following Cancer Surgery with Initiation of Adjuvant Chemotherapy”  
Dr. Gala M Barden  
*Invited discussant: Dr. Eric J Silberfein*

“Noninvasive Radiofrequency Hyperthermia of The Liver: Efficacy and Safety in Swine”  
Dr. Jason Ho  
*Invited discussant: Dr. Cary Hsu*

9:45 – 10:10  Coffee Break – Visit Posters

10:10 – 10:50 Scientific Presentations – Basic Science  
(7 min + 3 min questions)  
*Moderators: Drs. Swathi Balaji and Bijan Najafi*

“Crosstalk of Inflammatory Regulation and ECM in Regenerative Dermal Repair”  
Dr. Xinyi Wang  
*Invited discussant: Dr. Hu Ying Shen*

“Combination Therapy of miR-198 with Gemcitabine Reduces Tumor Progression in Patient-derived Xenografts (PDX) Models for Pancreatic Ductal Adenocarcinoma (PDAC)”  
Phoebe Lewis  

10:50 – 11:15  Student Quick Shot Presentations  
(Top 5: 3 min + 3 min questions)  
*Moderators: Drs. David S Lee and Lisa Mullany*

“A Data-Driven Surgical Case Scheduling System Improves Multiple Measures of Operative Suite Efficiency: Results of a Randomized Controlled Trial”  
Sherene Sharath

“A Validated Practical Risk Score to Predict the Need for Right Ventricular Assist Device at the Time of Continuous-Flow Left Ventricular Assist Device Implantation”  
Rohan M Shah

“Acheter Neuropsychiatric Ramifications of Cleft Lip and Cleft Palate in Adolescents”  
Jesse D Meaike

11:15 – 11:30 Awards
RESIDENTS AND FELLOWS

Poster #1
“How Small is Too Small?: A Comparison of Access and Survival by Weight in Pediatric Liver Transplant Recipients”
Emily H Steen

Poster #2
“Circular Closure is Associated With the Lowest Rate of Surgical Site Infection Following Stoma Reversal: A Systematic Review and Meta-Analysis”
Linda T Li

Poster #3
“Are We Refusing Good Organs? Outcomes of Ventilator Management of Sub-Optimal Lung Donors”
Brandi B Scully

Poster #4
“If It’s Broke, Fix It: Repair of Major Lower Extremity Vein Injuries Reduces Complications Compared to Ligation”
Ahmed F Khouqeer

Poster #5
“Congenital H-type Tracheoesophageal Fistula: A Multicenter Review of Outcomes in a Rare Disease”
Sara Fallon

Poster #6
“Detecting Chimerism Following Lung Transplant with Graft vs. Host Disease”
Lauren Clark

Poster #7
“Utilization of Mass Spectrometry to Aid the FNA Diagnosis of Indeterminate Thyroid Nodules”
Elizabeth Alore

Poster #8
“Further Limiting CT Radiation in the Evaluation of Pediatric Blunt Abdominal Trauma”
Lauren A Gillory

Poster #9
“Surgical Follow-up Costs Disproportionately Impact Low Income Patients”
Aaron R Scott

Poster #10
“Are Outcomes of Thoracoabdominal Aortic Aneurysm Repair Different in Men vs. Women?”
Konstantinos Spiliotopoulos

Poster #11
“The Use of Celiac Extension Grafts in Orthotopic Liver Transplantation”
N Thao N Galvan

Poster #12
“Fenestrated Endovascular Graft Outcomes for the Treatment of Juxtarenal Abdominal Aortic Aneurysms”
Elias Kfoury

Poster #13
“Children Listed as Status 1B for Liver Transplantation are Disenfranchised by MARS Therapy”
Ankur Bakshi

Poster #14
“Necrotizing Enterocolitis and the Use of Loop Diuretics in Very Low Birth Weight Neonates”
Mariatu A Cole

Poster #15
“Outcomes in Patients Undergoing Metastasectomy for Solid Organ Malignancies”
Nestor Arita
Poster #16
“Reoperative Surgery on the Thoracoabdominal Aorta”
Angela Echeverria

Poster #17
“Exercise Tolerance in Calves Supported by Continuous Flow Total Artificial Heart”
Courtney Gemmato

Poster #18
“Ocular Pseudoexfoliation Syndrome Linkage to Cardiovascular Disease”
Juan A Siordia

Poster #19
“Stereotactic Body Radiotherapy Versus Lobectomy in Veterans with Stage-I Non-Small-Cell Lung Cancer”
Jessica Mayor

Poster #20
“Foreign Body Perforation of an Incarcerated Inguinal Hernia: A Case Report”
Stephanie Morris

STUDENTS AND RESEARCH STAFF

Poster #21
“Pseudotyped AAZ Vector-mediated Gene Transfer in a Human Fetal Trachea Xenograft Model: Implications for In Utero Gene Therapy for Cystic Fibrosis”
Chi-Han Lu

Poster #22
“Osteogenic Induction of Human Mesenchymal Stem Cells by Cold Atmospheric Argon Plasma”
Joseph Chavarria

Poster #23
“Use of Deep Brain Stimulation to Improve Motor Function in a Mouse Model of Spinocerebellar Ataxia Type 1 (SCA1)”
A Basit Khan

Poster #24
“Altered Microbiome in Pancreatitis, Diabetes, and Pancreatic Cancer”
Michael A Mederos

Poster #25
“Effect of Postoperative Anemia and Baseline Cardiac Risk on Adverse Outcomes after Vascular Surgery Interventions”
Amita Pathak

Poster #26
“Analysis of Long-term Outcomes after Carotid Interventions”
Millie Chen

Poster #27
“Ultrasound in Comparison to Plain Radiographs Is Essential in the Surgical Management of Necrotizing Enterocolitis”
Sarah E Horne

Poster #28
“Is the Degree of Dysphagia Associated with Functional Decline in Neurodegenerative Diseases? A Systematic Review”
Valerie Peicher

Poster #29
“A Novel Educational Program Aimed at Improving In-service Training Examination Scores”
Eileen R Smith

Poster #30
“Concomitant Primary Pancreatic and Gallbladder Adenocarcinoma: A Case Report”
Alfred S Song

Poster #31
“Vascular Invasion as a Prognostic Indicator in Pediatric Patients with Hepatoblastoma”
Sarah Jane Clark

Poster #32
“Text-mining Based Analysis of Underserved and Minority Group Patient Attitudes and Beliefs Towards Self-care Following Thyroidectomy”
Jerry Buentello

Poster #33
“A Novel Approach to Creation of Portosystemic Shunts in Infants: Percutaneous Direct Intrahepatic Portosystemic Shunt”
Dor Yoeli
Poster #34
“NaMELD and Peri-Operative Outcomes in Emergency Surgery”
Elizabeth Godfrey

Poster #35
“The Reliability of Flexible Nasolaryngology in the Identification of Vocal Fold Movement Impairment in Young Infants”
Tyler McElwee

Poster #36
“Social Factors and Foot Osteomyelitis Treatment Outcomes”
Ndidi C Okeke

Poster #37
“Effectiveness of Continuous Infusion of Local Anesthetic for Pain Control after Median Sternotomy”
Alexa Sassin

Poster #38
“A Standardized Approach to Cesarean Surgical Technique and Its Effect on Operative Time and Surgical Morbidity”
Jaden R Kohn

Poster #39
“Discontinuation of Phosphodiesterase 5 Inhibitors in Men with Hypogonadism and Erectile Dysfunction Treated with Testosterone”
Jeffery S Lin

Poster #40
“Are Pelvic Dimensions Restored after Reduction of Traumatic Pelvic Ring Disruptions in Reproductive Age Women?”
Naveen Pattisapu

Poster #40
“Preoperative Carbohydrate Loading in Transplant Surgery”
Ellen D Witte

Poster #42
“MRI Visualization of Musculotendinous Junction Location of Semitendinosus and Gracilis Tendon for Anterior Cruciate Ligament Reconstruction”
Amad Qadeer

Poster #43
Paul D Chamberlain

Poster #44
“Measuring Quality of Life in Adolescents with Cleft Lip and Cleft Palate Using the YQOL-FD Questionnaire”
Matthew R Louis

Poster #45
“Targeting an Intraoperative Transfusion Trigger for Adolescent Idiopathic Scoliosis Correction Surgery”
Justin M Cardenas

Poster #46
“Considerations for the Surgical Management of Pierre Robin Sequence and Tongue-based Airway Obstruction”
Jeffrey G Trost

Poster #47
“Risk Factors for Loss of Reduction Requiring Operative Fixation in Pediatric Supracondylar Humerus Fractures Treated with Lateral Only Pinning at Texas Children's Hospital”
Katherine K Li

Poster #48
“Post-transplant Complication and Re-laparotomy Rates after Liver Transplant in the Pediatric Population”
Ruth L Ackah

Poster #49
“Intraoperative Periprosthetic Fractures in Total Knee Arthroplasty Revision Surgery Utilizing Metaphyseal Stem or Sleeve Fixation”
Grant R McChesney

Poster #50
“An Investigation of Biopsy-proven De Novo Autoimmune Hepatitis after Hepatitis C Clearance with Ledipasvir/Sofosbuvir (Harvoni) in Liver Transplant Patients”
Rohini R Sigireddi
Poster #51
“Pancreatic Neuroendocrine Tumor (PNET) Imaging Features Are Predictive of Biology”
Andrew Fang

PROJECT PLANS

Project Plan #1
“Inflammatory Microrna Expression Signature in Human Thoracic Aortic Aneurysms and Dissection”
Darrell Wu

Project Plan #2
“Management of Congenital Abdominal Lymphatic Malformations”
Eric Rosenfeld

Project Plan #3
“Clinical Assessment of the Management of Suprahepatic IVC Injuries”
Michael Long

Project Plan #4
“Thoracotomy for Hemothorax in Blunt Trauma: Should Our Threshold for Operation be Higher?”
Catherine P Seger

Project Plan #6
“Closing Gastrochisis: A Single Institutional Experience with Prenatal Diagnosis and Clinical Outcomes”
Zachary Pallister

Project Plan #7
“Drowned Livers? Potential Solution to Transplanted Organ Shortage”
Katherine Baugh

Project Plan #8
“Sensitivity and Specificity of Alternate Surveillance Modalities Following Endovascular Abdominal Aortic Aneurysm Repair”
Nader Zamani

Project Plan #9
“Determining the Effect of Open Carry Law on Gun Violence”
Justin Chin-Bong Choi

Project Plan #10
“Complications of Penetrating Liver Injuries”
Galina Toneva

Project Plan #11
“Evaluation of Current Management of Peptic Ulcer Disease”
Eric Rachlin

Project Plan #12
“Is Endovascular Therapy Associated with a Lower Frailty Index Change Compared to Surgical Revascularization in Patients with Infra-inguinal Peripheral Arterial Disease?”
Paul Albini

Project Plan #13
“Portal Vein Thrombosis in Patients after Hepatic Resection and Sequelae of Therapeutic Anticoagulation in a Single Academic Institute”
Anna Lakoma

Project Plan #14
“Out of the Box: Creating a Portable High-Tech Surgical Facility for Low-Resource Environments”
Rachel Davis

Project Plan #15
“Pilot Study of Bovine Colostrum Supplementation in Surgical and Trauma Patients in the Intensive Care Unit to Prevent Nosocomial Infections”
Genna M Lubrano

Project Plan #16
“The Impact of Pre-Operative Irreversible Antithrombotic on Outcomes of Urgent/Emergent Laparoscopic Appendectomy”
Oluwabukola Olatubosun
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 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

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 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

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)
Our comprehensive clinical trial management services, provided by the dedicated research support team housed in our department, allow us to offer you, as our research partner, an efficient, cost-effective, and high-fidelity way of performing clinical trials under a single IRB platform.

**Team**
Clinical trial coordinators, regulatory experts, grants and contract managers, research nurses, a biostatistician, database experts, a medical editor, and a medical illustrator are available to assist with performing clinical trials and preparing the results for presentation.

**Clinical Research Support**
Our pool of research coordinators can help with clinical trials by working with a research partner to convey proposals all the way from IRB submission to enrollment of the final subject at one or all Baylor College of Medicine's 4 major clinical sites. Our team includes research nurses, a physician assistant, and five trials management research assistants who are available to support clinical studies. These individuals are skilled at IRB submission, informed consent, clinical monitoring, completing case reports, regulatory compliance, and final report submission.

**Budget Planning**
Our budget specialists provide support with IRB preparation and help facilitate the completion of the trial.

**Clinical Sites**
Baylor College of Medicine currently has four potential sites for clinical studies, covered under one IRB: the Michael E. DeBakey Veterans Affairs Medical Center, Ben Taub Hospital, Texas Children's Hospital, and the Baylor St. Luke's Medical Center. Our coordinators are credentialed to enroll subjects at all these sites.

Our experienced research core team can be a resource to you in getting your products tested. Consider the Michael E. DeBakey Department of Surgery at Baylor College of Medicine as a potential partner in your next trial.

**Services**
- IRB templates/examples
- Advice on required human subjects training and research regulations
- Statistical support
- Literature search
- Abstract/manuscript editing
- Preparation of figures, tables, and medical illustrations

**Contact Us**
To find out more:
Email: surgicalresearch@bcm.edu

Visit our web site at:
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The Pursuit of Excellence is Our Objective

The Michael E. DeBakey Department of Surgery at Baylor College of Medicine owns one of the great legacies in surgery. The outstanding surgeons and faculty of the Department—more than 130 in all—remain dedicated to advancing that legacy in the arenas of patient care, biomedical research, and medical education.

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