

THE SOCIETY OF  
BLACK ACADEMIC SURGEONS



IN JOINT SPONSORSHIP WITH  
THE UNIVERSITY OF MISSISSIPPI  
MEDICAL CENTER

PRESENT THE

---

---

TWENTY-THIRD ANNUAL MEETING

APRIL 25 - 27, 2013

---

---

THE HILTON GARDEN INN

JACKSON, MISSISSIPPI



## WELCOME



**Mayor Harvey Johnson, Jr.**



Office of the Mayor  
Harvey Johnson, Jr., Mayor

219 South President Street  
Post Office Box 17  
Jackson, Mississippi 39205-0017  
Telephone: 601-960-1084  
Facsimile: 601-960-2193

### Greetings:

On behalf of the citizens of Jackson, I welcome you The Society of Black Academic Surgeons 23<sup>rd</sup> Annual Meeting. This promises to be a very informative and exciting event, and as Mayor, I am pleased that it is being held in Jackson.

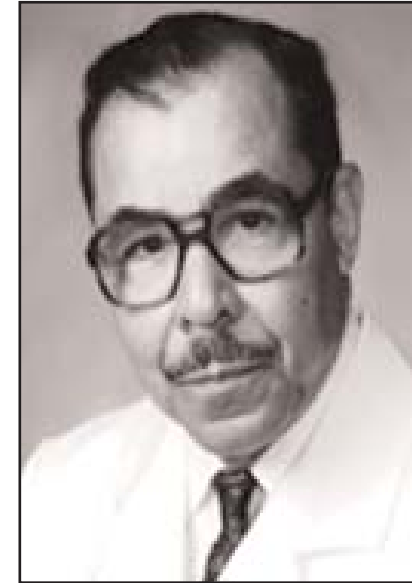
I commend each of you for the invaluable work you do, and I commend you for your dedication and commitment to serving others. You are in a critical profession, and I thank you for often going above and beyond the call of duty to enable individuals to live a quality life.

I know that this will be a very enlightening conference, and for those of you who are visiting, I thank you for coming to Jackson. I am certain that you will find our City to be very hospitable and accommodating. While in town, please take the time to go out and experience some of the fabulous shopping, dining and sightseeing opportunities available in Mississippi's Capital City.

Sincerely,

Harvey Johnson, Jr.

## IN MEMORIAM



**Asa G. Yancey, Sr., MD**

### Dear Colleagues:

**Asa G. Yancey, Sr., MD**, Professor of Surgery Emeritus, Emory University, and Clinical Professor, Morehouse School of Medicine, died on Saturday, March 9, 2013. Several institutions, departments and societies will rightfully line up to be counted among the many who have been within Dr. Yancey's sphere of influence as an outstanding clinical surgeon, investigator and author, teacher and mentor, and professional and civic leader.

We are dedicating this year's SBAS meeting to Dr. Yancey and have included a full tribute (pages 26-29) to this great individual who has been such an inspiration to so many of us.

May God rest his soul and bless the Yancey family.



### Objective

The goal of this program is to disseminate knowledge about recent advances in basic science and clinical research, and innovations in the care of the surgical patient. The forum is designed to present, discuss, and observe new modalities relevant to the treatment of surgical diseases and provide knowledge that will improve the quality of care for this patient population.

### Registration Hours and Locations:

#### *Thursday, April 25*

12:00 Noon – 6:30 pm — Welcome/Registration, Hilton Garden Inn

#### *Friday, April 26*

7:00 am – 5:00 pm — Welcome/Registration, Hilton Garden Inn

#### *Saturday, April 27*

6:30 am – 4:00 pm — Welcome/Registration, Hilton Garden Inn

## TABLE OF CONTENTS

Welcome – Mayor Harvey Johnson, Jr.	2
In Memoriam – Asa G. Yancey, Sr., MD	3
Objectives & Registration Times	4
Officers & Executive Council	6
SBAS Program Committee	7
Committee on Local Arrangements	7
SBAS History	8
SBAS Past Presidents	9
Program Agenda	10
Social Program	14
Scientific Sessions	15
Program at a Glance	16
Dr. Claude H. Organ, Jr. Resident Award	22
Dr. Claude H. Organ, Jr. Resident Award Winners	22
Session Moderators	24
Tribute to Dr. Asa Yancey	26
Asa Yancey Lecture	30
State of the Art Lectures	30
Guest Speakers	30
Abstracts	31
SBAS Constitution	87
SBAS Institutional Membership	96
SBAS Membership	103
Honorary Members	113
Special Appreciation	114
Previous & Future SBAS Meetings	115

## OFFICERS

### President

**Kenneth Davis, Jr., MD, FACS**

Professor of Surgery & Clinical Anesthesia  
University of Cincinnati College of Medicine

### Executive Director

**L. D. Britt, MD, MPH, FACS**

Brickhouse Professor of Surgery and Chair of Surgery  
Eastern Virginia Medical School

### President-Elect

**Edward M. Barksdale, Jr., MD, FACS**

Surgeon-in-Chief, Rainbow Babies and  
Children's Hospital/University Hospitals in Cleveland

### Secretary

**Malcolm V. Brock, MD, FACS**

Associate Professor of Surgery and Oncology  
The Johns Hopkins Hospital

### Treasurer

**Lynt B. Johnson, MD, MBA, FACS**

Chairman, Department of Surgery  
Robert J. Coffey Professor of Surgery  
Georgetown University Hospital

### Program Chair

**Orlando C. Kirton, MD, FACS**

Ludwig J. Pyrtek, MD Chair in Surgery, Director of Surgery,  
Chief Division of General Surgery, Hartford Hospital;  
Professor of Surgery, Program Director, Integrated General Surgery Residency Program,  
Vice Chair, Department of Surgery,  
University of Connecticut School of Medicine

### Informatics Officer

**Selwyn O. Rogers, Jr., MD, MPH, FACS**

Professor and Chair, Department of Surgery  
Temple University School of Medicine  
Surgeon-in-Chief, Temple University Health System

### At-Large Member

**Patricia L. Turner, MD, FACS**

Director, Division of Member Services  
American College of Surgeons

### Society Historian

**Frederick D. Cason, Jr., MD, FACS**

Surgeon-in-Chief  
Louis Stokes Veterans' Affairs Medical Center  
Cleveland, OH

### Executive Council

Henri R. Ford, MD, MHA, FACS  
Danny O. Jacobs, MD, MPH, FACS  
William Lynn Weaver, MD, FACS

## PROGRAM COMMITTEE

**Orlando C. Kirton, MD – Chair**

**Edward M. Barksdale, Jr., MD**

**Andre Campbell, MD**

**Andrea Hayes-Jordan, MD**

**Kakra Hughes, MD**

**Lisa Newman, MD**

**Lynn O'Connor, MD**

**Luz Maria Rodriguez, MD**

**Selwyn O. Rogers, Jr., MD**

**Anthony A. Stallion, MD (Chair Emeritus)**

**John H. Stewart, IV, MD**

**Hassan Tetteh, MD**

**Patricia L. Turner, MD**

## COMMITTEE ON LOCAL ARRANGEMENTS

**Marc E. Mitchell, MD – University of Mississippi**

**John M. Porter, MD – University of Mississippi**

## HISTORY OF THE SOCIETY OF BLACK ACADEMIC SURGEONS

**The Society of Black Academic Surgeons (SBAS)** was founded in 1989. Its goal is to stimulate academic excellence among its members by providing a forum of scholarship in collaboration with the leading Departments of Surgery in the U.S. It encourages and supports professional development of black surgical residents and attempts to recruit the best and brightest medical students into a career in surgery.

The annual meetings of SBAS, attended by members as well as numerous residents and students, provide outstanding programs in both the science and practice of surgery. The first Annual Meeting was hosted by the late Dr. David Sabiston at Duke University. Annual meetings since then have been hosted by Departments of Surgery throughout the U.S., including Harvard University (1991, 2001), University of California at Davis (1993), University of Texas Medical Branch at Galveston (1994), University of North Carolina at Chapel Hill (1995), University of Colorado at Denver (1996), SUNY Buffalo (1997), Howard University (1998, 2004, 2012), University of Louisville (1999), Charles R. Drew University of Medicine and Science (2000), Morehouse School of Medicine (2002), University of Alabama (2003), University of Pittsburgh (2005), University of Cincinnati (2006), Rush University Medical Center (2007), Cleveland Clinic (2008), Washington University in Seattle (2009), Duke University (2010), and Johns Hopkins School of Medicine (2012).

SBAS is governed by an Executive Committee and has more than 200 members throughout the United States. Membership is not restricted by race; the criteria for membership require that the prospective member be a “reputable surgeon or surgical investigator who occupies a faculty position in a university department of surgery or free-standing surgical residency program.” In addition to its Annual Meeting, a website ([www.SBAS.net](http://www.SBAS.net)) has been established to improve communication with its constituency and persons interested in the organization. The *American Journal of Surgery* is the official publication of SBAS.

## PAST PRESIDENTS OF THE SOCIETY OF BLACK ACADEMIC SURGEONS

- 1989-1991: Arthur W. Fleming, MD
- 1991-1993: Onye E. Akwari, MD
- 1993-1995: Eddie L. Hoover, MD
- 1995-1997: Claude H. Organ, Jr., MD
- 1997-1998: LaSalle D. Leffall, Jr., MD
- 1998-1999: Haile T. Debas, MD
- 1999-2001: L. D. Britt, MD, MPH
- 2001-2003: Clive O. Callender, MD
- 2003-2004: Edward E. Cornwell, III, MD
- 2004-2005: Robert L. McCauley, MD
- 2005-2006: Selwyn M. Vickers, MD
- 2006-2007: Michael T. Watkins, MD
- 2007-2008: Steven C. Stain, MD
- 2008-2009: Robert S. D. Higgins, MD, MSHA
- 2009-2010: William Lynn Weaver, MD
- 2010-2011: Henri R. Ford, MD, MHA
- 2011-2012: Danny O. Jacobs, MD, MPH



# PROGRAM AGENDA

## THURSDAY

APRIL 25, 2013

- 12:00-6:30 pm Welcome/Registration  
 12:00-1:00 pm Combined Luncheon for SBAS Leadership  
 Fellows and Executive Council  
 1:00-5:00 pm SBAS Executive Council Meeting  
 1:00-5:00 pm SBAS Leadership Institute  
 5:00-6:30 pm Women in Surgery Reception  
 6:30-8:30 pm Welcome Reception

## FRIDAY

APRIL 26, 2013

- 7:00 am-5:00 pm Registration at the Hilton Garden Inn, Jackson,  
 Mississippi  
 6:30-7:15 am Continental Breakfast  
 7:15-8:00 am Bus transportation to University of Mississippi  
 Medical Center  
 8:00-8:15 am Opening Remarks and Speaker Introduction –  
 Drs. Orlando Kirton, Kenneth Davis & John Porter  
 8:15-8:45 am “History of Surgery at the University of  
 Mississippi” – *Marc E. Mitchell, MD* – James D.  
 Hardy Professor; President, University Physicians;  
 University of Mississippi Medical Center  
 8:45-9:15 am “History of Physiology at the University of  
 Mississippi” – *John H. Hall, PhD* – Arthur C.  
 Guyton Professor and Chair, Department of  
 Physiology and Biophysics, University of  
 Mississippi Medical Center

## FRIDAY (CONT.)

APRIL 26, 2013

- 9:15-9:45 am “Developing a Congenital Heart Program in  
 Mississippi” – *Jorge D. Salazar, MD* – Director of  
 Children’s Heart Center, Batson Children’s  
 Hospital; Chief, Division of Pediatric and  
 Congenital Heart Surgery, University of  
 Mississippi Medical Center  
 9:45-10:15 am “Developing a Transplant Program in Mississippi”  
 – *Christopher D. Anderson, MD* – Associate  
 Professor of Surgery and Medicine; Chief,  
 Division of Transplantation and Hepatobiliary  
 Surgery, University of Mississippi Medical Center  
 10:15-10:30 am Break  
 10:30-10:45 am **1<sup>st</sup> PANEL DISCUSSION** – “Advocacy and  
 Health Care Access to Surgical Care within the  
 Minority Community”  
**Moderator:** *John H. Stewart, IV, MD*  
**Panelists:**  
*L.D. Britt, MD* – “Why Advocacy Matters to Us”  
*Ken Simon, MD* – “Does Change Start with Me?”  
*Donna Christensen, MD* – “The Future of  
 Healthcare in the Current Political Environment”  
 11:45 am-12:15 pm Bus transportation back to hotel (where afternoon  
 sessions will occur)  
 12:15-1:00 pm Lunch  
 1:00-1:30 pm Lunch Time Speaker – “Reducing Health  
 Disparities on a Community Level: Focusing on  
 Race, Poverty, Education and Environment” –  
*Ms. Linda Fondren* – Community Organizer;  
 Owner, Shape Up Sisters®; Positively Reshaping  
 Women™, Vicksburg, Mississippi  
 1:30-1:45 pm Break  
 1:45-3:00 pm **SCIENTIFIC SESSION #1**  
 3:00-3:10 pm Break



**FRIDAY (CONT.) APRIL 26, 2013**

- 3:10-3:15 pm Speaker Introduction
- 3:15-4:00 pm **State of the Art Lecture:** “Reducing the Global Burden of Injury” – *Thomas M. Scalea, MD* – Physician-in-Chief, R. Adams Cowley Shock Trauma Center, University of Maryland Medical System, Baltimore, MD
- 4:00-4:15 pm Break
- 4:15-5:15 pm **SCIENTIFIC SESSION #2**
- 5:15-7:15 pm Free Time
- 7:15-7:30 pm Travel to Evening Event
- 7:30-10:00 pm Evening Event

**SATURDAY APRIL 27, 2013**

- 6:30 am-4:00 pm Registration at Hilton Garden Inn
- 6:15-7:00 am Continental Breakfast
- 6:30-7:00 am SBAS Program Committee Meeting
- 7:00-8:45 am **SCIENTIFIC SESSION #3**
- 8:45-8:55 am Break
- 8:55-9:00 am Speaker Introduction
- 9:00-9:45 am **State of the Art Lecture:** “Contemporary Issues in Soft Tissue Sarcoma” – *Raphael E. Pollock, MD, PhD* – Distinguished Teaching Professor, Department of Surgical Oncology, University of Texas M.D. Anderson Cancer Center, Houston, TX
- 9:45-10:00 am Break
- 10:00-11:15 am **2<sup>nd</sup> PANEL DISCUSSION** – “Population Based Disease Management and Surgery: Can We Actually Improve Outcomes?”  
**Moderator:** *John H. Stewart, IV, MD*

**SATURDAY (CONT.) APRIL 27, 2013**

- Panelists:**  
*Keith Amos, MD* – “Preemptive Surgery for Patients Who Are High Risk for Cancer”  
*Terrance Fullum, MD* – “Future Trends in Obesity and Diabetes: Is There a Surgical Answer?”  
*Selwyn Rogers, MD* – “Trauma in Black America: Opportunities for The Society of Black Academic Surgeons”
- 11:15-11:30 am Break
- 11:30 am-12:30 pm Business Meeting
- 12:30-1:45 pm Lunch & Mentorship Session – *Eddie Hoover, MD*
- 1:45-2:05 pm Break
- 2:05-2:10 pm Speaker Introduction
- 2:10-2:55 pm **Asa Yancey Lecture:** “Diversity and Inclusion in Academic Medicine: From Fairness to Excellence” – *Marc A. Nivet, EdD* – Chief Diversity Officer, Association of American Medical Colleges
- 2:55-3:00 pm Break
- 3:00-4:15 pm **SCIENTIFIC SESSION #4**
- 4:15-4:25 pm Break
- 4:25-4:30 pm Introduction of the President
- 4:30-5:15 pm **Presidential Address** – *Kenneth Davis, Jr., MD* – Professor of Surgery and Clinical Anesthesia, University of Cincinnati College of Medicine
- 5:15-7:15 pm Free Time
- 7:15-11:00 pm Black Tie Dinner / Awards Presentation / Dancing & Entertainment / **Speaker:** *Michael K. Butler, MD* – Executive Vice President and Chief Medical Officer, Jackson Health System – “African-American Academic Surgeons—Where We Came From, Where Can We Go?”



SOCIETY OF BLACK ACADEMIC SURGEONS  
**SOCIAL PROGRAM**

**THURSDAY** **APRIL 25, 2013**

5:00-6:30 pm **Women in Surgery Reception**  
 Hilton Garden Inn, Jackson, Mississippi

6:30-8:30 pm **Welcome Reception**  
 Hilton Garden Inn, Jackson, Mississippi

**FRIDAY** **APRIL 26, 2013**

7:30-10:00 pm **Evening Event**  
 Historic Fairview Inn, Jackson, Mississippi

**SATURDAY** **APRIL 27, 2013**

4:30-5:15 pm **Presidential Address**  
 Hilton Garden Inn, Jackson, Mississippi

7:15-11:00 pm **Black Tie Dinner/Awards Presentation/Dancing  
 & Entertainment**  
 Hilton Garden Inn, Jackson, Mississippi

# SCIENTIFIC SESSIONS

## *ADVOCACY, ACCESS AND COMPARATIVE OUTCOMES: SURGICAL DISPARITIES IN HEALTH CARE*

**FRIDAY** **APRIL 26, 2013**

6:30-7:15 am Continental Breakfast  
 10:30-10:45 am **1<sup>st</sup> PANEL DISCUSSION**  
 12:15-1:00 pm Lunch (Speaker)  
 1:45-3:00 pm **SCIENTIFIC SESSION #1**  
 3:15-4:00 pm **State of the Art Lecture**  
 4:15-5:15 pm **SCIENTIFIC SESSION #2**

**SATURDAY** **APRIL 27, 2013**

6:15-7:00 am Continental Breakfast  
 7:00-8:45 am **SCIENTIFIC SESSION #3**  
 9:00-9:45 am **State of the Art Lecture**  
 10:00-11:15 am **2<sup>nd</sup> PANEL DISCUSSION**  
 12:30-1:45 pm Lunch (Mentor)  
 2:10-2:55 pm **Asa Yancey Lecture**  
 3:00-4:15 pm **SCIENTIFIC SESSION #4**  
 4:30-5:15 pm **Presidential Address**





SOCIETY OF BLACK ACADEMIC SURGEONS  
TWENTY-THIRD ANNUAL MEETING  
PROGRAM AT A GLANCE

SCIENTIFIC SESSION 1  
(ORAL/PODIUM PRESENTATIONS)

FRIDAY, APRIL 26, 2013  
1:45-3:00 P.M.

SURGICAL HEALTH DISPARITY  
AND OUTCOMES

**Moderators: Andrea Hayes-Jordan, MD;  
and Laura Vick, MD**

1. ANALYSIS OF BREAST RECONSTRUCTION FOLLOWING TOTAL MASTECTOMY WITHIN PRE & POST MENOPAUSAL BLACK AND HISPANIC POPULATIONS  
**SENIOR AUTHOR: L. Wilson; PRESENTER: K. George**
2. WHO RECEIVES ENDOVASCULAR ANEURYSM REPAIR IN THE UNITED STATES?  
**SENIOR AUTHOR: S.M. Santilli; PRESENTER: D. Green**
3. TOTAL COLECTOMY FOR ULCERATIVE COLITIS IN PEDIATRIC PATIENTS: PATIENT AND HOSPITAL-LEVEL CHARACTERISTICS  
**SENIOR AUTHOR: B. Nwomeh; PRESENTER: T. Oyetunji**
4. RACIAL DISPARITIES IN SURVIVAL AFTER TRAUMA: DO THEY VANISH AMONG THE ELDERLY?  
**SENIOR AUTHOR: A. Haider; PRESENTER: C. Hicks**
5. LOWER EXTREMITY ARTERIAL RECONSTRUCTION IN OBESE PATIENTS  
**SENIOR AUTHOR: K. Hughes; PRESENTER: O. Pitan**

SOCIETY OF BLACK ACADEMIC SURGEONS  
TWENTY-THIRD ANNUAL MEETING  
PROGRAM AT A GLANCE



SCIENTIFIC SESSION 2  
(POSTER SESSION)

FRIDAY, APRIL 26, 2013  
4:15-5:15 P.M.

POSTER GROUP 1  
GENERAL SURGERY AND  
PEDIATRIC SURGERY

**Moderators: Lynn O'Connor, MD;  
Edward Barksdale, MD;  
and David E. Sawaya, Jr., MD**

6. EARLY PREDICTOR OF OUTCOME AFTER PANCREATICO-DUODENECTOMY WITH POSTOPERATIVE PANCREATIC FISTULA RISK CALCULATOR  
**SENIOR AUTHOR: L. Johnson; PRESENTER: J. Graham**
7. EXTRACORPOREAL MEMBRANOUS OXYGENATION IN THE TREATMENT OF PEDIATRIC ABDOMINAL SEPSIS REQUIRING SURGERY  
**SENIOR AUTHOR: S. McLean; PRESENTER: M. Phillips**
8. ATTITUDE, EXPERIENCE AND CONFIDENCE LEVEL OF NON-SURGICAL AND SURGICAL SPECIALIST RESIDENTS UTILIZING SCREENING, BRIEF INTERVENTION, AND REFERRAL TO TREATMENT (SBIRT)  
**SENIOR AUTHOR: W. Greene; PRESENTER: N. Changoor**
9. A COMPARISON OF SINGLE INCISION ROBOTIC, 4 INCISION ROBOTIC AND LAPAROSCOPIC APPROACHES TO CHOLECYSTECTOMY  
**SENIOR AUTHOR: I. Daoud; PRESENTER: T. Lescouflair**



SOCIETY OF BLACK ACADEMIC SURGEONS  
TWENTY-THIRD ANNUAL MEETING  
PROGRAM AT A GLANCE

SCIENTIFIC SESSION 2  
(POSTER SESSION)

FRIDAY, APRIL 26, 2013  
4:15-5:15 P.M.

POSTER GROUP 2  
GENERAL TOPICS

**Moderators: Luz Maria Rodriguez, MD;  
Hassan Tetteh, MD;  
and Kenneth D. Vick, MD**

10. INTEGRATED GENOMIC ANALYSIS OF ADRENOCORTICAL TUMORS SHOWS DISTINCT METHYLATION STATUS AND GENE EXPRESSION IN CONN'S SYNDROME  
**SENIOR AUTHOR: E. Kebebew; PRESENTER: B. Howard**
11. TASK SHIFTING IN PEDIATRIC SURGICAL CARE DELIVERY IN MALAWI  
**SENIOR AUTHOR: S. McClean; PRESENTER: M. Kiser**
12. SURGICAL MANAGEMENT OF ACUTE APPENDICITIS IN CHILDREN AND YOUNG ADULTS: VARIATIONS IN COST BY HOSPITAL AND PATIENT-LEVEL FACTORS  
**SENIOR AUTHOR: B. Nwomeh; PRESENTER: T. Oyetunji**
13. EARLY SURVIVAL AFTER PEDIATRIC HEART TRANSPLANTATION AND THE INFLUENCE OF SINGLE-VENTRICLE PALLIATION ON OUTCOMES  
**SENIOR AUTHOR: J. St. Louis; PRESENTER: R. Bryant**

SOCIETY OF BLACK ACADEMIC SURGEONS  
TWENTY-THIRD ANNUAL MEETING  
PROGRAM AT A GLANCE



SCIENTIFIC SESSION 2  
(POSTER SESSION)

FRIDAY, APRIL 26, 2013  
4:15-5:15 P.M.

POSTER GROUP 3  
CRITICAL CARE/TRAUMA

**Moderators: Andre Campbell, MD;  
Kakra Hughes, MD;  
and Larry C. Martin, MD**

14. APO E REGULATES PATHOGEN CLEARANCE IN MICE  
**SENIOR AUTHOR: H. Harris; PRESENTER: H. Woldesmayat**
15. THE SLEEPY SURGEON: DOES NIGHT TIME SURGERY FOR TRAUMA AFFECT MORTALITY OUTCOMES?  
**SENIOR AUTHOR: D. Tran; PRESENTER: S. Zafar**
16. DETERMINANTS OF MORTALITY FOLLOWING GUNSHOT WOUNDS TO THE HEAD  
**SENIOR AUTHOR: A. Peter Ekeh; PRESENTER: S. Ilyas**
17. LAPAROSCOPIC SURGERY FOR TRAUMA: THE REALM OF THERAPEUTIC MANAGEMENT  
**SENIOR AUTHOR: D. Tran; PRESENTER: S. Zafar**
18. TRAUMA-ASSOCIATED PNEUMONIA: ALL VENTILATOR-ASSOCIATED PNEUMONIAS ARE NOT CREATED EQUAL  
**SENIOR AUTHOR: J. Dzandu; PRESENTER: A. Mangram**

## SCIENTIFIC SESSION 3 (ORAL/PODIUM PRESENTATIONS)

SATURDAY, APRIL 27, 2013  
7:00 – 8:45 A.M.

### GENERAL TOPICS

**Moderators: Lisa Newman, MD;  
and Christopher D. Anderson, MD**

19. INFRAINGUINAL ARTERIAL RECONSTRUCTION IN PATIENTS YOUNGER THAN FIFTY  
**SENIOR AUTHOR: K. Hughes; PRESENTER: H. Boamah**
20. A VALIDATED SURVEY APPROACH TO DETERMINE THE PREVALENCE OF PTSD IN HIGH-RISK YOUTH AFTER VIOLENT INJURY: A PILOT STUDY  
**SENIOR AUTHOR: R. Dicker; PRESENTER: R. Smith**
21. A DISTINCT PATTERN OF INTESTINAL MICROBIOTA MEDIATES PATHOGENESIS OF NECROTIZING ENTEROCOLITIS  
**SENIOR AUTHOR: H. Ford; PRESENTER: S. Papillon**
22. OPEN ABDOMINAL SURGERY: A RISK FACTOR FOR FUTURE LAPAROSCOPIC SURGERY?  
**SENIOR AUTHOR: D. Tran; PRESENTER: S. Seetahal**
23. CHARACTERIZING INVASIVE LOBULAR CARCINOMA OF THE MALE BREAST: ANALYSIS OF A RARE CANCER USING THE SEER DATABASE  
**SENIOR AUTHOR: L. Wilson; PRESENTER: A. Moten**
24. IDENTIFICATION OF POTENTIAL PATHOGENS IN THE RAT MODEL OF NECROTIZING ENTEROCOLITIS  
**SENIOR AUTHOR: H. Ford; PRESENTER: B. Bell**
25. TOWARDS PERSONALIZED MEDICINE IN TISSUE ENGINEERING AND RESPIRATORY DISEASE  
**SENIOR AUTHOR: C. Finck; PRESENTER: E. Girard**

## SOCIETY OF BLACK ACADEMIC SURGEONS TWENTY-THIRD ANNUAL MEETING PROGRAM AT A GLANCE



## SCIENTIFIC SESSION 4 (ORAL/PODIUM PRESENTATIONS)

SATURDAY, APRIL 27, 2013  
3:00 – 4:15 P.M.

### BASIC SCIENCE

**Moderators: John Stewart, MD;  
and Truman M. Earl, MD**

26. APO E MEDIATES SEPTIC MORTALITY IN MICE BY A NATURAL KILLER (NKT) T CELL-DEPENDENT MECHANISM  
**SENIOR AUTHOR: H. Harris; PRESENTER: S. Kasravi**
27. CONDITIONAL OVEREXPRESSION OF COX-2 IN THE INTESTINE COMPROMISES GUT BARRIER  
**SENIOR AUTHOR: H. Ford; PRESENTER: E. Pontarelli**
28. EP1 DEFICIENCY PROTECTS GUT BARRIER DURING ENDO-TOXEMIA BUT NOT POLYMICROBIAL SEPSIS  
**SENIOR AUTHOR: H. Ford; PRESENTER: S. Short**
29. TISSUE-ENGINEERED SMALL INTESTINE DEMONSTRATES INTACT BARRIER FUNCTION AND ABSORPTIVE CAPACITY IN A MOUSE MODEL  
**SENIOR AUTHOR: T. Grikscheit; PRESENTER: C. Grant**
30. INTELLIGENT MEDICINE FOR HIGH RISK TUMORS IN CHILDREN  
**SENIOR AUTHOR: C. Finck; PRESENTER: E. Girard**

## DR. CLAUDE H. ORGAN, JR. RESIDENT AWARD

**Dr. Claude H. Organ, Jr.** (1926-2005) was a world renowned academic surgeon, a giant in the field of surgery and medicine, and a major force in shaping and supporting the lives and careers of thousands. In 1989, Dr. Organ and several other black academic surgeons founded SBAS and held its first meeting at Duke University. Throughout his career, he oversaw the training of dozens of surgeons, including several African-American women. His lifelong dedication to mentoring young surgeons and encouraging diversity in the field of surgery is represented in the annual Claude H. Organ, Jr. MD, FACS Resident's Award.

Delos "Toby" Cosgrove, MD, President & CEO, Cleveland Clinic, committed the Cleveland Clinic's endowment of this prestigious award. Starting in 2008 and continuing into the subsequent years, Cleveland Clinic's sponsorship of the Dr. Claude H. Organ, Jr. Resident Award helps insure the success of the future generations of surgeons.

### DR. CLAUDE H. ORGAN, JR. RESIDENT AWARD WINNERS

- 2003 **Richard E. Redlinger, Jr., BS**  
Children's Hospital of Pittsburgh  
**Donn H. Spight, MD**  
University of Cincinnati
- 2004 **Zara R. Cooper, MD, MSc**  
Brigham and Women's Hospital
- 2005 **Sonya Walker, MD**  
University of Pittsburgh
- 2006 **Stephen H. Gray, MD**  
University of Alabama at Birmingham  
**Georgia Holder-Haynes, MD**  
Texas A&M University

### DR. CLAUDE H. ORGAN, JR. RESIDENT AWARD WINNERS (CONT.)

- 2007 **Sylvester Black, MD [1st Place]**  
University of Minnesota  
**Sha-Ron Jackson, MD [2nd Place]**  
University of Cincinnati
- 2008 **Jeanwan Kang, MD [1st Place]**  
Massachusetts General Hospital  
**Darrell L. Hunt, MD [2nd Place]**  
University of Florida
- 2009 **Kelley Chuang, MD [1st Place]**  
University of California, San Francisco  
**Sha-Ron Jackson, MD [2nd Place]**  
Children's Hospital Los Angeles  
**Paris D. Butler, MD [3rd Place]**  
University of Virginia / Stanford University
- 2010 **Briana Leung, MD [1st Place]**  
University of California, San Francisco  
**Jennifer Timmons, MD [2nd Place]**  
University of Maryland Medical Center
- 2011 **Chandler A. Long, MD [1st Place]**  
University of Tennessee  
**Leonard H. Armstrong, MD [2nd Place]**  
University of Minnesota  
**Tahira Prendergast, MD [3rd Place]**  
Howard University Hospital
- 2012 **Marcus D. Darrabie, MD [1st Place]**  
Duke University Medical Center  
**Shannon L. Castle, MD [2nd Place]**  
Children's Hospital Los Angeles  
**Elizabeth M. Pontarelli, MD [3rd Place]**  
Children's Hospital Los Angeles

## SESSION MODERATORS

**Christopher Anderson, MD** — Associate Professor of Surgery; Chief, Division of Transplantation and Hepatobiliary Surgery; University of Mississippi Medical Center

**Edward M. Barksdale, Jr., MD** — Professor of Surgery; Chief, Division of Pediatric Surgery; Surgeon-in-Chief, Rainbow Babies & Children's Hospital / University Hospitals in Cleveland

**Andre Campbell, MD** — Professor of Surgery, Division of General Surgery; Endowed Chair in Surgical Education, University of California, San Francisco

**Truman M. Earl, MD** — Assistant Professor of Surgery, Division of Transplantation and Hepatobiliary Surgery, University of Mississippi Medical Center

**Andrea Hayes-Jordan, MD** — Associate Professor of Surgery and Pediatrics; Director of Pediatric Surgical Oncology, University of Texas M.D. Anderson Cancer Center

**Kakra Hughes, MD** — Assistant Professor of Surgery; Director of Endovascular Surgery; Associate Director of Outpatient Services, Howard University Hospital

**Larry C. Martin, MD** — Professor of Surgery, Division of Trauma, Critical Care and Acute Care Surgery, University of Mississippi Medical Center

**Lisa Newman, MD** — Professor of Surgery; Director, Breast Care Center, University of Michigan

## SESSION MODERATORS

**Lynn O'Connor, MD** — Colorectal Surgeon; Attending Surgeon, Department of Surgery, Division of General Surgery, St. Francis Hospital, Roslyn, New York

**Luz Maria Rodriguez, MD** — Surgical Oncologist & Colorectal Surgeon; Physician Scientist & Program Director, Division of Cancer Prevention at National Cancer Institute; Surgical Attending at Walter Reed National Military Medical Center; Assistant Professor at Uniformed Services University of the Health Sciences

**David E. Sawaya, Jr., MD** — Associate Professor of Surgery, Division of Pediatric Surgery, University of Mississippi Medical Center

**John H. Stewart, IV, MD** — Associate Professor of Surgery; Medical Director, Tumor Immunotherapy Program, Wake Forest School of Medicine

**Hassan A. Tetteh, MD, MPA, MBA** — Assistant Professor of Surgery; Commander, Medical Corps, U.S. Navy, Uniformed Services University of the Health Sciences

**Kenneth D. Vick, MD** — Associate Professor of Surgery, Division of General Surgery, University of Mississippi Medical Center

**Laura Vick, MD** — Assistant Professor of Surgery, Division of General Surgery, University of Mississippi Medical Center



## TRIBUTE TO DR. ASA YANCEY



Inaugural SBAS meeting photo from Duke University in 1989. Dr. Asa Yancey is seated in top row, far left.

## TRIBUTE TO DR. ASA YANCEY (CONT.)

**Asa G. Yancey, Sr., MD**, Professor of Surgery Emeritus, Emory University and Clinical Professor, Morehouse School of Medicine, was born in 1916 to a large family that stressed the value of hard work, academic excellence, and a resistive yet dignified approach to the Jim Crow laws that ruled the American South at the time. He was the valedictorian of the Booker Washington High School (Atlanta) class of 1933 and a 1937 graduate of Morehouse College. He would subsequently become part of the historic University of Michigan Medical Class of 1941, remarkable for a majority institution at that time that had 4 African-American members—Maggie Walker, who would train in Pediatrics; Martin Sutler, C. Waldo Scott, and Asa Yancey—who would all come to Howard University's Freedmen's Hospital to train under Dr. Charles Drew in General and/or Thoracic Surgery.



(L-R) Asa G. Yancey, Sr., Martin R. Sutler, C. Waldo Scott, and Maggie Laura Walker at their 1941 graduation from University of Michigan Medical School.

Perhaps even more remarkable is the fact that Asa's older brother Bernise Yancey was a graduate of the University of Michigan Medical Class of 1930—making even more tragic the fact that Bernise would die just a few short months after graduation as a surgical intern handling faulty X-ray equipment.

## TRIBUTE TO DR. ASA YANCEY (CONT.)

The hopes and dreams invested in young Asa Yancey were well-founded indeed. He truly personified through his pioneering life and career the agenda Dr. Drew pursued through his training program—and exemplified by the mantra—“Excellence of performance will transcend artificial barriers created by man.” After his surgical training at Freedmen’s was complete in December 1944, Dr. Yancey would spend time at Meharry to gain further experience in pelvic surgery—an experience that would prove crucial to perhaps his sentinel academic contribution.

Among the incredible roster of “firsts” in Dr. Yancey’s career are his leadership of or acceptance into the V.A. Hospital (Tuskegee, AL) training program (1948-1958), the Spaulding Clinic training program (1958, affiliated with the then segregated Grady Hospital), Emory Department of Surgery (Professor, Associate Dean, and Medical Director of Grady Hospital), the Institute of Medicine, Southern Surgical Association, and the American Surgical Association. His civic awareness was legendary—there are clinics, endowed scholarships and lectures that bear his name, including the Asa Yancey Lecture at the Society of Black Academic Surgeons.



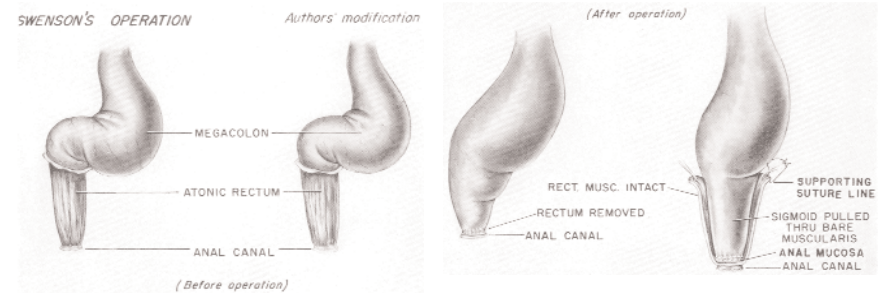
Asa G. Yancey, Sr., MD

Certainly the most enduring evidence of Dr. Yancey’s dignified and understated approach to academic surgery is consideration of his landmark scientific contribution. Dr. Yancey first developed and performed a modification of the Swenson technique for congenital megacolon—where the mucosa of the aganglionic segment of rectosigmoid is dissected away, and the more proximal (dilated) colon is divided and passed through the distal seromuscular sleeve to fashion a perineal coloanal anastomosis. He published the results in the *Journal of the National Medical Association* in 1952 (see next page). This journal was undoubtedly absent from the library of most majority institutions in 1952—so when Dr. Soave went on to describe the same procedure 12 years later as a “new” technique, it would come to be known as the Soave procedure.

## TRIBUTE TO DR. ASA YANCEY (CONT.)

### A Modification of the Swenson Technique for Congenital Megacolon\*

ASA G. YANCEY, M.D., F.A.C.S., J.E. CROMARTIE, JR., M.D.,  
JOHN R. FORD, M.D., REUBEN R. NICHOLS, JR., M.D. and A. F. SAVILLE, JR., M.D.  
*Department of Surgery, Veterans Administration Hospital, Tuskegee, Alabama*



Title page and figures from Dr. Yancey’s article in the *Journal of the National Medical Association* in 1952 showing his innovative modified technique for congenital megacolon (Hirschsprung’s disease).

*Arch. Dis. Childh.*, 1964, **39**, 116.

### HIRSCHSPRUNG’S DISEASE: A NEW SURGICAL TECHNIQUE\*

BY

F. SOAVE

*From the Department of Paediatric Surgery, Institute ‘G. Gaslini’, Genova, Italy*

The “new” surgical technique published 12 years after Dr. Yancey’s article.

Always unconcerned with the professional fanfare that was rightly his, Dr. Yancey’s legacy of excellence is secure not only through the accomplishments of his children and grandchildren, but through the observations of countless physicians and surgeons across generations who aspire to achieve the outcomes made possible through “excellence of performance.”



## ASA YANCEY LECTURE

**Marc A. Nivet, EdD**

Chief Diversity Officer

Association of American Medical Colleges

*“Diversity and Inclusion in Academic Medicine:*

*From Fairness to Excellence”*

## STATE OF THE ART LECTURES

**Raphael E. Pollock, MD, PhD**

Distinguished Teaching Professor

Department of Surgical Oncology

University of Texas M.D. Anderson Cancer Center

Houston, Texas

*“Contemporary Issues in Soft Tissue Sarcoma”*

**Thomas M. Scalea, MD**

Physician-in-Chief

R. Adams Cowley Shock Trauma Center

University of Maryland Medical System

Baltimore, Maryland

*“Reducing the Global Burden of Injury”*

## GUEST SPEAKERS

**Michael K. Butler, MD, MHA, CPE, FACPE**

Executive Vice President & Chief Medical Officer

Jackson Health System, Jackson, Mississippi

*“African-American Academic Surgeons—*

*Where We Came From, Where Can We Go?”*

**Ms. Linda Fondren**

Community Organizer;

Owner, Shape Up Sisters®;

Positively Reshaping Women™

Vicksburg, Mississippi

*“Reducing Health Disparities on a Community Level:*

*Focusing on Race, Poverty, Education and Environment”*



# ABSTRACTS

## #1

### ANALYSIS OF BREAST RECONSTRUCTION FOLLOWING TOTAL MASTECTOMY WITHIN PRE- AND POSTMENOPAUSAL BLACK AND HISPANIC POPULATIONS

K.S. George, A.C. Obirieze, H. Paul, K. Bolden, L. Wilson.  
Howard University College of Medicine, Washington, DC

**Introduction:** Breast reconstruction following total mastectomy is the standard of care, yet it is still uncommon throughout the United States. Previous studies have shown that certain factors predict the likelihood of receiving reconstruction, with conclusions drawn that regions with large minority populations will have lower rates of reconstruction after mastectomy. However, there is little objective data.

**Objective:** To extrapolate evidence of the disparity that may exist among minority women requiring mastectomy as well as factors associated with receiving breast reconstruction following mastectomy.

**Methods:** Retrospective analysis was performed using data from the Nationwide Inpatient Sample database from 2001 to 2009. Patients aged 18 years or older with diagnosis of breast cancer and having undergone mastectomy were identified using ICD-9-CM codes. Patients were sub-stratified into pre-and postmenopausal categories within each racial/ethnic group. We identified receipt of breast reconstruction using ICD-9-CM codes. Multivariable logistic regression was used to assess the combined impact of age and race/ethnicity (premenopausal white women as the reference) on receipt of breast reconstruction, adjusting for demographics, case-mix, hospital factors and discharge year.

**Results:** A total of 91,027 patients met our inclusion criteria. The majority were postmenopausal white (61.4%), admitted at a large hospital (62.5%), and had private insurance (45.5%). Overall, 21,698 (24%) had reconstruction, mostly expanders (44%). On bivariate analysis, postmenopausal black women had the lowest rate of reconstruction (12%), while the highest rate was seen with premenopausal white women (47%) ( $p<0.001$ ).

After adjusting for potential confounders, postmenopausal black women had 71% lower odds of reconstruction (OR: 0.29, 95% CI: 0.45-0.50) compared to premenopausal white women. Teaching status (OR, 1.39,  $p<0.001$ ) and urban hospital location (OR, 2.66,  $p<0.001$ ) were associated with higher odds of undergoing reconstruction.

**Conclusion:** Despite reconstruction being a standard of practice, there is a large disparity among postmenopausal black women. White race, large hospital, urban center, and private insurance were statistically significantly associated with reconstruction following mastectomy.

## NOTES

## #2

### WHO RECEIVES ENDOVASCULAR ANEURYSM REPAIR IN THE UNITED STATES?

D. Green, W.B. Al-Refaie, W. Zhong, Y. Zhu, A. Abraham,  
S. Vickers, E.B. Habermann, S.M. Santilli.

University of Minnesota, Minneapolis, MN; Georgetown University Hospital, Washington, DC; and Mayo Clinic, Rochester, MN

**Background:** Endovascular aortic aneurysm repair (EVAR) has gained increased acceptance over open repair as the preferred surgical option for abdominal aortic aneurysm (AAA). To what degree this emerging modality is disseminated in the United States remains unknown. We sought to identify recipients of EVAR in the modern era in the United States.

**Methods:** Using the 2003-2008 Nationwide Inpatient Sample, we identified 49,100 patients who underwent open or EVAR repair for AAA. Multivariate analyses were performed to identify demographic predictors of EVAR, adjusting for cofounders.

**Results:** EVAR accounted for 60% of all AAA repairs. Patients were almost four times as likely to receive EVAR in 2008 relative to 2003. Older age, male sex, Medicare benefits, and hospitals located in the Northeast region predicted increased receipt of EVAR. In contrast, patients with higher comorbidities, treated at low-volume hospitals, and residence outside the Northeast region were less likely to receive EVAR. Non-whites were as likely as whites to receive EVAR.

Selected Factors for Receipt of EVAR versus Open AAA Repair	
DEMOGRAPHICS	EVAR OR (95% CI)
>80 Years Old vs. <50 Years Old	6.103 (4.788-7.779)
Black Race vs. White Race	1.094 (0.972-1.231)
Year 2008 vs. Year 2003	3.607 (3.365-3.867)
Non-Elective vs. Elective	0.705 (0.668-0.744)

**Conclusion:** This current large multi-hospital study shows wide dissemination of EVAR within the United States, especially among elders and Northeast residents. While the lack of variation between all races is encouraging, further studies should mitigate factors behind the differences in use of EVAR at low volume hospitals and certain regions of the United States.

## NOTES

## #3

### TOTAL COLECTOMY FOR ULCERATIVE COLITIS IN PEDIATRIC PATIENTS: PATIENT AND HOSPITAL-LEVEL CHARACTERISTICS

T.A. Oyetunji, J.S. McKinney, A.L. Franklin, B.C. Nwomeh.  
Howard University College of Medicine, Washington, DC; and  
The Ohio State University College of Medicine, Columbus, OH

**Introduction:** The definitive surgical treatment of ulcerative colitis (UC) in children is a total colectomy (TC) and proctectomy. This study was undertaken to assess factors affecting the utilization of this procedure among children with UC in the United States.

**Methods:** The Kids Inpatient Database (KID) for years 2000, 2003 and 2006 was queried for the primary admission diagnosis of UC. This population was then stratified by whether or not the patient underwent colectomy as a primary procedure during that admission. The patient-level (age, race, gender) and hospital-level (hospital bed size, hospital control, location, region, teaching status) of the study population were described, and a comparison of those undergoing colectomy vs. no colectomy was then performed using bivariate analysis. Predictors of colectomy during admission were determined using multivariate analysis, adjusting for both patient and hospital characteristics. Provided weights were applied to the data to derive national estimates.

**Results:** A total of 6,973 children met the inclusion criteria, of whom 53.2% were females and the median age was 14 years. The sample included Whites 55.6%, Blacks 8.1% and Hispanics 7.3%. Most admissions were to urban teaching hospitals (76.3%) and hospitals not identified as a children's hospital (35.6%). Total colectomy (TC) was performed in 8.2% of patients with a median length of stay (LOS) of 5 days and mortality <1%. On bivariate analysis, a higher percentage of Asians (12.3%) and Whites (9.4%) had TC compared to Blacks (4.0%) and Hispanics (4.5%,  $p=0.002$ ). The rate of TC dropped from 10.2% in 2000 to 6.4% in 2006 ( $p=0.03$ ). More colectomies were performed in teaching vs. non-teaching hospitals (9.5% vs. 2.8%,  $p=0.000$ ). On multivariate analysis, the odds of TC remained significantly less with Blacks and Hispanics or with the procedure being performed at a children's unit.

**Conclusion:** Minorities are less likely to undergo colectomies compared to Whites. Possible reasons may include delay in diagnosis, lower disease stage, and cultural barrier in accepting complex procedures with a high rate of complications. Institutional differences may be related to the availability of pediatric specialists and other resources for the treatment of pediatric UC.

## NOTES

## #4

### RACIAL DISPARITIES IN SURVIVAL AFTER TRAUMA: DO THEY VANISH AMONG THE ELDERLY?

C.W. Hicks, Z.G. Hashmi, D.T. Efron, E.B. Schneider,  
E.E. Cornwell III, A. Haider.

Howard University, Washington, DC; and  
The Johns Hopkins Hospital, Baltimore, MD

**Introduction:** Disparities in survival after trauma among minorities and the uninsured have been well described for patients under the age of 65. However, similar information among the elderly is lacking.

**Objective:** To determine whether racial disparities in outcomes after trauma persist in an elderly population, using a novel approach that allows for the incorporation of patient co-morbidity information in data analysis.

**Methods:** Trauma patients were extracted from the Nationwide Inpatient Sample for years 2003-2009 using ICD-9-CM diagnosis codes. Injury severity was ascertained using the Trauma Mortality Prediction Model, and patient co-morbidities were quantified using the Charlson Co-Morbidity Index. Coarsened Exact Matching was used to match Black patients to White patients on age, gender, insurance status, mechanism of injury, overall injury severity, head injury severity, and co-morbid conditions to allow for comparison of the odds of death for Blacks vs. Whites for younger (16-64 years of age) and older ( $\geq 65$  years of age) patients.

#### Results:

	Age < 65 years (n = 493,812)	Age $\geq$ 65 years (n = 598,812)
<b>Race</b>		
White	408,059 (82.6%)	573,709 (95.8%)
Black	85,753 (17.4%)	25,103 (4.2%)
<b>Black vs. White Mortality Odds (95% Confidence Interval)</b>		
Unadjusted mortality	1.33 (1.26-1.40)	0.97 (0.91-1.04)
Adjusted mortality	1.18 (1.11-1.26)	0.82 (0.75-0.89)

**Conclusions:** In this study that uses a novel method to risk-adjust for both patient-specific co-morbidity data and injury severity information, differential racial disparities exist between White patients and Black patients depending on their age group. While younger White patients have better outcomes after trauma than younger Black patients, older White patients have higher odds of death than older Black patients. Further exploration of this paradoxical finding of racial disparities within different populations, including analysis of the effect of insurance status on outcomes in the elderly population, may help us better understand mechanisms that lead to disparities in trauma outcomes.

## NOTES

## #5

### LOWER EXTREMITY ARTERIAL RECONSTRUCTION IN OBESE PATIENTS

O. Pitan, W. Greene, A. Obirieze, D. Rose,  
D. Tran, T. Fullum, E.E. Cornwell III, K. Hughes.  
Howard University, Washington, DC

**Background:** It has been noted in previous reports that obese patients undergoing lower extremity arterial reconstruction have higher rates of certain complications as compared to non-obese patients. We evaluated the effect of obesity on outcomes following open lower extremity arterial reconstruction.

**Methods:** A query of the American College of Surgeons' National Surgical Quality Improvement Program (NSQIP) Database was conducted to identify all adult patients who underwent open infrainguinal lower extremity arterial reconstruction from 2005 to 2009. Patients were then classified based on their preoperative body mass indices (BMI) as follows: BMI 18.5-24.9 = normal weight; 25-29.9 = overweight; 30-39.9 = obese; and BMI  $\geq$  40 = morbidly obese. Using multivariable logistic regression, postoperative outcomes were then analyzed in the different BMI groups, adjusting for various comorbidities.

**Results (see Table):** There were 17,789 patients identified. The average age was 69, 67, 64 and 60 in normal, overweight, obese and morbidly obese groups, respectively. The prevalence of diabetes mellitus was 30%, 41%, 54% and 66%, respectively; the smoking prevalence was 46%, 39%, 37% and 37% in the normal, overweight, obese and morbidly obese groups, respectively. The table depicts the odds ratio associated with the likelihood of postoperative complications for the different obesity classifications.

**Conclusion:** In patients undergoing open infrainguinal arterial reconstruction, obesity was associated with an increase in wound infection and overall complications. However, obesity (but not morbid obesity) was also associated with a decrease in mortality when compared to normal weight individuals.

	Normal Weight n=6242	Overweight (P-value) n=6368	Obese (P-value) n=4581	Morbidly Obese (P-value) n=598
Mortality	1	0.8 (0.14)	0.5 (0.00)	0.8 (0.36)
Amputation	1	1.0 (0.98)	1.6 (0.44)	No amputations
Graft failure	1	0.9 (0.40)	1.0 (0.77)	1.0 (0.79)
Cardiac complications	1	0.9 (0.43)	0.9 (0.35)	0.6 (0.22)
Respiratory complications	1	1.0 (0.79)	0.9 (0.58)	0.9 (0.69)
Renal complications	1	1.0 (0.64)	1.2 (0.20)	1.5 (0.07)
Wound infections	1	1.3 (0.00)	2.0 (0.00)	2.7 (0.00)
Overall complications	1	1.0 (0.30)	1.2 (0.00)	1.5 (0.00)

## NOTES



#6

**EARLY PREDICTOR OF OUTCOME  
AFTER PANCREATODUODENECTOMY  
WITH POSTOPERATIVE PANCREATIC  
FISTULA RISK CALCULATOR**

**J.A. Graham, R. Kayser, J. Smirniotopoulos,  
J.A. Nusbaum, L.B. Johnson.**

**Georgetown University Hospital, Washington, DC**

**Objective:** We have devised a risk calculator that determines the probability of a postoperative pancreatic fistula (POPF) after a pancreaticoduodenectomy during the early perioperative period.

**Methods:** Retrospective analysis of 146 patients who had undergone a pancreaticoduodenectomy by one surgeon (LBJ) during September 2007 to June 2012 yielded 34% of patients with a POPF. Binary logistic regression was performed to assess the probability of a POPF based on the quantitative variables of age, body mass index (BMI), pancreatic duct size, and postoperative day 2 JP amylase levels (IU/L).

**Results:** The aforementioned variables were significant in predicting the probability of a POPF: age (odds ratio=1.035, 95% CI is 1.002-1.068, p=0.037), BMI (odds ratio=1.108, 95% CI is 1.016-1.208, p=0.02), postoperative day 2 JP amylase level (odds ratio=1.000155, 95% CI is 1.000055-1.000255, p=0.002) and pancreatic duct size (odds ratio=2.536, 95% CI is 1.104-5.825, p=0.025). Overall, this model (which is based on beta co-efficients from these predictive co-variables) is statistically significant (likelihood ratio: chi-square 41.696; df 4; p<0.001) and had a goodness of fit (Homer and Lemeshow Test: chi-square 7.815; df 8; p=0.452). Importantly, we demonstrated that a probability cut-off value of 36% offers an optimal balance of 72% sensitivity and 81.3% specificity.

**Conclusions:** Often the determination of a POPF relegates the patient to lengthy hospital stays, as the JP amylase level and volume are assessed at 5-7 postoperative days. Using an early risk calculator with the aforementioned co-variables, the clinician may be empowered to make management decisions in a more expedient manner.

#7

**EXTRACORPOREAL MEMBRANOUS  
OXYGENATION IN THE TREATMENT  
OF PEDIATRIC ABDOMINAL SEPSIS  
REQUIRING SURGERY**

**M. Phillips, A. Khoury, A. Charles, S. McLean.  
University of North Carolina Hospitals, Chapel Hill, NC**

**Introduction:** Sepsis is the systemic inflammatory response to an invasive infection and can result in poor end-organ perfusion, known as “septic shock.” When sepsis is due to intra-abdominal infections, it is known as abdominal sepsis. Among the attempts that have been made to improve treatment of sepsis, one of the strategies is extracorporeal membranous oxygenation (ECMO). No studies exist which describe the use of ECMO in the treatment of abdominal sepsis in pediatric patients requiring surgery.

**Methods:** We searched the Extracorporeal Life Support Organization (ELSO) database for pediatric patients (30 days to 18 years old) requiring abdominal surgery. Patients were excluded if surgery was indicated after cardiac surgery or a primary pulmonary problem, trauma, or burn injuries. We examined mortality in this cohort, with survivors and non-survivors studied to see whether an association existed between survival and the type of ECMO support (pulmonary vs. ECPR and cardiac), the number of hours on ECMO, the timing of surgery, or bleeding complications.

**Results:** The total number of patients requiring surgery in the peri-ECMO period for intra-abdominal pathology was 61, with an average age of 5.32 years. Of these, 15 patients were discharged alive (24.6%). There were no significant differences in the type of support, timing of surgery, or bleeding complications (Fisher’s exact test; P-values 0.21, 0.52, and 0.77, respectively). Time on ECMO also showed a non-significant difference by two-tailed t-test, p=0.16.



**Discussion:** While survival is low compared to other indications for ECMO, this study indicates that there may be some benefit to ECMO support in pediatric patients with cardiac and pulmonary failure secondary to abdominal sepsis. Additionally, the type of support, timing of surgery, and number of bleeding complications were similar in both groups and should not be viewed as contraindications to ECMO support. However, additional studies should be performed to determine which patients are most likely to receive benefits from ECMO support.

## NOTES

#8

### ATTITUDE, EXPERIENCE AND CONFIDENCE LEVEL OF NON-SURGICAL AND SURGICAL SPECIALIST RESIDENTS UTILIZING SCREENING, BRIEF INTERVENTION, AND REFERRAL TO TREATMENT (SBIRT)

N. Changoor, A. Obirizeze, N. Kalu, R.E. Taylor, W.R. Greene.  
Howard University College of Medicine, Washington, DC

**Background:** In our previous study, we demonstrated that SBIRT was an effective educational tool for residents. The purpose of this study is to determine differences between the non-surgical (NS) and surgical specialist (SS) residents' self-reported attitudes/perceptions toward patients with substance abuse, experience talking with patients regarding substance use, and readiness to use Brief Negotiated Interview and Referral Treatment (BNI-ART).

**Methods:** Howard University Hospital residents participated in a five-component SBIRT program "Know the R.I.S.K." Consented residents provided pre- and post-test data on attitudes, experience, and readiness to apply SBIRT. They were categorized into either non-surgical or surgical specialty. Differences between pre- and post-test scores for attitudes, experience and readiness measures were calculated to generate change from baseline scores for each resident. An independent T-test then compared the total mean change from baseline for each measure between the surgical and non-surgical specialty.

**Results:** A total of 114 residents were included in the study, comprising 87 (76%) NS and 27 (24%) SS. The mean age was similar in both groups (29.9±4.2 and 28.9±3.8 years, P=0.274, for the NS and SS group, respectively). The racial/ethnic distribution showed a majority of Black residents in both groups (56.6% and 73.1%, P=0.094, for NS and SS, respectively). On comparison, the resident groups after participating in the SBIRT program had a similar positive effect on experience talking with patients about their substance use (post-pre mean difference: 0.56 vs. 0.30; P=0.053, for NS and SS groups, respectively).

Also, a similar positive effect was seen with experience using BNI-ART (post-pre mean difference: 0.43 vs. 0.52; P=0.628, for NS and SS groups, respectively), and readiness/confidence to use BNI-ART (post-pre mean difference: 0.43 vs. 0.52; P=0.628). However, the SS had a more positive change (i.e., post-test minus pre-test score is negative) in the perception that a substance abuser can be helped compared to the NS after participating in our program, although the difference between the groups did not achieve statistical significance (post-pre mean difference: 0.3 vs. -0.15; P=0.06, for NS and SS, respectively).

**Conclusion:** Non-surgical and surgical residents showed no difference in perceptions, experience, or confidence level utilizing SBIRT tools.

## NOTES

#9

## A COMPARISON OF SINGLE-INCISION ROBOTIC, FOUR-INCISION ROBOTIC AND LAPAROSCOPIC APPROACHES TO CHOLECYSTECTOMY

**T. Lescouflair, I. Daoud, K. Kimball.**

**University of Connecticut Health Center, Farmington, CT**

**Introduction:** Robotic surgery has been continually gaining ground, with many urologic, gynecologic and general surgery procedures exploiting its many advantages.

**Objective:** The aim of this project is to look specifically at the use of robotics in the context of gallbladder surgery.

**Methods:** Four cohorts were compared: patients who underwent robotic SILS, those who underwent Robotic 4 incision, traditional laparoscopic, and composite robotic group (either robotic procedure). Using t-testing and chi-square testing, we controlled for various potential biases and confounders including age, BMI, and ASA class. With these controls in mind, we aimed to determine whether there was a statistically significant difference in cost, operative time, rate of conversion, and length of stay.

### Results (Robotic to Laparoscopic):

Outcomes	Robotic	Laparoscopic	p-value
Operative time	140 min	60 min	0.0001
Conversion rate	12%	12%	1
Length of stay	~1 day	~1 day	0.34
Cost	~\$9000	~\$3000	0.00012

*Note: Comparisons between single incision robotic and 4-incision robotic were in the same format.*

**Conclusion:** The rates of conversion and complications were similar in all four cohorts. Length of stay also did not show statistically significant differences between the cohorts. We found that robotic cases were significantly more expensive than laparoscopic cases. While this is a preliminary study with limited data, it seems to raise the question of whether robotic cholecystectomy is viable in the long term.

## NOTES

#10

### INTEGRATED GENOMIC ANALYSIS OF ADRENOCORTICAL TUMORS SHOWS DISTINCT METHYLATION STATUS AND GENE EXPRESSION IN CONN'S SYNDROME

**B. Howard, M. Jain, N. Rechache,  
M. Boufraquech, L. Zhang, E. Kebebew.**  
Endocrine Oncology Branch, National Cancer Institute,  
National Institutes of Health, Bethesda, MD

**Introduction:** Primary hyperaldosteronism (Conn's syndrome) due to a hyperfunctioning adrenocortical tumor accounts for up to 15% of patients with hypertension. Although several candidate dysregulated genes such as CYP11B2 have been found to be up-regulated in Conn's syndrome, the cause for most adrenocortical tumors resulting in Conn's syndrome is unknown. Epigenetic changes such as gene DNA methylation status play an important role in gene expression regulation and tumorigenesis.

**Objective:** To determine dysregulated genes and their methylation status in normal and functioning and nonfunctioning adrenocortical tumors.

**Methods:** Genome-wide gene expression and methylation profiling of normal and functioning and nonfunctioning adrenocortical tumors was performed and integrated to determine dysregulated genes epigenetically regulated. Real time qualitative-PCR and immunohistochemistry were used to validate differential gene expression in tissue samples. An adrenocortical cell line was treated with a demethylating agent, decitabine, to determine if the candidate genes were epigenetically regulated.

**Results:** Integrated gene expression and methylation profiling showed complete separation of adrenocortical tumors based on the tumor functional status. Moreover, pathway analysis showed CYP11B2 and NR2F1 genes involved in the aldosterone biosynthesis pathway. Four genes (CYP11B2, PRKCA, AVPR1a, NR2F) were selected for validation in the mineralocorticoid pathway. In Conn's samples, PRKCA and AVPR1a were decreased 2-fold ( $p < 0.03$ ) and 7-fold ( $p = 0.0002$ ), whereas CYP11B2 and NR2F1 were increased 10-fold ( $p < 0.001$ ) and 2-fold ( $p = 0.184$ ), respectively. Decitabine treatment of adrenocortical cell lines showed an increase in expression of all genes (4-10 fold).

**Conclusions:** To our knowledge, this is the first study to use integrated genomic analysis in adrenocortical tumors. Our data suggests distinct dysregulated profile of genes and methylation status of these genes in adrenocortical tumors causing Conn's syndrome. Thus, targeting these genes or pathways with drugs that regulate DNA methylation could be an effective strategy in patients with hypertension due to Conn's syndrome.

## NOTES

#11

## TASK SHIFTING IN PEDIATRIC SURGICAL CARE DELIVERY IN MALAWI

**M.M. Kiser, C.E. Kendig, A.L. Halpern,  
A.E. Onuma, S.E. Mclean, A.G. Charles.**  
University of North Carolina Hospitals, Chapel Hill, NC

**Background:** A paucity of pediatric surgeons presents challenges to surgical care in sub-Saharan Africa.

**Objective:** Our purpose is to describe task-shifting as a strategy to mitigate dependence on surgeons for pediatric surgical services.

**Methods:** We analyzed pediatric (age <17 years) operative cases over 12 months, with a surgical staff including surgeons and clinical officers. Results include univariate and bivariate comparisons.

**Results:** There were 833 pediatric operations included, of which 66.4% (n=553) were male, mean age 5.2 years (SD 4.8); 51.9% were general surgery cases, 7.7% neurosurgery, 10.3% urology, 12.1% ENT, and 17.9% orthopedic; 52.0% of all cases were completed by MD surgeons. Of all major cases (54.7%), more were done by MDs (60.3%), as were general pediatric surgery cases (61.6%) and urologic cases (94.1%). ENT, neurosurgery, and orthopedics were more likely to be covered by clinical officers (75.2%, 90.6%, and 61.7%, respectively). Surgeons completed more congenital cases (60.7%), and clinical officers did more trauma cases (62.6%).

**Conclusions:** In the absence of a fundamental change in health policy and macroeconomics in sub-Saharan Africa, an increase of surgeons is unlikely. We describe one approach to provide coverage of surgical care. This has proven useful with high volume, sub-specialty cases, freeing surgeons for more complex care.

## NOTES

## #12

### SURGICAL MANAGEMENT OF ACUTE APPENDICITIS IN CHILDREN AND YOUNG ADULTS: VARIATIONS IN COST BY HOSPITAL AND PATIENT-LEVEL FACTORS

T.A. Oyetunji, A.L. Franklin, J.S. McKinney,  
A.C. Obirize, B.C. Nwomeh.

Howard University College of Medicine, Washington, DC; and  
The Ohio State University School of Medicine, Columbus, OH

**Introduction:** Appendectomy remains one of the most commonly performed procedures in the pediatric population. Differences in cost of hospitalization by region or type of hospital have not been elucidated in the literature. The aim of this study was to determine the cost of surgical management of pediatric appendicitis and variations in cost by the presence of perforation, surgical approach, hospital region, and children's hospital status.

**Methods:** A retrospective analysis of the Kids' Inpatient Database (KID) from the years 2003, 2006, and 2009 was completed. Children <20 years with a diagnosis of acute and/or perforated appendicitis who subsequently underwent appendectomies were included. Univariate and bivariate analyses were performed. Adjusted analysis controlling for demographics and hospital level factors was done to determine the impact of hospital type and region on cost using the cost-to-charge ratio (CCR) data from AHRQ.

**Results:** A total of 96,488 records representing a weighted estimate of 152,582 children were included in the study. Median age was 13 years and predominantly male at 60%. Approximately one-quarter (26%) presented with perforated appendicitis. Laparoscopic appendectomy was the surgical approach in 50% of the children. On multivariate analysis, patients receiving laparoscopic appendectomy had a 26% higher cost (OR: 1.26 95% CI: 1.24-1.28). Perforated appendicitis had a 9% increase in cost (OR: 1.09 95% CI: 1.08-1.11). Black children had a 5% higher cost (OR: 1.05 95% CI: 1.02-1.08) compared to Whites. Midwest hospitals had a 16% higher cost (OR: 1.16 95% CI: 1.09-1.23). When compared to general hospitals, designated children's hospitals had an 18% increased cost (OR: 1.18 95% CI: 1.09-1.28).

**Conclusion:** Perforated appendicitis, laparoscopic approach, designated children's hospitals, and hospitals located in the Midwest have an increased cost in the surgical treatment of appendicitis. When compared to other ethnicities, black children have a significant increased cost in the treatment of appendicitis. The exact causes of differences in cost need to be further elucidated.

## NOTES

#13

## EARLY SURVIVAL AFTER PEDIATRIC HEART TRANSPLANTATION AND THE INFLUENCE OF SINGLE-VENTRICLE PALLIATION ON OUTCOMES

R. Bryant III, R. Ameduri, E. Braunlin, J.D. St. Louis.  
University of Minnesota, Minneapolis, MN

**Background:** Heart transplantation (HT) is the final therapeutic intervention for pediatric patients with end-stage heart failure from all causes. This study evaluated the trends in early post-transplant survival and the effect of single-ventricle palliation on post-transplant outcome.

**Methods:** A retrospective review of all cardiac transplants in patients < 18 years of age was performed from May 1981 through June 2012. Pre-transplant diagnoses were characterized. To assess trends in early survival, patients were divided into four groups and compared: Group A (n = 24, 1981-1990); Group B (n = 22, 1991-2000); Group C (n = 22, 2001-2009); Group D (n = 23, 2010-2012). Kaplan-Meier survival analysis was used to compare survival differences between groups.

**Results:** There were 91 transplants during the study period. Six-month and 1-year post-transplant survival improved significantly comparing Group D to Group A (87% vs. 54.2%,  $p = 0.02$ ) and comparing Group B to Group A (86.4% vs. 54.2%,  $p = 0.02$ ). There was no difference in 30-day, 6-month, and 1-year survival comparing patients with previous single-ventricle palliation to patients without single-ventricle palliation (84.2% vs. 84.7% at 30 days,  $p = 0.98$ ; 79% vs. 75% at 6 months,  $p = 0.75$ ; 68.4% vs. 75% at 1 year,  $p = 0.62$ ). Patients in Group D vs. Group A were younger ( $p = 0.03$ ), had more congenital heart disease ( $p = 0.01$ ), had a longer wait-list time ( $p = 0.007$ ), were more often reoperations ( $p < 0.0001$ ), and had more preoperative mechanical circulatory support ( $p = 0.036$ ).

**Conclusions:** Despite increasing complexity of the patient population, there has been a significant improvement in early survival after pediatric heart transplantation in our institution. Previous single-ventricle palliation does not seem to affect early outcome in this cohort of patients.

#14

## APO E REGULATES PATHOGEN CLEARANCE IN MICE

H. Woldesemayat, J. Yano, H.W. Harris.  
University of California-San Francisco, San Francisco, CA

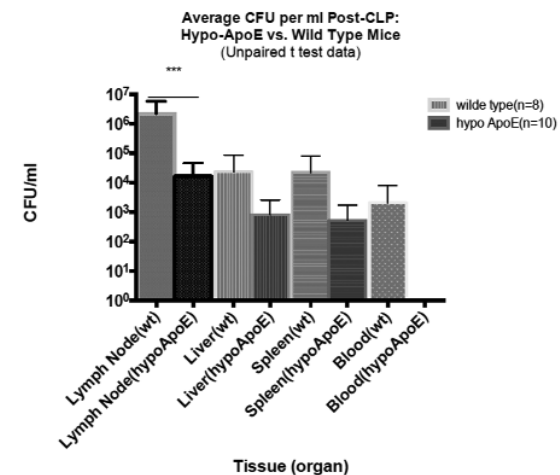
**Introduction:** Decreased plasma levels of apolipoprotein E (apo E), a component of triglyceride-rich lipoproteins, are associated with decreased septic mortality and NKT cell activation. We hypothesized that the effect of apo E on the host response to infection is mediated, in part, by regulating the efficacy of pathogen clearance during sepsis.

**Objective:** To compare the efficiency of pathogen clearance during sepsis (cecal ligation and puncture, CLP) in mice expressing low (apo E hypomorphic mice) vs. wild-type plasma levels of apo E.

**Methods:** We measured the concentration of bacteria (CFU/g) in mesenteric lymph nodes, liver, spleen, and whole blood harvested from apo E hypomorphic vs. control (wild-type) mice 24 h after CLP.

**Results:** All tissues harvested from hypomorphic apo E contained significantly lower concentrations of bacteria as compared to tissues from control mice.

**Conclusion:** Apo E regulates pathogen clearance in mice during sepsis, perhaps through alterations in macrophage phenotype.





#15

## THE SLEEPY SURGEON: DOES NIGHT TIME SURGERY FOR TRAUMA AFFECT MORTALITY OUTCOMES?

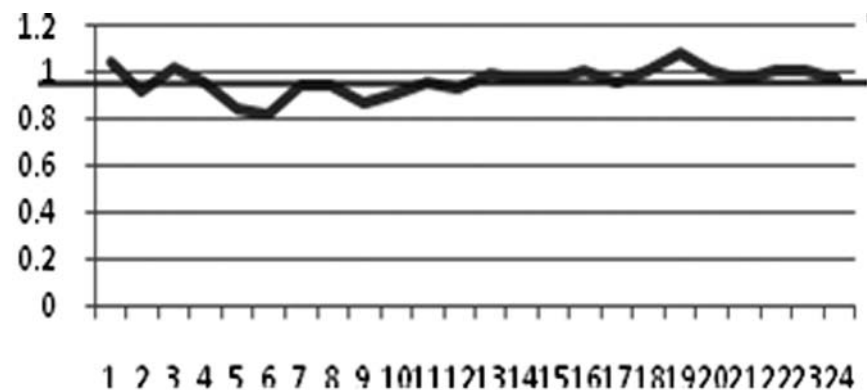
S.N. Zafar, L. Libuit, E.E. Cornwell III,  
A.H. Haider, T.M. Fullum, D.D. Tran.  
Howard University, Washington, DC; and  
Johns Hopkins University, Baltimore, MD

**Introduction:** Sleepiness and fatigue are thought to affect surgical outcomes. However, the association between time of day and outcomes following surgery for trauma has not been studied.

**Objective:** To determine if night time surgery for trauma is associated with mortality.

**Methods:** We analyzed the National Trauma Databank admission years 2007 to 2010. All adults (age  $\geq 16$  years) who underwent an exploratory laparotomy (EL) were included. Patients were categorized to have undergone a procedure during 'sleepy hours' (SH) if their surgery began between midnight and 6:00 a.m. or to 'awake hours' (AH) if their surgery occurred between 7:00 a.m. and 5:00 p.m. We compared hospital mortality between these groups using multivariate logistic regression. Additionally, for each hour a standardized mortality ratio (SMR) was calculated by dividing the observed mortality by the expected mortality.

**Results:** Out of a total of 2,539,818 patients in the NTDB, there were 53,175 (2.1%) adults who underwent an exploratory laparotomy. There were 16,096 patients in the SH category and 15,109 in the AH time period. The crude mortality was significantly higher during AH (16.1%) when compared to the ST (11.5%,  $p < 0.001$ ). However, this difference disappeared after adjusting for patient demographic and injury characteristics (Odds ratio = 0.97, 95% confidence interval = 0.893, 1.058). Similar results were obtained for only blunt or only penetrating injuries. A line plot of SMR versus hour of day demonstrated slight hourly variations in adjusted mortality during the 24 hour period (see Figure).



Standardized mortality ratio (y axis) vs. 24 hour time (x axis)

**Conclusion:** Trauma surgery during the odd hours of the night did not have an increased risk-adjusted mortality when compared to surgery during the day. However, mortality outcomes did vary during the 24-hour period, with the least mortality occurring when the surgery was performed between 4:00 a.m. and 12:00 noon.

## NOTES



## #16

### DETERMINANTS OF MORTALITY FOLLOWING GUNSHOT WOUNDS TO THE HEAD

S. Ilyas, H. Moncrief, R. Markert, M.C. McCarthy, A.P. Ekeh.  
Wright State University, Dayton, OH

**Introduction:** Gunshot wounds (GSW) to the head are severe injuries with a high fatality rate. Few studies have detailed specific factors associated with mortality. Trauma surgeons typically care for these patients and have to provide reasonable expectations for their families.

**Objective:** We reviewed all GSW to the head at our Level I Trauma center over a 5-year period to identify clear determinants of mortality.

**Methods:** All patients with head GSW admissions over a 60-month period were identified from the trauma registry. Age, gender, race, intent (suicide, assault or accidental), associated injuries, trajectory of the bullet (one or both hemispheres), skull penetration, and associated injuries were obtained by chart review. Statistical analysis examining the risk of death from these factors was performed using independent sample t-tests, Pearson Chi-square, and Fischer's exact test.

**Results (see Table):** Of the 79 head GSW admissions in the 60-month period (male 86%, mean age 37.8 years), race was Caucasian in 58% and black in 30%. The intent was suicide in 47%, assault in 30.4%, and accidental in 4%. The bullet trajectory was through both hemispheres in 40.5% and through one in 35.4%. There was skull penetration in 72% and associated injuries in only 12.7%. There were 50 deaths (63.3%). Age and arrival Glasgow Coma Scale (GCS) were not associated with increased mortality.

**Conclusion:** Death from GSW to the head is more likely when suicide is the motive, where the bullet trajectory involves both cerebral hemispheres, and when there is skull penetration. Patient age, gender, admission GCS, race, and the presence of associated injuries do not have any bearing on outcome. These results could aid in better predicting outcomes in this patient population.

Factor		Deaths		Deaths	p-value
Gender	Male	45/67 (67%)	Female	5/7 (71%)	0.112
Race	White	32/46 (70%)	Black	12/23 (52%)	0.502
Intent	Suicide	28/37 (76%)	Assault	11/24 (46%)	<.0001
Trajectory	Single	17/28 (61%)	Both	30/32 (94%)	<.0001
Skull penetration	Yes	46/57 (81%)	No	3/20 (15%)	<.0001
Injuries	Yes	6/10 (60%)	No	43/65 (66%)	.247

## NOTES

## #17

### LAPAROSCOPIC SURGERY FOR TRAUMA: THE REALM OF THERAPEUTIC MANAGEMENT

S.N. Zafar, K. Hughes, E.E. Cornwell III,  
T.M. Fullum, D.D. Tran.  
Howard University, Washington, DC

**Background:** Laparoscopic surgery has become the standard of care for several types of operative treatment. While the role of diagnostic laparoscopy in trauma has been examined, the therapeutic value of laparoscopic surgery in trauma settings has not been explored beyond a few case series.

**Objectives:** To evaluate the use of therapeutic laparoscopic surgical management in trauma patients from a national trauma data set.

**Methods:** We analyzed the National Trauma Data Bank (NTDB) years 2007 to 2010 for all patients with an isolated injury to the abdomen who had a diagnostic laparoscopy. From the ICD 9 procedure codes, we determined the number of patients who underwent any other major operative procedure besides diagnostic laparoscopy and categorized these as either open or laparoscopic. Descriptive analyses were performed and the frequencies of different laparoscopic procedures were tabulated. Mortality and hospital length of stay were compared between the open and laparoscopic groups using Fisher's exact test and the Mann-Whitney U test.

**Results:** Out of a total of 2,539,818 trauma visits in the NTDB, 163,065 (6.4%) had isolated abdominal injuries; 2,294 (1.4%) of these underwent a diagnostic laparoscopy, and of those 716 (31.2%) underwent at least one therapeutic operative procedure; 376 (52.5%) of these patients were managed laparoscopically. Frequencies of common laparoscopic procedures are presented in the Table. Three people died in the open group (0.88%) while 1 person died (0.27%) in the laparoscopic group (0.355). Patients undergoing laparoscopic surgery had a significantly shorter length of stay than the open group (5 days vs. 6 days; p value <0.001).

Surgery	Number of patients	%
Repair of bowel laceration	143	38.0%
Small or large bowel resection	108	28.7%
Repair of liver laceration	49	13.0%
Splenectomy	48	12.8%

**Conclusion:** Therapeutic laparoscopic surgery for trauma is feasible and may provide better outcomes.

## NOTES

#18

**TRAUMA-ASSOCIATED PNEUMONIA:  
ALL VENTILATOR-ASSOCIATED PNEUMONIAS  
ARE NOT CREATED EQUAL**

**A. Mangram, M. Corneille, A. Hollingworth,  
I. Thomas, C. Justiniano, M. Collins, J. Dzandu.  
John C. Lincoln North Mountain Hospital, Phoenix, AZ**

**Introduction:** Many trauma surgeons believe that there is a distinction between ventilator-associated pneumonia (VAP) and pneumonia in ventilated trauma patients.

**Objectives:** The purpose of this study was to describe characteristics specific to trauma patients that will help distinguish between VAP and trauma-associated pneumonia (TAP).

**Methods:** A retrospective study was conducted on all trauma patients with VAP as reported by infectious control from 2008-2011 at our Trauma Center. Known and potential trauma risk factors were recorded. These factors included facial fractures, aspirations, difficult intubation in the field, blood or dirt in the mouth or face, traumatic brain injury, and pulmonary contusions. Data were analyzed by both a stringent and permissible trauma criteria we developed. Descriptive statistics were used to analyze all data.

**Results:** A total of 31 trauma patients with reported VAP were analyzed. Mean age was 45 years, 70% were males, and 96% had blunt trauma. Injury severity score was 31 (range 9-75). Patients were ventilated for  $15.8 \pm 7.6$  days with an average ICU length of stay of  $16.0 \pm 7.6$  days. The likelihood of TAP was 60% under permissible conditions. The probability of TAP under stringent conditions was 24%. Patients with TAP (more than 1 trauma risk factor) were on average 17.8 years younger (31.3 vs. 49.2,  $p < .038$ ). Their length of stay in the intensive care unit (ICU-LOS) was 1.5 days shorter and trended towards higher ISS (41.3 vs. 29.6,  $p = 0.073$ ). Taken together, these results are clinically significant and distinguish TAP from VAP. Ventilator days (13.5 vs. 14.5,  $p = .756$ ) were equivalent.

**Conclusion:** Twenty-four (24%) of VAP cases were identified as trauma-associated pneumonia (TAP) based on stringent trauma inclusion criteria. This finding is consistent with a multi-institutional study by the AAST in which 23% of VAP cases were excluded for both aspiration or early diagnosis of pneumonia. These results have important ramifications for cost containment issues stipulated in the Affordable Care Act.

**NOTES**

## #19

### INFRAINGUINAL ARTERIAL RECONSTRUCTION IN PATIENTS YOUNGER THAN FIFTY

**H. Boamah, W. Greene, A. Obirieze, D. Rose,  
K. Bolden, E.E. Cornwell III, K. Hughes.  
Howard University, Washington, DC**

**Background:** Previous studies have shown that patients younger than 50 years old undergoing open lower extremity arterial reconstruction have a higher rate of early graft failure and dismal long-term outcomes when compared to older patients. We undertook this study to determine the outcomes of infrainguinal arterial reconstruction in patients younger than 50 as compared to patients 50 and older.

**Methods:** The American College of Surgeons' National Surgical Quality Improvement Program (ACS-NSQIP) database was queried to identify all patients who had undergone an open infrainguinal arterial reconstruction from January 1, 2005 to December 31, 2007. Multivariate analyses were performed, controlling for co-morbidities, and patients younger than 50 were compared to patients 50 and older.

**Results:** There were 17,465 patients identified. Patients younger than 50 comprised 6.6% (1,160 patients), and those 50 and older comprised 93.4% (16,305 patients) in a primarily male population (65% male in the  $\geq 50$  group and 62% male in the  $< 50$  group). The overall smoking prevalence was 41% (40%  $\geq 50$  and 68%  $< 50$ ). The unadjusted post-operative complications are depicted in the Table. On multivariate analyses, patients  $\geq 50$  had a higher likelihood of mortality (OR 3.26, 95% CI 1.43-7.43), but lower likelihood of graft failure (OR 0.54, 95% CI 0.43-0.69) and overall complications (OR 0.80, 95% CI 0.70-0.92). There was no significant difference in cardiac complications (OR 1.74, 95% CI 0.91-3.31), respiratory complications (OR 1.02, 95% CI 0.70-1.49), major amputation (OR 0.65, 95% CI 0.14-2.97) or wound infection (OR 0.88, 95% CI 0.73-1.07) between the two groups.

**Conclusion:** Whereas patients younger than 50 undergoing infrainguinal lower extremity arterial reconstruction had a higher likelihood of developing overall perioperative complications, these younger patients also had a lower mortality when compared to patients 50 years and older.

	Patients < 50 (%)	Patients $\geq 50$ (%)	P-value
Mortality	0.60	2.42	0.00
Amputation	0.17	0.12	0.60
Graft failure	7.93	4.46	0.00
Cardiac complications	1.03	2.09	0.01
Respiratory complications	2.93	3.77	0.14
Wound infection	12.84	10.70	0.02

## NOTES

## #20

### A VALIDATED SURVEY APPROACH TO DETERMINE THE PREVALENCE OF PTSD IN HIGH-RISK YOUTH AFTER VIOLENT INJURY: A PILOT STUDY

R. Smith, S. Dobbins, A. Plascencia, D. Grunwald,  
A. Chandramohan, S. Cicai, M. Shumway, L. Fields, R. Dicker.  
University of California-San Francisco, San Francisco, CA

**Introduction:** Interpersonal violence disproportionately affects young, ethnic minorities in low-income communities. Despite known underdiagnosis of post-traumatic stress disorder (PTSD), mental health screening in this population is rare. The purpose of this pilot study was to determine the prevalence of PTSD and major depression (MD) in a unique sample of high-risk victims of violence involved in a hospital-based violence intervention program.

**Methods:** A cross-sectional study was conducted on young adults age 18-30 who participate in a hospital-based violence intervention program (VIP) at our urban, Level-I trauma center. A series of previously validated questionnaires were administered to recent and current VIP clients. The questionnaires included the PTSD Checklist – Civilian version (PCL-C), and the Patient Health Questionnaire (PHQ-9).

**Results:** Twenty-five individuals participated in the study. Demographics included: Latinos 56%, Blacks 40%, and Asians 4%. Twenty percent considered themselves homeless. Participants were predominately male (n=19, 76%). Mean age = 23 years ( $\pm 3$ ). Mean age at first injury = 17.4 years ( $\pm 4.18$ ). Lifetime exposure to trauma was notable: 92% had been assaulted with a weapon. Twenty-four percent had seen a violent death; over 20% had experienced physical or sexual abuse as a child. On average, participants had experienced 3 types of trauma ( $\pm 1.43$ ) in their lifetime. Forty percent met criteria for probable PTSD (PCLC score > 44) and 26% met criteria for probable depression (PHQ-9 score > 9).

**Conclusion:** The current study suggests that young adult victims of community violence suffer from high levels of mental illness, even when they are receiving supportive services. In a previous study by our group, we found that victims who received mental health resources were significantly less likely to be injury recidivists. Undiagnosed and/or untreated PTSD leaves already vulnerable victims subject to a host of negative consequences, including re-injury. A prospective study to further quantify mental illness and distinguish complex from traditional PTSD in this population is needed to help guide prevention and early intervention after violent injury. Moreover, provision of more mental health care resources in this population is crucial for reducing re-injury and strengthening their chances to lead healthy, productive lives.

## NOTES

#21

## A DISTINCT PATTERN OF INTESTINAL MICROBIOTA MEDIATES PATHOGENESIS OF NECROTIZING ENTEROCOLITIS

S. Papillon, J. Wang, F. Yang, B. Bell,  
M. Williams, A. Grishin, H.R. Ford.

Children's Hospital Los Angeles, Los Angeles, CA

**Introduction:** Necrotizing enterocolitis (NEC), a highly morbid and lethal intestinal inflammatory disorder of the preterm neonate, remains a medical and surgical challenge. The infectious nature of this disease has pointed towards a role for abnormal bacterial colonization as a mechanism of disease. We sought to characterize the intestinal microbiota in NEC as a means of understanding its role in disease pathogenesis. We hypothesize that NEC is associated with random colonization by opportunistic pathogens that possess the ability to induce inflammation in the immature small intestine.

**Methods:** Newborn rats were either kept with dams (healthy group) or separated and subjected to formula feeding and hypoxia three times daily (NEC group). On day of life four, the rats were euthanized and a segment of the terminal ileum was resected. Homogenized intestinal tissue was serially diluted and plated on blood agar. Bacterial colonies emerging following incubation at 37°C were isolated. Bacterial species were identified by sequencing a variable region of the 16S rRNA gene. Alternatively, bacterial DNA was extracted directly from homogenized intestinal tissue. The rDNA was amplified and cloned, and 96 clones per sample were sequenced. NEC grade was assigned by a blinded pathologist upon examination of hematoxylin and eosin stained intestinal samples.

**Results:** Preliminary data demonstrate diversity of intestinal microbiota at early stages of colonization with what appears to be greater heterogeneity of bacterial species and bacterial load in breast-fed rats that do not develop NEC. In contrast, there is a consistent trend towards decreased bacterial diversity with increasing grade of NEC. Indeed, the microbiota of the rats with severe NEC showed a preponderance of proteobacteria.

**Conclusion:** These results suggest that there are identifiable patterns of bacterial colonization associated with necrotizing enterocolitis.

#22

## OPEN ABDOMINAL SURGERY: A RISK FACTOR FOR FUTURE LAPAROSCOPIC SURGERY?

S. Seetahal, A. Obirize, E.E. Cornwell III, T. Fullum, D. Tran.  
Howard University, Washington, DC

**Introduction:** Patients who have undergone laparotomy usually develop adhesions that can complicate future surgeries, especially laparoscopic procedures. This study seeks to investigate the outcomes of laparoscopic procedures in patients with previous open abdominal surgery.

**Methods:** A retrospective analysis was conducted using data from the National Surgical Quality Improvement Program (NSQIP) 2005-2009. Using appropriate CPT codes, we identified patients who had undergone cholecystectomy, Nissen fundoplication, Heller myotomy, splenectomy, Roux-en-Y, sleeve gastrectomy, gastric band, appendectomy, or colectomy for colon cancer, via laparoscopic approach. Patients were then classified into two groups, on the basis of whether or not laparoscopic adhesiolysis was also carried out. Bivariate analysis was used to compare both groups on demographics and co-morbid factors. Multivariable regression (logistic and Poisson) analyses were used to evaluate risk-adjusted mortality and morbidity outcomes, as well as postoperative length of stay and duration of surgery, comparing both groups, and adjusting for patient factors and attending involvement.

**Results:** A total of 162,415 patients met our inclusion criteria, comprising 4,501 (3%) in the adhesiolysis group and 157,913 (97%) in the non-adhesiolysis group. Majority were female (67%), white (69%), between 25 and 64 years (77%), and underwent laparoscopic cholecystectomy (37%). On bivariate analysis, patients who had received lysis of adhesion (LOA) were older (mean age: 50 ± 14.7 vs. 45 ± 15.9 years, p<0.001) and more likely to be morbidly obese (40% vs. 28%, p<0.001). Compared to the non-adhesiolysis group, patients who received LOA had 41% higher adjusted odds of developing overall complication (OR: 1.41; 95% CI: 1.26-1.60), were 1.57 times more likely to develop sepsis complication (OR: 1.57; 95% CI: 1.21-2.05), had 17% higher adjusted mean LOS (p<0.001), and 26% higher adjusted mean operation duration (p<0.001).



Risk-adjusted mortality was not significantly different between the two groups (OR: 1.10, p=0.733).

**Conclusion:** A history of previous open abdominal surgery increases the potential complication rate and hospital LOS during subsequent laparoscopic surgery. The extent of this relationship deserves further investigation.

## NOTES

#23

### CHARACTERIZING INVASIVE LOBULAR CARCINOMA OF THE MALE BREAST: ANALYSIS OF A RARE CANCER USING THE SEER DATABASE

A. Moten, A. Obirieze, L. Wilson.  
Howard University, Washington, DC

**Background:** Invasive lobular carcinoma (ILC) of the breast is very rare in men and has not been thoroughly studied.

**Objective:** To investigate clinical characteristics, treatment and outcomes of men and women with ILC of the breast.

**Methods:** We used the Surveillance, Epidemiology, and End Results (SEER) database to identify male patients with a primary breast cancer diagnosis of ILC alone and ILC combined with other breast carcinoma histology based on ICD-O-3 codes. For comparison, we included a similar group of females. Bivariate analysis was used for descriptive statistics regarding clinical characteristics, treatment and outcome. We performed cancer-specific survival analysis and used Cox proportional models to obtain hazard ratios.

**Results:** A total of 317 (0.19%) men and 166,446 women (99.81%) were diagnosed with ILC between 1988 and 2008. The median age was 65 ( $\pm 20$ ) years for men and 61 ( $\pm 21$ ) years for females. Men with ILC alone (n=75) were more likely to have higher tumor grade (p=0.016), positive estrogen receptors (p=0.028), and positive progesterone receptors (p=0.010) than their female counterparts (n=74,570). Men with ILC combined with another carcinoma histology (n=242) were more likely to be older (p<0.001), have larger tumor size (p=0.001), positive estrogen receptors (p=0.028), positive progesterone receptors (p=0.002), and higher stage disease (p<0.001) than their female counterparts (n=91,876). Men with ILC alone were less likely to receive surgery than women (p=0.003). All men who received surgery were more likely to undergo modified radical mastectomy than women. On Cox proportional model, adjusted survival was better for women with ILC alone than for men (HR: 0.511; 95% CI: 0.275-0.952).



**Conclusion:** ILC of the breast has different clinical characteristics in men than in women. These differences, along with poorer outcome in men, suggest that the treatment of men with ILC may need to be adjusted to improve their outcome.

## NOTES

#24

### IDENTIFICATION OF POTENTIAL PATHOGENS IN THE RAT MODEL OF NECROTIZING ENTEROCOLITIS

**B. Bell, S. Papillion, L. Wang, A. Grishin, H.R. Ford.**  
Children's Hospital Los Angeles, Los Angeles, CA

**Background:** Colonization of the gut by opportunistic pathogens is believed to be a key risk factor in necrotizing enterocolitis (NEC). Little is known about what specific bacteria are capable of acting as NEC pathogens. Here we sought to identify potential NEC pathogens by correlating composition of the intestinal microbiota to the histological grade of NEC in the rat model.

**Hypothesis:** NEC is associated with species and strains of bacteria that act as opportunistic pathogens.

**Methods:** Timed pregnant rats were purchased from Harlan and Charles River Laboratories. Newborn rats were formula fed once every 8 h. Following each feeding, rats were subjected to hypoxia (5% O<sub>2</sub>) and hypothermia (8°C) for 10 min. On the 4th day of life, the terminal ileum of rats was excised for bacterial culture and pathology evaluation. Serially diluted luminal samples of intestinal content were plated on blood agar, and plates were then incubated at 37°C for 24 h. Bacterial colonies were classified into morphological groups and counted. Identity of each group was established by sequencing 16S rRNA. NEC grade was determined microscopically by a pathologist blinded to groups. For bacterial strains found in more than 7 animals, the pathogenicity index was calculated as sum of pathology grades divided by the number of carriers.

**Results:** Seventy percent of the animals had one predominant (>50%) species or strain of bacteria. Frequently encountered bacterial strains had either low (<1) or high (>1) pathogenicity indices. One of the species with high pathogenicity index was the known NEC pathogen, *Cronobacter sakazakii*.

**Conclusion:** Pathogenicity index allows tentative identification of pathogenic as well as beneficial bacteria. Definitive classification of bacteria as pathogenic or non-pathogenic will be accomplished by re-introduction of pure cultures to newborn animals. This study, which will identify a plethora of NEC pathogens, may lead to early diagnostic tests for NEC.

## NOTES

#25

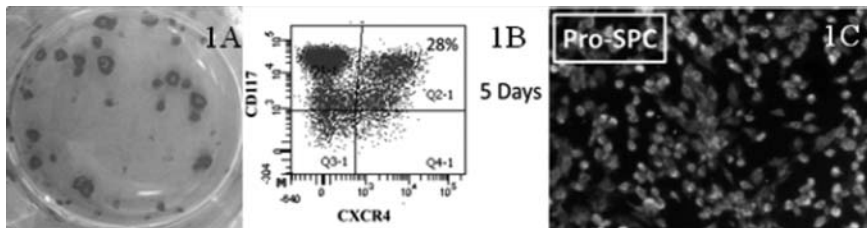
### TOWARDS PERSONALIZED MEDICINE IN TISSUE ENGINEERING AND RESPIRATORY DISEASE

**E. Girard, C. Moncada, T. Jensen, F. Zhang, S. Vadasz, C. Finck.**  
University of Connecticut Health Center, Farmington, CT;  
and Connecticut Children's Medical Center, Hartford, CT

**Introduction:** Due to their patient specificity, induced pluripotent stem cells (hiPSCs) have attracted considerable attention as a possibility for cellular therapy. These cells are created by genetically reprogramming somatic cells with a retrovirus, creating pluripotent stem cells capable of indefinite expansion *in vitro*. Derivation of endodermal lineages from pluripotent cells has mostly focused on midgut (pancreatic endocrine cells) and posterior foregut (hepatocytes), with less progress made on anterior foregut endoderm (AFE) that gives rise to trachea and lung. Recently, a differentiation strategy was developed based on sequential generating increasingly lineage-restricted progenitors. These cells were shown to be highly enriched AFE, thus proving the feasibility of directed differentiation of human pluripotent cell lines into cells derived from the AFE, including the lung.

**Methods:** Foreskin fibroblasts were collected according to our IRB approved protocol. These cells were reprogrammed using an excisable lentiviral vector that induces over-expression of four pluripotency factors. Cells were cultured until colonies were identified and pluripotency was then verified. hiPSCs were differentiated *in vitro* using directed differentiation to endoderm and then to distal lung. These were phenotypically analyzed using fluorescence activated cell sorting (FACS) and immunofluorescence.

**Results (see Figure):** Foreskin fibroblasts were successfully reprogrammed into hiPSCs as seen by their production of alkaline phosphatase (1A). With lineage-directed differentiation, 22% and 28% of the samples were consistent with definitive endoderm by FACS (1B). Upon further differentiation using lung-specific media, Pro-Surfactant Protein C (SPC), an alveolar marker, is present on immunofluorescence (1C).



**Conclusion:** Lineage-directed differentiation of hiPSCs yields phenotypic alveolar cells. Thus, hiPSCs are a valuable source of cells to create patient-specific tissue-engineered lung. Further experiments are necessary in order to study the feasibility of re-epithelialization of a decellularized matrix.

## NOTES

#26

### APO E MEDIATES SEPTIC MORTALITY IN MICE BY A NATURAL KILLER (NKT) T CELL-DEPENDENT MECHANISM

S. Kasravi, H.W. Harris.

University of California-San Francisco, San Francisco, CA

**Introduction:** Apolipoprotein E (apo E) has important immunomodulatory properties beyond its canonical role in lipid transport. While decreased plasma apo E has been shown to decrease Th1 cytokine expression and mortality during sepsis, the cellular mechanisms responsible for this observation are uncertain.

**Objective:** To determine whether apo E mediates septic mortality by a NKT cell-dependent mechanism.

**Methods:** We compared 28-day mortality after cecal ligation and puncture (CLP) between mice expressing various combinations of low (<5%) and normal apo E and NKT cell concentrations, respectively. The resulting data were compared by a Fisher test used to determine two-tailed p values.

**Results (see Table):** Mice with reduced apo E and NKT cell concentrations experienced a 3-fold greater 28-day survival rate than wild-type controls (100% vs. 33%, p=0.01).

Mouse strain	apo E (% wt)	NKT cells (% wt)	28-day mortality
C57BL/6 (wt, n=6)	100	100	67%
Apo E hypomorphic (n=40)	5	100	23%
CD1d KO (n=58)	100	3	14%
Apo E hypomorphic-CD1d double KO (n=9)	5	3	0%

**Conclusion:** Reduced levels of apo E and/or NKT cells significantly decrease sepsis-induced mortality in mice. While the relative contribution of apo E versus NKT cells to the morbidity of sepsis after CLP is difficult to determine, these data indicate that a reduction in both apo E and NKT cells exerts a synergistic protective effect. Further examination of how apo E facilitates lipid antigen presentation and processing by NKT cells may yield critical insights and new lipid-based therapeutic strategies for combating sepsis.

## NOTES

#27

### CONDITIONAL OVER-EXPRESSION OF COX-2 IN THE INTESTINE COMPROMISES GUT BARRIER

E.M. Pontarelli, S.S. Short, J. Wang, A. Grishin, H.R. Ford.  
Children's Hospital Los Angeles, Los Angeles, CA

**Introduction:** Cox-2 is an inducible enzyme catalyzing the formation of prostaglandins. It is up-regulated in a variety of inflammatory disorders including sepsis, inflammatory bowel disease, and necrotizing enterocolitis, which are associated with increased gut barrier permeability. We previously showed that high levels of prostaglandin E<sub>2</sub> (PGE<sub>2</sub>) increase barrier permeability in Caco-2 monolayers.

**Hypothesis:** We hypothesized that high levels of Cox-2 lead to gut barrier breakdown *in vivo*. We tested this hypothesis using transgenic mice that conditionally over-express Cox-2 in the intestine.

**Methods:** Mice carrying COX-2 gene under control of tetracycline-inducible promoter (TRE-COX-2 transgene) were interbred with mice carrying the reverse tetracycline transcriptional activator under control of villin promoter (villin-rtTA2-M2 transgene) to obtain double transgenics. Single transgenic animals served as controls. To induce gut-specific expression of COX-2, adult mice were given a doxycycline diet for 48h. Animals were then gavaged with 0.44 mg/kg FITC-dextran in water. After 16 hours, intestinal and blood samples were obtained. Serum concentrations of FITC-dextran were determined by fluorometry. Levels of Cox-2 and localization of the tight junctional proteins Jam-A and ZO-1 were evaluated by immunofluorescence microscopy.

**Results:** Villin-rtTA-M2/TRE-COX2 double transgenic animals, but not single transgenics, showed marked up-regulation of Cox-2 in the terminal ileum following doxycycline treatment. Double transgenic animals showed no symptoms of systemic inflammation during treatment with doxycycline. The translocation of FITC-dextran in these animals was 10-fold higher than in control animals, averaging 129 µg/ml vs. 0-4 µg/ml. Jam-A and ZO-1 proteins revealed increased internalization in the double, transgenic animals compared to controls.

**Conclusion:** For the first time, we demonstrate that intestine-specific over-expression of Cox-2 leads to gut barrier breakdown in the absence of systemic inflammation. These preliminary results identify Cox-2 as a potential target for treatment and prevention of gut barrier failure during inflammatory disorders.

## NOTES

#28

### EP1 DEFICIENCY PROTECTS GUT BARRIER DURING ENDOTOXEMIA BUT NOT POLYMICROBIAL SEPSIS

S.S. Short, J. Wang, H.A. Ford,  
M. Zobel, A. Grishin, H.R. Ford.

Children's Hospital Los Angeles, Los Angeles, CA

**Introduction:** PGE<sub>2</sub>, a prostanoid that provides homeostatic function at low levels, may contribute to gut barrier dysfunction at high levels seen during peritonitis and sepsis. Our *in vitro* studies suggested that PGE<sub>2</sub>-induced gut barrier dysfunction is mediated by EP1, a low affinity PGE<sub>2</sub> receptor.

**Hypothesis:** We hypothesized that mice lacking the EP1 receptor will have reduced barrier dysfunction during acute inflammatory conditions.

**Methods:** Wild type C57Bl/6 and congenic EP1<sup>-/-</sup> mice were subjected to cecal ligation and puncture (CLP) or i.p. injection of 40 mg/kg LPS. Control animals were sham operated or injected with saline. Prior to treatment, mice were gavaged with a mixture of lactulose + mannitol, commensal ampicillin-resistant *E. coli*, and FITC-dextran. Urine, blood, lymphatic, splenic and ileal samples were collected 16 h post CLP or LPS injection. Serum FITC-dextran levels and bacterial colony counts from homogenized lymphatic and splenic samples were determined. Expression of COX-2 and release of IL-6 were determined by Western blot and ELISA, respectively.

**Results (see Table):** EP1 deficiency significantly protected against LPS induced peritonitis, but not from polymicrobial sepsis. Comparable levels of COX-2 expression and IL-6 release were found in wild type and EP1-deficient mice.

**Conclusion:** EP1-deficient mice are partially resistant to gut barrier dysfunction following LPS-induced peritonitis, but not polymicrobial sepsis. Our results indicate that EP1 signaling contribution into gut barrier failure may depend on the nature of the inflammatory condition.

	EPI <sup>-/-</sup>		WT		P
	NS	LPS	NS	LPS	
FITC (μg/ml)	3.5±6.4	198±159	12.3±21	290±125	0.01
<i>E. coli</i> (CFU/mg)	0±0	618±1948	0±0	3494±5065	<0.01
	Sham	CLP	Sham	CLP	P
FITC (μg/ml)	66±19	2657±1840	35±82	1830±640	0.35

## NOTES

#29

### TISSUE-ENGINEERED SMALL INTESTINE DEMONSTRATES INTACT BARRIER FUNCTION AND ABSORPTIVE CAPACITY IN A MOUSE MODEL

C. Grant, J.R. Hill, F. Sala, T. Grikscheit.

The Saban Research Institute at Children's Hospital Los Angeles, Los Angeles, CA

**Introduction:** Short bowel syndrome (SBS) is the morbid result of significant bowel resection. Tissue-engineered small intestine (TESI) has potential as a novel therapeutic strategy that may eliminate some of the morbidity associated with current therapies such as intestinal transplantation and intravenous nutrition. In early experiments, we demonstrated that TESI can rescue Lewis rats after induced SBS. In the mouse model, TESI has been generated and demonstrates histological similarity to native small intestine with a fully differentiated epithelium and components of all intestinal layer.

**Objective:** We have previously identified SGLT1, a glucose transporter, on the apical surface of TESI. The objective of this study was to demonstrate the absorptive and barrier function of TESI.

**Methods:** Small intestines from <3-week-old C57BL/6 pups were removed and dissected. Organoid units (OUs), multicellular clusters composed of epithelial and mesenchymal cells, were isolated and loaded onto biodegradable polyglycolic acid/poly-L-lactic acid scaffolds. These were implanted into the omentum of adult NOD/SCID gamma-deficient mice. Four weeks later, the constructs were harvested, the epithelial layer was isolated by EDTA treatment, and protein concentration was determined. Maltase activity was assessed by measuring the amount of glucose released after maltose hydrolysis following 1 hour incubation. Immunofluorescence for tight junction and adherens junction components was performed on 5 μm thick sections, paraffin-embedded TESI samples. Adult C57BL/6 small intestine served as histological controls.



**Results:** TESI was successfully generated. Maltase activity in TESI was  $0.03 \pm 0.001$   $\mu\text{mol}/\text{min}/\text{mg}$  protein vs.  $0.24 \pm 0.0007$   $\mu\text{mol}/\text{min}/\text{mg}$  protein for native small intestine. Immunofluorescence demonstrated the presence of the tight junction proteins Claudin and Zonula Occludens-1, as well as adherens junction components  $\beta$ -catenin and E-cadherin.

**Conclusion:** Tissue-engineered small intestine demonstrates disaccharidase activity and intact intercellular junctions. Further assays need to be performed to demonstrate the ability of TESI to actively absorb other nutrients such as amino acids. Intact TESI function will be critical in order to develop this therapeutic strategy for children suffering from short bowel syndrome.

## NOTES

#30

### INTELLIGENT MEDICINE FOR HIGH-RISK TUMORS IN CHILDREN

**C. Finck, E. Girard, N. Goodwin, N. Parikh, M. Isakoff, F. Ferrer,  
N. Hagstrom, K. Herbst, C. Moncada, S. Airhart, E. Liu.**  
Connecticut Children's Medical Center, Hartford, CT;  
University of Connecticut Health Center, Farmington, CT;  
and Jackson Laboratories, Bar Harbor, ME

**Introduction:** The current predictive method to test novel cancer therapies is to use single human cell lines in culture, but these methods do not reflect the genetic diversity tumors or the influence of the tumor's surrounding microenvironment. We present an improved method entailing isolation of aggressive tumor initiating cells (TIC) from a patient and testing the cells' response to novel therapies in 2-D culture. We also develop patient-derived tumor xenografts (PDX). With PDX, a piece of human tumor is grafted into a mouse that lacks an immune system to prevent rejection. Once the tumor grows in the mouse, it is removed, subdivided, placed into a new set of mice and allowed to grow again, preserving the patient-specific tumor cells and tumor stroma. In the end, there is enough to test novel therapies in thousands of mice. This describes the initiative at our institution involving the above method.

**Methods:** Pediatric patients with high-risk solid tumors are enrolled (IRB approval 04-084). At the time of surgical biopsy or excision, the tumor is isolated and a portion of it harvested for research purposes following well-defined standard operating procedures. Part of the tumor is sent fresh to the laboratory for isolation of TIC, and part of the tumor is sent to Jackson Laboratories for creation of a PDX mouse. Basic demographic and clinical information is gathered at the time of harvest for analysis with research results.

**Results:** To date, two patients have been identified with high-risk pediatric tumors. Both tumor specimens have been able to successfully propagate cells in culture. An important feature of certain cancer cells is the ability to grow in spheres in culture, as did both of our specimens.

In addition, both specimens have been implanted into NSG mice. The ability of the specific tumor to expand and generate additional PDX mice is currently undergoing investigation.

**Conclusion:** Intelligent medicine-based therapy is a revolutionary concept for directing treatment when dealing with high-risk, extremely rare tumors. The ability to study different tumor characteristics both *in vitro* and *in vivo* has the potential to significantly enhance the capability of the clinician to direct therapy. The addition of genomic analysis as well as bioinformatics could further transform current therapy.

## NOTES



# CONSTITUTION

# CONSTITUTION OF THE SOCIETY OF BLACK ACADEMIC SURGEONS

## **ARTICLE I: Designation**

The name of the organization shall be the Society of Black Academic Surgeons (SBAS). It shall be incorporated as a non-profit organization and have no capital stock or shareholders. The address of the President will be the official address of the Society.

## **ARTICLE II: Objective**

The paramount objectives of the Society of Black Academic Surgeons shall be supportive of and consistent with the enhancement of the academic surgical community both nationally and internationally. The specific objectives are as follows:

- A. Identify and promote professional and intellectual exchange among surgeons and scientists involved in their related fields.
- B. Promote the participation of minority surgeons and scientists in the activities of all academic surgical organizations.
- C. Stimulate and assist government, private industry and voluntary organizations to develop and promote programs to increase the participation of minority surgeons in the academic community.
- D. Encourage and assist minority surgeons to conduct original research in both the basic and clinical sciences.
- E. Support and strengthen the surgical section programs of the National Medical Association.

## **ARTICLE III: Members**

Active members will be designated as Fellows of the Society of Black Academic Surgeons and will be comprised of reputable surgeons. All Fellows will be elected to membership according to the Constitution and Bylaws. Termination of a member by resignation, death, or any other manner will end all rights and privileges in the Society. None of the assets or privileges will be transferable to any representative of a member's estate.

## **ARTICLE IV: Officers/Council**

The Officers of the Society shall be President, President-Elect, Secretary and Treasurer. The President and President-Elect shall be elected for a one-year term; the President-Elect shall automatically become President. The Secretary and the Treasurer shall be elected for three-year terms. This slate of officers, along with two Fellows (appointed by the President) will be designated as the Executive Council.

## **ARTICLE V: Organization Structure**

- A. The Society's organizational structure will consist of General Membership, Officers, Executive Council, and Standing Committees. The span of authority, rights and privileges shall be based on the Constitution and Bylaws.
- B. The duties, powers and regulations governing the Society's organizational structure shall be defined and delineated in the Society's Bylaws.

## **ARTICLE VI: Meetings**

- A. The Society shall hold an annual scientific and business meeting, the time and place determined by the Executive Council at least two years in advance of the meeting. Only members of the Society may attend the business meeting.

## **ARTICLE VII: Rules**

The conduct of all Society meetings including those of the Executive Council shall be governed by the Bylaws of the Society and Robert's Rules of Order.

## **ARTICLE VIII: Governance**

- |           |  |
|-----------|--|
| Section 1 | The Society shall be governed by this Constitution and Bylaws, the latter document to provide specific direction for the organization, administration and services of the Society. |
|-----------|--|

# CONSTITUTION OF THE SOCIETY OF BLACK ACADEMIC SURGEONS

(CONTINUED)

Section 2 The Society's Constitution and Bylaws shall be consistent with provisions and content of any organizational charter or certificate of incorporation the Society may propose and/or execute.

## ARTICLE IX: Certificate of Incorporation

Section 1 The Society may propose and execute an organizational charter or certificate of incorporation in accordance with all local, state and federal (U.S.) regulations, codes and laws.

Section 2 The certificate of incorporation shall not vitiate any provision of this Constitution or the Society's Bylaws, unless a court of competent jurisdiction expressly rules, orders or directs otherwise. If any such provision or the certificate, in whole or part, is held to be unlawful, only the unlawful provision or certificate will be null and void. The remaining provisions and/or certificate, in whole or part, will continue in effect as valid.

Section 3 The certificate of incorporation shall not govern the application and administration of the Constitution or the Society's Bylaws.

Section 4 Notwithstanding any other provisions of these articles, the organization is organized exclusively for one or more of the purposes as specified in Section 501C (3) of the Internal Revenue Code of 1954, and shall not carry on any activities not permitted to be carried on by an organization exempt from Federal income tax under IRC 501C(3) or corresponding provisions of any subsequent Federal tax laws.

Section 5 No part of the net earnings of the organization shall inure to the benefit of a member or any private

individual (except that reasonable compensation may be paid for services rendered to or for the organization), and no member of the organization or any private individual shall be entitled to share in the distribution of any of the organization's assets on dissolution of the organization.

Section 6 No substantial part of the activities of the organization shall be carrying on propaganda, or otherwise attempting to influence legislation [except as otherwise provided by IRC 501C(h)] and does not participate in, or intervene in (including the publication or distribution of statements), any political campaign on behalf of any candidate for public office.

Section 7 In the event of dissolution, all of the remaining assets and property of the organization shall after payment of necessary expenses thereof be distributed to such organizations as shall qualify under section 501(c)(3) of the Internal Revenue Code of 1986 and approved by the Executive Committee.

Section 8 In any taxable year in which the corporation is a private foundation as described in IRC 509(a), the organization shall distribute its income for said period at such time and manner as not to subject it to tax under IRC 4942, and the organization shall not [a] engage in any act of self-dealing as defined in IRC 4941(d), retain any excess business holdings as defined in IRC 4943(c), [b] make any investments in such a manner as to subject the organization to tax under IRC 4944, or [c] make any taxable expenditures as defined in IRC 4945(d) or corresponding provisions of any subsequent Federal tax laws.

## ARTICLE X: Funds and Expense

Funds for the Society may be raised by approved dues and/or in any manner approved initially by the Executive Committee and the organization. Funds may be appropriated by the Executive Council to

# CONSTITUTION OF THE SOCIETY OF BLACK ACADEMIC SURGEONS

(CONTINUED)

defray the expense of the Society to carry out the necessary functions, and for any other purpose approved by the Council; provided, however, that no funds or assets shall be used to inappropriately benefit one member of the unit.

## ARTICLE XI: Amendments

This Society, at any annual business meeting of the Fellows, may amend any Article of this Constitution by a two-thirds majority of the Fellows present, provided that a copy of the proposed Amendment has been furnished to each active Fellow at least thirty days in advance of the meeting.

## ARTICLE XII: Effective Date

These revised Bylaws shall take effect immediately upon acceptance by a simple majority of the membership and extend indefinitely, subject to alteration, amendment or repeal in whole or part, as specifically provided in the Constitution.

## BYLAWS: SOCIETY OF BLACK ACADEMIC SURGEONS

### Section 1 Annual Meeting

The Society of Black Academic Surgeons shall meet annually at such time and place as designated by the Executive Council.

### Section 2 Quorum

The Fellows present shall constitute a quorum for business. All questions before the Society shall be determined by the vote of the majority of those present at any regular business meeting.

### Section 3 Fiscal Year

The fiscal year shall begin on January first. The annual dues of each member shall be determined by the Executive Council with approval of the membership, payable on January first of each year. Each member of the Society who reaches the age of sixty-five years shall automatically have his dues rescinded.

### Section 4 Parliamentary Procedure

Robert's Rules of Order shall govern the sessions of the Society.

### Section 5 Membership

#### A. Eligibility

1. An individual who occupies a faculty position in a university department of surgery or its affiliated hospitals.
2. An individual who occupies a faculty position in a free-standing surgical residency program.
3. An investigator or teacher in an academic department of surgery or an ACGME-approved surgery program.
4. An individual in a surgical specialty (Neurosurgery, Orthopedics, Urology, Otorhinolaryngology, Plastic and Reconstructive) shall be eligible for membership.

#### B. Membership Certification

Membership in the Society shall include the following categories: Active, Senior, Associate, and Honorary.

1. Active Fellow: Any person who is a Doctor of Medicine (M.D.) (or equivalent) or Doctor of Philosophy (Ph.D.) (or equivalent) who shares an interest in the purpose of the Society and is approved by the Fellowship Committee. Only active members have the right to vote and hold office.
2. Senior Fellow: Any active Fellow upon reaching the age of seventy years shall become a Senior Fellow. Senior Fellows are exempt from paying dues, and shall continue to vote, but shall not have the privilege of holding office.

# CONSTITUTION OF THE SOCIETY OF BLACK ACADEMIC SURGEONS

(CONTINUED)

3. Associate Fellow: Any surgical resident in good standing in an ACGME-approved residency program who desires to pursue an academic surgical career.
4. Honorary Fellow: Any person who is a Doctor of Medicine (M.D.) (or equivalent) or Doctor of Philosophy (Ph.D.) (or equivalent) and has distinguished himself/herself by outstanding achievement and dedication to the objectives of the Society. Honorary Fellows shall pay no dues or initiation fees and may not vote or hold elected office.

## Section 6 Responsibilities of the Officers

- A. It shall be the duty of the President to (1) preside at all meetings of the Society, (2) give the deciding vote, (3) ensure that Robert's Rules of Order and decorum are properly enforced in all deliberations of the Society, and (4) sign the approved proceedings of each meeting.
- B. In the absence of the President, the President-Elect shall preside, and in his/her absence the Secretary.
- C. It shall be the duty of the Secretary to (1) keep a true and correct record of the proceedings of the Meetings, (2) preserve all books, papers, and articles belonging to the Society, (3) keep an account of the Society with its Fellows, and (4) keep a register of the Fellows with the dates of their admission and places of residence. The Secretary shall report unfinished business at previous meetings requiring action, and attend to such other business as the Society may direct. The Secretary shall assist with the correspondence of the Society.
- D. It shall be the duty of the Treasurer to collect the dues of the Society and make disbursements for expenses. The Treasurer shall present an annual report of the financial condition of the

Society. The accounts of the Treasurer shall be audited once yearly by a committee appointed by the President.

## Section 7 Vacancies, Resignations and Removal from Membership

### A. Vacancies

Vacancies occurring in the offices of the Society, other than that of the President, shall be filled by appointment by the President until the next meeting. The President shall appoint members to all Committees.

### B. Resignations

Any Fellow may resign from the Society by delivering a written resignation to the President or Secretary.

### C. Expulsions

The removal of a Fellow from the Society shall be based on gross negligence or poor character as determined by the Executive Council and a majority of the full membership.





# SBAS INSTITUTIONAL MEMBERSHIP

## SBAS INSTITUTIONAL MEMBERS

Samuel K. Appavu, MD  
University of Illinois  
College of Medicine-Rockford  
2350 N. Rockton Avenue, Suite LL06  
Rockford, IL 61103  
allens@uic.edu

Richard J. Andrassy, MD  
University of Texas  
Health Science Center at Houston  
6431 Fannin Street, MSB 4.164  
Houston, TX 77030  
richard.andrassy@uth.tmc.edu

Nancy L. Ascher, MD, PhD  
Univ. of California - San Francisco  
513 Parnassus Avenue S-320  
San Francisco, CA 94143-0104  
aschern@surgery.ucsf.edu

Stephen T. Bartlett, MD  
University of Maryland  
School of Medicine  
22 South Greene Street, N4E40  
Baltimore, MD 21201  
sbartlett@smail.umaryland.edu

R. Daniel Beauchamp, MD  
Vanderbilt University Medical Center  
1161 21st Ave South, D4316 MCN  
Nashville, TN 37232-2730  
daniel.beauchamp@vanderbilt.edu

James M. Becker, MD  
Boston U School of Medicine  
72 East Concord Street  
Boston, MA 02118  
james.becker@bmc.org

Kevin E. Behrns, MD  
University of Florida  
1600 SW Archer Rd, PO Box 100286  
Gainesville, FL 32610  
kevin.behrns@surgery.ufl.edu

Timothy R. Billiar  
University of Pittsburgh Med. Ctr.  
PUH F1281 - 200 Lothrop St.  
Pittsburgh, PA 15213  
billiartr@upmc.edu

Kirby I. Bland, MD  
University of Alabama/Birmingham  
BDB 502 - 1530 3rd Ave. South  
Birmingham, AL 35294-0012  
kirby.bland@ccc.uab.edu

L.D. Britt, MD, MPH  
Eastern Virginia Medical School  
825 Fairfax Avenue, Suite 610  
PO Box 1980  
Norfolk, VA 23507-1912  
brittld@evms.edu

Ronald W. Busuttill, MD, PhD  
UCLA Medical Center  
77-120 CHS, Box 957054  
Los Angeles, CA 90095  
rbusuttill@mednet.ucla.edu

Elliot Chaikof, MD, PhD  
Beth Israel Deaconess  
110 Francis Street, Suite 9F  
Boston, MA 02215  
echaikof@bidmc.harvard.edu

William G. Cioffi, MD  
Brown Medical School  
University Surgical Associates  
593 Eddy St, APC 431  
Providence, RI 02903  
wcioffi@lifespan.org

David J. Cole, MD  
Medical University of South Carolina  
96 Jonathan Lucas Street, CSB 420A  
Charleston, SC 29425  
coledj@musc.edu

## SBAS INSTITUTIONAL MEMBERS

Edward E. Cornwell, MD  
Howard University  
2041 Georgia Ave. NW, Suite 4B02  
Washington, DC 20060  
ecornwell@howard.edu

Merril T. Dayton, MD  
Suny Buffalo  
100 High St  
Buffalo, NY 14203  
mdayton@buffalo.edu

Edwin A. Deitch, MD  
New Jersey Medical School  
185 South Orange Ave., MSB G-506  
Newark, NJ 07203  
edeitch@umdnj.edu

Daniel T. Dempsey, MD  
Temple University  
3401 N. Broad Street  
Philadelphia, PA 19140  
tuhsurg@temple.edu

Lemuel Dent, MD  
Meharry Medical College  
1005 Dr. D.B. Todd, Jr Blvd  
Nashville, TN 37208  
ldent@mmc.edu

Daniel J. Deziel, MD  
Rush University Medical Center  
1653 W. Congress Parkway, 7 Jelke  
Chicago, IL 60612  
Daniel\_J\_Deziel@rush.edu

Peter W. Dillon, MD  
Penn State University  
500 University Drive  
Hershey, PA 17033  
pdillonl@hmc.psu.edu

Jeffrey A. Drebin, MD, PhD  
University of Pennsylvania  
3400 Spruce Street, 4 Silverstein  
Philadelphia, PA 19104  
jeffrey.drebin@uphs.upenn.edu

Timothy J. Eberlein, MD  
Washington University  
660 South Euclid, PO Box 8109  
St. Louis, MO 63110  
eberleint@wustl.edu

Michael J. Edwards, MD  
University of Cincinnati  
231 Albert Sabin Way, ML 0558  
Cincinnati, OH 45267-0558  
michael.edwards@uc.edu

E. Christopher Ellison, MD  
Ohio State University  
395 W. 12th Avenue  
Columbus, OH 43210  
christopher.ellison@osumc.edu

Henri R. Ford, MD  
Children Hospital Los Angeles  
4650 Sunset Blvd - MS72  
Los Angeles, CA 90027  
hford@chla.usc.edu

Armour R. Forse, MD, PhD  
Creighton University  
601 North 30th Street  
Suite 3700  
Omaha, NE 68131

Julie Ann Freischlag, MD  
Johns Hopkins University  
720 Rutland Avenue, 759 Ross  
Baltimore, MD 21205  
jfreisc1@jhmi.edu

## SBAS INSTITUTIONAL MEMBERS

Ala Stanford Frey, MD  
Abington Memorial Hospital  
1245 Highland Avenue  
PMOB Suite 105  
Abington, PA 19001  
AFrey@amh.org

John J. Fung, MD, PhD  
Cleveland Clinic  
9500 Euclid Ave. - A80  
Cleveland, OH 44195  
jfung@ccf.org

Bruce L. Gewertz, MD  
Cedars-Sinai Medical Center  
8700 Beverly Blvd, Suite 8215 NT  
Los Angeles, CA 90048  
robinsonsx@cshs.org

James E. Goodnight, Jr., MD, PhD  
University of California, Davis  
2221 Stockton Blvd, 3rd Floor  
Sacramento, CA 95817  
james.goodnight@ucdmc.ucdavis.edu

Frederick L. Greene, MD  
Carolinas Medical Center  
1000 Blythe Blvd, PO Box 32861  
Charlotte, NC 28232  
frederick.greene@carolinas.org

Alden H. Harken, MD  
Univ. of California/San Francisco  
1411 East 31st Street, QIC 22134  
Oakland, CA 94602-1018  
alden.harken@ucsfmedctr.org

Robert J. Havlik, MD  
Indiana University  
545 Barnhill Drive EH205  
Indianapolis, IN 46202  
rhavlik@iupui.edu

Danny O. Jacobs, MD, MPH  
Duke University Medical Center  
Dept of Surgery, Box 3704  
Durham, NC 27710  
jacob060@mc.duke.edu

Lynt B. Johnson, MD  
Georgetown University Hospital  
3800 Reservoir Rd, NW  
Washington, DC 20007  
lynt.johnson@medstar.net

Ronald P. Jones  
Umass Memorial Medical Group, Inc.  
328 Shrewsbury St.  
Worcester, MA 01604  
ronald.jones@umassmemorial.org

K. Craig Kent, MD  
University of Wisconsin-Madison  
600 Highland Ave., H4-710 CSC  
Madison, WI 53792-7375  
kent@surgery.wisc.edu

Irving L. Kron, MD  
University of Virginia Health System  
Box 800679  
Charlottesville, VA 22942  
ilk@virginia.edu

Thomas M. Krummel, MD  
Stanford Univ. School of Medicine  
300 Pasteur Drive  
Stanford, CA 94305-5784  
tkrummel@stanford.edu

Christian P. Larsen, MD, PhD  
Emory University  
1364 Clifton Road, NE  
Suite B206  
Atlanta, GA 30322  
clarsen@emory.edu

## SBAS INSTITUTIONAL MEMBERS

Keith D. Lillemoe, MD  
Massachusetts General Hospital  
55 Fruit Street WHT506  
Boston, MA 02114  
klillemoe@partners.org

Demetrius E. Litwin, MD  
University of Massachusetts  
55 Lake Ave North  
Worcester, MA 01655  
jennifer.parker@umassmed.edu

Alan S. Livingstone, MD  
University of Miami  
1611 N.W. 12th Avenue  
East Tower Suite #2169  
Miami, FL 33136

William C. Mackey, MD  
Tufts Medical Center  
860 Washinton Street  
S Bldg - 4th floor, MB 1035  
Boston, MA 02111  
wmackey@tufts-nemc.org

Jeffrey B. Matthews, MD  
University of Chicago  
5841 So. Maryland Ave., MC 5029  
Chicago, IL 60637  
jmatthews@uchicago.edu

Mary McCarthy, MD  
Wright State University  
Boonshoft School of Medicine  
1 Wyoming Street  
Suite 7000 WCHE  
Dayton, OH 45409  
mary.mccarthy@wright.edu

James A. McCoy, MD  
Morehouse School of Medicine  
720 Westview Drive SW  
Atlanta, GA 30310  
jmccoy@msm.edu

Kelly M. McMasters, MD, PhD  
University of Louisville  
550 So. Jackson St.  
Louisville, KY 40202  
mcmasters@louisville.edu

J. Wayne Meredith, MD  
Wake Forest University  
Medical Center Blvd  
Winston-Salem, NC 27157  
merediw@wfubmc.edu

Anthony A. Meyer, MD, PhD  
University of North Carolina  
4041 Burnett Wumack Bldg  
Chapel Hill, NC 27599-7050  
anthony-meyer@med.unc.edu

Fabrizio Michelassi, MD  
Weill Cornell Medical College  
525 East 68th St  
Room F739 Box 129  
New York, NY 10065  
fam2006@med.cornell.edu

Marc E. Mitchell, MD  
University of Mississippi  
Medical Center  
2500 N. State Street  
Jackson, MS 39216  
memithcell@umc.edu

Sean J. Mulvihill, MD  
University of Utah  
30 N. 1900 East  
Salt Lake City, UT 84132  
sean.mulvihill@hsc.utah.edu

Don K. Nakayama, MD, MBA  
Mercer School of Medicine  
777 Hemlock St., MSC-140  
Macon, GA 31201  
nakayama.don@mccg.org

## SBAS INSTITUTIONAL MEMBERS

H. Leon Pachter, MD  
NYU Medical Center  
550 1st Ave.  
NBV-15N1  
New York, NY 10016  
leon.pachter@nyumc.org

Carlos A. Pellegrini, MD  
University of Washington  
Box 356410  
Seattle, WA 98195-6410  
pellegrini@u.washington.edu

Jeffrey H. Peters, MD  
University of Rochester  
601 Elmwood Ave. BOX SURG  
Rochester, NY 14642  
jeffrey.peters@urmc.rochester.edu

Jeffrey L. Ponsky, MD  
University Hospital of Cleveland  
1110 Euclid Ave., LKS-5047  
Cleveland, OH 44106  
jeffrey.ponsky@uhhospitals.org

Jerry B. Rogers, MD  
University of Missouri-Columbia  
One Hospital Drive  
Room MC501, McHaney Hall  
Columbia, MO 65212  
rogersjb@missouri.edu

Todd K. Rosengart, MD  
SUNY Stonybrook  
Nichols Road, HSC T-19, Room 020  
Stony Brook, NY 11794-8191  
trosengart@notes.cc.sunysb.edu

Michael F. Rotondo, MD  
East Carolina University  
Brody School of Medicine  
600 Moye Blvd  
Greenville, NC 27834  
rotondom@ecu.edu

John A. Savino, MD  
New York Medical College  
Munger Pavilion  
Valhalla, NY 10595  
john\_savino@nymc.edu

Douglas P. Slakey, MD  
Tulane University School of Medicine  
1430 Tulane Avenue (SL22)  
New Orleans, LA 70112  
dslakey@tulane.edu

Nathaniel J. Soper, MD  
Northwestern Memorial  
251 E. Huron St.  
Galter 3-150  
Chicago, IL 60611  
nsoper@nmh.org

Steven C. Stain, MD  
Albany Medical College  
43 New Scotland Ave. MC 194  
Albany, NY 12208  
stains@mail.amc.edu

Michael J. Stamos, MD  
University of California, Irvine  
333 City Blvd. West, Suite #700  
Orange, CA 92868  
mstamos@uci.edu

Vaughn A. Starnes, MD  
University of Southern California  
Keck School of Medicine  
1520 San Pablo Street, HCT 4300  
Los Angeles, CA 90033  
starnes@usc.edu

Mark A. Talamini, MD  
University of California, San Diego  
402 Dickinson Street, MPF 2-260  
San Diego, CA 92103  
talamini@ucsd.edu

## SBAS INSTITUTIONAL MEMBERS

Glenn E. Talboy, Jr., MD  
University of Missouri  
2310 Holmes St  
Kansas City, MO 64108  
glenn.talboy@tmcmed.org

James H. Thomas, MD  
University of Kansas  
3901 Rainbow Blvd, MS 2005  
Kansas City, KS 66160  
jthomas@kumc.edu

Courtney M. Townsend, Jr., MD  
University of Texas Med. Branch  
301 University Boulevard  
Ste 6.146 John Sealy Annex  
Galveston, TX 77555-0527  
ctownsen@utmb.edu

Robert Udelsman, MD, MBA  
Yale University School of Medicine  
PO Box 208062  
New Haven, CT 06520-8062  
robert.udelsman@yale.edu

Charles W. Van Way, III, MD  
UMKC School of Medicine  
Truman Medical Center  
2301 Holmes St, 3rd Floor  
Kansas City, MO 64108  
charles.vanway@tmcmed.org

Selwyn M. Vickers, MD, MPH  
University of Minnesota  
420 Delaware St. SE, MMC 195  
Minneapolis, MN 55455  
vickers@umn.edu

Andrew L. Warshaw, MD  
Massachusetts General Hospital  
55 Fruit Street, WHT506  
Boston, MA 02114  
awarshaw@partners.org

Alonzo P. Walker, MD  
Medical College of Wisconsin  
8701 Watertown Plank Road  
Milwaukee, WI 53226  
facultyaffairs@mcw.edu

Donald W. Weaver, MD  
Wayne State University  
3990 John R  
Detroit, MI 48201-2153  
dweaver@med.wayne.edu

Ronald J. Weigel, MD  
University of Iowa Health Care  
200 Hawkins Drive  
Room 1509 JCP  
Iowa City, IA 52242-1086  
ronald-weigel@uiowa.edu

Gerald B. Zelenock, MD  
University of Toledo  
College of Medicine  
3065 Arlington Ave.  
Mail Stop 1095  
Toledo, OH 43614  
gerald.zelenock@utoledo.edu

Michael J. Zinner, MD  
Brigham and Women's Hospital  
75 Francis Street  
Boston, MA 02115  
mzinner@partners.org



# SBAS MEMBERSHIP

## SBAS MEMBERS

Obinna O. Adibe, MD  
Duke University Medical Center  
DUMC Box 3815  
Durham, NC 27710  
obinna.adibe@duke.edu

Darrell E. Alley, MD  
University of Texas - Tyler  
1020 E. Idel St.  
Tyler, TX 75701  
deralleymd@mindspring.com

Reginald F. Alouidor, MD  
Baystate Surgical Associates  
210 Millbrook Drive  
East Longmeadow, MA 01028  
reginald.alouidor@bhs.org

Kwame Amankwah, MD  
Suny Upstate Medical University  
750 E. Adams St., Suite 8801  
Syracuse, NY 13070  
amankwak@upstate.edu

Ahaji Amos, MD  
8216 Whispering Glen Ln  
Raleigh, NC 27614

Keith D. Amos, MD  
University of North Carolina  
170 Manning Drive  
Campus Box 7213  
Chapel Hill, NC 27599  
kdamos@med.unc.edu

Gregory A. Antoine, MD  
Boston University SOM  
720 Harrison Ave., Suite 9600  
Boston, MA 02118  
gaa3@bu.edu

Bola Asiyanbola, MD  
Johns Hopkins School of Medicine  
2809 Boston Street #265  
Baltimore, MD 21224  
basiyan@hotmail.com

Leah Backhus, MD  
University of Washington  
1959 NE Pacific Street  
Suite AA-115  
Box 356310  
Seattle, WA 98195  
lbackhus@u.washington.edu

Edward M. Barksdale, Jr., MD  
University Hospitals of Cleveland  
11100 Euclid Avenue, RBC 122  
Cleveland, OH 44106  
edward.barksdale@UHhospitals.org

Reginald F. Baugh, MD  
University of Toledo Medical Center  
3000 Arlington Avenue  
Toledo, OH 43614

Alfred E. Baylor, MD  
Wayne State University  
4201 St. Antoine  
Suite 4S-13  
Detroit, MI 48201  
abaylor@med.wayne.edu

Timothy R. Billiar, MD  
University of Pittsburgh  
School of Medicine  
200 Lothrop St., PUH F1281  
Pittsburgh, PA 15213  
billiartr@upmc.edu

## SBAS MEMBERS

Cassann N. Blake, MD, MPH  
Cleveland Clinic Florida  
2950 Cleveland Clinic Blvd  
Weston, FL 33331  
blakec@ccf.org

Kirby I. Bland, MD  
University of Alabama  
at Birmingham  
1530 3rd Ave. South, BDB502  
Birmingham, AL 35294

Kanika A. Bowen, MD  
Texas A&M University  
Scott & White Hospital  
1808 Marlandwood Rd #12202  
Temple, TX 76502  
bowenkanika@gmail.com

L.D. Britt, MD, MPH  
Eastern Virginia Medical School  
825 Fairfax Ave., Suite 610  
Norfolk, VA 23507  
brittld@evms.edu

Malcolm V. Brock, MD  
Johns Hopkins School of Medicine  
600 N Wolfe St  
Blalock 240  
Baltimore, MD 21287  
mbrock1@jhmi.edu

Thomas E. Butler, MD  
University of California  
at Los Angeles  
1041 Glendon Avenue  
Apt 5189  
Los Angeles, CA 90024  
tbutler@mednet.ucla.edu

Arthur L. Burnett, MD  
Johns Hopkins School of Medicine  
600 North Wolfe Street  
Marburg 407  
Baltimore, MD 21287  
aburnett@jhmi.edu

Clive O. Callender, MD  
Howard University Hospital  
2041 Georgia Avenue NW  
Suite 4B02  
Washington, DC 20060  
ccallender@howard.edu

Andre R. Campbell, MD  
University of California-San  
Francisco  
1001 Potrero Ave.  
San Francisco, CA 94110  
acampbell@sfghsurg.ucsf.edu

Frederick D. Cason, MD  
Case Western Reserve University  
Medical Center  
10701 East Boulevard  
Cleveland, OH 44120  
frederick.cason@va.gov

George W. Cole, Jr., MD  
Baylor College of Medicine  
706 S. 2nd Street #11  
Philadelphia, PA 19147  
georgecolejr@gmail.com

Edward E. Cornwell, III, MD  
Howard University Hospital  
2041 Georgia Ave NW  
Washington, DC 20060  
ecornwell@howard.edu



## SBAS MEMBERS

Michael Crittenden, MD  
VA Boston Healthcare  
1400 VFW Parkway  
West Roxbury, MA 02136

Paul R.G. Cunningham, MD  
East Carolina University  
Brady School of Medicine  
600 Moye Blvd., AD52  
Greenville, NC 27832  
cunninghamp@ecu.edu

Omar K. Danner, MD  
Morehouse School of Medicine  
80 Jessie Hill Jr. Drive, SE  
Suite 7B  
Atlanta, GA 30303  
odanner@msm.edu

Kenneth Davis, Jr., MD  
University of Cincinnati  
College of Medicine  
231 Albert Sabin Way, ML 0558  
Cincinnati, OH 45267  
Kenneth.Davis@uc.edu

Haile T. Debas, MD  
University of California  
at San Francisco  
3333 California St. Suite 285  
San Francisco, CA 94143  
hdebas@globalhealth.ucsf.edu

Lemuel Dent, MD  
Meharry Medical College  
1005 D.B. Todd Boulevard  
Nashville, TN 37208  
ldent@mmc.edu

Andre A.S. Dick, MD  
Seattle Children's Hospital  
4800 Sandpoint Way NE  
M/S W-7800, PO Box 5371  
Seattle, WA 98145  
andre.dock@seattlechildrens.org

Wade Douglas, MD  
Marshall University  
Edwards Comprehensive Cancer Ctr.  
1400 Hal Greer Blvd.  
Huntington, WV 25541  
wade.douglas@chhi.org

A. Peter Ekeh, MD  
Wright State University  
MVH, Weber 7  
One Wyoming St.  
Dayton, OH 45409  
apekeh@mvh.org

Debra H. Ford, MD  
Howard University  
Coll.eg of Medicine  
11903 Shadystone Terrace  
Mitchellville, MD 20721  
dhford@howard.edu

Henri R. Ford, MD  
University of Southern California  
Children's Hospital Los Angeles  
4650 Sunset Blvd. - MS72  
Los Angeles, CA 90027  
hford@chla.usc.edu

Clarence Foster, MD  
University of California at Irvine  
333 City Blvd. West, Ste 700  
Bldg 26, Rm 1001  
Orange, CA 92868  
fosterc@uci.edu

## SBAS MEMBERS

Wayne A.I. Frederick, MD, MBA  
Howard University  
2041 Georgia Avenue NW  
Suite 4000  
Washington, DC 20060  
w\_frederick@howard.edu

Ala Stanford Frey, MD  
Abington Memorial Hospital  
1245 Highland Avenue  
PMOB Suite 105  
Abington, PA 19001  
AFrey@amh.org

Terrence M. Fullum, MD  
Howard University  
2041 Georgia Avenue NW  
Suite 4100B  
Washington, DC 20060  
tfullum@howard.edu

John F. Gibbs, MD  
Kaleida Health Systems  
Buffalo General Hospital  
100 High Street - C319  
Buffalo, NY 14203  
john.gibbs@roswellpark.org

Andrew A. Gonzalez, MD  
University of Illinois at Chicago  
1250 W. Van Buren St, Apt 202  
Chicago, IL 60607  
andrewgonzalezjd@gmail.com

Jay A. Graham, MD  
NewYork-Presbyterian/Columbia  
622 West 168th Street  
Suite 14-C  
New York, NY 10032  
jayalexandergraham@gmail.com

Wendy R. Greene, MD  
Howard University  
75 V St. N.W  
Washington, DC 20001  
wgreene@howard.edu

Robyn M. Hatley, MD  
Medical College of Georgia  
Pediatric Surgery BP-3112  
1446 Harper Street  
Augusta, GA 30912  
rhatley@georgiahealth.edu

Andrea A. Hayes-Jordan, MD  
M.D. Anderson Cancer Center  
1400 Pressler - Unit 1406  
Houston, TX 77030  
ahjordan@mdanderson.org

Ronda S. Henry-Tillman, MD  
University of Arkansas  
4301 W. Markham #725  
Little Rock, AR 72205  
henryrondas@uams.edu

Wesley L. Hicks, Jr., MD  
Roswell Park Cancer Institute  
Elm & Carlton Streets  
Buffalo, NY 14263  
wesley.hicks@roswellpark.org

Robert S.D. Higgins, MD, MSHA  
The Ohio State University  
Medical Center  
N 825 Doan Hall  
410 West 10th Ave  
Columbus, OH 43210  
robert.higgins@osumc.edu



## SBAS MEMBERS

Dennis R. Holmes, MD  
University of Southern California  
2480 Aaron Street  
Los Angeles, CA 90026  
dhomes@usc.edu

Eddie L. Hoover, MD  
SUNY-Buffalo  
7557 Greenbush Rd.  
Akron, NY 14001  
eddie.hoover@med.va.gov

Kakra Hughes, MD  
Howard University  
12801 Vicar Woods Lane  
Bowie, MD 20720  
kakrahughes@gmail.com

Olajire Idowu, MD  
Children's Research Hospital  
712 Moraga Road  
Lafayette, CA 95459

Danny O. Jacobs, MD, MPH  
University of Texas Medical Branch  
301 University Blvd  
Galveston, TX 77555  
djacobs@utmb.edu

David G. Jacobs, MD  
Carolinas Medical Center  
925 Mangionne Dr.  
Matthews, NC 28105  
dgjacobsmd@aol.com

Lenworth M. Jacobs, MD, MPH  
Hartford Hospital  
80 Seymour St.  
PO Box 5037  
Hartford, CT 06102

Jessie M. Jean-Claude, MD  
Cleveland VAMC  
10701 East Boulevard  
Cleveland, OH 44106

Elliot M. Jessie, MD  
National Naval Medical Center  
13930 Lullaby Rd.  
Germantown, MD 20874  
ejessie@hotmail.com

Lynt B. Johnson, MD, MBA  
Georgetown University Hospital  
3800 Reservoir Rd NW  
Washington, DC 20007  
lynt.johnson@medstar.net

Kimberly Joseph, MD  
Stroger/Cook County Hospital  
1900 W. Polk St., Rm 1300  
Chicago, IL 60612  
kjtrauma@yahoo.com

Electron Kebebew, MD  
National Cancer Institute  
530 Beall Avenue  
Bethesda, MD 20850  
kebebewe@mail.nih.gov

Burnett S. (Beau) Kelly, MD  
Vanderbilt University Medical Center  
1313 21st Avenue South  
Suite 801 Oxford House  
Nashville, TN 37232  
beau.kelly@vanderbilt.edu

Orlando C. Kirton, MD  
Hartford Hospital  
80 Seymour Street, Bliss 501C  
Hartford, CT 06102  
okirton@harthosp.org

## SBAS MEMBERS

Shaun Kunisaki, MD  
University of Michigan  
Mott Children's Hospital  
1540 E. Hospital Drive, SPC4211  
Ann Arbor, MI 48109  
shaunkun@umich.edu

Camelia Lawrence, MD  
2617 Vestal Parkway East  
Vestal, NY 13850  
lcamelia@hotmail.com

Raphael C. Lee, MD  
University of Chicago  
5812 S. Ellis Drive, MC6035  
Chicago, IL 60637  
rlee@surgery.bsd.uchicago.edu

J. Keith Melancon, MD  
104 Croyden Street  
Baltimore, MD 21212  
Keith\_mel@msn.com

Robert L. McCauley, MD  
University of Texas Medical Branch  
815 Market St.  
Galveston, TX 77550  
rmccaule@utmb.edu

Sean E. McLean, MD  
UNC Pediatric Surgery CB#7223  
170 Manning Dr.  
Chapel Hill, NC 27599  
sean\_mclean@med.unc.edu

Nathaniel McQuay, Jr., MD  
Johns Hopkins University  
Bayview Medical Center  
4940 Eastern Ave  
Baltimore, MD 21224  
nmcquay1@jhmi.edu

Mark A. Newell, MD  
East Carolina University  
600 Moye Blvd., Room#240TA  
Greenville, NC 27834  
rainsd@ecu.edu

Erika Newman, MD  
CS MOH Children's Hospital  
Room4-972 Pediatric Surgery  
1540 E. Medical Center Drive  
Ann Arbor, MI 48109  
eaneuman@med.umich.edu

Lisa Newman, MD  
University Of Michigan  
Comprehensive Cancer Center  
1500 E. Medical Center Drive  
3303 CC  
Ann Arbor, MI 48109  
lanewman@umich.edu

Fiemu E. Nwariaku, MD  
UT Southwestern Medical Center  
5323 Harry Hines Blvd.  
Dallas, TX 75390  
fiemu.nwariaku@utsouthwestern.edu

Benedict Nwomeh, MD  
Columbus Children's Hospital  
700 Children's DrED-379  
Columbus, OH 43205  
benedict.nwomeh@  
nationwidechildrens.org

Lynn O'Connor, MD  
St. Francis Hospital  
Huntington Hospital  
51 Rushmore Street  
Huntington Station, NY 11749  
loconnor3@hotmail.com

## SBAS MEMBERS

O.N. Okike, MD  
University of Massachusetts  
Medical Center  
55 Lake Ave North  
Worcester, MA 01805  
o.nsidinanya.okike@  
umassmemorial.org

Emmanuel C. Opara, MD  
Wake Forest Institute of  
Regenerative Medicine  
WFIRM Medical Center Blvd  
Winston-Salem, NC 27157  
eopara@wfubmc.edu

James D. Perkins, MD  
Morehouse School of Medicine  
103 S. 12th Avenue  
Laurel, MS 39440  
perksurg@hotmail.com

John M. Porter, MD  
University of Mississippi  
Medical Center  
2500 North State Street  
Jackson, MI 39216  
jimporter@umc.edu

Carla M. Pugh, MD, PhD  
Northwestern University  
676 North Saint Claire - Suite 650  
Gaiter 10-105  
Chicago, IL 60611  
drpugh@northwestern.edu

Vincent Reid, MD  
Mercy Medical Center  
701 10th Street SE  
Cedar Rapids, IA 52403  
vreid@mercy.org

Winston Richards, MD  
University of Florida  
PO Box 100286  
1600 SW Archer Road, Room M602  
Gainesville, FL 32610  
winston.richards@surgery.ufl.edu

Robert Rivers, Jr., MD  
164 Nighland  
Williamsburg, VA 23188  
rrivers10@cox.net

Grant V. Rodkey, MD  
Massachusetts General Hospital  
24 Marcia Rd  
Watertown, MA 02472

Luz Maria Rodriguez, MD  
National Cancer Institute  
6130 Executive Blvd  
EPN, Suite 2144  
Bethesda, MD 20892  
rodrigul@mail.nih.gov

Selwyn O. Rogers, MD, MPH  
Temple University  
School of Medicine  
3500 N Broad Street  
Philadelphia, PA 19140  
selwyn.rogers@tuhs.temple.edu

Vincent L. Rowe, MD  
LAC/USC Medical Center  
Keck School of Medicine  
1520 San Pablo St.  
Suite 4300, HCCII  
Los Angeles, CA 90033  
vrowe@med.usc.edu

## SBAS MEMBERS

Marian Safaoui, MD  
Western University  
College of Osteopathic Medicine  
309 East Second Street  
Pomona, CA 91766  
msafaoui@westernu.edu

Ali Salim, MD  
Cedars-Sinai Medical Center  
8700 Beverly Blvd.  
Suite 8215 MT  
Los Angeles, CA 90048  
ali.salim@cshs.org

Albert D. Sam, II, MD  
Vascular Surgery Associates  
of Baton Rouge  
8595 Picardy Avenue, Suite 320  
Baton Rouge, LA 70809  
adsam@brvsa.com

Ayodele Sangosanya, MD  
University of Rochester  
Medical Center  
601 Elmwood Ave, Box SURG  
Rochester, NY 14642  
ayodele\_sangosanya@  
urmc.rochester.edu

Anthony Stallion, MD  
Cleveland Clinic  
3785 Hillbrook Road  
University Heights, OH 44118  
stallia@ccf.org

John H. Stewart, MD  
Wake Forest University  
1 Medical Center Blvd  
Winston-Salem, NC 27157  
jhstewart@wfubmc.edu

Erica R.H. Sutton, MD  
University of Louisville  
School of Medicine  
550 S. Jackson St. ACB 2nd Floor  
Louisville, KY 40292  
e0sutt01@louisville.edu

James H. Thomas, MD, RVT  
University of Kansas  
Medical Center  
3901 Rainbow Blvd - MS 1037  
Kansas City, KS 66160  
jthomas@kunc.edu

Yalaunda M. Thomas, MD  
Advocate Christ Medical Center  
2303 S. Michigan Ave. #205  
Chicago, IL 60616  
yalaunda.thomas@gmail.com

Courtney M. Townsend, Jr., MD  
University of Texas Medical Branch  
301 University Blvd  
Suite 6.146 John Sealy Annex  
Galveston, TX 77555  
ctownsen@utmb.edu

Patricia L. Turner, MD  
American College of Surgeons  
633 N. St Clair Street  
Chicago, IL 60611  
pturner@fac.org

Jeffrey S. Upperman, MD  
Children's Hospital Los Angeles  
4650 Sunset Boulevard MS100  
Los Angeles, CA 90027  
jupperman@chla.usc.edu

## SBAS MEMBERS

Selwyn M. Vickers, MD  
University of Minnesota  
420 Delaware St. SE - MMC 195  
Minneapolis, MN 55455  
vickers@umn.edu

Alonzo P. Walker, MD  
Medical College of Wisconsin  
9200 W. Wisconsin Ave.  
Milwaukee, WI 53226  
awalker@mcw.edu

W. Bedford Waters, MD  
University of Tennessee  
Medical Center Knoxville  
1928 Alcoa Highway  
MOB-B Suite 222  
Knoxville, TN 37920  
wbwaters@mc.utmck.edu

Michael T. Watkins, MD  
Massachusetts General Hospital  
14 Buchanan Road  
Boston, MA 02132  
mtwatkins@partners.org

Levi Watkins, Jr., MD  
Johns Hopkins University  
School of Medicine  
2411 Boston St.  
Baltimore, MD 21224

William Lynn Weaver, MD  
Morehouse School of Medicine  
208 Hawthorne Place  
Fayetteville, GA 30214  
wweaver@msm.edu

Lisa Whitty, MD  
Mayo School of Medicine  
220 So. Broadway #907  
Rochester, MN 55904  
lisaannwhitty@yahoo.com

Mallory Williams, MD  
University of Toledo Medical Center  
4430 North Holland Sylvania Rd  
Apt 7101  
Toledo, OH 43623  
mw1906@yahoo.com

Ryan Williams, MD  
Cleveland Clinic  
33100 Cleveland Clinic Blvd  
Avon, OH 44011  
williar4@ccf.org

Alliric I. Willis, MD  
Temple University Hospital  
617 Pine Street  
Parkinson Pavilion, Zone C  
Philadelphia, PA 19106  
Alliric.Willis@TUHS.Temple.edu

Carlton J. Young, MD  
University of Alabama - Birmingham  
701 South 19th Street, LHRB 719  
Birmingham, AL 35294  
cyoung@uabmc.edu

## HONORARY MEMBERS

SBAS gives Honorary Fellowships to outstanding surgeons who have mentored minority surgeons and championed diversity in surgery.

### Honorary Fellow Award Recipients (Chronologically Ordered):

Judah M. Folkman, MD  
R. Scott Jones, MD  
Frank R. Lewis, MD  
Olga Jonasson, MD  
Arthur J. Donovan, MD  
Lloyd M. Nyhus, MD  
Hiram C. Polk, Jr., MD  
Walter J. Pories, MD  
Basil A. Pruitt, Jr., MD  
George F. Sheldon, MD  
William Silen, MD  
James C. Thompson, MD  
Benard F. Ribeiro, MD  
Walter Lawrence, Jr., MD  
John Najarian, MD  
James A. O'Neill, Jr., MD  
Thomas E. Starzl, MD  
Dean Warren, MD (posthumous)  
Kirby I. Bland, MD  
Wallace P. Ritchie, Jr., MD  
Courtney M. Townsend, Jr., MD  
Arnold G. Diethelm, MD  
Thomas R. Russell, MD  
Richard L. Simmons, MD  
Edward Copeland, MD  
John Tarpley, MD  
Andrew Warshaw, MD  
Jeffrey Matthews, MD  
Carlos Pelligrini, MD  
Michael J. Zinner, MD  
Raphael E. Pollock, MD, PhD  
Bernard M. Jaffe, MD  
J. Wayne Meredith, MD  
Michael T. Longaker, MD  
Timothy R. Billiar, MD  
R. Scott Jones, MD  
Christopher Ellison, MD  
David B. Hoyt, MD

## SPECIAL APPRECIATION

SBAS extends special appreciation to the University of Mississippi Medical Center.

Sponsors for the 23rd Annual SBAS Meeting include:

SBAS

University of Mississippi Medical Center



## PREVIOUS SBAS MEETINGS

- 1989 Duke University, Chapel Hill, NC
- 1991 Harvard University, Boston, MA
- 1993 UC Davis-East Bay (Meeting held in Napa Valley, CA)
- 1994 University of Texas Medical Branch, Galveston, TX
- 1995 University of North Carolina, Chapel Hill, NC
- 1996 University of Colorado, Denver, CO
- 1997 State University of New York, Buffalo, NY
- 1998 Howard University College of Medicine, Washington, DC
- 1999 University of Louisville, Louisville, KY
- 2000 Charles R. Drew University, Los Angeles, CA
- 2001 Harvard University, Boston, MA
- 2002 Morehouse School of Medicine, Atlanta, GA
- 2003 University of Alabama at Birmingham, Birmingham, AL
- 2004 Howard University, Washington, DC
- 2005 University of Pittsburgh, Pittsburgh, PA
- 2006 University of Cincinnati, Cincinnati, OH
- 2007 Rush University Medical Center, Chicago, IL
- 2008 Cleveland Clinic, Cleveland, OH
- 2009 University of Washington, Seattle, WA
- 2010 Duke University, Chapel Hill, NC
- 2011 Massachusetts General Hospital, Boston, MA
- 2012 Johns Hopkins School of Medicine, Baltimore, MD, and Howard University, Washington, DC

## FUTURE SBAS MEETINGS

- 2014 Temple University, Philadelphia, PA
- 2015 University of North Carolina, Chapel Hill, NC
- 2016 The Ohio State University, Columbus, OH

**www.sbas.net**

**www.sbas.net**