It’s About Discovering and Sharing Ways to Improve Little Lives

The APSA 2018 Annual Meeting is about what’s happening now, what’s on the horison and planning the future of the profession. It’s about fresh perspectives, valuable educational sessions, the discussions that take place in the hallways and the latest tools and services from our exhibitors. It’s about comparing notes and talking shop with hundreds of other pediatric surgeons from around the world. Most of all, it’s about coming together in our shared objective of improving children’s lives.

- Take part in the conversation at the Town Hall Meeting Sunday, May 6, 9:00-11:00 a.m. Let us know how APSA can better serve its members and the profession.
- Add the Keynote Speakers to your itinerary for inspiring and thought-provoking presentations:
  - Paul E. Farmer, MD, PhD. Kolokotrones University Professor and Chair, Chief, Division of Global Health Equity, Department of Global Health and Social Medicine, Harvard University Brigham and Women’s Hospital; Co-Founder and Chief Strategist, Partners in Health, Boston, MA USA
  - Henri R. Ford, MD, MHA. Senior Vice President and Surgeon-in-Chief, Children’s Hospital Los Angeles; Vice Chair and Professor of Surgery, Vice Dean of Medical Education, Keck School of Medicine of University of Southern California, Los Angeles, CA USA
  - Tracy C. Grikscheit, MD. Associate Professor of Surgery, Children’s Hospital Los Angeles, University of Southern California, Keck School of Medicine, Los Angeles, CA USA
  - Steven Stylianos, MD. Surgeon-in-Chief, Morgan Stanley Children’s Hospital, New York, NY USA
  - Miliard Derbew, MD. President, College of Surgeons of East, Central and Southern Africa; Professor of Pediatric Surgery, Addis Ababa University, Ethiopia
- Don’t miss special presentations from the Travel Fellows, the APSA Foundation Jay Grosfeld, MD Scholars, the 2017 Brandeis Scholar and an update from the APSA Health Policy & Advocacy Committee.
- Pediatric Ultrasound Course. Ultrasound can be an extremely useful tool for the pediatric surgeon, resulting in increased speed, safety and positive outcomes in the operating room. This course is intended to introduce and develop ultrasound knowledge and skills for the practicing pediatric surgeon, particularly in precision needle guidance for vascular access. The course includes didactic sessions in the fundamentals of ultrasound, scanning techniques, tips to avoid common pitfalls and clinical applications for the neonatal and pediatric populations.
- Essentials of Surgical Critical Care Course. Due to concerns for a deficit in knowledge and comfort with management of critically ill children, this course will provide a systematic training experience for pediatric surgeons and pediatric surgery fellows to supplement current curricula and training. The course will feature hands-on stations for scenario-based simulations as well as didactic sessions on key topics.
- General surgery residents and students are invited to the Residents Reception Friday, May 4, for informal discussions with program directors and pediatric surgeons who practice in both academic and private practice.

Advance Online Registration Deadline: April 16, 2018

#eAPSA2018 @APSASurgeons
Educational Objective

The APSA Annual Meeting is designed to provide comprehensive continuing education in the field of pediatric surgery. APSA strives to bring together the world’s leading pediatric surgery authorities to present and discuss the most recent clinical and research efforts. This meeting covers the breadth of pediatric surgery and is intended to acquaint attendees with the latest research findings, clinical discoveries and trends that influence the day-to-day practice of pediatric surgery. The topics at these sessions have been selected by the Program and Education Committees and approved by the Board of Governors based on a member-driven needs analysis in order to offer material that is most relevant to their practices. The Plenary Sessions highlight the highest regarded clinical and basic science submitted to the annual meeting as determined by the Program Committee. The scientific sessions consist of basic research and practical clinical presentations and are organized in broad topics of similar interest in order to offer the attendees the opportunity to maximize their educational benefit. The hands-on courses are designed to provide simulation to the participants to allow for experience that will translate to patient care. The poster sessions are intended to provide young investigators an opportunity to share preliminary research.

Who Should Attend

The APSA Annual Meeting regularly attracts more than 800 attendees who span the pediatric surgery arena from academia to government and private practice. Pediatric surgeons, pediatric surgical specialists in academic and community practice, pediatric surgical nurses and physicians in related disciplines and surgical residents interested in pediatric surgery are encouraged to attend.

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Palm Desert Perfection

There is always something new to discover in Palm Desert – like tranquil pools tucked amid palm trees, pristine golf courses surrounded by desert views and, of course, endless California sunshine. Outdoor enthusiasts can enjoy great hiking like the Hopalong Cassidy Trail, views of the Coachella Valley from an aerial tram, or taking the family to The Living Desert Zoo. Or duck inside for plenty of shopping, museums and trendy restaurants. Whether you want to venture out and about the greater Palm Springs area or nestle in to the JW Marriott Desert Springs Resort & Spa, the APSA headquarters hotel, you have an array of tantalizing options to explore.
Keynote Speakers

International Lecture
Friday, May 4, 2018 | 8:30 – 8:45 a.m.

Miliard Derbew, MD
President, College of Surgeons of East, Central and Southern Africa; Professor of Pediatric Surgery, Addis Ababa University, Ethiopia

Pediatric Surgery in Eastern Africa: Unmet Needs

Miliard Derbew, MD, is a professor of pediatric surgery at the College of Health Sciences, Addis Ababa University and is a principal investigator for Medical Education Partnership Initiative Junior Faculty project for Ethiopia, MEPI-JF. Since 2015, he has served as the president of College of Surgeons of East Central and Southern Africa (COSECSA). He was the principal investigator of Medical Education Partnership (MEPI) project, a five-year project which was a consortium of four medical schools in Ethiopia and five universities in the United States, focused on building institutional capacity. Derbew has served as chief executive director (with a rank of vice president) in the College of Health Sciences, Addis Ababa University (2010-2011) and was the dean of the School of Medicine (2007-2010). He has also served as president of the Surgical Society of Ethiopia and vice president of COSECSA. Derbew has published more than 50 peer reviewed scientific articles in reputable journals and has made more than 25 presentations at different international conferences. He graduated from medical school and specialized in surgery from the School of Medicine, Addis Ababa University and served his fellowship in pediatric surgery at Tel Aviv University and University of Toronto SickKids Hospital. Derbew is a founding fellow of the COSECSA and fellow of the Royal College of Surgeons of England.

Jay and Margie Grosfeld Lecture
Friday, May 4, 2018 | 8:45 – 9:15 a.m.

Paul E. Farmer, MD, PhD
Kolokotrones University Professor and Chair, Chief, Division of Global Health Equity, Department of Global Health and Social Medicine, Harvard University Brigham and Women’s Hospital; Co-Founder and Chief Strategist, Partners in Health, Boston, MA USA

Watering the Desert: Addressing Surgical Disparities in an Age of Austerity

Medical anthropologist and physician Paul Farmer, MD, PhD, has dedicated his life to improving health care for the world’s poorest people. He is a founding director of Partners In Health (PIH), an international non-profit organization that since 1987 has provided direct health care services and undertaken research and advocacy activities on behalf of those who are sick and living in poverty. Farmer and his colleagues in the U.S. and abroad have pioneered novel community-based treatment strategies that demonstrate the delivery of high-quality health care in resource-poor settings. Farmer holds an MD and PhD from Harvard University, is chief of the Division of Global Health Equity at Brigham and Women’s Hospital, Boston and also serves as the United Nations Special Adviser to the Secretary-General on Community Based Medicine and Lessons from Haiti. Farmer has written extensively on health, human rights and the consequences of social inequality. He is the recipient of numerous honors and is a member of the Institute of Medicine of the National Academy of Sciences and of the American Academy of Arts and Sciences.
Presidental Address
Friday, May 4, 2018 | 11:30 a.m. – 12:15 p.m.

Henri R. Ford, MD, MHA
Senior Vice President and Surgeon-in-Chief, Children’s Hospital Los Angeles; Vice Chair and Professor of Surgery, Vice Dean of Medical Education, Keck School of Medicine of University of Southern California, Los Angeles, CA USA

Henri R. Ford, MD, MHA, holds a variety of leadership positions at Children’s Hospital Los Angeles (CHLA) and the Keck School of Medicine of the University of Southern California. He oversees the entire CHLA Surgical and Perioperative Services and has developed a robust, state-of-the-art minimally invasive surgery program. At the Keck School of Medicine, he promotes excellence in medical education as one of its highest priorities. Ford led a very successful accreditation visit for the MD program, which resulted in the maximum eight-year, full accreditation from the Liaison Committee on Medical Education (LCME). His investigative studies have generated new insights into the pathogenesis of necrotizing enterocolitis, the most common and the most lethal disorder affecting the gastrointestinal tract of newborn infants. Ford serves on a variety of boards of directors, editorial boards and councils, has been active on many local and national professional and scientific committees and has received numerous prestigious honors and awards. Ford received his bachelor’s degree in public and international affairs, cum laude, from Princeton University (1980) and his MD from Harvard Medical School (1984). He received his MHA (Master of Health Administration) degree from the School of Policy, Planning and Development of the University of Southern California (2009).

Robert E. Gross Lecture
Saturday, May 5, 2018 | 9:45 – 10:15 a.m.

Tracy C. Grikscheit, MD
Associate Professor of Surgery, Children’s Hospital Los Angeles, University of Southern California, Keck School of Medicine, Los Angeles, CA USA

Stem Cells for Babies and their Surgeons: the Future is Now

Tracy C. Grikscheit, MD, is a tenured associate professor of surgery at the University of Southern California, as well as an attending surgeon at Children’s Hospital Los Angeles. She graduated from Harvard University with a bachelor’s degree in biochemistry and later earned her MD from the Columbia College of Physicians. During her general surgery training at Massachusetts General Hospital in Boston, Grikscheit worked with Joseph P. Vacanti in the Laboratory for Tissue Engineering and Organ Fabrication. Her research, centering on engineered solutions for congenital and acquired intestinal deficits, has been reported in numerous peer-review journals and national and international presentations. Her work was featured on the front page of the New York Times in 2012. Grikscheit completed her surgical training with a pediatric surgery fellowship at Seattle Children’s Hospital and Regional Medical Center before joining CHLA and is a clinical attending surgeon of pediatric surgery as well as a funded primary investigator at the Saban Research Institute, continuing her work in tissue engineering and the role of organ-specific and iPS stem cells in organ regeneration and replacement.
Keynote Speakers

Journal of Pediatric Surgery Lecture
Saturday, May 5, 2018 | 11:30 a.m. – 12:30 p.m.

Steven Stylianos, MD
Surgeon-in-Chief, Morgan Stanley Children’s Hospital, New York, NY USA

To Save a Child’s Spleen: 50 Years from Toronto to ATOMAC

Steven Stylianos, MD, is the Rudolph N. Schullinger Professor of Surgery and Pediatrics and Chief of the Division of Pediatric Surgery at Columbia University and is the surgeon-in-chief of the Morgan Stanley Children’s Hospital. Previously, Stylianos served as the chief of pediatric surgery and associate surgeon-in-chief at the Cohen Children’s Medical Center (2011-2013) and at Miami Children’s Hospital (2005-2011). Stylianos completed his general surgical training at Columbia–Presbyterian Medical Center and his formal pediatric surgery training at Boston Children’s Hospital. At the Children’s Hospital of New York, he organized and directed the 50-member team who separated conjoined twins in 1993, 1995 and 2000, which attracted the attention of the national media including “Dateline NBC”, CBS “48 Hours” and “Fox News”. Stylianos served as chair of APSA’s Trauma Committee (1997–2002) and authored the APSA position paper supporting all measures to reduce the toll of firearm violence in children. He also served as the co-principal investigator of the U.S. Department of Health, Maternal and Child Health Bureau’s grant to APSA “Partnership for Development and Dissemination of Outcomes Measures for Injured Children.” Currently, Stylianos is a site verification officer of the American College of Surgeons Committee on Trauma and serves on a variety of editorial boards. He is the recipient of numerous prestigious honors and awards.

Visit the APSA website to learn more about our Keynote Speakers.

CME Accreditation

The American Pediatric Surgical Association (APSA) is accredited with commendation by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. These live activities have been planned and implemented in accordance with the Essential Areas and Policies of the Accreditation Council for Continuing Medical Education.

APSA designates this live activity for a maximum of 22 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Disclaimer: These materials and all other materials provided in conjunction with CME activities are intended solely for purposes of supplementing CME programs for qualified health care professionals. Anyone using the materials assumes full responsibility and all risk for their appropriate use. APSA makes no warranties or representations whatsoever regarding the accuracy, completeness, currentness, noninfringement, merchantability or fitness for a particular purpose of the materials. In no event will APSA be liable to anyone for any decision made or action taken in reliance on the materials. In no event should the information in the materials be used as a substitute for professional care.

MOC Credit for Session Participation

Earn maintenance of certification MOC CME credits for session participation. As with meeting attendance CME credits, attendees will be able to claim their credits online after the meeting.
Support APSA

Thank You to Our Supporters

APSA thanks the *Journal of Pediatric Surgery* for its support of the 2018 *Journal of Pediatric Surgery* Lecture and transcription of the annual meeting technical sessions.

APSA appreciates the support of Sidra Medical and Research Center for its funding of the APSA/APSAF Travel Fellowship Award.

**INSTITUTIONAL DIAMOND SUPPORTERS**

Our thanks to these pediatric surgical departments at the following children’s hospitals for their leadership at the societal and national levels.

- Boston Children’s Hospital
- Children’s Hospital Los Angeles
- Children’s Hospital of Wisconsin
- Children’s Mercy Kansas City
- C.S. Mott Children’s Hospital
- Nationwide Children’s Hospital
- Riley Hospital for Children
- St. Louis Children’s Hospital

Thank You to Our Exhibitors

**GOLD EXHIBITOR**

KARL STORZ

**SILVER EXHIBITOR**

GetWellNetwork

**TRADITIONAL EXHIBITORS**

- American College of Surgeons
- Allied Powers LLC
- Applied Medical Technology, Inc.
- Banner Health
- Baycare Medical Group
- CDH International
- CooperSurgical
- CRC Press
- Geisinger
- Halyard Health
- Hackensack Meridian Health
- Hayes Locums
- JustRight Surgical
- Loma Linda University Faculty Medical Group
- MedTech International Group, LLC
- Mindray
- Palm Beach Children’s Hospital
- Pediatric Search Partners
- Pediatrix Medical Group/MEDNAX
- Specialty Surgical Products, Inc.
- SunMed
- Teleflex
- Weatherby Healthcare

In-Kind Donations

- Kyoto Kagaku America, Inc.
- Mindray

For details about support and exhibit opportunities, visit the APSA website or contact Brenda Howe, bhowe@eapsa.org, +1-847-686-2389.

Become an Annual Meeting Supporter or Exhibitor

Support Opportunities

Supporting the APSA 2018 Annual Meeting underscores your involvement in the pediatric surgery field, demonstrates your support of APSA members and provides excellent visibility for your company. A wide range of support opportunities is available.

Exhibit Space Available

Exhibit at APSA 2018 for direct access to a targeted audience of decision makers who have influence over the products and services used in their universities, hospitals and practices. These professionals come together at the APSA meeting to share research and advances in the field of pediatric surgery and patient care.
Special Events and Programs

Companion Program

**LOCATION:** JW Marriott Desert Springs Resort & Spa  
**COST:** $340 USD after March 2 and on site in Palm Desert, California

The Companion Program offers activities designed to encourage connecting with others, seeing old friends and making new ones. In addition to a complimentary ticket to the Welcome Reception and to the President’s Reception and Banquet, the Companion Program includes exclusive access to a Companion Hospitality Room Thursday through Saturday, 8:00 – 10:00 a.m. A continental breakfast will be served each day (a $45/day value!) and a professional concierge will be on hand to assist companions with making plans in the Palm Desert area. Registered companions must present their badge for admittance.

Companion registration is now a separate transaction and is no longer part of the APSA attendee registration.  
[View step-by-step registration instructions](#).

HELP THE RONALD MCDONALD HOUSE

Continue the tradition of donating generously to help the children and families who come to the local Ronald McDonald House. The Ronald McDonald House Charities® Southern California is the beneficiary of this year’s fundraiser and includes six Ronald McDonald Houses in the local area; two Ronald McDonald Family Rooms at CHOC Children’s Hospital in Orange and CHOC Children’s at Mission Hospital; and they are also one of very few Ronald McDonald House Charities chapters across the world that operates a cost-free, medically-supervised camp for children with cancer and their families, Camp Ronald McDonald for Good Times. Donations can be made during online registration, and look for the collection bins at the APSA registration desk and at the hospitality breakfasts when on site in Palm Desert.

**Welcome Reception**

**LOCATION:** JW Pavilion/The Grove  
**DATE:** Thursday, May 3  
**TIME:** 7:00 – 9:00 p.m.  
**COST:** One ticket is included with each full APSA 2018 Annual Meeting and companion registration.  
Additional tickets are available for $75 USD per person.

Catch up with colleagues you may only see a few times a year and use this time to expand your network. A buffet dinner will be served, which includes one complimentary drink of your choice. A cash bar will also be available. Tickets can be purchased on site.

**Benjy Brooks Society Meeting**

**LOCATION:** Springs Ballroom B-D  
**DATE:** Friday, May 4  
**TIME:** 1:30 – 3:30 p.m.  
**COST:** $75 USD per person; lunch is included

Discuss issues that women are currently facing in the pediatric surgery arena and talk about the society’s future. All are welcome.
Pediatric Ultrasound Course

LOCATION: Springs Ballroom G
DATE: Friday, May 4
TIME: 2:00 – 7:00 p.m.
COST: 
- APSA Member: $550
- Nonmember: $650
- APSA Resident Member: $355
- Resident Nonmember: $425

Must be a registered APSA 2018 Annual Meeting attendee.

MAXIMUM ATTENDANCE: 20

*Wait List: Once attendance has reached its max, please contact Brenda Howe (bhowe@eapsa.org) to be placed on the wait list.

COURSE CHAIR: Marcus Jarboe, MD
COURSE CO-CHAIR: Stefan Scholz, MD

Lunch will be provided.

Ultrasound can be an extremely useful tool for the pediatric surgeon, resulting in increased speed, safety and positive outcomes in the operating room. This course is intended to introduce and develop ultrasound knowledge and skills for the practicing pediatric surgeon, particularly in precision needle guidance for vascular access. The course includes didactic sessions in the fundamentals of ultrasound, scanning techniques, tips to avoid common pitfalls and clinical applications for the neonatal and pediatric populations. The hands-on stations will focus on learning, using and practicing interventional ultrasound-guided procedures for surgeons using phantom models.

APSA designates this live course for a maximum of 4.5 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

TOPICS
- Knobology – fundamental and necessary knowledge to use ultrasound for a pediatric surgeon
- Basic anatomic evaluation using ultrasound
- Diagnostic imaging for trauma (FAST) and critical care
- Vascular access using true ultrasound-guidance both central and peripheral
- Wires and catheters – properties and uses in interventions
- Ultrasound use outside of vascular access for the pediatric surgeon

LEARNING OBJECTIVES
As a result of taking this course, participants will be able to:
- Provide a description of the ultrasound machine and how to quickly and efficiently optimize image quality to ensure success in diagnosis or intervention
- Demonstrate scanning techniques and describe ultrasound anatomy especially as it pertains to pediatric surgery
- Explain and demonstrate skills for advanced ultrasound needle guidance in the pediatric population
Essentials of Surgical Critical Care Course

LOCATION: Springs Ballroom H-L
DATE: Friday, May 4
TIME: 2:00 – 7:00 p.m.
COST: APSA Member: $400
Nonmember: $500
APSA Resident Member: $325
Resident Nonmember: $375
Must be a registered APSA 2018 Annual Meeting attendee.

MAXIMUM ATTENDANCE: 30
*Wait List: Once attendance has reached its max, please contact Brenda Howe (bhowe@eapsa.org) to be placed on the wait list.
COURSE CHAIR: Samir Gadepalli, MD
Lunch will be provided.

This course is intended for current pediatric surgery fellows, interested pediatric surgeons who may benefit from having increased critical care skills.

Due to concerns for a deficit in knowledge and comfort with management of critically ill children, this course will provide a systematic training experience for pediatric surgeons and pediatric surgery fellows to supplement current curricula and training. The course will feature hands-on stations for scenario-based simulations as well as didactic sessions on key topics.

APSA designates this live course for a maximum of 4 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

LEARNING OBJECTIVES

Interactive Didactic Sessions
As a result of attending these sessions, participants will be able to:

- Sepsis and Antibiotic Therapy
  - Recognize and describe the changes in the national guidelines for the diagnosis and management of sepsis and septic shock
  - Comprehend and apply an algorithm for the timely management of pediatric sepsis, including fluid resuscitation, antibiotics, vasopressors, steroids
  - Appreciate and explain the controversy and evidence behind adjunct modalities such as renal replacement therapy, therapeutic plasma exchange, intravenous immunoglobulin and ECMO

- Neurotrauma and ICP Management
  - Describe the approach to traumatic brain injury management including use of intracranial pressure monitoring
  - Appreciate and apply knowledge of the availability of novel management strategies including the role of brain tissue oxygenation and transcranial Doppler
  - Demonstrate how to anticipate, diagnose and manage post-traumatic seizures

- Fluid Overload and Kidney Injury
  - Appreciate and explain the diagnosis of fluid overload in the ICU and the morbidity associated
  - Describe the disease processes commonly affected by fluid overload including acute respiratory distress syndrome (ARDS), congenital diaphragmatic hernia, congenital heart disease and other surgical conditions
  - Understand and explain the need for diuresis, treatment modalities to balance acute renal and respiratory failure, and indications for dialysis in the pediatric surgical patient
Hands-On Simulations

As a result of attending these sessions, participants will be able to:

- **Airway Management and Bronchoscopy**
  - Identify airway compromise and indications for intubation; demonstrate the proper preparation for intubation, the ability to bag-mask ventilate (BVM), the act of laryngoscopy and endotracheal tube placement on airway models
  - Identify the patient with a difficult airway and be aware of airway adjuncts that may assist in obtaining a difficult airway, as well as describe methods for establishing an airway when endotracheal intubation cannot be accomplished (can’t intubate, can’t ventilate)
  - Describe airway anatomy and anatomical relationships, differences in children as compared to adults, and demonstrate the ability to perform bronchoscopic airway inspection and basic diagnostic procedures utilizing the virtual bronchoscopy simulator

- **Ventilator Management**
  - Apply the basics of mechanical ventilation including the characteristics of different modes of ventilation, and identify technical problems that may be encountered in the ventilated patient in the intensive care unit or the operating room
  - Understand and explain when to escalate to more invasive ventilator modes (APRV, HFOV), demonstrate how to adjust these settings based on physiologic parameters and be familiar with other adjuncts that may be used to assist with oxygenation and ventilation
  - Identify when a patient is ready for ventilator weaning, and demonstrate what is necessary for a safe and successful extubation

- **Extra Corporeal Membrane Oxygenation (ECMO) Circuit Management and Troubleshooting**
  - Understand and discuss the indications for ECMO, the different types of ECMO (veno-venous and veno-arterial), the equipment necessary for ECMO circuit and the types of pumps utilized
  - Explain parameters necessary to monitor for the ECMO patient including ventilatory goals, pump flow rates, line pressures, temperature, antibiotics and anticoagulation
  - Use case-based scenarios to identify and manage the complications of ECMO to include hypoxia, bleeding, hemolysis, circuit clotting, circuit failure, air embolism and circuit rupture

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**Residents Reception**

**LOCATION:** Springs Ballroom D-E  
**DATE:** Friday, May 4  
**TIME:** 4:30 – 5:30 p.m.  
**COST:** Complimentary for general surgery residents and students attending the APSA 2018 Annual Meeting

Build your network and get insider knowledge on the pediatric surgery field. Interact with current fellows, program directors and pediatric surgeons who practice in both academic and private practice. Light refreshments will be served.
Special Events and Programs

President’s Reception and Banquet

DATE: Saturday, May 5
TIME: 6:30 – 10:00 p.m.
LOCATION: Reception is in the Desert Ballroom Foyer, and the Banquet is in Desert Ballroom 8-14.
COST: One ticket is included in each APSA 2018 full and companion registration. Additional tickets are $150 USD per person and are available during registration and on site in Palm Desert.

Celebrate your profession and honor the year’s award recipients. Attendees will savor a wonderful dinner customized by the JW Marriott Desert Springs Resort & Spa chef especially for the President’s Banquet.

Your ticket includes dinner and limited complimentary wine service during dinner. Cash bar service will be available during the reception and will continue throughout the President’s Banquet.

BABYSITTING SERVICES FOR THE PRESIDENT’S BANQUET

As all seats are assigned at the banquet, all individuals attending must have a ticket, including children. Parents are encouraged to use the child care services available. Please call for information and rates: +1-760-341-1772.

ONLINE SEATING RESERVATIONS FOR THE PRESIDENT’S BANQUET

All pre-registered delegates attending the President’s Banquet will receive an e-mail with instructions for online seating selection. Online banquet seating selection will be open April 18-25. Ticketed attendees who have not secured a seat for the banquet in advance must sign up for a seat on site. Online banquet seating is for registered attendees and their registered companions only. APSA encourages all registered attendees to take advantage of this advance online opportunity to select a seat early, as tables fill quickly.

Town Hall Meeting

LOCATION: Desert Ballroom 8-14
DATE: Sunday, May 6
TIME: 9:00 – 11:00 a.m.

Weigh in on APSA’s new strategic goals and the future and direction of your association and the profession.

@APSASURGEONS
#eAPSA2018
General Information

Program Book
There are a variety of ways you can get to the details you need to make the most of your time at APSA 2018:

- An electronic PDF of the Program Book will be available to attendees in advance of the meeting. You can access it from your tablet or mobile device or print out a copy to bring with you to Palm Desert.
- The meeting app is complimentary to all attendees and contains full abstracts, schedules, presenters, social media threads and more.
- During online registration only, you can order a printed copy of the Program Book which will be included in your registration materials in Palm Desert. If you didn’t order one, but wish you had, you can go back to your online annual meeting order and add it in.
- You can order a printed copy direct from Lulu.com, which you can ship to yourself and bring to the meeting. Pricing and the link to order the book will be available closer to the meeting.

Hotel Accommodations
All educational sessions will take place at the JW Marriott Desert Springs Resort & Spa.

CONFEREE HOTEL
JW Marriott Desert Springs Resort & Spa
74855 Country Club Drive
Palm Desert, California 92260 USA
Phone: +1-760-341-2211
Fax: +1-760-341-1872
Website Online reservations

The APSA 2018 Annual Meeting will be held at the JW Marriott Desert Springs Resort & Spa in Palm Desert, California, where APSA has negotiated a discounted room rate of $269 USD per night for a single or double room occupancy. Rooms and rates are based on availability and subject to state and local fees/taxes (Palm Desert occupancy taxes currently 11%, Riverside County Tourism Business Improvement District Assessment tax currently 3%, Tourism Marketing District tax, and California Tourism fee of $1.00 per room, per night, in effect at the time of check-in).

To reserve a room at the discounted rate, call the Toll-Free Reservation Center at +1-877-622-3140 and identify yourself as an APSA Annual Meeting attendee. Click here to make your reservation online.

All reservations require a first-night room deposit, or guests can guarantee reservations with a major credit card. Your credit card will not be charged prior to arrival. Make any necessary cancellations at least 48 hours before the scheduled date of arrival to avoid a cancellation charge. Discounted room rates are available three days before and three days after the meeting dates, based on availability. Hotel check-in time is 4 p.m. and check-out is 11 a.m.

Resort Fee
The usual required Resort Fee of $35.00++ will be reduced to $1.00++ per day, per room for APSA 2018 Annual Meeting attendees. Resort fee includes the following:

- Local & Long Distance Domestic Phone Calls
- Daily In-Room Enhanced Wi-Fi
- Spa Fitness Center Access
- Spa Fitness Center Class or Activity
- Self-Parking
- Mini-Golf
- Daily Golf Bag Storage
- Daily Golf Range Usage
- 1-Hour Hard Court & Racquet Rental
- All Lawn Games
- Welcome Blue Star Lounge Citrus Cooler 4-6 p.m. Daily
General Information

Packing
The JW Marriott Desert Springs Resort & Spa parking will be complimentary for APSA 2018 Annual Meeting attendees. This complimentary parking will be included in the required $1.00 Resort Fee.

Babysitting/Child Care Services
Child care is available for children ages 4-12 years. Please call for information and rates: +1-760-341-1772.

Fitness Center and Spa/Wellness Classes
The Spa at Desert Springs is conveniently located in the JW Marriott Desert Springs Resort & Spa. The Spa at Desert Springs features a vast 38,000-square-foot facility with 48 treatment rooms, salon, bistro, VIP suite, fitness facility and saltwater pool. An extensive treatment menu incorporates ancient healing methods and exotic ingredients from locally grown citrus and dates. Reservations are required. Click here to learn more about The Spa at Desert Springs and to book your reservation or call +1-800-255-0848.

APSA attendees who show their badge or mention APSA to receive 10% off regular priced treatments and 50% off a Day Pass Membership.

Golf
Hone your skills in style at the JW Marriott Desert Springs Resort & Spa’s Desert Springs Golf Club. Designed by legendary course architect Ted Robinson, the two 18-hole championship golf courses feature creative, challenging holes and a remarkably picturesque setting in Palm Desert. Click here to learn more about the Desert Springs Golf Club and reserve your tee time or call +1-760-341-1756.

Getting to the Hotel
Palm Springs International Airport (PSP) is approximately 12 miles SE from the JW Marriott Desert Springs Resort & Spa. The estimated taxi fare is $50 (one way). Visit the City of Palm Springs, California official website to view the recommended ground transportation service providers.

CAR RENTAL
Avis is the official car rental service for the APSA 2018 Annual Meeting. An advanced reservation is recommended. Use this link to receive special APSA pricing.

Attire
Attire for the general sessions is business casual. Attire for the Welcome Reception is resort casual. Attire for the President’s Banquet is business or cocktail attire (semi-formal). The average temperature in May is 95° F (35° C), and average low is 63° F (17° C), but hotels are generally cool, so bring a sweater or light jacket.

Meeting App
All meeting registrants will have access to a web-based app to help you easily plan for and navigate APSA 2018. Search the agenda, speaker profiles, the attendee roster, abstracts, social media feeds and more!

Internet
Internet service will be available in the meeting space FREE OF CHARGE. Complimentary high-speed internet will be available in all attendee guest rooms (included in required $1.00 Resort Fee).
Registration

Participation in the APSA 2018 Annual Meeting is limited to registered delegates.

Full registration for the APSA 2018 Annual Meeting includes admission to all educational sessions, exhibits, poster sessions, daily continental breakfasts, refreshment breaks, luncheons, Welcome Reception, President’s Reception and Banquet, meeting educational materials and a downloadable app.

Admission to the Pediatric Ultrasound and Essentials of Surgical Critical Care Courses is by separate registration.

APSA 2018 presenters are required to register for the meeting.

Note: Companion Program registration is now a separate transaction and is no longer part of the APSA attendee registration. Registration for the Companion Program requires creating an APSA account. Visit the APSA website for instructions. Companions and APSA meeting attendees receive 10% off regular priced treatments and 50% off a Day Pass Membership to The Spa at Desert Springs; show your badge or mention APSA.

Registering for the APSA 2018 Annual Meeting

PAYMENT

All registration forms must be accompanied by check or credit card information – VISA, MasterCard, American Express or Discover. APSA does not accept Diners Club. Make checks payable, in U.S. funds, to the American Pediatric Surgical Association. No registrations will be processed without full payment.

All meeting participants, including authors, board members and APSA officers are expected to pay the appropriate registration fee.

APSA Past Presidents receive complimentary registration. If you are an APSA Past President, please contact Brenda Howe at bhowe@eapsa.org.

Online:

Visit www.eapsa.org to register online

By Fax:

Faxed registrations qualify as paid registrations only when credit card information is included. Fax the registration form and complete credit card information to +1-847-686-2253. If you fax a registration form with credit card information, do not mail an additional copy.

By Mail:

Send payment and registration form to:

American Pediatric Surgical Association
One Parkview Place – 17W110 22nd Street, Suite 800
Oakbrook Terrace, IL 60181
### FEES

<table>
<thead>
<tr>
<th>Registration Categories</th>
<th>Through April 16 &amp; On Site</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>APSA 2018 Annual Meeting Registration</strong></td>
<td></td>
</tr>
<tr>
<td>APSA Member</td>
<td>$755 USD</td>
</tr>
<tr>
<td>Physician Nonmember</td>
<td>$855 USD</td>
</tr>
<tr>
<td>Resident/Fellow/Student*</td>
<td>$425 USD</td>
</tr>
<tr>
<td>Nurse/Allied**</td>
<td>$385 USD</td>
</tr>
<tr>
<td>APSA Past President</td>
<td>(complimentary)</td>
</tr>
<tr>
<td>Companion Full Registration***</td>
<td>$340 USD</td>
</tr>
<tr>
<td><strong>Optional Events</strong></td>
<td></td>
</tr>
<tr>
<td>Benjy Brooks Meeting</td>
<td>$75</td>
</tr>
<tr>
<td><strong>Pediatric Ultrasound Course</strong></td>
<td></td>
</tr>
<tr>
<td>APSA Member</td>
<td>$550</td>
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<tr>
<td>Nonmember</td>
<td>$650</td>
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<tr>
<td>APSA Resident Member</td>
<td>$355</td>
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<tr>
<td>Resident Nonmember</td>
<td>$425</td>
</tr>
<tr>
<td><strong>Essentials of Surgical Critical Care Course</strong></td>
<td></td>
</tr>
<tr>
<td>APSA Member</td>
<td>$400</td>
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<tr>
<td>Nonmember</td>
<td>$500</td>
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<tr>
<td>APSA Resident Member</td>
<td>$325</td>
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<tr>
<td>Resident Nonmember</td>
<td>$375</td>
</tr>
<tr>
<td><strong>Additional Tickets</strong></td>
<td></td>
</tr>
<tr>
<td>APSA Welcome Reception</td>
<td>$75</td>
</tr>
<tr>
<td>President’s Banquet</td>
<td>$150</td>
</tr>
</tbody>
</table>

* Must present a letter from your chief of service
** Registration for APSA Annual Meeting only; APSNA registration is by separate subscription
***Includes access to the accompanying person’s Hospitality Suite, the Welcome Reception and the President’s Banquet. Companion registration is now a separate transaction from the APSA attendee registration. Companions will need to create an APSA account; visit www.eapsa.org for more details.

### CONFIRMATION OF REGISTRATION

Attendees who include an e-mail address on their registration form will receive an e-mail confirmation/receipt within 24 hours of registering online. Allow up to two weeks if registering by mail or fax. If you do not receive a confirmation two weeks after registering, e-mail APSA headquarters at info@eapsa.org. All registrants must pick up their badges at the APSA Pre-Registration Desk when they arrive at the JW Marriott Desert Springs Resort & Spa.

### CANCELLATIONS AND REFUNDS

Notification of cancellation must be submitted in writing. Cancellations received by April 2, 2018, will be subject to a $75 cancellation fee. Cancellations between April 3 and April 20, 2018, will be refunded 50% of the registration fee. No refunds will be issued after April 20, 2018. Substitutions are allowed at any time, but must be submitted in writing and must be of the same member status. No telephone registrations will be accepted. Payment in U.S. dollars only.
# Schedule-at-a-Glance

## Wednesday, May 2

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>7:00 a.m. – 2:00 p.m.</td>
<td>APSA Board of Governors Meeting</td>
</tr>
<tr>
<td>2:30 p.m. – 6:30 p.m.</td>
<td>Association of Pediatric Surgery Training Program Directors Meeting</td>
</tr>
<tr>
<td>3:00 p.m. – 7:00 p.m.</td>
<td>Registration Open</td>
</tr>
<tr>
<td>3:00 p.m. – 7:00 p.m.</td>
<td>Speaker Ready Room Open</td>
</tr>
</tbody>
</table>

## Thursday, May 3 – EDUCATION DAY

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 a.m. – 7:30 a.m.</td>
<td>Committee Meetings</td>
</tr>
<tr>
<td>6:00 a.m. – 7:30 a.m.</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>6:30 a.m. – 2:00 p.m.</td>
<td>Poster Presenter Set-up</td>
</tr>
<tr>
<td>6:30 a.m. – 5:00 p.m.</td>
<td>Registration Open</td>
</tr>
<tr>
<td>6:30 a.m. – 5:00 p.m.</td>
<td>Speaker Ready Room Open</td>
</tr>
<tr>
<td>7:30 a.m. – 7:45 a.m.</td>
<td>President’s Welcome</td>
</tr>
<tr>
<td>7:45 a.m. – 10:45 a.m.</td>
<td>Education Session I: Endocrine</td>
</tr>
<tr>
<td>8:00 a.m. – 10:00 a.m.</td>
<td>Companion Hospitality Suite Open</td>
</tr>
<tr>
<td>9:00 a.m. – 2:00 p.m.</td>
<td>Exhibitor Set-up</td>
</tr>
<tr>
<td>10:45 a.m. – 11:00 a.m.</td>
<td>Refreshment Break</td>
</tr>
<tr>
<td>11:00 a.m. – Noon</td>
<td>Outcomes and Evidence-based Practice Committee Systematic Reviews: Pilonidal Disease and Surgical Review of Undescended Testes</td>
</tr>
<tr>
<td>Noon – 12:30 p.m.</td>
<td>Box Lunch Pick-up</td>
</tr>
<tr>
<td>12:30 p.m. – 2:00 p.m.</td>
<td>Case Debates and Controversies</td>
</tr>
<tr>
<td>2:00 p.m. – 4:30 p.m.</td>
<td>CONCURRENT EDUCATION SESSIONS II &amp; III</td>
</tr>
<tr>
<td></td>
<td><strong>Education Session II:</strong> Pediatric Trauma, Joint Session with APSNA; Mass Shooting in Las Vegas</td>
</tr>
<tr>
<td></td>
<td><strong>Education Session III:</strong> Current Trends in Translational, Clinical and Outcomes Research; Educational Resources Showcase</td>
</tr>
<tr>
<td>3:00 p.m. – 5:30 p.m.</td>
<td>Exhibit Hall Open</td>
</tr>
<tr>
<td>3:00 p.m. – 5:30 p.m.</td>
<td>Poster Hall Open</td>
</tr>
<tr>
<td>4:15 p.m. – 5:15 p.m.</td>
<td>Wine and Cheese Reception in the Exhibit Hall</td>
</tr>
<tr>
<td>4:45 p.m. – 6:30 p.m.</td>
<td>CONCURRENT ORAL POSTER PRESENTATIONS</td>
</tr>
<tr>
<td></td>
<td><strong>Oral Poster Presentations I:</strong> Basic Science</td>
</tr>
<tr>
<td></td>
<td><strong>Oral Poster Presentations II:</strong> Clinical Surgery</td>
</tr>
<tr>
<td>7:00 p.m. – 9:00 p.m.</td>
<td>Welcome Reception</td>
</tr>
</tbody>
</table>

## Friday, May 4

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 a.m. – 7:00 a.m.</td>
<td>Committee Meetings</td>
</tr>
<tr>
<td>6:00 a.m. – 7:00 a.m.</td>
<td>APSA Foundation Board Meeting</td>
</tr>
<tr>
<td>6:00 a.m. – 7:00 a.m.</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>6:00 a.m. – 1:00 p.m.</td>
<td>Exhibit Hall Open</td>
</tr>
</tbody>
</table>
Friday, May 4 (cont.)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 a.m. – 1:00 p.m.</td>
<td>Poster Hall Open</td>
</tr>
<tr>
<td>6:00 a.m. – 1:30 p.m.</td>
<td>Registration Open</td>
</tr>
<tr>
<td>6:00 a.m. – 1:30 p.m.</td>
<td>Speaker Ready Room Open</td>
</tr>
<tr>
<td>7:00 a.m. – 8:30 a.m.</td>
<td>Plenary Session I</td>
</tr>
<tr>
<td>8:00 a.m. – 10:00 a.m.</td>
<td>Companion Hospitality Suite Open</td>
</tr>
<tr>
<td>8:30 am. – 8:45 a.m.</td>
<td>International Lecture</td>
</tr>
<tr>
<td></td>
<td>Professor Miliard Derbew, MD, President, College of Surgeons of East, Central and Southern Africa (COSECSA)</td>
</tr>
<tr>
<td>8:45 a.m. – 9:15 a.m.</td>
<td>Jay and Margie Grosfeld Lecture</td>
</tr>
<tr>
<td></td>
<td>Paul E. Farmer, MD, PhD. Kolokotrones University Professor of Global Health and Social Medicine, Department of Global Health &amp; Social Medicine, Harvard Medical School</td>
</tr>
<tr>
<td>9:45 a.m. – 11:15 a.m.</td>
<td>CONCURRENT SCIENTIFIC SESSIONS I &amp; II</td>
</tr>
<tr>
<td></td>
<td>Scientific Session I: Necrotizing Enterocolitis, Short Gut, Congenital Diaphragmatic Hernia</td>
</tr>
<tr>
<td></td>
<td>Scientific Session II: Trauma, Appendicitis, Hernia, General Pediatric Surgery</td>
</tr>
<tr>
<td>11:30 a.m. – 12:15 p.m.</td>
<td>Presidential Address</td>
</tr>
<tr>
<td></td>
<td>Henri R. Ford, MD, MHA. Senior Vice President and Surgeon-in-Chief, Children’s Hospital Los Angeles; Vice Chair and Professor of Surgery, Vice Dean of Medical Education, Keck School of Medicine, University of Southern California</td>
</tr>
<tr>
<td>12:15 p.m. – 1:30 p.m.</td>
<td>CONCURRENT SCIENTIFIC SESSIONS III &amp; IV</td>
</tr>
<tr>
<td></td>
<td>Scientific Session III: Fetal, Transplant, Basic Science</td>
</tr>
<tr>
<td></td>
<td>Scientific Session IV: Anorectal Malformations, IBD, Thoracic</td>
</tr>
<tr>
<td>1:30 p.m.</td>
<td>Leisure Time</td>
</tr>
<tr>
<td>1:30 p.m. – 3:30 p.m.</td>
<td>Benjy Brooks Luncheon (pre-registration required)</td>
</tr>
<tr>
<td>2:00 p.m. – 7:00 p.m.</td>
<td>Pediatric Ultrasound Course (pre-registration required)</td>
</tr>
<tr>
<td>2:00 p.m. – 7:00 p.m.</td>
<td>Essentials of Surgical Critical Care Course (pre-registration required)</td>
</tr>
<tr>
<td>4:30 p.m. – 5:30 p.m.</td>
<td>Residents Reception</td>
</tr>
<tr>
<td>5:00 p.m. – 6:30 p.m.</td>
<td>Journal of Pediatric Surgery Reception (by invitation)</td>
</tr>
<tr>
<td>5:30 p.m. – 6:00 p.m.</td>
<td>New Member Rehearsal (by invitation)</td>
</tr>
</tbody>
</table>

Saturday, May 5

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 a.m. – 7:00 a.m.</td>
<td>Committee Meetings</td>
</tr>
<tr>
<td>6:00 a.m. – 4:00 p.m.</td>
<td>Registration Open</td>
</tr>
<tr>
<td>6:00 a.m. – 4:00 p.m.</td>
<td>Speaker Ready Room Open</td>
</tr>
<tr>
<td>6:30 a.m. – 8:00 a.m.</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>6:30 a.m. – 10:00 a.m.</td>
<td>Poster Hall Open</td>
</tr>
<tr>
<td>6:30 a.m. – 10:00 a.m.</td>
<td>Exhibit Hall Open</td>
</tr>
<tr>
<td>7:00 a.m. – 8:00 a.m.</td>
<td>Business Meeting – all are welcome</td>
</tr>
</tbody>
</table>
## Schedule-at-a-Glance

### Saturday, May 5 (cont.)

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:00 a.m. – 9:00 a.m.</td>
<td>Innovation Session</td>
</tr>
<tr>
<td>8:00 a.m. – 10:00 a.m.</td>
<td>Companion Hospitality Suite Open</td>
</tr>
<tr>
<td>9:00 a.m. – 9:45 a.m.</td>
<td>Refreshment Break</td>
</tr>
</tbody>
</table>
| 9:45 a.m. – 10:15 a.m. | Robert E. Gross Lecture  
Tracy C. Grikscheit, MD, Associate Professor of Surgery, Children’s Hospital Los Angeles, University of Southern California, Keck School of Medicine |
| 10:00 a.m.         | Exhibitor Dismantle                                                  |
| 10:15 a.m. – 11:15 a.m. | Plenary Session II                                                  |
| 11:15 a.m. – 11:30 a.m. | Health Policy & Advocacy Committee Update  
Marion C. Henry, MD, MPH, Chair  
2017 Brandeis Scholar Report  
Shawn D. St. Peter, MD |
| 11:30 a.m. – Noon  | Journal of Pediatric Surgery Lecture  
Steven Stylianos, MD, Surgeon-in-Chief, Morgan Stanley Children’s Hospital |
| Noon – 12:30 p.m.  | Box Lunch Pick-up                                                   |
| 12:30 p.m. – 1:00 p.m. | Travel Fellow Presentations                                          |
| 1:00 p.m. – 1:30 p.m. | APSA Foundation Jay Grosfeld, MD Scholars Presentation  
2016 Scholars: Helen Hsieh, MD, Elisabeth T. Tracy, MD  
2017 Scholars: Andrew J. Murphy, MD, Isam W. Nasr, MD |
| 1:30 p.m. – 1:45 p.m. | New Member Induction Ceremony                                       |
| 2:00 p.m. – 3:00 p.m. | Scientific Session V: Quality                                       |
| 3:00 p.m. – 4:00 p.m. | Scientific Session VI: Oncology                                     |
| 4:00 p.m. – 6:00 p.m. | Pediatric Surgery NaT Reception (by invitation)                      |
| 6:30 p.m. – 7:00 p.m. | President’s Reception                                               |
| 7:00 p.m. – 10:00 p.m. | President’s Banquet                                                 |

### Sunday, May 6

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>6:00 a.m. – 8:00 a.m.</td>
<td>Committee Meetings</td>
</tr>
<tr>
<td>6:30 a.m. – 7:30 a.m.</td>
<td>Continental Breakfast</td>
</tr>
<tr>
<td>7:00 a.m. – 11:00 a.m.</td>
<td>Speaker Ready Room Open</td>
</tr>
<tr>
<td>7:00 a.m. – 11:00 a.m.</td>
<td>Registration Open</td>
</tr>
<tr>
<td>7:30 a.m. – 9:00 a.m.</td>
<td>COG Update: Hepatoblastoma and Hepatocellular Carcinoma; Solid Tumor Studies Update</td>
</tr>
<tr>
<td>9:00 a.m. – 11:00 a.m.</td>
<td>Town Hall Meeting</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>Meeting Concludes</td>
</tr>
</tbody>
</table>
Program in Detail

Thursday, May 3 – EDUCATION DAY

President’s Welcome
7:30 a.m. – 7:45 a.m.
Henri R. Ford, MD, MHA

Education Session I: Endocrine
7:45 a.m. – 10:45 a.m.
APSA Education Committee
Moderator: Casey M. Calkins, MD

LEARNING OBJECTIVES
By the end of the presentation, attendees will be able to:

- Describe important changes in thyroid nodule guidelines for children
- Describe work-up and management of thyroid nodules in children
- Recognize hypoparathyroidism as a complication of thyroid surgery
  - Describe techniques to protect the parathyroid glands
  - Describe treatment strategies for post-operative hypocalcemia
- Describe the work-up and treatment of thyroid disease in a child with possible Multiple Endocrine Neoplasm (MEN) syndrome
- Describe the indications and technique for doing central and lateral neck dissections in patients with thyroid cancer
- Describe the value of an institutional pediatric thyroid tumor board
- Describe contemporary management of a child with endocrine abnormalities of the pancreas

Overview of American Thyroid Association Guidelines
Role of the Pediatric Thyroid Tumor Board
Kurt F. Heiss, MD

Work-up of the Thyroid Nodule
David H. Rothstein, MD

Avoiding Complications: Preventing Hypocalcemia, Parathyroid Reimplantation, Long-term Follow-up
Monica E. Lopez, MD

Evolving Indications and Techniques for Central and Lateral Neck Dissection
Emily R. Christison-Lagay, MD

Evaluation and Prophylactic Treatment of Pediatric Medullary Thyroid Cancer
Diana L. Diesen, MD

Surgery for Congenital Hyperinsulinism
N. Scott Adzick, MD
Program in Detail

Systematic Reviews on Pilonidal Disease and Surgical Management of Undescended Testes
11:00 a.m. – Noon

Outcomes and Evidence-based Practice Committee
Moderators: Adam B. Goldin, MD; Shawn D. St. Peter, MD

Systematic Review of Pilonidal Disease

LEARNING OBJECTIVES
By the end of the presentation, attendees will be familiar with the quality of the evidence available:

- To guide clinical decision-making in regard to the effectiveness of non-operative management and of minimally invasive procedures
- To guide clinical decision-making in regard to the effectiveness of operative management and the indications and contra-indications for various operative techniques and their potential associated complications
- In regard to the association between treatment options, patient satisfaction and quality-of-life

The “Effectiveness” of Non-operative Management in Pilonidal Disease
Julia E. Grabowski, MD

Various Operative Techniques: Indications and Contra-indications and Associated Complications
Tim Jancelewicz, MD

Pilonidal Disease Management: What Treatments Have the Best Patient Satisfaction and Quality-of-Life
Tolulope Oyetunji, MD

Systematic Review of Surgical Management of Undescended Testes

LEARNING OBJECTIVES
By the end of the presentation, attendees will be familiar with the quality of the evidence available:

- To guide clinical decision-making in regard to appropriate use and indications for pre-operative imaging
- To guide clinical decision-making in regard to the use of medical management in undescended testicle
- To guide clinical decision-making in regard to the appropriate timing of intervention and how timing is affected by the following clinical factors: laterality, palpable versus non-palpable testes, ascended/retractile testes, comorbid conditions, symptoms, and other associated findings
- To guide clinical decision-making in regard to the choice of operative technique
- In regard to describing the long-term outcomes after orchidopexy

When is Pre-operative Imaging Indicated and if so, Which Study is Most Appropriate?
Karen A. Diefenbach, MD

What is the Role of Medical Management in Undescended Testicle?
Karen A. Diefenbach, MD

What is the Appropriate Timing of Intervention and How is this Affected by the Following Clinical Factors: Laterality, Palpable v. Non-palpable Testes, Associated Findings, Comorbid Conditions, Symptoms and Ascending/retractile Testes?
Meghan A. Arnold, MD

What is the Evidence Supporting Each Type of Operative Intervention?
Robert L. Gates, MD

What are the Long-term Outcomes after Orchidopexy?
Julia S. Shelton, MD
Case Debates and Controversies
12:30 p.m. – 2:00 p.m.

**Moderators:** Carroll M. Harmon, MD, PhD; Todd A. Ponsky, MD

**Education Session II: Pediatric Trauma**
Joint Session with APSNA
2:00 p.m. – 4:30 p.m.

**APSA Trauma Committee**
**Moderators:** John K. Petty, MD; Catherine Goodhue, MN, RN, CPNP-PC

**LEARNING OBJECTIVES**
By the end of the presentation, attendees will be able to:

- Understand the definition, etiology, and epidemiology of pediatric head injuries, including non-accidental trauma
- Understand the pathophysiological changes that occur in the brain after injury in patients with mild TBI and to correlate them with clinical symptoms
- Understand the clinical features, history and physical, of a patient with mTBI
- Identify and learn clinical guidelines regarding imaging of children presenting to the ED with a head injury (PECARN, CATCH, CHALICE)
- Learn evidence-based guidelines for acute management of mTBI regarding recommended criteria for discharge, observation, and admission
- Learn how to assess and manage post concussive syndrome and its outcomes
- Learn the utility of neurocognitive testing and cognitive rehab
- Educate about timing and process of return to activity (sports and school) after a concussion
- Recognize the characteristics of pediatric cervical spine injury that differ from those of adults
- Review imaging modalities for cervical spine with special consideration of radiation exposure
- Describe current treatment of BCVI in children
- Review trauma papers that impact pediatric trauma evaluation and management
  - Recognize the need for appropriate imaging and discuss the importance of limiting unnecessary testing in children
  - Identify the key decision points in directing surgical decision making for complex blunt trauma requiring non-operative interventions
  - Distinguish the signs of child maltreatment and discuss the design of appropriate algorithms to identify injuries arising from child abuse
  - Apply current medical treatment for venous thromboembolic prophylaxis and traumatic coagulopathic conditions
  - Evaluate complex pediatric thoracoabdominal trauma patients and design patient specific treatment plans to provide optimal care for injured children

**Traumatic Brain Injury**
Mitchell R. Price, MD; Duane S. Duke, MD; Isam W. Nasr, MD

**C-spine**
Ramin Jamshidi, MD

**Blunt Cerebrovascular Injury**
Adam M. Vogel, MD
Discussion

Quick Shots/Papers that Should Change your Practice
Jose M. Prince, MD; Bindi Naik-Mathuria, MD; Robert T. Russell, MD; Catherine Goodhue, MN RN CPNP-PC

LEARNING OBJECTIVES
By the end of the presentation, attendees will be able to:
- Identify the hallmarks of pediatric trauma of the torso, including thoracic and abdominal trauma, requiring surgical management in injured children

Discussion

Mass Shooting in Las Vegas

Moderator: John K. Petty, MD

Gunshots, Invisible Wounds and the Pediatric Surgeon’s Role in the Las Vegas Mass Casualty Incident
Cristina A. Metildi, MD; Nicholas F. Fiore, Jr., MD

LEARNING OBJECTIVES
By the end of the presentation, attendees will be able to:
- Understand the timeline and triage system of the Las Vegas MCI, including the role of the Pediatric Surgeon
- Understand and anticipate the clinical “choke points” in the Las Vegas MCI
- Understand and anticipate the logistic “choke points” in the Las Vegas MCI
- Discuss the aftermath of a mass casualty incident, including crisis care, family support and psychological sequelae

Education Session III: Current Trends in Translational, Clinical and Outcomes Research
2:00 p.m. – 4:30 p.m.

Outcomes and Evidence-based Practice Committee

Moderators: Cynthia D. Downard MD, MMSc; Adam B. Goldin, MD

LEARNING OBJECTIVES
By the end of the presentation, attendees will be able to:
- Inform the APSA membership regarding current medical research techniques
- Help APSA members improve their comprehension of what questions each type of research is designed to answer
- Allow APSA members to critically appraise the current literature and allow research to inform their clinical decisions

Systematic Reviews – What are They and Why are They Important?
Robert J. Baird, MD; Robert L. Gates, MD

Survey Science – Nuisance or Useful?
Julia S. Shelton, MD; Adam B. Goldin, MD

Database Research – Big Problems, Big Solutions
Tolulope Oyetunji, MD; Marisa Bartz-Kurycki, MD

Research Collaboratives – How do They Fit Into Pediatric Surgery?
Dave R. Lal, MD

Alternate Trial Structure – Are Randomized Controlled Trials a Thing of the Past?
Regan F. Williams, MD; Tinsley Anderson, MD

Quality and Safety Research - What’s Really Best for My Patients?
Akemi L. Kawaguchi, MD; Roshni A. Dasgupta, MD
Educational Resources Showcase
Moderators: Marjorie J. Arca, MD; Steven L. Lee, MD

The Professional Development Committee: APSA's New Educational GPS
Craig W. Lillehei, MD

Maximizing the Full Potential of Pediatric Surgery NaT
David M. Powell, MD

Pediatric Surgery Self-assessment: PSSAP and its Many Forms
Charles L. Snyder, MD

Concurrent Oral Poster Presentations I: Basic Science
4:45 p.m. – 6:30 p.m.
**P6**

**INHIBITING H2S IN STEM CELLS REDUCES THEIR PROTECTIVE POWER DURING NEC THERAPY**

Natalie Drucker, MD, Jan Te Winkel, MD, Troy Markel, MD.
Riley Hospital for Children, Indianapolis, IN, USA.

**P7**

**HIGH-DOSE PLACENTAL MESENCHYMAL STROMAL CELLS PROVIDE NEURONAL PRESERVATION FOLLOWING IN UTERO TREATMENT OF OVINE MYELOMENINGOCELE**

Melissa Vanover, MD, Sandra Kabagambe, MD, Christopher Pivetti, MS, Lee Lankford, MA, Priyadarshini Kumar, PhD, Y. Julia Chen, MD, Benjamin Keller, MD, James Becker, MD, Chelsey Lee, BS, Zachary Paxton, BS, Laura Galganski, MD, Laura Goodman, MD, MPH, Guy Jensen, MD, MPH, Aijun Wang, PhD, Diana Farmer, MD.
University of California, Davis, Sacramento, CA, USA.

**P8**

**MESENCHYMAL STROMAL CELLS ISOLATED FROM PLACENTA OF FETUS WITH SPINA BIFIDA PROVIDE NEUROPROTECTION IN VITRO**

Melissa Vanover, MD, Priyadarshini Kumar, PhD, Lee Lankford, MA, Y. Julia Chen, MD, Diana Farmer, MD, Aijun Wang, PhD.
University of California, Davis, Sacramento, CA, USA.

**P9**

**POSTISCHEMIC IL6 THERAPY IMPROVES INTESTINAL PERFUSION AND LIMITS MUCOSAL INJURY**

Jan Te Winkel, MD, Natalie Drucker, MD, Troy Markel, MD.
Riley Hospital for Children, Indianapolis, IN, USA.

**P10**

**ACTIVATION OF PROTEIN PHOSPHATASE 2A INHIBITS HEPATOBLASTOMA TUMORIGENICITY**

Laura L. Stafman, MD, Adele P. Williams, MD, Jamie M. Aye, MD, Jerry Stewart, BS, Elizabeth A. Beierle, MD.
University of Alabama at Birmingham, Birmingham, AL, USA.

**P11**

**HDAC INHIBITION ENHANCES ANTI-TUMOR EFFECTS OF NOVEL REXINOIDS**

Adele P. Williams, MD, Laura L. Stafman, MD, Jamie M. Aye, MD, Venkatram Afigadda, PhD, Jerry Stewart, BA, Donald Muccio, PhD, Clinton Grubbs, PhD, Elizabeth A. Beierle, MD.
University of Alabama at Birmingham, Birmingham, AL, USA.

**P12**

**NOTCH ACTIVATION IN ENDOTHELIAL CELLS BY THE S. AUREUS TOXIN HLA CIRCUMVENTS TRANSCRIPTION OF CANONICAL DOWNSTREAM TARGETS**

Naina Bagrodia, MD1, Ann Defnet, MD2, Mildred Nelson, BS3, Jared Emolo, MD1, Lydia Wu4, Juliane Bubeck-Wardenburg, MD, PhD4, Sonia Hernandez, PhD4, Jessica Kandel, MD4.
1University of Iowa Hospitals and Clinics, Iowa City, IA, USA, 2New York University, New York, NY, USA, 3University of Chicago Medicine, Chicago, IL, USA, 4University of Chicago, Chicago, IL, USA.

**P13**

**FXR IS IMPORTANT FOR DECREASED HEPATIC STEATOSIS AFTER SLEEVE GASTRECTOMY IN DIET-INDUCED OBESE MICE**

Monica D. Chow, MD1, Andrew M. Wassel, BA1, Bo Kong, PhD2, Jianliang Shen, MS5, Laura E. Armstrong, PhD6, Justin D. Schumacher, PharmD6, Dan Rizzolo, BS6, Mingxing Huang, MD1, Min Zhang, MD1, Ragui W. Sadek, MD6, Chen Liu, MD, PhD2, Grace L. Guo, MBBBS, PhD2, Yi-Horng Lee, MD1.
1Rutgers-Robert Wood Johnson Medical School, New Brunswick, NJ, USA, 2Department of Pharmacology and Toxicology, Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ, USA, 3Fifth Affiliated Hospital of Sun-Yat Sen University, Zhuhai, China, 4Center of Children’s Liver Disease, 302 Hospital of PLA, Beijing, China, 5Rutgers-New Jersey Medical School, Newark, NJ, USA.
Program in Detail

P14
NITRIC OXIDE IS RESPONSIBLE FOR INTESTINAL DYSMOTILITY IN NECROTIZINGENTEROCOLITIS
Shogo Seo, MD, Hiromu Miyake, MD, Bo Li, PhD, Carol Lee, MSc, Jaques Belik, MD, Agostino Pierro, MD.
SickKids Hospital, Toronto, ON, Canada.

P15
NOVEL ENTEROID MODEL OF NECROTIZING ENTEROCOLITIS DEMONSTRATES CHANGES IN CLAUDIN 2
Guillermo J. Ares, MD, Christie Buonpane, MD, Carrie Yuan, BS, Doug Wood, BS, Catherine J. Hunter, MD.
1University of Illinois at Chicago, Chicago, IL, USA, 2Ann & Robert H. Lurie Children’s Hospital, Chicago, IL, USA, 3Northwestern University, Chicago, IL, USA.

P16
cGAS DOWNREGULATION IS ASSOCIATED WITH MURINE COLITIS AND HUMAN INFLAMMATORY BOWEL DISEASE
Vei Shaun Siow, MD, Elizabeth Novak, PhD, Garrett Vincent, BS, Kellie Cunningham, MD, Kevin Mollen, MD.
1University of Pittsburgh Medical Center, Pittsburgh, PA, USA, 2Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA, USA.

P17
DEVELOPMENT OF HUMAN ORGANOID MODELS FOR PEDIATRIC LIVER CANCER
James A. Saltsman, MD, MPH, William J. Hammond, MD, MS, Gadi Lalazar, MD, Nicole Croteau, MD, Michael P. La Quaglia, MD, Sanford M. Simon, PhD.
1Memorial Sloan Kettering Cancer Center, New York, NY, USA, 2Rockefeller University, New York, NY, USA.

P18
GENE EXPRESSION VARIATION IN PRIMARY TUMORS AND METASTATIC LESIONS IN FIBROLAMELLAR HEPATOCELLULAR CARCINOMA
James A. Saltsman, MD, MPH, David Requena, MS, Gadi Lalazar, MD, William J. Hammond, MD, MS, Nicole J. Croteau, MD, Michael P. La Quaglia, MD, Sanford M. Simon, PhD.
1Memorial Sloan Kettering Cancer Center, New York, NY, USA, 2Rockefeller University, New York, NY, USA.

P19
MORPHINE IMPAIRS TIGHT JUNCTION BARRIER FUNCTION IN-VITRO THROUGH PHOSPHORYLATION AND DISRUPTION OF OCCLUDIN
Lei Zhang, PhD, Bradley J. Segura, MD, PhD.
University of Minnesota Masonic Children’s Hospital, Minneapolis, MN, USA.

P20
DIFFERENTIAL RESPONSE TO PROMININ-1 HEPATIC PROGENITOR CELLULAR ABLATION IN ADULT MICE COMPARED TO NEWBORN DURING CHOLESTATIC LIVER INJURY
Michael R. Fenlon, MD, Jiabo Xu, MS, Kinji Asahina, PhD, Kasper S. Wang, MD.
1Children’s Hospital Los Angeles, Los Angeles, CA, USA, 2University of Southern California, Los Angeles, CA, USA.

P21
THE ANGIOGENIC EFFECT OF GRANULOCYTE COLONY-STIMULATING FACTOR IN METASTATIC NEUROBLASTOMA
Wesley E. Barry, MD, Grace Asuelime, MA, Larry Wang, MD, PhD, Eugene S. Kim, MD.
USC; CHLA, Los Angeles, CA, USA.
Concurrent Oral Poster Presentations II: Clinical Surgery
4:45 p.m. – 6:30 p.m.

**P22**
SCREENING LABORATORY TESTING IN ASYMPTOMATIC MINOR PEDIATRIC BLUNT TRAUMA LEADS TO UNNECESSARY NEEDLE STICKS
Faidah O. Badru, MD, MPH, Saurabh Saxena, MD, Hector Osei, MD, David Starr, MS, Perry Xu, MS, Robert Breeden, MS, Jose Greenspon, MD, Colleen Fitzpatrick, MD, Gustavo Villalona, MD, Kaveer Chatoorgoon, MD.
1Cardinal Glennon Memorial Children's Hospital, St Louis University Hospital, St Louis, MO, USA, 2Cardinal Glennon Memorial Children's Hospital, St Louis, MO, USA, 3Cardinal Glennon Memorial Children’s Hospital, St Louis University Hospital, St Louis, MO, USA.

**P23**
TWENTY YEARS OF PEDIATRIC GUNSHOT WOUNDS IN OUR COMMUNITY: HAVE WE MADE A DIFFERENCE?
Lilly Bayouth, MD, Katryne Lukens-Bull, MPH, Lori A. Gurien, MD, Joseph J. Tepas III, MD, Marie Crandall, MD.
University of Florida Health Shands Jacksonville, Jacksonville, FL, USA.

**P24**
ENTERAL NUTRITION IN NEONATES WITH CONGENITAL DIAPHRAGMATIC HERNIA ON VA ECMO: SAFE AND FEASIBLE
Lindsey B. Armstrong, MD, Katelyn Ariagno, RD, Nilesh M. Mehta, MD.
Boston Children’s Hospital, Boston, MA, USA.

**P25**
TIMING FOR REPAIR OF CONGENITAL DIAPHRAGMATIC HERNIA IN INFANTS REQUIRING EXTRACORPOREAL MEMBRANE OXYGENATION
Ali Mokdad, MD, Faisal G. Qureshi, MD, MBA.
UTSW, Dallas, TX, USA.

**P26**
CLINICAL AND PATHOLOGIC CHARACTERISTICS OF PEDIATRIC GASTROINTESTINAL STROMAL TUMORS USING THE NATIONAL CANCER DATABASE
Christopher R. Reed, MD, Harold J. Leraas, MA, Brian Ezekian, MD, Ultrara Nag, MD, Henry Rice, MD, Tamara Fitzgerald, MD, PhD, Elisabeth Tracy, MD.
1Duke University Medical Center, Durham, NC, USA, 2Duke University School of Medicine, Durham, NC, USA.

**P27**
ILEAL POUCH-ANAL ANASTOMOSIS IN PEDIATRIC NSQIP: DOES A LAPAROSCOPIC APPROACH REDUCE COMPLICATIONS AND LENGTH OF STAY?
Nicholas P. McKenna, MD, Donald D. Potter, MD, Katherine A. Bews, BS, Amy E. Glasgow, MHA, Kellie L. Mathis, MD, Elizabeth H. Habermann, PhD.
Mayo Clinic, Rochester, MN, USA.

**P28**
CLINICAL OUTCOMES ASSOCIATED WITH PERITONEAL CONTAMINATION IN PERFORATED APPENDICITIS: A CASE FOR INTRAOPERATIVE SCORING
Ruth Ellen Jones, MD, James S. Davis, MD, Lorie Burkharter, MPH, Robert Foglia, MD.
1University of Texas Southwestern Medical Center, Dallas, TX, USA, 2Children’s Health, Dallas, TX, USA.

**P29**
CESAREAN SECTION WITH EXTRACORPOREAL MEMBRANE OXYGENATION STANDBY AS AN ALTERNATIVE TO EX UTERO INTRAPARTUM TREATMENT FOR HIGH RISK CONGENITAL DIAPHRAGMATIC HERNIA
Sarah A. Hilton, MD, MS, Scott Deeney, MD, Lindel C. Dewberry, MD, Maggie M. Hodges, MD, MPH, Jason Gien, MD, John Kinsella, MD, Ahmed I. Marwan, MD, Timothy M. Crombleholme, MD, Kenneth W. Liechty, MD.
1University of Colorado, Aurora, CO, USA, 2Children’s Hospital Colorado, Aurora, CO, USA.
P30
CLOSING GASTROSCHISIS: THE GOOD, BAD AND THE NOT-SO UGLY
Erin E. Perrone, MD, Jacob Olson, MD, Jamie Golden, MD, Gail E. Beiner, MD, Christopher Gayer, MD, Saleem Islam, MD, Gerald Gollin, MD.
1University of Michigan, C.S. Mott Children’s Hospital, Ann Arbor, MI, USA, 2Nationwide Children’s Hospital, Columbus, OH, USA, 3Children’s Hospital of Los Angeles, Los Angeles, CA, USA, 4University of Florida, Gainesville, FL, USA, 5Rady’s Children’s Hospital, San Diego, CA, USA.

P31
THE EFFICIENCY OF A FAMILY-CENTERED APPROACH TO PEDIATRIC INDUCTION OF ANESTHESIA
Natalie C. Luehmann, MD, Michelle E. Staubach, BA, Phillip J. Collier, MD, Richard E. Han, MD, Nathan M. Novotny, MD.
Beaumont Hospital, Royal Oak, MI, USA.

P32
A NOVEL NON-INVASIVE APPENDICITIS SCORE WITH A URINE BIOMARKER
Te-Lu Yap, MBBS, Jingdan Fan, BSc, Candy SC Choo, BA, Yong Chen, MBBS, MRCS, PhD, John C. Allen, MSc, PhD, Meng Fatt Ho, PhD, Yee Low, MBBS, Anette S. Jacobsen, MB, Shireen A. Nia, MBBS, MRCS, MS.
1KK Women’s and Children’s Hospital, Singapore, Singapore, 2National Dental Centre, Singapore, Singapore, 3Duke-NUS Medical School, Centre for Quantitative Medicine, Singapore, Singapore.

P33
IMPACT OF DISEASE-SPECIFIC VOLUME AND HOSPITAL TRANSFER ON OUTCOMES IN GASTROSCHISIS
Charles R. Hong, MD, Brenna S. Fullerton, MD, Minsuk Han, MD, Kate A. Morrow, MS, Erika M. Edwards, PhD, MPH, Roger F. Soll, MD, Tom Jaksic, MD, PhD, Jeffrey D. Horbar, MD, Biren P. Modi, MD, MPH.
1Boston Children’s Hospital and Harvard Medical School, Boston, MA, USA, 2Vermont Oxford Network, Burlington, VT, USA, 3University of Vermont and Vermont Oxford Network, Burlington, VT, USA.

P34
PROSPECTIVE LONG-TERM CLINICAL AND QUALITY OF LIFE OUTCOMES IN PEDIATRIC FECAL INCONTINENCE FOLLOWING BOWEL MANAGEMENT
Melody R.S. Threlkeld, MD, Christopher C. Cushing, PhD, Todd Jenkins, PhD, Monica Holder, RN, Misty Trouftt, MS, Beth Rymeski, DO, Monir Hassain, PhD, Michael Helmrath, MD, Jason S. Frischer, MD.
1Cincinnati Children’s Colorectal Center for Children, Cincinnati, OH, USA, 2Clinical Child Psychology Program, University of Kansas, Lawrence, KS, USA.

P35
NON-OPERATIVE MANAGEMENT OF EXTRALOBAR PULMONARY SEQUESTRATIONS: A SAFE ALTERNATIVE TO RESECTION?
Victoria K. Robson, BA, Hester F. Shieh, MD, Jay M. Wilson, MD, Terry L. Buchmiller, MD.
Boston Children’s Hospital, Boston, MA, USA.

P36
EARLY VS LATE POSTNATAL RESECTION IN CONGENITAL LUNG MALFORMATIONS
Candace C. Style, MD, Darrell L. Cass, MD, Patricio E. Lau, MD, Stephanie M. Cruz, MD, Mariatu A. Verla, MD, Timothy C. Lee, MD, Caraciolo J. Fernandez, MD, Sundeep G. Keswani, MD, Oluyinka O. Olutoye, MD, PhD.
1Baylor College of Medicine, Houston, TX, USA, 2Cleveland Clinic, Cleveland, OH, USA.

P37
LAPAROSCOPIC VERSUS OPEN INGUINAL HERNIA REPAIR IN NEONATES UNDER SPINAL ANESTHESIA
Katharine R. Bittner, MD, Briana Leung, MD, Ya Zhou, MD, Donald Schwartz, MD, Gregory Banever, MD, David Tashjian, MD, Kevin Mariarty, MD, Michael Trabassil, MD.
1Baystate Medical Center, Springfield, MA, USA, 2Baystate Children’s Hospital, Springfield, MA, USA.
P38
DELAYED REDUCTION OF OMPHALOCELE WITH PROSTHESIS: AN APPROACH TO SINGLE-STAGED REPAIR OF GIANT DEFECTS
Alessandra Landmann, MD, Kelly Simmons, PT, Alejandro Ruiz-Elizalde, MD.
University of Oklahoma Health Sciences Center, Oklahoma City, OK, USA.

P39
A POPULATION-BASED ANALYSIS OF PEDIATRIC BREAST CANCER
Maggie L. Westfall, MD, MPH, David C. Chang, MPH, MBA, PhD, Cassandra M. Kelleher, MD.
Massachusetts General Hospital, Boston, MA, USA.

P40
SURGERY RESIDENTS AND FAMILY DYNAMICS: ARE OUR TRAINEES EQUIPPED TO HANDLE PATIENT CARE BEYOND THE DISEASE?
Victoria K. Pepper, MD,1 Anul S. Thirumoothri, MD,1 Jacob K. Olson, MD1, Tabitha Crane, MD,1 Amanda Munoz, MD1, Rosemary Vannix, MSN1, Donald Moores, MD1, Joanne E. Baerg, MD1, Barbara Couden Hernandez, PhD1, Edward P. Tagge, MD1.
1Loma Linda University Children’s Hospital, Loma Linda, CA, USA, 2University of Michigan Medical Center, Ann Arbor, MI, USA, 3Loma Linda University Medical Center, Loma Linda, CA, USA, 4Loma Linda University School of Medicine, Loma Linda, CA, USA.

P41
OUTCOMES AND COST OF APPENDECTOMY AT RURAL HOSPITALS
Cynthia Tom, MD1, Howard Jen, MD, MS2, Shant Shekherdian, MD, MPH1, Daniel DeUgarte, MD, MS2, Scott Friedlander, MS2, Rie Sakai, PhD3, Steven L. Lee, MD2, 1Cynthia Tom, Torrance, CA, USA, 2UCLA, Los Angeles, CA, USA, 3Harbor-UCLA Medical Center, Torrance, CA, USA.

P42
DOES AN ENHANCED RECOVERY PATHWAY RESULT IN IMPROVED OUTCOMES FOLLOWING ILEO-POUCH ANAL ANASTOMOSIS IN CHILDREN WITH FAMILIAL ADENOMATOUS POLYPOSIS?
David T. Schindel, MD, Nora Bismar, BS.
University of Texas Southwestern Medical Center, Dallas, TX, USA.

Display-only Posters

P43
SHORT BOWEL MUCOSAL MORPHOLOGY, PROLIFERATION AND INFLAMMATION AT FIRST AND REPEAT STEP PROCEDURES
Annikka Mutanen, MD, PhD1, Meredith Barret, MD2, Yongjia Feng, PhD2, Jouko Lohi, MD, PhD2, Raja Rabah, MD1, Daniel H. Teitelbaum, MD, PhD2, Mikko M. Pakarinen, MD, PhD1.
1Children’s Hospital, Helsinki University Central Hospital, Helsinki, Finland, 2Department of Surgery, Section of General Surgery, University of Michigan, Ann Arbor, MI, USA, 3Department of Pathology, HUSLAB, Helsinki University Central Hospital, University of Helsinki, Helsinki, Finland.

P44
LOWER EXTREMITY AND PELVIC IMMOBILIZATION OF THE BLADDER AND ABDOMINAL CLOSURE IN CLOACAL EXSTROPHY: AN INSTITUTIONAL STUDY OF TWO MAINSTAY TECHNIQUES
Kari Benz, BA, Timothy Baumgartner, MD, John Jayman, BA, Mahir Maruf, MD, Matthew Kasprzki, MD, Daniel Friedlander, MD, Heather DiCarlo, MD, Paul Sponseller, MD, John Gearhart, MD.
Johns Hopkins, Baltimore, MD, USA.

P45
SAFESTART: MAKING THE SURGICAL TIMEOUT AN INTERACTIVE PATIENT- AND FAMILY-BASED EXPERIENCE FROM THE CLINIC THROUGH PEEP INTO THE OPERATING ROOM
Richard H. Pearl, MD, Joseph Esparraz, MD, Breanna Eiger, BS, Robert Jennetten, MS, Ryan T. Nierstedt, BS, Charles J. Aprahamian, MD.
1University of Illinois College of Medicine at Peoria/Children’s Hospital of Illinois/JUMP Trading Simulation and Education Center, Peoria, IL, USA, 2University of Illinois College of Medicine at Peoria, Peoria, IL, USA, 3JUMP Trading Simulation and Education Center, Peoria, IL, USA, 4University of Illinois College of Medicine at Peoria/Children’s Hospital of Illinois, Peoria, IL, USA.
P46

BLOOD TRANSFUSION IN THE BLADDER CLOSURE OF CLOACAL EXSTROPHY: AN INSTITUTIONAL STUDY
Karl Benz, BA, John Jayman, BA, Mahir Maruf, MD, Matthew Kasprenski, MD, John Gearhart, MD,
Johns Hopkins, Baltimore, MD, USA.

P47

SPONTANEOUS INTESTINAL PERFORATION: A MULTICENTER RETROSPECTIVE COMPARISON OF OUTCOMES BETWEEN PRIMARY PERITONEAL DRAIN VERSUS PRIMARY LAPAROTOMY WITH STOMA AND EVALUATION OF FACTORS ASSOCIATED WITH PRIMARY PERITONEAL DRAIN FAILURE
Samantha L. Ahle, MD1, Saurabh Saxena, MD2, Faidah Badru, MD, MPH3, Salim Muñoz, MD4, Rachelle Damle, MD, MPH5, Hector Osei, MD5, Amina Bathia, MD6, Kayeer Chatoorgoon, MD7, Cindy Gingalewski, MD7, Jose Greenspon, MD8, Nicholas Hamilton, MD9, Colleen Fitzpatrick, MD10, David Stitelman, MD11, Marya Strand, MD12, Gustavo A. Villalona, MD12.
1Yale University School of Medicine/Yale-New Haven Hospital, New Haven, CT, USA, 2Saint Louis University/Cardinal Glennon Children’s Medical Center, St. Louis, MO, USA, 3Children’s Healthcare of Atlanta, Atlanta, GA, USA, 4Oregon Health and Science University, Portland, OR, USA.

P48

CORRECTION OF TRACHEOBRONCHOMALACIA MAY FACILITATE REMOVAL OF TRACHEOSTOMY
Wendy Jo Svetanoff, MD, Sigrid Baidoin, MD, Sukgi Choi, MD, Reza Rahbar, DMD, MD, Gary Visner, DO, Leah Frain, NP, Gallagher Dorothy, RN, Thomas Hamilton, MD, C Jason Smithers, MD, Russell Jennings, MD.
Boston Children’s Hospital, Boston, MA, USA.

P49

DOWNREGULATION OF OCCLUDIN PROTEIN IN NECROTIZING ENTEROCOLITIS IS ASSOCIATED WITH ALTERED EXPRESSION OF MICRORNA-21
Christie Buonpane, MD1, Guillermo Ares, MD1, John Sincavage, BS2, Carrie Yuan, BS3, Doug Wood, BS2, Catherine Hunter, MD1.
1Ann and Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, USA, 2Feinberg School of Medicine, Northwestern University, Chicago, IL, USA.

P50

PEDIATRIC DOG BITE MANAGEMENT OUTCOMES: INFECTIONS AND SCARS
Benjamin L. Drumright, BS1, Breanna A. Borg, BS5, Ariene A. Rozelle, MD5, Lydia J. Donoghue, MD5, Christina M. Shanti, MD5.
1Wayne State University School of Medicine, Detroit, MI, USA, 2Children’s Hospital of Michigan, Detroit, MI, USA.

P51

STERISTRIP VS SUBCUTICULAR CLOSURE IN PAEDIATRIC GROIN WOUNDS: A RANDOMIZED CLINICAL TRIAL
Oluwaseun A. Ladipo-Ajayi, MBChB1, Taiwo A. Lawal, MBBS, MSC2, Olukayode O. Ogundoyin, MBBS, Tolulope A. Oyetunji, MD, MPH3.
1Lagos University Teaching Hospital, Lagos, Nigeria, 2University College Hospital, Ibadan, Nigeria, 3University College Hospital, Ibadan, Nigeria, 4Children’s Mercy Kansas City, Kansas City, KS, USA.

P52

THE KOTTMEIER PROCEDURE: A 38-YEAR FOLLOW UP IN A FEMALE PATIENT TREATED FOR ULTRA-LONG SEGMENT HIRSCHSPRUNG’S DISEASE
Benjamin T. Many, MD, Kaylene Barrera, MD, Francisca T. Velcek, MD.
SUNY Downstate, Brooklyn, NY, USA.

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WITHDRAWN
P54
WHO WAS THE FIRST WOMAN PEDIATRIC SURGEON IN THE UNITED STATES?
Megan T. Vu, MD, Elizabeth D. Anderson, BA, Kelly P. Schultz, BA, Marion C. Henny, MD, MPH, Sara Fallon, MD, Mary L. Brandt, MD.
1Baylor College of Medicine, Houston, TX, USA, 2Naval Medical Center San Diego, San Diego, CA, USA.

P55
WILM’S TUMOR AND COMPLETE AORTOCAVAL LYMPH NODE DISSECTION: EFFICACY AND SAFETY
Katherine Dudley, BS, Jiri Bednicek, MD, Peter Abasolo, MD, Travis Kruse, MD, Elizabeth Lyden, MS, Shahab Abdessalam, MD.
1Children’s Hospital and Medical Center, Omaha, NE, USA, 2University of Nebraska Medical Center, Omaha, NE, USA.

P56
ETHNIC MINORITIES TEND TO STAY IN THE HOSPITAL LONGER AFTER APPENDECTOMY FOR NON-COMPLICATED APPENDICITIS
Olivia Cheng, BS, Sathyaaprasad Bujonrappa, MD, MS.
1Stony Brook University, Stony Brook, NY, USA, 2Montefiore Medical Center, Bronx, NY, USA.

P57
LAPAROSCOPY VERSUS MINI-LAPAROTOMY PERITONEAL CATHETER INSERTION OF VENTRICULOOPERITONEAL SHUNTS: A SINGLE-CENTRE COHORT ANALYSIS OF 210 CONSECUTIVE PEDIATRIC PATIENTS
Aodhnait S. Fahy, MD, PhD, Stephanie Tung, MD, Maria Lamberti-Pasculli, RN, James Drake, BSE, MBBCh, MSc, Abhaya Kulkami, MD, PhD, Justin T. Gerstle, MD.
The Hospital for Sick Children, Toronto, ON, Canada.

Friday, May 4
Plenary Session I
7:00 a.m. – 8:30 a.m.

1
GROWING LIVERS IN LYMPH NODES: EX VIVO GENE THERAPY AND ECTOPIC HEPATOCYTE TRANSPLANTATION FOR THE TREATMENT OF METABOLIC LIVER DISEASE IN A LARGE ANIMAL MODEL
Clara T. Nicolas, MD, Raymond D. Hickey, PhD, Kan L. Allen, BS, Zeji Du, PhD, Rebekah M. Guthman, BS, Robert A. Kaiser, PhD, Bruce Amiot, BS, Huakie Jiang, PhD, Brad A. Feilt, MD, PhD, Timothy R. DeGrado, PhD, Scott L. Nyberg, MD, PhD, Eric Lagasse, PharmD, PhD, Joseph B. Lillegard, MD, PhD.
1Mayo Clinic, Rochester, MN, USA, 2Midwest Fetal Care Center, Children’s Hospitals and Clinics of Minnesota / Mayo Clinic, Minneapolis / Rochester, MN, USA, 3Midwest Fetal Care Center, Children’s Hospitals and Clinics of Minnesota, Minneapolis, MN, USA, 4McGowan Institute for Regenerative Medicine, University of Pittsburgh Medical Center, Pittsburgh, PA, USA.

2
IMPROVED CONTEMPORARY OUTCOMES OF LIVER TRANSPLANTATION FOR PEDIATRIC HEPATIC MALIGNANCIES
Brian Ezekian, MD, Michael S. Mulvihill, MD, Brian F. Gilmore, MD, Harold J. Leraas, MHS, MA, Paul M. Schroder, MD, PhD, Sarah Jane Commander, MD, Stuart J. Knechtle, MD, Elisabeth T. Tracy, MD, Andrew S. Barbas, MD.
1Duke University Medical Center, Durham, NC, USA, 2Duke University School of Medicine, Durham, NC, USA.

3
LONG-TERM FOLLOW UP OF BLOOD PRESSURE IN BLUNT RENAL INJURY
Justin A. Sobrino, MD, Joseph Sujka, MD, Richard Sola Jr, MD, Douglas L. Blowey, MD, Kathleen D. Graziano, MD, David M. Notrica, MD, Shawn D. St.Peter, MD.
1Children’s Mercy Kansas City, Kansas City, MO, USA, 2Phoenix Children’s Hospital, Phoenix, AZ, USA.
NEPHRON SPARING SURGERY AND OUTCOMES OF BILATERALLY-PREDISPOSED UNILATERAL WILMS TUMORS. A REPORT FROM THE CHILDREN'S ONCOLOGY GROUP STUDY AREN0534

Peter F. Ehrlich, MD1, Murati M. Chintagumpala, MD2, Yuen-Yun Chi, PhD1, Fredric A. Hoffer, MD3, Elizabeth J. Perlman, MD3, John A. Kalapurakal, MD4, Anne Warwick, MD5, Robert C. Shamberger, MD6, Geetika Khanna, MD7, Tom E. Hamilton, MD8, Ken Gow, MD9, Richard Glick, MD10, Arnold Paulino, MD11, Eric Grattas, MD12, Elizabeth A. Mullen, MD13, James I. Geller, MD13, Paul Grundy, MD14, Conrad V. Fernandez, MD15, Jeff S. Dome, MD16.

1University of Michigan, Ann Arbor, MI, USA, 2Texas Children’s Hospital, Houston, TX, USA, 3COG Data Center, Gainesville, FL, USA, 4University of Washington, Seattle, WA, USA, 5Lurie Children’s Hospital, Chicago, IL, USA, 6Northwestern University, Chicago, IL, USA, 7Walter Reed, Washington, DC, USA, 8Boston Children’s Hospital, Boston, MA, USA, 9Barnes Hospital, St. Louis, MO, USA, 10Cohen Children’s Hospital, Hyde Park, NY, USA, 11MD Anderson, Houston, TX, USA, 12Children’s Oncology Group, Philadelphia, PA, USA, 13Cincinnati Children’s Hospital, Cincinnati, OH, USA, 14Alberta Children’s Hospital, Edmonton, AB, Canada, 15IWK Children’s Hospital, Halifax, NS, Canada, 16Children’s National Medical Center, Washington, DC, USA.

SURGERY ACCELERATES THE DEVELOPMENT OF PULMONARY METASTASES IN A MOUSE MODEL OF OSTEOSARCOMA AND IS ATTENUATED BY PERIOPERATIVE TREATMENT WITH GEFITINIB

Caroline Maloney, MD1, Michelle Kallis, MD2, Morris C. Edelman, MD1, Marc Symons, PhD3, Bettie M. Steinberg, PhD2, Samuel Z. Soffer, MD4.

1Hofstra Northwell Cohen Children’s Medical Center, Manhasset, NY, USA, 2Feinstein Institute for Medical Research, Manhasset, NY, USA.

INTRA-AMNIOTIC INJECTION OF ALGINATE MICROPARTICLES LOADED WITH BASIC FIBROBLAST GROWTH FACTOR RESULTS IN PARTIAL SOFT TISSUE COVERAGE OF THE SPINAL DEFECT IN A RAT MYELOMENINGOCELE MODEL

James S. Farrelly, MD, MHS1, Anthony Bianchi, MS2, Gina Buzzelli, BS2, Adele Ricciardi, MPhil, MS1, Samantha Ahle, MD3, Valerie Luks, BS1, W. Mark Saltzman, PhD2, David H. Stitelman, MD1.

1Yale University School of Medicine, New Haven, CT, USA, 2Feinstein Institute for Medical Research, Manhasset, NY, USA.

TELEMEDICAL FOLLOW-UP IN PEDIATRIC SURGERY - A PROSPECTIVE RANDOMIZED TRIAL

Jan Goedeke, MD, Alexandra Ertl, MS, Daniela Zoeller, MSc, Stephan Rohleder, MD, Oliver J. Muensterer, MD, PhD.

University Medicine Mainz, Mainz, Germany.

HALOFUGINONE DOWN-REGULATES MYCN PROTEIN AND SUPPRESSES NEUROBLASTOMA TUMOR GROWTH

Jasmine Zeki, BS1, Jeannine Coburn, PhD2, Kimberly Omell, BS3, Jamie Harris, MD1, Hironuki Shimada, MD, PhD1, Naohiko Ikegaki, PhD4, Bill Chiu, MD1.

1University of Illinois Chicago, Chicago, IL, USA, 2Worcester Polytechnic Institute, Worcester, MA, USA, 3Rush University Medical Center, Chicago, IL, USA, 4Children’s Hospital Los Angeles, Los Angeles, CA, USA.

THE EXTRA-UTERINE ENVIRONMENT FOR NEONATAL DEVELOPMENT SUPPORTS NORMAL INTESTINAL MATURATION AND DEVELOPMENT

Heron D. Baumgarten, MD, MPH, Avery Rossidis, MD, Christina Wright, BA, Kendall M. Lawrence, MD, Ali Mejaddam, MD, Patrick E. McGovern, MD, Aimee G. Kim, MD, Antoneta Radu, MSc, Haiying Li, BS, William Peranteau, MD, Marcus G. Davey, PhD, Robert O. Heuckeroth, MD, PhD, Alan W. Flake, MD.

Children’s Hospital of Philadelphia, Philadelphia, PA, USA.

SURGICAL TREATMENT OF CONGENITAL HYPERINSULINISM: RESULTS FROM 467 PANCREATECTOMIES IN NEONATES AND CHILDREN

Scott Adzick, MD1, Diva De Leon, MD, Lisa J. States, MD, Katherine Lord, MD, Tricia R. Bhatti, MD, Susan A. Becker, RN, Charles A. Stanley, MD, Children’s Hospital of Philadelphia, Philadelphia, PA, USA.
11
CONGENITAL DIAPHRAGMATIC HERNIA REPAIR IN PATIENTS ON EXTRACORPOREAL MEMBRANE OXYGENATION: HOW EARLY CAN WE REPAIR?
Ian C. Glenn, MD1, Sophia Abdulhai, MD1, Pamela A. Lally, MD2, Avraham Schlager, MD1.
1Akron Children’s Hospital, Akron, OH, USA, 2The University of Texas McGovern Medical School, Department of Pediatric Surgery; Children’s Memorial Hermann Hospital, Houston, TX, USA.

International Lecture
8:30 a.m. – 8:45 a.m.
Miliard Derbew, MD
President, College of Surgeons of East, Central and Southern Africa; Professor of Pediatric Surgery, Addis Ababa University, Ethiopia

Jay and Margie Grosfeld Lecture
8:45 a.m. – 9:15 a.m.
Paul E. Farmer, MD, PhD
Kolokotrones University Professor of Global Health and Social Medicine, Department of Global Health & Social Medicine, Harvard Medical School

Concurrent Scientific Session I: Necrotizing Enterocolitis, Short Gut, Congenital Diaphragmatic Hernia
9:45 a.m. – 11:15 a.m.

12
LIPOCALIN-2 INCREASES INFLAMMATION AND DECREASES ADAPTATION IN SHORT BOWEL SYNDROME
Ailan Zhang, MD, PhD, Menghan Wang, MS, Hongpeng Jia, MD, PhD, William Fulton, MS, Chhinder Sodhi, PhD, David J. Hackam, MD, PhD, Samuel M. Alaish, MD.
Johns Hopkins University, Baltimore, MD, USA.

13
HUMAN MILK OLIGOSACCHARIDES PROMOTE INTESTINAL REGENERATION INDEPENDENTLY OF GUT MICROBIOTA DURING EXPERIMENTAL NECROTIZING ENTEROCOLITIS
Bo Li, PhD, Richard Y. Wu, PhD, Carol Lee, MSc, Adam Minich, BSc, Marissa Cadete, BSc, Hiromu Miyake, MD, Shogo Seo, MD, Steven R. Botts, MSc, Kathene C. Johnston-Henry, BSc, Philip M. Sherman, MD, Agostino Piero, MD.
The Hospital for Sick Children, Toronto, ON, Canada.

14
DELETIONAL GENE EDITING FOLLOWING IN UTERO CRISPR/CAS9 DELIVERY
Heather A. Hartman, MD1, Avery C. Rossidis, MD1, Deepthi Alapati, MD1, William Zacharias, MD, PhD1, John D. Stratigis, MD1, Alexandra C. Chadwick, PhD1, Kiran Musunuru, MD, MPH, PhD1, Edward M. Morrissey, PhD1, William H. Peranteau, MD1.
1Children’s Hospital of Philadelphia, Philadelphia, PA, USA, 2Alfred I. DuPont Hospital for Children, Wilmington, DE, USA, 3University of Pennsylvania, Philadelphia, PA, USA.
<table>
<thead>
<tr>
<th>15</th>
<th>GENETIC ANALYSIS OF DE NOVO VARIANTS REVEAL SEX DIFFERENCES IN COMPLEX OR ISOLATED CONGENITAL DIAPHRAGMATIC HERNIA CASES AND INDICATES MYRF AS A NOVEL CANDIDATE GENE</th>
</tr>
</thead>
</table>
| Hongjian Qi, BA | Lan Yu, PhD  
Xueya Zhou, PhD | Alexander Kitaygorodsky, BS | Julia Wynn, MS  
Na Zhu, PhD | Gudrun Aspelund, MS, MD  
Foong-Yen Lim, MD  
Timothy Crombleholme, MD  
Robert Cusick, MD  
Kenneth Azarow, MD  
Dai Chung, MD  
Brad Warner, MD  
George B. Mychaliska, MS, MD  
Douglas Potoka, MD  
Amy J. Wagner, MS  
Mahmoud ElFiky, MD  
Jay M. Wilson, MD  
Frances A. High, MD, PhD  
Mauro Longoni, MD  
Patricia Donahoe, MD  
Wendy K. Chung, MD, PhD  
Yufeng Sheng, PhD |
| 1 | CUMC, New York, NY, USA  
2 | CHONY, New York, NY, USA  
3 | Cincinnati Children’s Hospital, Cincinnati, OH, USA  
4 | University of Colorado, Denver, CO, USA  
5 | Children's Hospital & Medical Center of Omaha, Omaha, NE, USA  
6 | OHSU, Portland, OR, USA  
7 | Vanderbilt Children’s Hospital, Nashville, TN, USA  
8 | Washington University, St. Louis, MO, USA  
9 | University of Michigan, Ann Arbor, MI, USA  
10 | Children’s Hospital of Pittsburgh, Pittsburgh, PA, USA  
11 | Children’s Hospital of Wisconsin, Milwaukee, WI, USA  
12 | Cairo University, Cairo, Egypt  
13 | Harvard Medical School, Boston, MA, USA  
14 | Boston Children's Hospital, Boston, MA, USA |

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<th>16</th>
<th>A LIPID MEDIATOR OF OMEGA-3 POLYUNSATURATED FATTY ACIDS REDUCES THE INTESTINAL INJURY AND INFLAMMATION ASSOCIATED WITH NECROTIZING ENTEROCOLITIS</th>
</tr>
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<tr>
<td>Hiromu Miyake, MD</td>
<td>Shogo Seo, MD, Bo Li, PhD, Carol Lee, MSc, Agostino Pierro, MD</td>
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<tr>
<td>The Hospital for Sick Children, Toronto, ON, Canada</td>
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<th>17</th>
<th>NEUROINFLAMMATION AND NECROTIZING ENTEROCOLITIS ASSOCIATED BRAIN DAMAGE</th>
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<tbody>
<tr>
<td>Lina Antounians, MSc</td>
<td>Bo Li, PhD, Natalia Svergun, PhD, Shogo Seo, MD, Abidur Rahman, MBBS, Vincenzo D. Catania, MD, Elke Zani-Ruttenstock, MD, Agostino Pierro, MD, Augusto Zani, MD, PhD</td>
</tr>
<tr>
<td>The Hospital for Sick Children, Toronto, ON, Canada</td>
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<tr>
<th>18</th>
<th>NITRIC OXIDE FORMATION AND NEAR-INFRARED SPECTROSCOPY VALUES INCREASE, WHILE NEC INCIDENCE DECREASES WITH ARGinine AND CITRULLINE SUPPLEMENTATION IN A PREMATURE PIGLET MODEL</th>
</tr>
</thead>
</table>
| Patricio E. Lau, MD | Stephanie M. Cruz, MD  
Jason L. Robinson, PhD  
Candace C. Style, MD  
Barbara Stoll, PhD  
Ling Yu, PhD  
Douglas G. Burrin, PhD  
Oluyinka O. Olutoye, MD, PhD |
| 1 | Texas Children’s Hospital, Houston, TX, USA  
2 | Baylor College of Medicine, Houston, TX, USA |

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<tr>
<th>19</th>
<th>CORRELATION OF PRE-OPERATIVE ABDOMINAL ULTRASOUND WITH OPERATIVE AND PATHOLOGIC FINDINGS IN NEONATES WITH NECROTIZING ENTEROCOLITIS</th>
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</table>
| Erica M. Fallon, MD | Claudia Dziegielewski, MS-3  
Samantha Gerrie, MD  
Juliette Garel, MD  
Alan Daneman, MD  
Justin T. Gerstle, MD |
| The Hospital for Sick Children, Toronto, ON, Canada |

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<tr>
<th>20</th>
<th>MESENCHYMAL STROMAL CELL-DERIVED EXTRACELLULAR VESICLES IMPROVE PULMONARY ARtery RESPONSIVENESS IN CONGENITAL DIAPHRAGMATIC HERNIA</th>
</tr>
</thead>
</table>
| Matthew T. Hartling, MD, MS | Sijain Zhaorigetu, PhD  
Di Jin, BS  
Scott D. Olson, PhD  
Lavannya M. Pandit, MD, MS  
Robert M. Bryan, PhD  
Charles S. Cox, MD  
Kevin P. Lally, MD, MS |
| 1 | McGovern Medical School at UTHealth, Houston, TX, USA  
2 | Baylor College of Medicine, Houston, TX, USA |

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<tr>
<th>21</th>
<th>SWITCHING TO CENTRIFUGAL PUMPS DECREASES HEMOLYSIS RATES IN PEDIATRIC ECMO PATIENTS</th>
</tr>
</thead>
</table>
| Kevin N. Johnson, MD | Benjamin Carr, MD  
Geoge B. Mychaliska, MD  
Ronald B. Hirsch, MD  
Samir K. Gadepalli, MD |
| University of Michigan, Ann Arbor, MI, USA |
### Concurrent Scientific Session II: Trauma, Appendicitis, Hernia, General Pediatric Surgery

**9:45 a.m. – 11:15 a.m.**

#### 22

**NO TIME LIKE THE PRESENT: “SUPER-EARLY” REPAIR OF CONGENITAL DIAPHRAGMATIC HERNIA ON EXTRACORPOREAL MEMBRANE OXYGENATION (ECMO)**

Emily H. Steen, MD, Timothy C. Lee, MD, Oluwinka O. Olutoye, MD, PhD, Candace C. Style, MD, Mariatu C. Verla, MD, MPH, Caraciolo J. Fernandez, MD, Swathi Balaji, PhD, Sundeept G. Keiswani, MD.

1Baylor College of Medicine, Department of Surgery, Houston, TX, USA, 2Texas Children’s Hospital, Department of Pediatric Surgery, Houston, TX, USA, 3Texas Children’s Hospital, Department of Neonatology, Houston, TX, USA.

#### 23

**HERNIA RECURRENCE FOLLOWING INGUINAL HERNIA REPAIR IN CHILDREN**

Kathryn K. Taylor, BS, Kristin A. Ojomo, MD, Lindsey L. Wolf, MD, MPH, Wei Jiang, MS, Lindsey B. Armstrong, MD, Tracey P. Koehlmoos, PhD, MHA, Brent R. Weil, MD, Robert L. Picca, MD, Christopher B. Weldon, MD, PhD, Adil H. Haider, MD, MPH, Samuel E. Rice-Townsend, MD.

1Harvard Medical School, Boston, MA, USA, 2Center for Surgery and Public Health, Brigham and Women’s Hospital, Boston, MA, USA, 3Uniformed Services University of the Health Sciences, Bethesda, MD, USA, 4Boston Children’s Hospital, Boston, MA, USA.

#### 24

**PEDIATRIC TRAUMA CENTER VERIFICATION IMPROVES CLINICAL CARE AND REDUCES CHARGES IN CHILDREN WITH BLUNT SPLENIC INJURY**

Matthew S. Alexander, MD, MHA, Ahmad Zeghal, MD, Julia Shelton, MD, MPH, Joel Shilyansky, MD.

University of Iowa Hospitals and Clinics, Iowa City, IA, USA.

#### 25

**MASS SHOOTINGS: ARE CHILDREN SAFER IN THE STREETS THAN IN THE HOME**

Marc S. Levy, MD, Karen Safcsak, RN, Michael L. Cheatham, MD.

1Arnold Palmer Hospital for Children, Orlando, FL, USA, 2Orlando Regional Medical Center, Orlando, FL, USA.

#### 26

**NEBULIZED ANALGESIA DURING LAPAROSCOPIC APPENDECTOMY (NALA), A RANDOMIZED TRIPLE-BLIND PLACEBO CONTROLLED TRIAL**

Robert Baird, MDCM, Andrew Wei, MDCM, Yash Meeghni, MD, Razaz Mujallid, MD, Sherif Emil, MDCM, Jean-Martin Laberge, MD, Pramod Puligandla, MD, Kenneth Shaw, MDCM, Dan Poenaru, MD, Pablo Ingelmo, MD.

1BC Children’s Hospital, Vancouver, BC, Canada, 2Montreal Children’s Hospital, Montreal, QC, Canada.

#### 27

**ORAL ANTIBIOTICS AT DISCHARGE ARE NOT ASSOCIATED WITH REDUCED COMPLICATIONS FOLLOWING APPENDECTOMY FOR COMPLICATED APPENDICITIS IN CHILDREN**

Michael R. Arnold, MD, Angela M. Kao, MD, Brant T. Heniford, MD, Andrew M. Schulman, MD.

Carolina Medical Center, Charlotte, NC, USA.

#### 28

**CLINICAL OUTCOMES FOLLOWING IDENTIFICATION OF AN ENLARGED APPENDICEAL TIP ON ULTRASONOGRAPHY**

Briana Leung, MD, Nikhil Madhuripuran, MD, Katharine Bittner, MD, Gregory Banever, MD, David Tashjian, MD, Kevin P. Moriarty, MD, Michael Tirabassi, MD.

Baystate Medical Center, Springfield, MA, USA.
29
FERTILITY IN MALES AFTER CHILDHOOD, ADOLESCENT AND ADULT INGUINAL OPERATIONS
Saskia Silber, MS, Rudolf Seufert, MD, PhD, Oliver J. Muensterer, MD, PhD.
University Medicine Mainz, Mainz, Germany.

30
INCARCERATION RATE OF INGUINAL HERNIAS: AN AGE DISTRIBUTION CURVE
Sophia Abdulhai, MD, Karen Skerlong, BS, Todd A. Ponsky, MD.
Akron Children’s Hospital, Akron, OH, USA.

31
OUTCOMES OF CENTRAL VENOUS CATHETER REPAIR VERSUS REPLACEMENT AFTER CENTRAL VENOUS CATHETER FRACTURE
Tiffany Zens, MD, Peter Nichol, MD, PhD, Charles M. Leys, MD, MSCI, Adam Brinkman, MD.
University of Wisconsin, Madison, WI, USA.

32
INDEX CASE VOLUMES OF RECENT APPLICANTS TO THE AMERICAN PEDIATRIC SURGICAL ASSOCIATION (APSA): AN APSA MEMBERSHIP AND CREDENTIALS COMMITTEE STUDY
Roxanne L. Massoumi, MD, Harry Applebaum, MD, Shant Shekherdimian, MD.
University of California, Los Angeles, Los Angeles, CA, USA.

33
PIT PICKING FOR ADOLESCENTS WITH PILONIDAL DISEASE
Hajar R. Delshad, MS, PA-C, Michele Dawson, MPH, Patrice Melvin, MPH, Susan K. Zotto, RN, David P. Mooney, MD, MPH.
1Department of Surgery, Boston Children’s Hospital, Boston, MA, USA, 2Center for Applied Pediatric Quality Analytics, Boston Children’s Hospital, Boston, MA, USA.

Presidential Address
11:30 a.m. – 12:15 p.m.
Henri R. Ford, MD, MHA
Senior Vice President and Surgeon-in-Chief, Children’s Hospital Los Angeles; Vice Chair and Professor of Surgery, Vice Dean of Medical Education, Keck School of Medicine, University of Southern California

Concurrent Scientific Session III: Fetal, Transplant, Basic Science
12:15 p.m. – 1:30 p.m.

34
SAFETY OF PROLONGED INTRA-AMNIOTIC CARBON DIOXIDE INSUFFLATION IN A FETAL SHEEP MODEL
Kendall M. Lawrence, MD, Avery C. Rossidis, MD, Heron D. Baumgarten, MD, Ali Y. Mejaddam, MD, Aimee G. Kim, MD, Grace Hwang, BA, Kathleen Young, BS, Emma Bradley, BS, Antonela Radu, BA, William H. Peranteau, MD, Marcus G. Davey, PhD, Alan W. Flake, MD.
Children’s Hospital of Philadelphia, Philadelphia, PA, USA.

35
INCREASED OXYGENATOR RESISTANCE MIMICS INTRAUTERINE GROWTH RESTRICTION SECONDARY TO PLACENTAL INSUFFICIENCY IN THE EXTRATUMORAL ENVIRONMENT FOR NEONATAL DEVELOPMENT
Ali Y. Mejaddam, MD, Kendall M. Lawrence, MD, Avery C. Rossidis, MD, Patrick E. McGovern, MD, Heron D. Baumgarten, MD, Matthew A. Hornick, MD, Aimee G. Kim, MD, Grace L. Hwang, BS, Kathleen Young, BS, William H. Peranteau, MD, Marcus G. Davey, MD, Alan W. Flake, MD.
Children’s Hospital of Philadelphia, Philadelphia, PA, USA.
ORTHOTOPIC TISSUE-ENGINEERED STOMACH ENGRAFTMENT IN A MOUSE MODEL
Elisa Zambaiti, MD1, Eleonora Rizzi1, Federico Scottoni, MD1, Simone Russo, MD1, Sara Mantero, PhD1, Alfonsa Maria Tedeschi, MD1, Simon Eaton, PhD1, Alessandro Filippo Pellegrata, PhD1, Paolo De Coppi, PhD1.
1Institute of Child Health, London, United Kingdom, 2Politecnico di Milano, Milano, Italy.

UNDERSTANDING THE MECHANISM OF ESOPHAGEAL REPAIR WITH A SYNTHETIC SCAFFOLD
Ishna Sharma, MD1, Todd Jensen, MHS1, Heather Wanczyk, MS1, Christine Finck, MD2.
1University of Connecticut Health/Connecticut Children’s Medical Center, Farmington, CT, USA, 2Connecticut Children’s Medical Center, Hartford, CT, USA.

PROLIFERATIVE AND MATURE CELL TYPES ARE DEMONSTRATED IN TISSUE-ENGINEERED LIVER DERIVED FROM HUMAN INDUCED PLURIPOTENT STEM CELLS IN A 3-MONTH MURINE MODEL
Anthony I. Squillaro, MD, MPH, Benjamin Peton, MS, Christopher R. Schlieve, MD, Candida Toribio, BS, Kathryn L. Fowler, MS, Laura-Marie Nucho, MS, MBA, Tracy C. Grikseheit, MD.
Children’s Hospital Los Angeles, Los Angeles, CA, USA.

LIVER TRANSPLANTATION IN CHILDREN UNDER 25KG: A COMPARISON OF SPLIT-LIVER VERSUS WHOLE-LIVER GRAFT RECIPIENTS
Stephanie Kim, MD, Gabriel Ramos-Gonzalez, MD, Heung Bae Kim, MD, Khashayar Vakili, MD.
Boston Children’s Hospital, Brookline, MA, USA.

DEPLETION OF FETAL HEMATOPOIETIC STEM CELLS IMPROVES ENGRAFTMENT AFTER TRANSPLANTATION
Russell G. Witt, MD, MAS, Bowen Wang, BS, Carlo Eikani, BS, Quoc Hung Nguyen, MD, Ryan Samuel, BS, Tippi C. MacKenzie, MD.
University of California, San Francisco, San Francisco, CA, USA.

IN-HOSPITAL AND 90-DAY OUTCOMES AFTER TOTAL PANCREATECTOMY WITH ISLET AUTOTRANSPLANTATION FOR PEDIATRIC CHRONIC AND ACUTE RECURRENT PANCREATITIS
Meera Kotagal, MD, MPH1, Joyce Slusher, MSN1, Maisam Abu-El-Hajja, MD1, Syed Ahmad, MD1, John Brunner, RN, BBA1, Deborah A. Elder, MD1, Kenneth R. Goldschneider, MD1, Lindsey Hamung, MS1, Tom K. Lin, MD1, Stephen M. Ogg, RN1, Joseph J. Palermo, MD, PhD1, John B. Rose, MD1, Stephen Sekoulopoulos1, Alexandra Szabova, MD1, Jammy D. Nathan, MD1.
1Cincinnati Children’s Hospital Medical Center, Cincinnati, OH, USA, 2University of Cincinnati Medical Center, Cincinnati, OH, USA.

INHIBITION OF TLR4 SIGNALING ATTENUATES TBI-INDUCED NEUROINFLAMMATION
Young Chun, MD1, Jose C. Alonso-Escalante, MD2, William B. Fulton, MS1, Chhinder P. Sodhi, PhD1, David J. Hackam, MD, PhD1, Isam W. Nasr, MD1.
1Johns Hopkins, Baltimore, MD, USA, 2Allegheny General Hospital, Pittsburgh, PA, USA.

Concurrent Scientific Session IV: Anorectal Malformations, IBD, Thoracic
12:15 p.m. – 1:30 p.m.

AVOIDING LONG-TERM COMPLICATIONS FROM COMPLEX CLOACAL REPAIR USING OPEN AND LAPAROSCOPIC STAGED RECONSTRUCTIONS OF THE INTESTINAL, URINARY, REPRODUCTIVE AND NEUROLOGICAL SYSTEMS
Erica M. Weidler, MEd, Kathleen van Leeuwen, MD.
Phoenix Children’s Hospital, Phoenix, AZ, USA.
44
**OUTCOMES FOLLOWING HEINEKE-MIKULICZ ANOPLASTY (HMA) FOR POSTOPERATIVE ANAL STRICTURES AND CONGENITAL ANAL STENOSIS AT THE SKIN LEVEL**
Devin R. Halleran, MD, Alejandra Vilanova Sanchez, MD, Rebecca M. Rentea, MD, Laura Weaver, BA, Carlos Reck, MD, Marc Levitt, MD, Richard J. Wood, MD.
Nationwide Children’s Hospital, Columbus, OH, USA.

45
**AN EVIDENCE-BASED PROTOCOL FOR CLOACAL MANAGEMENT: A PROPOSAL FOR A UNIFORM APPROACH FROM THE PRENATAL PERIOD TO ADULTHOOD, LITERATURE REVIEW AND TREATMENT OF MORE THAN 100 CASES**
Alejandra Vilanova-Sanchez, MD, Devin R. Halleran, MD, Carlos A. Reck-Burneo, MD, Alessandra C. Gasior, DO, Ivo de Blaauw, MD, PhD, Robert E. Dyckes, Laura Weaver, Molly Fuchs, MD, Daniel Dajusta, MD, Christina B. Ching, MD, Kate McCracken, MD, Geri Hewitt, MD, Richard J. Wood, MD, Marc A. Levitt, MD.
Nationwide Children’s Hospital, Columbus, OH, USA.

46
**MALONE APPENDICOSTOMY, NEOAPPENDICOSTOMY OR CECOSTOMY FOR ANTEGRADE ENEMA ACCESS AS PART OF A BOWEL MANAGEMENT PROGRAM**
Devin R. Halleran, MD, Alejandra Vilanova-Sanchez, MD, Rebecca M. Rentea, MD, Mana Vriesman, MD, Tassiana Maloof, BS, Peter Lu, MD, Laura Weaver, BA, Karla KH Vaz, MD, Desale Yacob, MD, Carlo Di Lorenzo, MD, Marc A. Levitt, MD, Richard J. Wood, MD.
Nationwide Children’s Hospital, Columbus, OH, USA.

47
**EVALUATION OF A WATER-SOLUBLE CONTRAST PROTOCOL FOR NON-OPERATIVE MANAGEMENT OF PEDIATRIC ADHESIVE SMALL BOWEL OBSTRUCTION**
Allison F. Linden, MD, MPH,1, Manish T. Rajji, MD, MA,1, Jonathan E. Kohler, MD,1, Erica M. Carlisle, MD,1, Carlos Pelayo, MD,1, Kate Feinstein, MD,1, Jessica J. Kandel, MD,1, Grace Z. Mak, MD,1.
1University of Chicago Comer Children’s Hospital, Chicago, IL, USA, 1University of Wisconsin School of Medicine and Public Health, Madison, WI, USA, 1University of Iowa Children’s Hospital, Iowa City, IA, USA, 1Children’s Hospital Los Angeles, Keck School of Medicine, Los Angeles, CA, USA.

48
**NEURECTOMY FOR CHRONIC ABDOMINAL PAIN IN CHILDREN**
Lindsey B. Armstrong, MD, David P. Mooney, MD, MPH.
Boston Children’s Hospital, Boston, MA, USA.

49
**THORACOSCOPIC REPAIR OF SIBSON’S HERNIA**
Ruchi Amin, MD, Veronica F. Sullins, MD, Elizabeth Berdan, MD, Michael Mitchell, MD, Marjorie J. Arca, MD.
Children’s Hospital of Wisconsin, Milwaukee, WI, USA.

50
**IS THE VACUUM BELL DEVICE A SAFE AND EFFECTIVE ALTERNATIVE TO SURGICAL TREATMENT OFPECTUS EXCAVATUM IN PEDIATRIC PATIENTS? A PRELIMINARY NORTH-AMERICAN EXPERIENCE**
Etienne St-Louis, MD,1, Jingru Miao, BSc,1, Robert Baird, MD,1, Marcos Bettolli, MD,1, Sherif Emil, MD,1, Jean M. Laberge, MD,1.
1McGill University Health Centre, Montreal, QC, Canada, 1British Columbia Children’s Hospital, Vancouver, BC, Canada, 1Children’s Hospital of Eastern Ontario, Ottawa, ON, Canada.

51
**RELATIONSHIPS BETWEEN HOSPITAL AND SURGEON OPERATIVE VOLUMES AND OUTCOMES OF ESOPHAGEAL ATRESIA/TRACHEOESOPHAGEAL FISTULA REPAIR**
Amy E. Lawrence, MD,1, Peter C. Minneci, MD, MHSc,1, Katherine J. Deans, MD, MHSc,1, Lorraine Kelley-Quon, MD, MS,1, Jennifer N. Cooper, PhD,1.
1Nationwide Children’s Hospital, Columbus, OH, USA, 1Children’s Hospital Los Angeles, Los Angeles, CA, USA.
Benjy Brooks Society Meeting and Luncheon *(pre-registration required)*
1:30 p.m. – 3:30 p.m.

Pediatric Ultrasound Course *(pre-registration required)*
2:00 p.m. – 7:00 p.m.

Essentials of Surgical Critical Care Course *(pre-registration required)*
2:00 p.m. – 7:00 p.m.

**Saturday, May 5**

Business Meeting – all are welcome!
7:00 a.m. – 8:00 a.m.

Innovation Session
8:00 a.m. – 9:00 a.m.

---

**i1**

**A NOVEL DRESSING FOR GASTROSTOMY BUTTONS IN CHILDREN**
Young Mee Choi, MBBS, MPH1, Fergus Mayrinh, BS2, Jeremy Parsons, BS3, Alek Stefanov, BS4, Steven Moulton, MD1.
1Children’s Hospital Colorado, Aurora, CO, USA, 2University of Colorado Boulder, Boulder, CO, USA.

**i2**

**AUGMENTED REALITY IN A HYBRID OR FOR PULMONARY NODULE LOCALIZATION AND THORACOSCOPIC RESECTION - FEASIBILITY OF A NOVEL TECHNIQUE**
John M. Racadio, MD, Meera Katagai, MD, Nicole A. Hilvert, RT(R)(VI), Andrew M. Racadio, BS, Daniel von Allmen, MD.
Cincinnati Children's Hospital Medical Center, Cincinnati, OH, USA.

**i3**

**DYNAMIC ULTRASOUND EVALUATION IN PATIENTS WITH SUSPECTED SLIPPING RIB SYNDROME**
Dane Van Tassel, MD, Craig E. Barnes, MD, Monique Riemann, RDMS, RVT, Lisa McMahon, MD.
Phoenix Children’s Hospital, Phoenix, AZ, USA.

**i4**

**INTESTINAL ELECTRICAL STIMULATION TO INCREASE THE RATE OF PERISTALSIS**
Genia Dubrovsky, MD1, Yi-Kai Lo, PhD2, Po-Min Wang, MS3, Ming-Dau Wu, PhD1, Nhan Huynh, MD1, Wentai Liu, PhD3, James CY Dunn, MD, PhD2.
1UCLA, Los Angeles, CA, USA, 2Stanford University, Stanford, CA, USA.

**i5**

**RANDOMIZED CONTROLLED TRIAL: INTRAOPERATIVE INTERCOSTAL NERVE CRYOABLATION DURING NUSS PROCEDURE REDUCES LENGTH OF STAY AND IN-HOSPITAL OPIOID USE**
Jarrett Moyer, MD1, Claire Graves, MD2, Benjamin Padilla, MD1.
1University of California, San Francisco, San Francisco, CA, USA, 2Columbia University, New York, NY, USA.

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**EXPERT OUTPATIENT BURN CARE IN THE HOME THROUGH MOBILE HEALTH TECHNOLOGY**
Aaron P. Lesher, MD, Ryan R. Howard, RN, MSN, Benjamin J. Woodhouse, MSN, Sachin K. Patel, MSc, Frank A. Treiber, PhD.
Medical University of South Carolina, Charleston, SC, USA.
**PEDIATRIC ACUTE SURGICAL SUPPORT PASS - INITIAL ASSESSMENT OF THE MULTIMODAL COURSE FOR TEACHING THE INITIAL RESPONSE TO ACUTE PEDiATRIC SURGICAL EMERGENCIES TO MEDiCAL PROFESSIONALS IN A DEVELOPING COUNTRY**

Ai-Xuan Hollerman, MD, Ginger Barton, RN, Girish Deshpande, MD, Thanh Dinh, MD, Toufic Kharallah, RN, Sara Krzyzaniak, MD, Frederick Nguyen, BA, Chau Nguyen, MD, Can To, MD, Thao Tran, MD.
1University of Illinois College of Medicine at Chicago, Chicago, IL, USA, 2University of Illinois College of Medicine at Peoria, Peoria, IL, USA, 3Pham Ngoc Thach University of Medicine, Ho Chi Minh City, Viet Nam, 4Children’s Hospital I, Ho Chi Minh City, Viet Nam, 5City Children’s Hospital, Ho Chi Minh City, Viet Nam.

Robert E. Gross Lecture
9:45 a.m. – 10:15 a.m.

Tracy C. Grikscheit, MD
Associate Professor of Surgery, Children’s Hospital Los Angeles, University of Southern California, Keck School of Medicine

Plenary Session II
10:15 a.m. – 11:15 a.m.

**INTERVENTIONS FOR PATIENTS WITH HIRSCHSPRUNG DISEASE WITH OBSTRUCTIVE SYMPTOMS AFTER PULL-THROUGH: A REVIEW OF 62 CASES**

Carlos A. Reck-Burneo, MD, Alejandra Vilanov-Sanchez, MD, Christopher McCullough, MD, Alessandra C. Gasior, MD, Laura Weaver, Tassiana Maloof, Erin Hoover, Jordon Jaggers, Renae Gagnon, Richard J. Wood, MD, Marc A. Levitt, MD.

Nationwide Children’s, Columbus, OH, USA.

**IN UTERO ENZYME REPLACEMENT THERAPY IMPROVES SURVIVAL AND NEUROLOGIC OUTCOMES IN MPS VII MICE**

Russell G. Witt, MD, MAS, Carlo Elkani, BS, Bowen Wang, BS, Quoc Hung Nguyen, MD, Tippi C. MacKenzie, MD.

University of California, San Francisco, San Francisco, CA, USA.

**MULTICENTER PRE-OPERATIVE ASSESSMENT OF PEDIATRIC OVARIAN MALIGNANCY**

Arin L. Madenci, MD, MPH, Robert Vandewalle, MD, Bryan V. Dieffenbach, MD, Marc R. Laufer, MD, Theonia K. Boyd, MD, Stephan D. Voss, MD, PhD, A. Lindsay Frazier, MD, Deborah F. Bilmire, MD, Frederick J. Rescorla, MD, Brent R. Weil, MD, Christopher B. Weldon, MD, PhD.

1Boston Children’s Hospital, Boston, MA, USA, 2Riley Hospital for Children, Indianapolis, IN, USA.

**ULTRASOUND GUIDANCE IMPROVES SAFETY AND EFFICIENCY OF CENTRAL LINE PLACEMENTS**

Cory N. Criss, MD, Niki Matsuoka, BS, Samir K. Gadepalli, MD, MBA, Marcus D. Jarboe, MD.

1C.S. Mott Children’s Hospital, Ann Arbor, MI, USA, 2Michigan Medicine, Ann Arbor, MI, USA.

**A NOVEL PLATFORM FOR DETERMINING THE EFFECTS OF THE ENTERIC NERVOUS SYSTEM ON THE INTESTINAL EPITHELIUM**

Mitchell R. Ladd, MD, PhD, Blake Johnson, BS, Carolyn Gosztyla, MD, Cail Costello, PhD, Adam Werts, DVM, PhD, Laura Martin, MD, Emilyn Banfield, MS, Hongpeng Jia, MD, Peng Lu, PhD, William Fulton, MS, Sanxia Wang, MS, Thomas Prindle, BS, Yukhiro Yamaguchi, PhD, Jungeun Sung, BS, Chhinder Sadhi, PhD, John March, PhD, Davi J. Hackam, MD, PhD.

1Johns Hopkins Hospital, Baltimore, MD, USA, 2Walter Reed, Bethesda, MD, USA, 3Cornell University, Ithaca, NY, USA, 4Cornell University, Ithaca, MD, USA.
OUTCOMES OF INFANTS WITH CONGENITAL DIAPHRAGMATIC HERNIA TREATED WITH VENOVENOUS VERSUS VENOARTERIAL EXTRACORPOREAL MEMBRANE OXYGENATION: A PROPENSITY SCORE APPROACH
Kelly Fairbairn, DO, Lishi Zhang, MS, Matthew T. Harting, MD, Yanjun Chen, MS, Charles Stolar, MD, Patrick Delaplain, MD, Peter Yu, MD, Michael McMullan, MD, Danh V. Nguyen, PhD, Yigit S. Guner, MD.
'Community Memorial Hospital, Ventura, CA, USA, 2University of California, Irvine, Irvine, CA, USA, 3University of Texas Health Science Center, Houston, TX, USA, 4Cottage Children’s Medical Center, Santa Barbara, CA, USA, 5Children’s Hospital of Orange County, Orange, CA, USA, 6Seattle Children’s Hospital, Seattle, WA, USA.

PROSTAGLANDIN E1 IMPROVES MARKERS OF PULMONARY HYPERTENSION IN CONGENITAL DIAPHRAGMATIC HERNIA
Kendall M. Lawrence, MD, Rachel K. Hopper, MD, Kelsey Berger, BS, Lisa M. Herkert, RN, MSN, Christine D. Franciscovich, RNC, Emily A. Partridge, MD, PhD, Lindsay Waqar, MPH, Brian D. Hanna, MDCM, PhD, William H. Peranetau, MD, Natalie E. Rintoul, MD, Holly L. Hedrick, MD.
Children’s Hospital of Philadelphia, Philadelphia, PA, USA.

Health Policy & Advocacy Committee Update
11:15 a.m. – 11:30 a.m.
Marion C. Henry, MD MPH, Chair

2017 Brandeis Scholar Report
11:15 a.m. – 11:30 a.m.
Shawn D. St. Peter, MD

Journal of Pediatric Surgery Lecture
11:30 a.m. – Noon
Steven Stylianos, MD
Surgeon-in-Chief, Morgan Stanley Children’s Hospital, New York, NY

Travel Fellow Presentations
12:30 p.m. – 1:00 p.m.
Sohail Dogar, Aga Khan University, Karachi, Pakistan
Oluwaseun Ladipo-Ajayi, University of Lagos College of Medicine, Lagos, Nigeria

APSA Foundation Jay Grosfeld, MD Scholar Presentations
1:00 p.m. – 1:30 p.m.
2016 Scholars: Helen Hsieh, MD, Elisabeth T. Tracy, MD
2017 Scholars: Andrew J. Murphy, MD, Isam W. Nasr, MD

New Member Induction Ceremony
1:30 – 1:45 p.m.
NON-OPERATIVE MANAGEMENT OF PERFORATED APPENDICITIS IS COST-EFFECTIVE IN PATIENTS PRESENTING WITH PROLONGED DAYS OF SYMPTOMS
Mubina Isani, MD, Jeremy Jackson, MD, Wesley E. Barry, MD, Michael Mallicote, MD, David Rosenberg, BS, Grace Asuellime, MS, Choo Phel Wee, MS, James E. Stein, MD, MS, Aaron R. Jensen, MD, MEd, Eugene S. Kim, MD.
Children’s Hospital of Los Angeles, Los Angeles, CA, USA.

LESSONS LEARNED FROM VALUE-BASED PEDIATRIC APPENDECTOMY CARE: A SHARED SAVINGS PILOT MODEL
Yangyang R. Yu, MD, Kathleen E. Carberry, RN, MPH¹, Hui Ren, BA², Charlene Barclay, RN, MBA², Bintia Patel, MD¹, Jed G. Nuchtern, MD¹, Angelo P. Giardino, MD, PhD², Monica E. Lopez, MD².
¹Baylor College of Medicine, Houston, TX, USA, ²Texas Children’s Hospital, Houston, TX, USA.

REDUCING NARCOTIC USAGE IN POSTOPERATIVE APPENDECTOMY PATIENTS
Andrew Nordin, MD, Karen Diefenbach, MD, Jeff Christensen, MHA, Abigail Nelson, MSN, Gail Besner, MD, Brian Kenney, MD, MPH.
Nationwide Children’s Hospital, Columbus, OH, USA.

THINKING OUTSIDE THE (CHECK)BOX: EVALUATING SUSTAINABLE SURGICAL SAFETY CHECKLIST PERFORMANCE
Kathryn T. Anderson, MD, MPH¹, Marisa A. Bartz-Kurycki, MD¹, Maria Matuszczak, MD¹, Rhasedah A. Ekeoduru, MD¹, Jannette Clary, RN, BSN¹, Dorothy Serralles, MSN-Ed, RN², Akemi L. Kawaguchi, MD, MS¹, Kevin P. Lally, MD, MS¹, KuoJen Tsao, MD¹.
¹McGovern Medical School, University of Texas Health Sciences Center at Houston, Houston, TX, USA, ²Children’s Memorial Hermann Hospital, Houston, TX, USA.

ROOM FOR “QUALITY” IMPROVEMENT? VALIDATING NATIONAL SURGICAL QUALITY IMPROVEMENT PROGRAM-PEDIATRIC APPENDECTOMY DATA
Kathryn T. Anderson, MD, MPH, Marisa A. Bartz-Kurycki, MD, Mary T. Austin, MD, MPH, Akemi L. Kawaguchi, MD, MS, Lillian S. Kao, MD, MS, Kevin P. Lally, MD, MS, KuoJen Tsao, MD.
University of Texas Health Sciences Center at Houston, Houston, TX, USA.

SIMPLE PREOPERATIVE RADIATION SAFETY INTERVENTIONS SIGNIFICANTLY LOWER RADIATION DOESES DURING CENTRAL VENOUS LINE PLACEMENT IN CHILDREN
Beatrix Hyemin Chol, BA, Kamalou Yaya, MD, Vinay Prabhu, MD, Nancy Fefferman, MD, Beverly Mitchell, RN, Keith A. Kuenzler, MD, Howard B. Ginsburg, MD, Jason C. Fisher, MD, Sandra Tomita, MD.
NYU School of Medicine, New York, NY, USA.

MAKING THE DIAGNOSIS OF MIDGUT VOLVULUS: LIMITED ABDOMINAL ULTRASOUND HAS CHANGED OUR CLINICAL PRACTICE
Kevin Wong, DO, Dane Van Tassel, MD, Deepa Biyyam, MD, Monique Riemann, RDMS, RVT, Justin Lee, MD, Craig Egan, MD, Dianna Bardo, MD, Mostafa Youssfi, MD.
Phoenix Children’s Hospital, Phoenix, AZ, USA.
Scientific Session VI: Oncology
3:00 p.m. – 4:00 p.m.

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PROCEDURAL BURDEN EXPERIENCED BY CHILDREN WITH CANCER DURING THEIR TERMINAL ADMISSION
Kristine S. Corkum, MD, Timothy B. Lautz, MD, Ferdynand Hebal, MD, Erin E. Rowell, MD.
Ann and Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, USA.

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LYMPH NODE RATIO PREDICTS RECURRENCE IN PEDIATRIC PAPILLARY THYROID CANCER
Jill Rubinstein, MD, PhD, Kayleigh Herrick-Reynolds, MD, Raffaella Marotti, MD, Manju Prasad, MD, Robert Udelsman, MD, MBA, Glenda G. Callender, MD, Catherine Dinau, MD, Emily Christison-Lagay, MD.
1Yale-New Haven Hospital, New Haven, CT, USA, 2Yale School of Medicine, New Haven, CT, USA, 3Yale-New Haven Children’s Hospital, New Haven, CT, USA, 4Miami Cancer Institute, Miami, FL, USA.

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COMPARISON OF POST-OPERATIVE COMPLICATION RATES IN CHILDREN UNDERGOING HEPATECTOMY OR NEPHRECTOMY BETWEEN KID, NSQIP AND PHIS DATABASES
Kristine S. Corkum, MD, Lauren M. Baumann, MD, Timothy B. Lautz, MD.
Ann and Robert H. Lurie Children’s Hospital of Chicago, Chicago, IL, USA.

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NEUTROPENIA AT THE TIME OF SUBCUTANEOUS PORT INSERTION IS NOT A RISK FACTOR FOR EARLY INFECTIOUS COMPLICATIONS IN PEDIATRIC ONCOLOGY PATIENTS
Lisa Taylor VanHouwelingen, MD, John M. Lu, BSc, Laura V. Veras, MD, Jessica Staznik, MD, Lynn Wynn, MSN, William Wu, MS, Jianrong Wu, PhD, Andrew J. Murphy, MD, Ankush Gosain, MD, PhD, Andrew M. Davidoff, MD, Ching-Hon Pui, MD, Israel Fernandez-Pineda, MD.
1McMaster Children’s Hospital, Hamilton, ON, Canada, 2University of Tennessee, Memphis, TN, USA, 3Le Bonheur Children’s Hospital, Memphis, TN, USA, 4St. Jude Children’s Research Hospital, Memphis, TN, USA.

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R1 RESECTION IN PATIENTS WITH STAGE 3 NEUROBLASTOMA IS ASSOCIATED WITH THE ABSENCE OF NEURAXIAL IMAGE-DEFINED RISK FACTORS
Nicole J. Croteau, MD, James A. Saltzman, MD, MPH, Shakeel Modak, MD, Brian Kushner, MD, Ellen Basu, MD, Stephen Roberts, MD, Anita P. Price, MD, Michael P. La Quaglia, MD.
Memorial Sloan Kettering Cancer Center, New York, NY, USA.

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C-KIT DIRECTED IMMUNOTOXINS IMPROVE ALLOGENEIC ENGRAFTMENT AFTER FETAL HEMATOPOIETIC STEM CELL TRANSPLANTATION
Patrick E. McGovern, MD, John D. Stratigis, MD, Jeremy M. Tuttle, BA, John S. Riley, BA, Nicholas Ahn, MD, Alan W. Flake, MD, William H. Peranteau, MD.
The Children’s Hospital of Philadelphia, Philadelphia, PA, USA.

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CHARACTERISTICS AND OUTCOMES IN PEDIATRIC NON-CENTRAL NERVOUS SYSTEM RHABDOID TUMORS: A REPORT FROM THE NATIONAL CANCER DATABASE
Vei Shaun Siow, MD, Xilin Chen, MPH, Kenneth Gow, MD, Marcus Malek, MD.
1University of Pittsburgh Medical Center, Pittsburgh, PA, USA, 2Seattle Children’s Hospital, Seattle, WA, USA, 3Children’s Hospital of Pittsburgh of UPMC, Pittsburgh, PA, USA.
Children’s Oncology Group (COG) Update
7:30 a.m. – 9:00 a.m.

Moderators: Rebecka L. Meyers, MD; Roshni A. Dasgupta, MD

Focus on Hepatoblastoma and Hepatocellular Carcinoma

LEARNING OBJECTIVES
By the end of the presentation, attendees will be able to:

- Understand the surgical lessons learned from the recently closed COG liver tumor study AHEP-0731
- Describe the new international CHIC Hepatoblastoma staging system
- Become familiar with revised international PRETEXT definitions
- Describe the surgical guidelines and questions being asked on the new Pediatric Hepatic malignancy International Therapeutic Trial (PHITT/AHEP-1531)

Surgical Lessons Learned from AHEP0731 and Children’s Hepatic Tumor International Collaboration (CHIC)
Rebecka L. Meyers, MD

International Consensus PRETEXT Groups and Annotation Factors
Gregory M. Tiao, MD

PHITT/AHEP-1531 Hepatoblastoma Surgical Guidelines and Study Questions
Sanjeev A. Vasudevan, MD

PHITT/AHEP-1531 Hepatocellular Carcinoma Surgical Guidelines and Study Questions
Eugene S. Kim, MD

COG Solid Tumor Studies Update

LEARNING OBJECTIVES
By the end of the presentation, attendees will be able to:

- Restate the primary results and study characteristics of open and recently closed COG solid tumor multicenter trials
- Be familiar with information available on the COG surgeon’s website

Neuroblastoma
Mary Beth Madonna

Wilms Tumor
Richard D. Glick, MD

Sarcoma and Bone
Todd E. Heaton, MD

Rare Tumors and Late Effects (Germ, ACC, Late Effects)
Reto M. Baertschiger, MD, PhD

COG Surgeons Website (www.childrensoncologygroup.org)
Timothy B. Lautz, MD

Sunday, May 6

Town Hall Meeting
9:00 a.m. – 11:00 a.m.

Annual Meeting concludes.