

# FINAL PROGRAM

## AUA 2018 Annual Meeting

April 26 – 27, 2018

Hyatt Regency Chicago, Chicago, Illinois

Hosted by Northwestern University Feinberg School of Medicine  
and The University of Chicago School of Medicine





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## Welcome to the AUA 2018 Annual Meeting!

Welcome to the AUA 2018 Annual Meeting, co-hosted by Northwestern University Feinberg School of Medicine and The University of Chicago Medicine, in Chicago, Illinois. The Education Advisory Board (EAB), Scientific Advisory Board (SAB), and the Host Institution Chairs, Drs. Robert R. Gaiser, Y.S. Prakash, Jeffrey L. Apfelbaum, Peter Nagele and Charles W. Hogue, have organized a thought-provoking program addressing the latest breakthroughs and trends in academic anesthesia and the practice as a whole.

*Here are some of the highlights of this year's Annual Meeting:*

### Thursday, April 26

The **EAB Program Session I: Motivation, Metacognition, and Self-Regulation** will discuss the scientific applications of motivation, metacognition, and self-regulation in academic anesthesia. **Scientific Advisory Board (SAB) Oral Sessions I and II** will cover original research findings in the clinic and laboratory. Be present for the first of two **Moderated Poster Discussion Sessions** to discuss and exchange ideas with the leading experts in anesthesia education and research. The **President's Panel** will address sepsis with **Sepsis Revisited – Important Updates**. Remember to sign-up to attend the **Social Event Reception**, hosted by Northwestern University Feinberg School of Medicine and The University of Chicago Medicine, at the Art Institute of Chicago.

### Friday, April 27

**Host Program Panels I and II** will highlight pioneering programs offered at Northwestern University Feinberg School of Medicine and The University of Chicago Medicine. Topics for the **EAB Program Panel II: The Science of Longitudinal Assessment** will include **Knowledge Over the Continuum, Information as a Pedagogical Tool, and The Effect of Time on Technical Skills**. Join your colleagues for the second **Moderated Poster Discussion Session** and learn about the latest research shaping the future of anesthesiology at the **SAB Oral Sessions III and IV**.

### Saturday, April 28 – Aligned Meeting Day at the IARS 2018 Annual Meeting and International Science Symposium

I encourage you to stay an additional day to attend the education sessions at the 2018 Aligned Meeting Day, available complimentary with your AUA registration fee.

*Aligned Meeting Day Sessions include:*

- **T.H. Seldon Memorial Lecture: Personalizing Health Care in the Era of Big Data** with Dr. Jeffrey R. Balsler – 7:30 am – 9:00 am
- **Alignment Symposium: AUA: Mitochondria and Bioenergetics in Health and Disease: It's Not Just A Power Failure** – 9:30 am – 12:00 pm
- **IARS Scholars' Program** – 9:30 am – 6:10 pm – *Requires an additional \$50 fee*
- **Problem-Based Learning Discussion: AUA: Why Study Time Doesn't Always Lead to Learning: How Do We Help the Struggling Trainee?** – 12:00 pm – 1:00 pm; and 2:30 pm – 3:30 pm
- **Problem-Based Learning Discussion: AUA: Getting to the Heart of the Matter: Perioperative-Focused Cardiac and Pulmonary Ultrasound, and The Hemodynamically Unstable Patient** – 4:00 pm – 5:00 pm
- **IARS, AUA, and SOCCA Alignment Reception** – 6:00 pm – 7:30 pm

This stimulating program offers opportunities to connect with your colleagues in anesthesiology. I am confident that you will find this meeting to be a rewarding experience. Make sure to explore and enjoy your time in the beautiful city of Chicago!

Sincerely,

Jeanine P. Wiener-Kronish, MD  
President, Association of University Anesthesiologists (AUA)



## Welcome from Northwestern University Feinberg School of Medicine and The University of Chicago Medicine

Dear Colleagues:

The Northwestern University Feinberg School of Medicine and The University of Chicago Medicine are delighted to host the AUA 2018 Annual Meeting. The Host Committee and AUA Leadership have assembled a dynamic program, and certainly hope you will find the meeting impactful and rewarding, and make the most out of your visit to Chicago, Illinois.

Chicago is an incubator for innovation, education, and cultural diversity. As home to some of the world's largest skyscrapers, art institutions, colorful neighborhoods, and exceptional cuisine, it has endless attractions to see. Take a tour of the historic 110-story Willis Tower and visit the Field Museum, Museum of Contemporary Art, or the Adler Planetarium. Feel welcome to explore and learn from the wonderful city of Chicago.

As a world-class research institution and a neighborhood health care provider, The University of Chicago Medicine serves as a leader in addressing the world's most pressing medical, ethical, political, and economic challenges. This year, Drs. Laurie Zoloth and Wendy L. Freedman will speak during the Host Program Panel, and will provide valuable insight into their experiences at The University of Chicago. Dr. Zoloth is an internationally recognized leader in religious studies, spanning research specialties in bioethics and Jewish studies. Dr. Freedman is a world-renowned astronomer and cosmologist who has served as co-leader of the Hubble Space Telescope Key Project and initiated the Giant Magellan Telescope Project.

The Northwestern University Feinberg School of Medicine is a leader in research initiatives and global outlook, committed to improving human health through education and discovery. At this year's meeting, the Host Program Panel speakers, Drs. A. Vania Apkarian and John Rogers, will share their knowledge from the Northwestern University Feinberg School of Medicine, presenting on **Brain Mechanisms of Chronic Pain and Novel Therapeutic Opportunities** and **Wireless Skin-Like Sensors of Physiological Status**. Dr. Apkarian has studied pain over twenty years becoming one of the most highly funded researchers in this field. His work addresses important neuroscience concerns including cortical dynamics of pain as well as brain plasticity. Dr. Rogers' research seeks to discover the fundamental characteristics of "soft" materials and aims to control and induce novel electronic and photonic responses in these materials.

Thank you for your attendance at this important meeting. We look forward to seeing you in Chicago, Illinois!

Sincerely,

**Jeffrey L. Apfelbaum, MD**  
Professor of Anesthesia &  
Critical Care; The University  
of Chicago Medicine; Co-  
Chair, Host Institution, AUA  
2018 Annual Meeting

**Peter Nagele, MD, MSc**  
Professor of Anesthesia  
& Critical Care, Chair,  
Department of Anesthesia &  
Critical Care, The University of  
Chicago Medicine; Co-Chair,  
Host Institution, AUA 2018  
Annual Meeting

**Charles W. Hogue, MD**  
Chair, Department of  
Anesthesiology; James E.  
Eckenhoff, Professor of  
Anesthesiology, Northwestern  
University Feinberg School  
of Medicine, Co-Chair, Host  
Institution, AUA 2018  
Annual Meeting



OFFICE OF THE MAYOR  
CITY OF CHICAGO

RAHM EMANUEL  
MAYOR

April 26, 2018

Dear Friends:

As Mayor, and on behalf of the City of Chicago, I am pleased and proud to welcome all of those gathered for the *International Anesthesia Research Society, Association of University Anesthesiologists, & the Society of Critical Care Anesthesiologists' 2018 Annual Meetings*.

Since their formation – the oldest dating back nearly a century – the International Anesthesia Research Society (IARS), Association of University Anesthesiologists (AUA), and the Society of Critical Care Anesthesiologists (SOCCA) have been committed to creating dynamic spaces for the support and cultivation of anesthesiologists, scientists, physicians and other professionals dedicated to better understanding anesthesia practice and application. Home to thousands of members worldwide, IARS, AUA, and SOCCA's annual meeting unites leaders across disciplines dedicated to improving patient care through involved, innovative research. Every member stands committed to augmenting the role of anesthesia in medicine and interpreting methodology and outcomes in relation to our collective health. IARS, AUA, and SOCCA play an integral role in impacting education, informing policy, and enlightening the public.

This year's meeting presents a special opportunity to come together to discuss recent innovations in the field while also remaining focused on all the advancements left to uncover. The *2018 Meeting* aims to promote exposure to different techniques, tools, and social strategies that build upon new ways to approach studying and researching anesthesia. In addition, interactive sessions and thoughtful exhibits will allow attendees to explore growing trends of scientific research and medical practices to forge a place at the forefront of education and implementation. All of Chicagoland's residents benefit year-round from the important work that the groups' diverse membership do day in and day out. I commend all associated with IARS, AUA, and SOCCA for demonstrating excellence and dedication in your field, and for being an invaluable resource for the global science and medical communities.

After learning, exchanging ideas, and networking, it is my hope that those visiting our great city take time to experience some of the special places in Chicago. Our historic neighborhoods, iconic skyline, and incredible lakefront invite you to explore all Chicago has to offer. I hope you have a chance to sample our distinguished restaurants, tour our great universities, and visit our world-class museums during your stay.

Best wishes for an enjoyable and informative event, and much continued success.

Sincerely,

Mayor



## General Information

### Annual Meeting Location

#### AUA 2018 Annual Meeting Headquarters Hotel

##### Hyatt Regency Chicago

151 East Wacker Drive  
Chicago, Illinois, USA, 60601  
312-565-1234

### Annual Meeting Registration

#### Registration Hours

Thursday, April 26, 2018 ..... 6:00 am – 6:00 pm

Friday, April 27, 2018 ..... 6:00 am – 6:00 pm

#### Registration Materials

Attendee registration materials will include a printed room locator for the AUA 2018 Annual Meeting, listing all sessions and event locations.

#### Name Badges

Your registration materials include your name badge which you must wear at all times while attending events in the hotel. Only attendees with name badges will be admitted to meeting rooms. If you misplace your badge, please visit the Registration Desk for a replacement.

#### Registration Fee

The AUA 2018 Annual Meeting registration fee includes access to the EAB Panels, Host Program Sessions, two lunches, all Moderated Poster Discussion Sessions, President’s Panel, and SAB Oral Sessions. The AUA Social Event Reception and Scholars’ Program require a separate, non-refundable fee to sign-up. Check at registration for availability.

#### Annual Meeting Registration Cancellation Policy

The registration cancellation deadline was Thursday, April 12, 2018. Registrations canceled on or before Thursday, April 12, were refunded, minus a \$50 processing charge.

#### Poster Room Hours

The Poster Room is located in Riverside West, Exhibit Level, East Tower of the hotel.

Thursday, April 26 ..... 6:00 am – 5:00 pm

Friday, April 27 ..... 6:00 am – 5:00 pm

#### Poster Pickup Booth Hours

The poster pickup booth is located in Riverside West, Exhibit Level, East Tower of the hotel.

Thursday, April 26 ..... 6:00 am – 2:00 pm

Friday, April 27 ..... 6:00 am – 2:00 pm



## General Information, *continued*

### Services

#### Speaker Ready Room

The Speaker Ready Room is located in Field, Third Floor, West Tower of the hotel.

Thursday, April 26 ..... 6:00 am – 6:00 pm

Friday, April 27 ..... 6:00 am – 6:00 pm

#### Abstracts List and Event Search

Search all sessions, abstracts and speakers for the IARS, AUA and SOCCA 2018 Annual Meetings on the event site at [ww3.aievolution.com/ars1801](http://ww3.aievolution.com/ars1801).

#### Internet Availability

Complimentary wireless internet is available in the conference area and all AUA scheduled meeting rooms. Open your wifi settings and choose the network labeled, “Hyatt Conference.” When prompted for an access code, enter “AM2018.” Please no streaming or video downloads.

#### Official App of the IARS, AUA and SOCCA 2018 Annual Meetings

The IARS, AUA and SOCCA will feature an interactive app, **IARS Mtgs**, allowing you to view the complete event schedule, explore all sessions, and get detailed presenter information. Participate in the interactive games on the app each day and connect with your peers and colleagues. Download **IARS Mtgs**, available for iPhone, iPad and Android in the Apple and Google Play stores.

#### Social Media

We want to see what you’re getting out of the meeting, whether it’s meeting another doctor for the first time, the food at our special events, or an interesting idea you heard at a session. Share that post on social media and use the hashtag **#AUA2018**.

#### Treasure Hunt

Participate in our IARS, AUA and SOCCA 2018 Annual Meetings Treasure Hunt for a chance to win gift cards! Download the IARS Mtgs app from the app store to play. Complete all the IARS AUA SOCCA Treasure Hunt challenges and you’ll be entered to win one of three gift cards. The deadline to complete the Treasure Hunt is Tuesday, May 1 at 12:00 pm. The Treasure Hunt winners will be notified via email following the meeting.

#### Trivia Game

Play the IARS, AUA and SOCCA 2018 Annual Meeting Trivia Game each day for a chance to win prizes. Each game consists of 12 multiple-choice trivia questions, each with three options. Questions get harder as the game progresses and you only have 10 seconds to select your answer. Participants who get the most correct answers in a game will be entered in a raffle for a chance to win prizes and bragging rights. Check the leaderboard in Crystal Foyer to compare your progress against other attendees.

*continued on page 8*



## Information

### Dress Code

The dress code for the AUA 2018 Annual Meeting is business/business casual.

### Electronic Devices

Please silence all electronic devices during education sessions. Videotaping and recording of sessions is not allowed without the written permission from the presenter(s).

### Media Release Policy

By attending the AUA 2018 Annual Meeting or entering in the facility in which the AUA 2018 Annual Meeting takes place, you agree that AUA and/or third parties authorized by AUA may photograph or record your likeness, image, name, voice, and/or words, and may publish, display, reproduce, copy, and distribute your likeness, image, name, voice, and/or words for promotional, educational, or membership activities worldwide in all forms of media now known or later developed, including but not limited to advertising, training, websites, presentations, and marketing materials. You further acknowledge that AUA and/or third parties authorized by AUA shall have the right, but not the obligation, to identify you in connection with such media by name and/or affiliation.

### Recording (Audio, Video, and Still Photography)

Copyright of the AUA 2018 Annual Meeting program is owned by AUA. AUA reserves the rights to all recordings or reproductions of presentations at this Meeting and all AUA meetings and symposia. Any photography, filming, taping, recording, or reproduction in any medium of any of the programs presented at the AUA 2018 Annual Meeting without the express written consent of AUA is strictly forbidden. Exception: Non-flash photography and audio or video recording using hand-held equipment, for strictly personal, social, or noncommercial use, are permitted if not disruptive, as determined by AUA.

### No Smoking Policy

Smoking is not permitted at AUA events. We respectfully request that you abide by our smoke-free policy.

### OpenAnesthesia SelfStudyPlus Info Booth

The first adaptive learning app for anesthesiologists and residents, OpenAnesthesia SelfStudyPLUS personalizes learning using novel and patented algorithms that assess and adapt to individual needs. This easy to use app provides access to over 1700 questions curated by teaching physicians at top hospitals, while fitting into the most demanding schedules. Physicians can use SelfStudyPLUS to conveniently learn CME. OpenAnesthesia is proudly sponsored by the IARS. Visit the info booth in the Regency Foyer A, West Tower in the hotel.

### SmartTots Info Booth

Stop by the SmartTots booth! You'll find a plethora of pediatric anesthesia research resources. Grab the latest info, make a donation, win a bottle of SmartTots wine, enjoy some delicious San Franciscan chocolate and more! The SmartTots info booth is located in the Regency Foyer A, Ballroom Level, West Tower.

### Special Services

If you are in need of any special services, please contact AUA at [auameetings@iars.org](mailto:auameetings@iars.org) or at the Registration Desk in the Crystal Foyer, Lobby Level, West Tower.



## What to Do in Chicago

Explore the city of Chicago and experience the rich culture and historical attractions. As a leader in the arts, Chicago is widely known for its state-of-the-art museums and thrives on the diversity of its neighborhoods and visitors.

Be sure to visit historical sites honoring U.S. veterans, including the National Veterans Art Museum and the John Alexander Logan Monument, and the largest collection of Impressionist and Post-Impressionist paintings outside the Louvre, at the Art Institute of Chicago.

For the more adventurous, stop by Willis Tower (formally known as the Sears Tower) for Skydeck Chicago and view the city at 1,300 feet while suspended from The Ledge, a clear glass box. Spark your curiosity and visit The Field Museum, home of Sue, the largest and most complete *T. rex* in the world. Indulge in the many museums, comedy shows, and live music Chicago has to offer plus so much more.

For more information on what to do in Chicago, including cultural events, historic sites, places to eat, and landmarks, please visit [choosechicago.com](http://choosechicago.com).

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## Travel Information

### Chicago Regional Airports

Airports: O'Hare International Airport (airport code: ORD) and Midway International Airport (airport code: MDW). Both airports offer U.S. and international flights daily.

O'Hare International Airport is 18 miles from airport to hotel or a 45-minute drive. Midway International Airport is 12 miles from airport to hotel or a 35-minute drive.

Both airports offer a variety of options for cabs, airport shuttles, and car rentals. Plus, O'Hare International Airport and Midway International Airport are both accessible via the Chicago Transit Authority (CTA) "L" train. The CTA Blue Line connects directly to O'Hare International Airport and the CTA Orange Line connects directly to Midway International Airport.

Visit [choosechicago.com/plan-your-trip/transportation](http://choosechicago.com/plan-your-trip/transportation) for more information on fare, train schedules, and routes.



## Restaurant Guide

### Restaurants at the Hyatt Regency Chicago

#### American Craft Kitchen & Bar

American (Traditional), \$\$  
Hours: 6:00 am – 3:00 pm;  
5:00 pm – 11:00 pm

#### BIG Bar

Lounges, American (New), \$\$  
Hours: From 5:00 pm

#### The Living Room

Tapas/Small Plates, Cocktail Bars, \$\$  
Hours: Tues-Sat 5:00 pm –  
11:00 pm

#### Stetsons Modern Steak + Sushi

Sushi Bars, Steakhouses, \$\$\$  
Hours: Tues-Sat 5:00 pm –  
10:00 pm

#### Market Chicago

Coffee & Tea, \$\$  
Hours: 24-hours a day

### Restaurants near the Hyatt Regency Chicago

#### Wildberry Pancakes and Café

Breakfast & Brunch, American  
(New), \$\$  
130 E Randolph St  
312-938-9777  
Distance from hotel: 5 min (0.2 mi.)

#### Potbelly Sandwich Shop

Sandwiches, Fast Food, Soup, \$  
111 E Wacker Dr  
312-861-0013  
Distance from hotel: 3 min (0.2 mi.)

#### The Purple Pig

Tapas/Small Plates,  
Mediterranean, \$\$  
500 N Michigan Ave  
312-464-1744  
Distance from hotel: 8 min (0.4 mi.)

#### Lou Malnati's Pizzeria

Pizza, \$\$  
439 N Wells St  
312-828-9800  
Distance from hotel: 15 min (0.8 mi.)

#### Giordano's

Pizza, \$\$  
130 E Randolph St  
312-616-1200  
Distance from hotel: 5 min (0.2 mi.)

#### Magnolia Bakery

Bakeries, Desserts, Cupcakes, \$\$  
108 N State St  
312-346-7777  
Distance from hotel: 10 min (0.5 mi.)

#### Catch 35

Seafood, \$\$\$  
135 W Wacker Dr  
312-346-3500  
Distance from hotel: 9 min (0.4 mi.)

#### Barrio

Mexican, Bars, American  
(New), \$\$\$  
65 W Kinzie St  
312-941-9900  
Distance from hotel: 14 min (0.7 mi.)

#### Prime & Provisions

American (Traditional), Seafood,  
Steakhouses, \$\$\$\$  
222 N La Salle St  
312-726-7777  
Distance from hotel: 12 min (0.6 mi.)

#### Naf Naf Grill

Middle Eastern, Falafel, Salad, \$  
326 N Michigan Ave  
312-263-0019  
Distance from hotel: 5 min (0.2 mi.)

#### MingHin Cuisine

Dim Sum, Cantonese, Asian  
Fusion, \$\$  
333 E Benton Pl Ste 300  
312-228-1333  
Distance from hotel: 5 min (0.2 mi.)

#### Quartino Ristorante

Italian, Wine Bars, \$\$  
626 N State St  
312-695-5000  
Distance from hotel: 13 min (0.6 mi.)

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## Restaurants near the Hyatt Regency Chicago, *continued*

### **Nando's PERi-PERi**

*Portuguese, South African,*

*Chicken Shop, \$\$*

22 S Wabash Ave

312-589-7432

Distance from hotel: 10 min (0.5 mi.)

### **Brightwok Kitchen**

*Asian Fusion, Gluten-Free,*

*Vegetarian, \$\$*

21 E Adams St

312-583-0729

Distance from hotel: 13 min (0.6 mi.)

### **Cochon Volant Brasserie**

*French, Brasseries, \$\$*

100 W Monroe St

312-754-6560

Distance from hotel: 14 min (0.7 mi.)

### **Yolk – Streeterville**

*Breakfast & Brunch, American*

*(Traditional), Comfort Food, \$\$*

355 E Ohio St

312-822-9655

Distance from hotel: 9 min (0.4 mi.)

## Coffee near the Hyatt Regency Chicago

### **Two Zero Three**

*Coffee & Tea, Wine Bars, \$*

203 North Wabash Ave

312-940-4808

Distance from hotel: 8 min (0.4 mi.)

### **Stan's Donuts & Coffee**

*Donuts, Coffee & Tea, \$*

181 N Michigan Ave

312-729-5480

Distance from hotel: 5 min (0.2 mi.)

### **Intelligentsia Coffee**

*Coffee & Tea, \$*

53 E Randolph St

312-920-9332

Distance from hotel: 6 min (0.3 mi.)

### **Caffe RoM**

*Coffee & Tea, Sandwiches, Gelato, \$*

180 N Stetson Ave

312-948-888

Distance from hotel: 3 min (0.1 mi.)

## Other Restaurants of Note

### **Dusek's Board & Beer**

*Bars, American (New), Breakfast &*

*Brunch, \$\$*

1227 W 18th St

312-526-385

Distance from hotel: (4.6 mi.)

### **Roister**

*American (New), \$\$\$\$*

951 W Fulton Market

Distance from hotel:

12 min car ride (2.1 mi.)

### **Gibsons Bar & Steakhouse**

*Steakhouses, Wine Bars, \$\$\$*

1028 N Rush St

312-266-8999

Distance from hotel:

8 min car ride (1.5 mi.)

### **Pequod's Pizzeria**

*Pizza, \$\$*

2207 N Clybourn Ave

773-327-1512

Distance from hotel:

25 min car ride (5.0 mi.)



## Special Events

### Thursday, April 26

#### **AUA Social Event Reception**

7:00 pm – 10:00 pm, Chicago Stock Exchange Trading Room, Art Institute of Chicago (111 S. Michigan Avenue)

The AUA Social Event Reception, presented by Host Institutions Northwestern University Feinberg School of Medicine and The University of Chicago Medicine, will take place at the Art Institute of Chicago, the second largest art museum in the United States with nearly 300,000 works in its permanent collection. The event includes dinner and beverages, as well as access to the museum and docents.

#### **Reception Schedule:**

7:00 pm – 8:20 pm: Reception and Dinner

8:20 pm – 8:40 pm: Welcome from Host Institutions and Docent Presentation on the Art Institute of Chicago Trading Room

8:40 pm – 10:00 pm: Access to Modern and American Art Wings and Docents

*Pre-registration and an additional fee is required to attend this special event. Check at registration onsite for availability.*

### Friday, April 27

#### **IARS, AUA, SOCCA & eSAS Scholars' Program Mentoring and Networking Reception**

6:00 pm – 7:00 pm, Hyatt Regency Chicago (151 E. Wacker Drive)

The Scholars' Program Mentor-Trainee Reception offers trainees opportunities to be paired with mentors and network with leaders in anesthesiology.

*This reception is part of the Scholars' Program, which requires pre-registration and a \$50 registration fee.*

### Saturday, April 28

#### **IARS, AUA and SOCCA Alignment Reception**

6:00 pm – 7:30 pm, Hyatt Regency Chicago (151 E. Wacker Drive)

Celebrate the convergence of the IARS, AUA, and SOCCA Annual Meetings and meet pioneers in all subspecialties shaping the future of anesthesiology during the Aligned Meeting Day at the IARS 2018 Annual Meeting and International Science Symposium!

*This reception is part of the Aligned Meeting Day and available to AUA registrants complimentary. Pre-registration is required.*

#### **Scholars' Program Breakfast with IARS, AUA and SOCCA Leadership and Mentors**

6:15 am – 7:15 am

Network with the IARS, AUA and SOCCA Leadership and your mentor over breakfast.

*This breakfast is part of the Scholars' Program, which requires pre-registration and a \$50 registration fee.*

# Continuing Medical Education (CME) Information

## Activity Overview

Findings from new research and the evolution of anesthesiology practice based on emerging evidence create an inherent gap between existing practice and new practice models. The purpose of the Association of University Anesthesiologists (AUA) 2018 Annual Meeting is to provide an evidence-based and clinically-oriented educational activity that will improve competence and performance in the anesthesiology specialty, resulting in improved patient care and outcomes.

## Target Audience

The AUA 2018 Annual Meeting is designed to address the continuing medical education needs of anesthesiologists, anesthesiologists-in-training, and anesthesia investigators in academic, clinical, and laboratory settings.

## Educational Objectives

As a result of participating in this live CME activity, learners will be able to:

- Describe the latest developments in education research, measuring knowledge in the field of anesthesia.
- Consider recent research findings relative to anesthesiology and evaluate their application to the learner's professional practice.
- Develop strategies for integrating new knowledge and behaviors into their professional practice.
- Evaluate gaps in their knowledge, behavior, and patient outcomes that may result in a need for additional education and training.

## Accreditation Statement

This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the International Anesthesia Research Society (IARS) and the Association of University Anesthesiologists (AUA). The IARS is accredited by the ACCME to provide continuing medical education for physicians.

## CME Credit

The International Anesthesia Research Society (IARS) designates this live activity for a maximum of 14 *AMA PRA Category 1 Credits*.™ Physicians should claim only the credit commensurate with the extent of their participation in the activity.



## Continuing Medical Education (CME) Information, *continued*

### Claiming CME Credit

The IARS will provide online program evaluation and session tracking to support claiming CME credit beginning on Wednesday, May 2. Meeting participants will have 90 days to claim CME credit.

### Maintenance of Certification in Anesthesiology Program<sup>®</sup> (MOCA<sup>®</sup>)

Physicians wishing to have credits from this educational activity reported to the ABA for the ABA MOCA<sup>®</sup> Program may do so by entering their eight digit ABA identification number when claiming CME credit. The IARS forwards credits to the ABA on a quarterly basis. Sessions approved for ABA MOCA 2.0<sup>®</sup> Patient Safety CME credit are designated by ▼.

### Disclosure

The International Anesthesia Research Society (IARS) makes every effort to develop CME activities that are independent, objective, and scientifically balanced presentations of information. The IARS has implemented mechanisms requiring everyone in a position to control content to disclose all financial relationships with commercial interests. Disclosure of any or no relationships is made available in advance of all educational activities. The IARS evaluates, and if necessary, resolves any conflicts of interest prior to the start of the activity. Individuals who refuse or fail to provide the required disclosures are disqualified from being a planning committee member, teacher, or author of CME, and cannot have control of, or responsibility for, the development, management, presentation or evaluation of the CME activity.

### Disclaimer

The information provided in this CME activity is for continuing education purposes only and is not meant to substitute for the independent medical judgment of a healthcare provider relative to diagnostic and treatment options of a specific patient's medical condition.

### Commercial Support

This CME activity is supported entirely by the Association of University Anesthesiologists (AUA). There is no commercial support for this activity.

## Room Locator

DATE	TIME	SESSION NAME	ROOM NAME
Thursday, April 26	6:00 am – 6:00 pm	Registration	Crystal Foyer, Lobby Level, West Tower
	8:00 am – 9:00 am	Welcome from AUA President and Host Institution Chairs	Regency A, Ballroom Level, West Tower
	9:00 am – 10:30 am	Educational Advisory Board (EAB) Program Panel I: <i>Motivation, Metacognition, and Self-Regulation</i>	Regency A, Ballroom Level, West Tower
	10:45 am – 11:45 am	Scientific Advisory Board (SAB) Oral Session I	Regency A, Ballroom Level, West Tower
	11:45 am – 12:45 pm	All Attendee Lunch	Crystal AB, Lobby Level, West Tower
	11:45 am – 12:45 am	President's Lunch – <i>Invite Only</i>	Crystal C, Lobby Level, West Tower
	12:45 pm – 2:15 pm	Moderated Poster Discussion Session I	Riverside West, Exhibit Level, East Tower
	2:15 pm – 2:30 pm	Break	
	2:30 pm – 3:30 pm	SAB Oral Session II	Regency A, Ballroom Level, West Tower
	3:30 pm – 4:00 pm	Break in Poster Room	Riverside West, Exhibit Level, East Tower
	4:00 pm – 6:00 pm	President's Panel: <i>Sepsis Revisited: Important Updates</i>	Regency A, Ballroom Level, West Tower
	7:00 pm – 10:00 pm	AUA Social Event Reception*	The Chicago Stock Exchange Room, Art Institute of Chicago
Friday, April 27	6:00 am – 6:00 pm	Registration	Crystal Foyer, Lobby Level, West Tower
	8:00 am – 9:15 am	AUA Host Program Panel I	Regency A, Ballroom Level, West Tower
	9:15 pm – 9:30 pm	Break	
	9:30 am – 10:45 am	AUA Host Program Panel II	Regency A, Ballroom Level, West Tower
	11:00 am – 12:30 pm	AUA EAB Program Panel II: <i>The Science of Longitudinal Assessment</i>	Regency A, Ballroom Level, West Tower
	12:30 am – 1:30 pm	All Attendee Lunch & Early-Stage Faculty, Fellow, Resident, and Medical Student Lunch – <i>(tables will be reserved)</i>	Crystal AB, Lobby Level, West Tower
	12:30 am – 1:30 pm	EAB Committee Meeting – <i>Invite Only</i>	Addams, Third Floor, West Tower
	12:30 am – 1:30 pm	SAB Committee Meeting – <i>Invite Only</i>	Wright, Third Floor, West Tower
	1:30 pm – 3:00 pm	AUA Moderated Poster Discussion Session II	Riverside West, Exhibit Level, East Tower
	3:00 pm – 3:15 pm	Break	
	3:15 pm – 4:15 pm	AUA SAB Oral Session III	Regency A, Ballroom Level, West Tower
	4:15 pm – 4:30 pm	Break	
	4:30 pm – 5:30 pm	AUA SAB Oral Session IV	Regency A, Ballroom Level, West Tower
	5:30 pm – 6:00 pm	AUA Annual Business Meeting	Regency A, Ballroom Level, West Tower
	6:00 pm – 7:00 pm	IARS, AUA, SOCCA and eSAS Scholars' Program Mentoring and Networking Reception*	The Living Room & Bar, Skyway Level, West Tower

\*Ticketed Event. Check at the Registration Desk for availability.

## Room Locator, *continued*

DATE	TIME	SESSION NAME	ROOM NAME
Saturday, April 28	6:00 am – 6:00 pm	Registration	Crystal Foyer, Lobby Level, West Tower
	6:15 am – 7:15 am	Scholars' Program Breakfast with IARS, AUA, & SOCCA Leadership and Mentors*	Regency C, Ballroom Level, West Tower
	7:30 am – 9:00 am	Opening General Session and T.H. Seldon Memorial Lecture: <i>Personalizing Healthcare in the Era of Big Data</i>	Crystal AB, Lobby Level, West Tower
	9:00 am – 9:30 am	Break	
	9:30 am – 9:40 am	Scholar-01: Introduction to Scholars' Program and eSAS*	Regency C, Ballroom Level, West Tower
	9:30 am – 12:00 pm	Symposium-01: <i>AUA: Mitochondria and Bioenergetics in Health and Disease: It's Not Just A Power Failure!</i>	Crystal C, Lobby Level, West Tower
	9:40 am – 10:30 am	Scholar-02: <i>Moving from Insight to Research Program and What This is All About*</i>	Regency C, Ballroom Level, West Tower
	10:45 am – 12:15 pm	Scholar-03: <i>Shine Like A Rockstar: Different Paths to Success*</i>	Regency C, Ballroom Level, West Tower
	12:00 pm – 1:00 pm	Problem-Based Learning Discussion-05: <i>AUA: Why Study Time Doesn't Always Lead to Learning: How Do We Help the Struggling Trainee?*</i>	Dusable, Third Floor, West Tower
	1:00 pm – 2:00 pm	Lunch on Your Own	
	12:30 pm – 2:00 pm	Scholar-04: Lunch Session: <i>Resilience Personified: Transitioning from Trainee to Junior Faculty and Beyond*</i>	Regency C, Ballroom Level, West Tower
	2:15 pm – 3:45 pm	Scholar-05: <i>Moving Fluidly Across the Translational Spectrum: Current Opioid Crisis*</i>	Regency C, Ballroom Level, West Tower
	2:30 pm – 3:30 pm	Problem-Based Learning Discussion-09: <i>AUA: Why Study Time Doesn't Always Lead to Learning: How Do We Help the Struggling Trainee?*</i>	Ogden, Third Floor, West Tower
	3:30 pm – 4:00 pm	Break	
	4:00 pm – 5:00 pm	Scholar-06: <i>Priorities for Developing Researchers: Perspectives from the NIH and IARS*</i>	Regency C, Ballroom Level, West Tower
	4:00 pm – 5:00 pm	Problem-Based Learning Discussion-10: <i>AUA: Getting to the Heart of the Matter: Perioperative Focused Cardiac and Pulmonary Ultrasound, and The Hemodynamically Unstable Patient*</i>	Dusable, Third Floor, West Tower
	5:10 pm – 6:10 pm	Scholar-07: <i>From the Editor's Desk: A No-Nonsense Guide to Successful Publication*</i>	Regency C, Ballroom Level, West Tower
	6:00 pm – 7:30 pm	IARS, AUA & SOCCA Alignment Reception	Regency D & Foyer, Ballroom Level, West Tower



## Planning Committee

### **Jeffrey L. Apfelbaum, MD**

*Co-Chair, Host Institution, AUA 2018 Annual Meeting*  
Professor of Anesthesia and Critical Care;  
The University of Chicago Medicine, Chicago, Illinois

### **Thomas A. Cooper**

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*Chair, Educational Advisory Board*  
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### **Charles W. Hogue, MD**

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*President, Association of University Anesthesiologists*  
Henry Isaiah Dorr Professor of Research and  
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Department of Anaesthesia, Critical Care and Pain  
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in-Chief, Massachusetts General Hospital,  
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### **Keith H. Baker, MD, PhD**

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School, Vice Chair for Education, Anesthesia, Critical  
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### **Wesley B. Baker, MD**

University of Pennsylvania, Philadelphia, Pennsylvania

### **Colleen Bartman, PhD Candidate**

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Denver, Aurora, Denver

### **David R. Busch, PhD**

Assistant Professor, Department of Anesthesiology &  
Pain Management and Neurology & Neurotherapeutics,  
University of Texas Southwestern, Dallas, Texas

*continued on page 18*



## Program Faculty, *continued*

### **Lucy Chen, MD**

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### **Lisa Eisler, MD**

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### **Holger Eltzschig, MD, PhD**

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### **Kevin Emr, MD**

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### **Wendy L. Freedman, PhD**

John & Marion Sullivan University Professor of Astronomy and Astrophysics, Department of Astronomy and Astrophysics, The University of Chicago Medicine, Chicago, Illinois

### **Robert R. Gaiser, MD**

*Chair, Educational Advisory Board*  
Professor and Chair, Anesthesiology, University of Kentucky Health Care, Lexington, Kentucky

### **Ann Harman, PhD**

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### **Judith Hellman, MD**

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### **Paul Garcia, MD, PhD**

Emory University School of Medicine, Atlanta, Georgia

### **Peter A. Goldstein, MD**

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### **Charles W. Hogue, MD**

*Co-Chair, Host Institution, AUA 2018 Annual Meeting*  
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### **Jae Woo Lee, MD**

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### **Richard Levy, MD, FAAP**

Columbia University Medical Center, New York, New York

### **William C. McGaghie, PhD**

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### **Peter Nagele, MD, MSc**

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### **Arun Prakash, MD, PhD**

University of California, San Francisco School of Medicine, San Francisco, California

### **Y.S. Prakash, MD, PhD**

*Chair, Scientific Advisory Board*  
Professor of Anesthesiology and Physiology, Department of Anesthesiology and Perioperative Medicine, Chair, Department of Physiology and Biomedical Engineering, Mayo Clinic, Rochester, Minnesota

### **Nidia Quillinan, PhD**

Assistant Professor, Department of Anesthesiology, University of Colorado Denver, Aurora, Colorado; *Junior Faculty Research Award Winner*

*continued on page 19*

## Program Faculty, *continued*

### John Rogers, PhD

Louis Simpson and Kimberly Querrey Professor of Materials Science and Engineering, Biomedical Engineering and Neurological Surgery, Northwestern University Feinberg School of Medicine, Chicago, Illinois

### Edward Sherwood, MD, PhD

Professor of Anesthesiology, Division of Multispecialty Adult Anesthesiology, Vice-Chair for Research, Vanderbilt University Medical Center, Nashville, Tennessee

### Mervyn Singer, MBBS, MD, FRCP (Lon), FRCP (Edin), FFICM

Professor of Intensive Care Medicine, Head, Research Department of Clinical Physiology, University College London, London, England

### Andrew Slupe, MD, PhD

C3 Resident, Oregon Health and Science University, Portland, Oregon; *Resident Travel Award Winner*

### Andrew O. Suen, MD

Visiting Post-Doctoral Fellow, University of Maryland School of Medicine, Baltimore, Maryland; *Resident Travel Award Winner*

### Eric Sun, MD, PhD

Assistant Professor of Anesthesiology, Perioperative and Pain Medicine (Adult-Msd) and, By Courtesy, of Health Research and Policy (Health Services Research), The Stanford University Medical Center, Stanford, California; *Junior Faculty Research Award Winner*

### Jacob E. Sunshine, MD, MS

Assistant Professor, Department of Anesthesiology, University of Washington School Medical Center, Seattle, Washington

### Norman E. Taylor, MD, PhD

Assistant Professor of Anaesthesia, Harvard Medical School; Massachusetts General Hospital, Boston, Massachusetts

### Avery Tung, MD, FCCM

Professor of Anesthesia and Critical Care Quality, Chief for Anesthesia, The University of Chicago Medicine, Chicago, Illinois

### Brant Wagener, MD, PhD

Assistant Professor, Department of Anesthesiology and Perioperative Medicine, Director, Medical and FAER Student Research, University of Alabama at Birmingham, Birmingham, Alabama

### Jonathan Wanderer, MD

Assistant Professor of Anesthesiology and Biomedical Informatics, Medical Director of Vanderbilt Anesthesiology and Perioperative Informatics Research, Medical Director of Vanderbilt Perioperative Evaluation Clinic, Vanderbilt University School of Medicine, Nashville, Tennessee

### Elizabeth L. Whitlock, MD, MSc

Postdoctoral Scholar, University of California, San Francisco School of Medicine, San Francisco, California; *Margaret Wood Resident Research Award Winner*

### Jeanine P. Wiener-Kronish, MD

*President, Association of University Anesthesiologists*  
Henry Isaiah Dorr Professor of Research and Teaching in Anaesthetics and Anaesthesia, Department of Anesthesia, Critical Care and Pain Medicine, Harvard Medical School, Anesthetist-in-Chief, Massachusetts General Hospital, Boston, Massachusetts

### Brittney Williams, MD

University of Maryland School of Medicine, Baltimore, Maryland

### Laurie Zoloth, PhD

Margaret E. Burton Professor and Dean of the Divinity School, The University of Chicago Medicine, Chicago, Illinois



## Program Schedule

### Thursday, April 26

- 6:00 am – 6:00 pm **Registration**
- 8:30 am – 9:00 am **Welcome from AUA President and Host Institution Chairs**  
 Jeanine P. Wiener-Kronish, MD  
 President, Association of University Anesthesiologists (AUA)  
 Jeffrey L. Apfelbaum, MD, Co-Chair  
 Host Institution, The University of Chicago Medicine  
 Peter Nagele, MD, MSc, Co-Chair,  
 Host Institution, The University of Chicago Medicine  
 Charles W. Hogue, MD, Co-Chair  
 Host Institution, Northwestern University Feinberg School of Medicine
- 9:00 am – 10:30 am ▼ **Educational Advisory Board (EAB) Program Panel I:  
 Motivation, Metacognition, and Self-Regulation**  
 Moderator: Robert R. Gaiser, MD
- **Science of Motivation**  
 Daniel Saddawi-Konefka, MD, MBA
  - **Science of Metacognition**  
 Avery Tung, MD, FCCM
  - **Science of Self-Regulation**  
 William C. McGaghie, PhD
- Learner Objectives:** After participating in this activity, the learner will be able to: (1) Discuss the differences and interactions between extrinsic and intrinsic motivation; (2) Define metacognition as a cognitive behavior and describe how such behavior currently plays a role in anesthesia practice and how focused application may facilitate safe anesthesia; (3) Restate that self-assessments of professional skills and qualities are unreliable; (4) Evaluate reliable external assessments of professional skills and qualities; and (5) Demonstrate reliable assessment data for professional improvement.
- 10:30 am – 10:45 am **Break**
- 10:45 am – 11:45 am **Scientific Advisory Board (SAB) Oral Session I**  
 Moderators: Peter Goldstein, MD and Jae Woo Lee, MD  
 Presenters:
- **GABA Neurons in the Rostromedial Tegmental Nucleus Modulate Analgesia in Mice**  
 Norman E. Taylor, MD, PhD

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## Program Schedule, *continued*

Thursday, April 26, *continued*

SAB Oral Session I, *continued*

- Junior Faculty Research Award**

  - ***Light Elicited Cardio-protection Reveals Circadian Entrainment as a Mechanism that Requires PER2 to Mimic HIF1 $\alpha$  Mediated Metabolic Adaptation to Ischemia***  
Colleen Bartman, PhD Candidate
  - ***Pharmacological Calcium/Calmodulin-dependent Protein Kinase (CaMKII) Inhibition Protects Against Purkinje Cell Damage Following Cardiac Arrest and Cardiopulmonary Resuscitation in Mice***  
Nidia Quillinan, PhD
- Resident Travel Award**

  - ***The Pro-Apoptotic Protein BAX is Necessary for Neuron Death Associated with Exposure to Isoflurane General Anesthesia in a Neonatal Mouse Model***  
Andrew Slupe, MD, PhD

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Describe the latest bench research relevant to perioperative medicine; (2) Discuss the impact of the latest clinical research in the area of perioperative medicine; (3) Report the impact of the latest outcomes research in the area of perioperative medicine; and (4) Relate the impact of the latest bench and clinical research in pain medicine.

11:45 am — 12:45 pm **All Attendee Lunch**

11:45 am — 12:45 pm **President’s Lunch – *Invite Only***

12:45 pm — 2:15 pm **Moderated Poster Discussion Session I**

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Describe the latest developments in anesthesiology research in basic, clinical and population science; (2) Examine recent research findings relative to anesthesiology and evaluate their application to the learner’s own research and clinical practice; and (3) Construct strategies for integrating new knowledge into anesthesiology research programs.

2:15 pm — 2:30 pm **Break**

2:30 pm — 3:30 pm **SAB Oral Session II**

Moderators: Lucy Chen, MD and Edward Sherwood, MD, PhD

Presenters:

- Junior Faculty Research Award**

  - ***Concurrent Surgery and Perioperative Outcomes: A Retrospective Analysis from the Multicenter Perioperative Outcomes Group***  
Eric Sun, MD, PhD

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## Program Schedule, *continued*

Thursday, April 26, *continued*

### SAB Oral Session II, *continued*

Margaret Wood  
Resident Research Award

- ***Derivation, Validation, and Sustained Performance of a Hospital-Wide Elective Surgery Delirium Risk Tool (AWOL-S)***  
Elizabeth L. Whitlock, MD, MSc
- ***Mobile Detection of Simulated Opioid Overdose Events***  
Jacob Sunshine, MD, MS

Junior Faculty Travel  
Award in Pediatric  
Anesthesia

- ***Unplanned Postoperative Intubation in Infant and Neonatal Surgical Patients: Predictors and Associated Mortality***  
Lisa Eisler, MD

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Describe the latest bench research relevant to perioperative medicine; (2) Discuss the impact of the latest clinical research in the area of perioperative medicine; (3) Report the impact of the latest outcomes research in the area of perioperative medicine; and (4) Relate the impact of the latest bench and clinical research in pain medicine.

3:30 pm — 4:00 pm **Break**

4:00 pm — 6:00 pm ▼ **President's Panel: Sepsis Revisited – Important Updates**

Moderator: Jeanine P. Wiener-Kronish, MD

**Panelists:**

- ***Controversies in Sepsis Management***  
Mervyn Singer, MBBS, MD, FRCP (Lon), FRCP (Edin), FFICM
- ***Collapse of the Microbiome, Emergence of the Pathobiome and the Immunopathology of Sepsis***  
John C. Alverdy, MD, FACS
- ***Modulation of Sepsis and Acute Inflammation by Non-Leukocyte Cell Populations***  
Judith Hellman, MD

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Review the fundamentals of microbiome sciences and identify the emergence and mechanisms by which pathogens express virulence against the host; (2) Define and review the role of the normal intestinal microbiota to drive a recovery directed immune response; (3) Identify the new Sepsis-3 definitions; and (4) Discuss what constitutes and challenges optimal antibiotic management (e.g., the impact of timing and the duration of therapy); (5) Review the topic of sepsis driving



## Program Schedule, *continued*

### Thursday, April 26, *continued*

novel therapeutic strategies (e.g., immune activation and personalized treatment based on subphenotype/endotype); (6) Review the role of non-leukocyte cell populations, including neurons and endothelial cells, in regulating inflammatory responses during sepsis; (7) Assess up-to-date neuro-immune mechanisms involved in down regulating sepsis-induced inflammation; and (8) Examine the role of endothelial cells and endothelial inflammatory pathways in sepsis.

7:00 pm — 10:00 pm

#### **AUA Social Event Reception\***

*Hosted by Northwestern University Feinberg School of Medicine and The University of Chicago Medicine*

Chicago Stock Exchange Trading Room, The Art Institute of Chicago (111 S. Michigan Avenue)

See page 12 for event details.

### Friday, April 27

6:00 am — 6:00 pm

#### **Registration**

8:00 am — 9:15 am

#### **Host Program Panel I**

Moderators: Jeffrey L. Apfelbaum, MD, Peter Nagele, MD, MSc, and Charles W. Hogue, MD

#### **Presenters:**

- ***Pain in Plain Sight: Religion, Ethics and Opioid Addiction***  
Laurie Zoloth, PhD
- ***Our Unexpected Universe – Non-CME***  
Wendy L. Freedman, PhD

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Assess the effect of opioid addition on current health care economics and its impact on pending governmental regulatory changes; (2) Discuss the growing problem of addiction to opioids; (3) Describe how health care economics, bioethics, the hospice movement and state policy all created the context in which opioids became such a widespread problem; and (4) Describe astronomer and physicist’s current understanding of the nature and evolution of the universe.

9:15 am — 9:30 am **Break**

\*Ticketed Event. Check at the Registration Desk for availability.



## Program Schedule, *continued*

Friday, April 27, *continued*

- 9:30 am — 10:45 am **Host Program Panel II**  
 Moderators: Jeffrey L. Apfelbaum, MD, Peter Nagele, MD, MSc, and Charles W. Hogue, MD  
**Presenters:**
- ***Brain Mechanisms of Chronic Pain and Novel Therapeutic Opportunities***  
A. Vania Apkarian, PhD
  - ***Wireless Skin-Like Sensors of Physiological Status***  
John Rogers, PhD
- Learner Objectives:** After participating in this activity, the learner will be able to: (1) Understand the latest capabilities in thin, soft wireless monitors of physiological status; and (2) Learn the various use cases in clinical medicine and at-home monitoring.
- 10:45 am — 11:00 am **Break**
- 11:00 am — 12:30 pm **EAB Program Panel II: *The Science of Longitudinal Assessment***  
 Moderator: Robert R. Gaiser, MD  
**Panelists:**
- ***Knowledge Over the Continuum***  
Ann Harman, PhD
  - ***Information as a Pedagogical Tool***  
Jonathan Wanderer, MD
  - ***The Effect of Time on Technical Skills***  
Keith H. Baker, MD, PhD
- Learner Objectives:** After participating in this activity, the learner will be able to: (1) Explain how learners fool themselves into believing that massed practice is more effective than spaced practice when learning a technical skill; (2) Design a plan for improvement in technical skills that incorporates elements of deliberate practice are implemented; (3) Formulate clinical informatics for bridging educational gaps; and (4) Formulate the science of longitudinal assessment in practice improvement.
- 12:30 pm — 1:30 pm **Lunches:**
- ***All Attendee Lunch***
  - ***Early-Stage Faculty, Fellow, Resident, and Medical Student Lunch (tables will be reserved at the All Attendee Lunch)***
  - ***Educational Advisory Board Committee Meeting Lunch – Invite Only***
  - ***Scientific Advisory Committee Meeting Board Lunch – Invite Only***

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## Program Schedule, *continued*

### Friday, April 27, *continued*

1:30 pm — 3:00 pm **Moderated Poster Discussion Session II**

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Describe the latest developments in anesthesiology research in basic, clinical and population science; (2) Examine recent research findings relative to anesthesiology and evaluate their application to the learner's own research and clinical practice; and (3) Construct strategies for integrating new knowledge into anesthesiology research programs.

3:00 pm — 3:15 pm **Break**

3:15 pm — 4:15 pm **SAB Oral Session III**

Moderators: Y.S. Prakash, MD, PhD and Holger K. Eltzschig, MD, PhD

Presenters:

**Resident Travel Award**

- ***Estrogens Alleviate Parasympathetic-induced,  $\alpha$ 7nAChR-mediated Mortality from Secondary P. Aeruginosa Lung Infection after Traumatic Brain Injury in Mice***  
Brant Wagener, MD, PhD
- ***Extracellular miRNAs and Innate Immune Activation Following Polytraumatic Injury in Mice***  
Andrew Suen, MD
- ***Kidney Proximal Tubular Toll-like Receptor 9 (TLR9) Exacerbates Ischemic Acute Kidney Injury in Mice***  
H.T. Lee, MD, PhD
- ***Monitoring of Spinal Cord Blood Flow During Orthopedic Surgery in an Ovine Model***  
David R. Busch, PhD

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Describe the latest bench research relevant to perioperative medicine; (2) Discuss the impact of the latest clinical research in the area of perioperative medicine; (3) Report the impact of the latest outcomes research in the area of perioperative medicine; and (4) Relate the impact of the latest bench and clinical research in pain medicine.

4:15 pm — 4:30 pm **Break**



## Program Schedule, *continued*

Friday, April 27, *continued*

4:30 pm — 5:30 pm **SAB Oral Session IV**

Moderators: Richard Levy, MD, FAAP and Paul Garcia, MD, PhD

Presenters:

**Junior Faculty Travel  
Award in Perioperative  
Medicine**

- ***Echocardiographic Assessment Using Subxiphoid-only View (EASy) Compared to Focused Transthoracic Echocardiography (FoTE) in the Perioperative Period: A Multicenter Prospective Study***  
Kevin Emr, MD
- ***Gut Commensal Metabolites Regulate Sterile Lung Inflammation in Mice: A Role for Acetate and Propionate***  
Arun Prakash, MD, PhD
- ***Non-invasive Optical Quantification of Absolute Cerebral Blood Flow in Adults: Validation against MRI***  
Wesley B. Baker, MD
- ***Role of Toll-like Receptor Signaling in Sepsis-induced Coagulopathy in Mice***  
Brittney Williams, MD

**Learner Objectives:** After participating in this activity, the learner will be able to: (1) Describe the latest bench research relevant to perioperative medicine; (2) Discuss the impact of the latest clinical research in the area of perioperative medicine; (3) Report the impact of the latest outcomes research in the area of perioperative medicine; and (4) Relate the impact of the latest bench and clinical research in pain medicine.

5:30 pm — 6:00 pm **AUA Annual Business Meeting**

6:00 pm — 7:00 pm **IARS, AUA, SOCCA and eSAS Scholars' Program Mentoring and Networking Reception\***

*\*The Scholars' Program requires a separate \$50 non-refundable fee and pre-registration. This fee includes education sessions, reception, breakfast and lunch. Seating is limited.*

*\*Ticketed Event. Check at the Registration Desk for availability.*



# Aligned Meeting Day at the IARS 2018 Annual Meeting and International Science Symposium Saturday, April 28

- 7:30 am — 9:00 am **Opening General Session and T.H. Seldon Memorial Lecture:  
*Personalizing Healthcare in the Era of Big Data***  
Presenter: Jeffrey R. Balsler, MD, PhD, Dean of Vanderbilt University School of Medicine; President and CEO, Vanderbilt University Medical Center, Nashville, Tennessee
- 9:30 am — 12:00 pm **Symposium-01: AUA: *Mitochondria and Bioenergetics in Health and Disease: It's Not Just A Power Failure!***  
Moderator: Y.S. Prakash, MD, PhD, Chair, Scientific Advisory Board, AUA, Professor of Anesthesiology and Physiology, Department of Anesthesiology and Perioperative Medicine, Mayo Clinic College of Medicine and Science, Rochester, Minnesota
- Panelists:**
- ***Anesthetic Preconditioning and Mitochondria***  
Paul S. Brookes, PhD, Professor, Department of Anesthesiology & Perioperative Medicine, Research (SMD), Professor, Department of Pharmacology and Physiology (SMD), University of Rochester Medical Center, Rochester, New York
  - ***Brain Bioenergetics: Watch that Oxygen Level***  
Elizabeth A. Jonas, MD, Professor of Internal Medicine and Neuroscience, Division of Endocrinology, Yale University; Co-Chair, Bioenergetics Biophysical Society; Co-Chair, Status of Women in Medicine; Associate Editor, The FASEB Journal, New Haven, Connecticut
  - ***Taking a Closer Look at Mitochondria***  
Douglas L. Rothman, PhD, Professor of Biomedical Engineering and Radiology and Biomedical Imaging, Director, Magnetic Resonance Research Center (MRRC), Yale School of Engineering and Applied Sciences, New Haven, Connecticut
  - ***Mitochondria From Evolution to Disease: It's in the Genes***  
Douglas C. Wallace, PhD, Director, Center for Mitochondrial and Epigenomic Medicine (CMEM), Michael and Charles Barnett Endowed Chair of Pediatric Mitochondrial Medicine and Metabolic Diseases, Children's Hospital of Philadelphia Research Institute; Professor, Department of Pathology and Laboratory Medicine, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania



## Aligned Meeting Day, *continued*

Saturday, April 28, *continued*

12:00 pm — 1:00 pm **Problem-Based Learning Discussion-05: AUA: *Why Study Time Doesn't Always Lead to Learning: How Do We Help the Struggling Trainee?\****

Presenters:

Ersne Eromo, MD, MBA, Instructor in Anaesthesia, Clerkship Director for Harvard Medical Students, Harvard Medical School, Simulation Fellow, Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, Massachusetts

Daniel Saddawi-Konefka, MD, MBA, Assistant Professor in Anaesthesia, Harvard Medical School; Anesthesia Residency Program Director, Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, Massachusetts

2:30 pm — 3:30 pm **Problem-Based Learning Discussion-09: AUA: *Why Study Time Doesn't Always Lead to Learning: How Do We Help the Struggling Trainee? – Offered Twice!***

With Drs. Ersne Eromo and Daniel Saddawi-Konefka

4:00 pm — 5:00 pm **Problem-Based Learning Discussion-10: AUA: *Getting to the Heart of the Matter: Perioperative-Focused Cardiac and Pulmonary Ultrasound, and The Hemodynamically Unstable Patient\****

Presenters:

Alexander S. Kuo, MD, Instructor in Anaesthesia, Harvard Medical School; Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, Massachusetts

Abraham Sonny, MD, MBBS, Faculty, Anaesthesia, Harvard Medical School; Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, Massachusetts

6:00 pm — 7:30 pm **IARS, AUA and SOCCA Alignment Reception**

*AUA Attendees Invited to Attend  
Hyatt Regency Chicago*

Celebrate the convergence of the IARS, AUA, and SOCCA Annual Meetings and meet pioneers in all subspecialties shaping the future of anesthesiology during the Aligned Meeting Day at the IARS 2018 Annual Meeting and International Science Symposium!

*\*Ticketed Event. Check at the Registration Desk for availability.*



## Scholars' Program

Friday, April 27 – Saturday, April 28

### Friday, April 27

6:00 pm – 7:00 pm **IARS, AUA, SOCCA and eSAS Scholars' Program Mentoring and Networking Reception\***

Based on rigorous evaluation of both mentors' expertise and trainees' needs, trainees will be matched with a mentor and have the opportunity to interact during this reception. Sign-up to be mentored or serve as a mentor during registration, plus gain the opportunity to network with your colleagues and peers.

### Saturday, April 28

6:15 am – 7:15 am **Scholars' Program Breakfast with IARS, AUA, & SOCCA Leadership and Mentors\***

9:30 am – 9:40 am **Scholar-01: Introduction to Scholars' Program and eSAS\***

**Presenters:**

Vivianne Tawfik, MD, PhD, Assistant Professor, Department of Anesthesiology, Perioperative and Pain Medicine (Adult Pain), Assistant Director, Fellowship in Anesthesia Research & Medicine Program (FARM), Stanford University School of Medicine, Stanford, California; Co-President, eSAS

Elizabeth L. Whitlock, MD, MSc, Clinical Instructor and T32 Fellow, Department of Anesthesia and Perioperative Care, University of California, San Francisco School of Medicine, San Francisco, California; Co-President, eSAS

9:40 am – 10:30 am **Scholar-02: *Moving from Insight to Research Program and What This is All About\****

**Moderator:**

Katie J. Schenning, MD, MPH, Assistant Professor of Anesthesiology and Perioperative Medicine, School of Medicine, Oregon Health & Sciences University, Portland, Oregon; Co-Chair Membership, eSAS

**Presenter:**

Max B. Kelz, MD, PhD, David E. Longnecker Associate Professor of Anesthesiology and Critical Care, Chair of Admissions, Department of Neuroscience MD PhD Program, MSTP Program Advisor, Director for Research Education, Department of Anesthesiology and Critical Care, Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

\*Ticketed Event. Check at the Registration Desk for availability.



## Scholars' Program, *continued*

Saturday, April 28, *continued*

10:45 am — 12:15 pm **Scholar-03: *Shine Like A Rockstar: Different Paths to Success\****

**Moderators:**

Boris D. Heifets, MD, PhD, Clinical Assistant Professor, Anesthesiology, Perioperative and Pain Medicine, Stanford University School of Medicine, Stanford, California

Manoj M. Lalu, MD, PhD, FRCPC, Vice Chairman for Clinical Research and Faculty Development, Clinical Scholar, Department of Anesthesiology and Pain Medicine, The Ottawa Hospital; Associate Scientist, Clinical Epidemiology Program, Ottawa Hospital Research Institute, Ottawa, Ontario, Canada; Co-Chair Membership, eSAS

**Panelists:**

- **Academic Leadership Path**

Peter Nagele, MD, MSc, Professor of Anesthesia & Critical Care, Chair, Department of Anesthesia & Critical Care, The University of Chicago Medicine; Co-Chair, Host Institution, AUA 2018 Annual Meeting

- **Organizational Leadership Path**

Laureen Hill, MD, MBA, SVP COO, New York Presbyterian Hospital-Columbia; Past Chair, Department of Anesthesiology, Emory Healthcare; Past Co-Chair, Perioperative Governance Committee; Past Vice Chair and Professor of Anesthesiology and Cardiothoracic Surgery, Department of Anesthesiology, Washington University School of Medicine, New York, New York

- **Educational Leadership Path**

Paloma Toledo, MD, MPH, Assistant Professor of Anesthesiology, Department of Anesthesiology, Northwestern University Feinberg School of Medicine, Chicago, Illinois; Associate Editor, *Anesthesia & Analgesia*

*\*Ticketed Event. Check at the Registration Desk for availability.*

*continued on page 31*



## Scholars' Program, *continued*

Saturday, April 28, *continued*

12:30 pm — 2:00 pm **Scholar-04: Lunch Session: *Resilience Personified: Transitioning from Trainee to Junior Faculty and Beyond\****

**Moderator:**

Elizabeth L. Whitlock, MD, MSc, Clinical Instructor and T32 Fellow, Department of Anesthesia and Perioperative Care, University of California, San Francisco School of Medicine, San Francisco, California; Co-President, eSAS

**Panelists:**

- ***Junior Investigator Perspective***

Julie K. Freed, MD, PhD, Assistant Professor of Anesthesiology, Medical College of Wisconsin; Reviewer, American Heart Association (AHA); Founder; Executive Council Member, Early-Stage Anesthesia Scholars (eSAS), Milwaukee, Wisconsin

- ***Senior Investigator Perspective***

Ken Solt, MD, Associate Professor, Anaesthesia, Harvard Medical School; Associate Anesthetist, Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital, Boston, Massachusetts

*\*Ticketed Event. Check at the Registration Desk for availability.*

*continued on page 32*



## Scholars' Program, *continued*

Saturday, April 28, *continued*

2:15 pm — 3:45 pm **Scholar-05: Moving Fluidly Across the Translational Spectrum: Current Opioid Crisis\***

**Moderators:**

Catherine Chen, MD, MPH, Assistant Professor, Department of Anesthesia and Perioperative Care, University of California, San Francisco School of Medicine, San Francisco, California

Michael R. Mathis, MD, Assistant Professor, Anesthesiology, University of Michigan Medicine, Ann Arbor, Michigan; Co-Chair Events, eSAS

**Panelists:**

- ***The Role of Acute Care Prescribing in the Opioid Epidemic***

Jennifer F. Waljee, MD, MPH, MS, Associate Professor, Section of Plastic and Reconstructive Surgery, Member, Early Career Faculty Advisory Council (ECFAC), Institute for Healthcare Policy & Innovation, University of Michigan Medicine, Ann Arbor, Michigan

- ***Caffeine Alleviates the Increase in Postoperative Pain Sensitivity Induced by Previous Sleep Loss in Rats: An Alternative to Opioids for Pain Relief?***

Giancarlo Vanini, MD, Research Assistant, Professor of Anesthesiology, University of Michigan Medicine, Ann Arbor, Michigan

- ***Tapping into Patient Resilience: The Use of Innovative Self-Management Strategies to Reduce Anxiety and Pain in the Perioperative Setting***

Afton Hassett, PsyD, Associate Research Scientist and Psychologist, University of Michigan Medicine, Ann Arbor, Michigan

*\*Ticketed Event. Check at the Registration Desk for availability.*

*continued on page 33*



## Scholars' Program, *continued*

Saturday, April 28, *continued*

4:00 pm — 5:00 pm **Scholar-06: *Priorities for Developing Researchers: Perspectives from the NIH and IARS\****

**Moderator:**

Julie K. Freed MD, PhD, Assistant Professor, Department of Anesthesiology, Medical College of Wisconsin, Milwaukee, Wisconsin; Co-Chair Events, eSAS

**Panelists:**

- ***NIH Perspective***

Alison Cole, PhD, Branch Chief, Pharmacological and Physiological Sciences Branch, Division of Pharmacology, Physiology, and Biological Chemistry, National Institute of General Medical Sciences, Bethesda, Maryland

- ***IARS Perspective***

Emery N. Brown, MD, PhD, Warren M. Zapol Professor of Anaesthesia, Harvard Medical School, Department of Anesthesia, Critical Care and Pain Medicine, Massachusetts General Hospital; Edward Hood Taplin Professor of Medical Engineering, Institute for Medical Engineering and Science; Professor of Computational Neuroscience, Department of Brain and Cognitive Sciences, Massachusetts Institute of Technology, Boston, Massachusetts; Treasurer, IARS

5:10 pm — 6:10 pm **Scholar-07: *From the Editor's Desk: A No-Nonsense Guide to Successful Publication\****

**Moderator:**

Jamie R. Privratsky, MD, PhD, Assistant Professor of Anesthesiology, Duke University School of Medicine, Durham, North Carolina

**Panelists:**

- ***From the Editor's Desk to Publication***

Hilary P. Grocott, MD, FRCPC, Professor of Anesthesia & Perioperative Medicine; Professor, Department of Surgery; Director, Cardiac Anesthesia Fellowship Program, University of Manitoba, Winnipeg, Manitoba; Adjunct Professor, Anesthesiology, Duke University; Editor-in-Chief, *Canadian Journal of Anesthesia*

- ***How to Successfully Publish in Anesthesia & Analgesia***

Kate Leslie, MD, Head of Research for the Department of Anaesthesia and Pain Management, Royal Melbourne Hospital, Melbourne, Australia; Honorary Professional Fellow, University of Melbourne and Monash, Australia; Former President of the Australian and New Zealand College of Anaesthetists; Editorial Board Member, *British Journal of Anaesthesia*, *Anesthesiology*, and *Anesthesia & Analgesia*

\*Ticketed Event. Check at the Registration Desk for availability.

# Because Five Organizations are Better Than One

## Clinical Research Consortium: Collaborative Research Initiative for Perioperative Clinical and Translational Science Meeting

Tuesday, May 1, 2018, 1:00 pm - 4:00 pm

Regency B, Ballroom Level, West Tower, Hyatt Regency Chicago

Five prominent anesthesiology organizations have come together to establish a clinical trials network in the United States, focusing specifically on perioperative medicine, critical care, pain management, and peri- and post-partum care.

Please join us for this important gathering. Those interested in anesthesiology-related clinical and translational science are strongly encouraged to attend.

The agenda includes:

- Panel on innovative and efficient approaches to multicenter clinical trials
- Presentations by the Duke Clinical Research Institute (DCRI) and the Multicenter Perioperative Outcomes Group (MPOG)

There is no fee to participate in the Clinical Research Consortium; register onsite day of the event outside the session room.

For more information visit: [www.iars.org/education/annual\\_meeting/clinical\\_research\\_consortium](http://www.iars.org/education/annual_meeting/clinical_research_consortium)

## Participating Organizations

- Association of University Anesthesiologists (AUA)
- Early-Stage Anesthesiology Scholars (eSAS)
- The Foundation for Anesthesia Education and Research (FAER)
- The International Anesthesia Research Society (IARS)
- The Society of Critical Care Anesthesiologists (SOCCA)



# Poster General Information

## Poster Room

Riverside West, Exhibits Level, East Tower

## Poster Room Hours

Thursday, April 26 . . . . . 6:00 am – 5:00 pm

Friday, April 27 . . . . . 6:00 am – 5:00 pm

## Poster Information and Check-In Location and Hours

Entrance to Poster Room, Riverside West, Exhibit Level, East Tower

Thursday, April 26 . . . . . 6:00 am – 6:00 pm

Friday, April 27 . . . . . 6:00 am – 6:00 pm

A staff member will be available at the Poster Information and Check-in desk to assist you in finding your poster board or with any questions. Please check-in at the desk 15 minutes prior to the start of your presentation.

## Poster Pickup Location and Hours:

Riverside West, Exhibit Level, East Tower

Thursday, April 26 . . . . . 6:00 am – 2:00 pm

Friday, April 27 . . . . . 6:00 am – 2:00 pm

## e-Poster Viewing, Abstracts List, and Event Search

Search and view all e-posters submitted, sessions, abstracts and speakers for the IARS, AUA and SOCCA 2018 Annual Meetings on the event site at [ww3.aievolution.com/ars1801](http://ww3.aievolution.com/ars1801).

## Moderated Poster Discussion Session Learner Objectives

After participating in this activity, the learner will be able to: (1) Describe the latest developments in anesthesiology research in basic, clinical and population science; (2) Examine recent research findings relative to anesthesiology and evaluate their application to the learner’s own research and clinical practice; and (3) Construct strategies for integrating new knowledge into anesthesiology research programs.

## Setup and Breakdown Schedule

PRESENTATION DATE	POSTER SETUP TIME	PRESENTATION TIME	POSTER REMOVAL TIME
Thursday, April 26	7:00 am – 8:00 am	12:45 pm – 2:15 pm	5:00 pm – 6:00 pm
Friday, April 27	7:00 am – 8:00 am	1:30 pm – 3:00 pm	5:00 pm – 6:00 pm

*You are responsible for removing all your materials from the poster boards during the time interval listed above. There is no storage available for posters and any materials remaining will be discarded. Poster setup and removal times will take place on the same day as the abstract presenter’s scheduled presentation day unless otherwise noted.*

*continued on page 36*

## Poster General Information, *continued*

### Abstract Presenter

Presenters are required to attend their assigned Moderated Poster Discussion Session and Scientific Advisory Board Oral Session (SAB), if applicable. During the SAB Oral Session, presenters give an 8-minute oral presentation. During the Moderated Poster Discussion Session, presenters give a 3–5 minute summary of their most important findings. The poster moderator for your Moderated Poster Discussion Session will assist with facilitating the discussion.

### Assigned Poster Board Identification and Location

For identification purposes, a poster board ID is assigned to all presenting authors. The assigned IDs will be affixed to each poster board in the poster room. Poster board numbers will be placed at the end of each aisle in the poster session room.

### Poster Board ID Format

The Poster Board ID format is the following:

Anesthesia Subspecialty Topic Abbreviation Poster Board # (Abstract #).

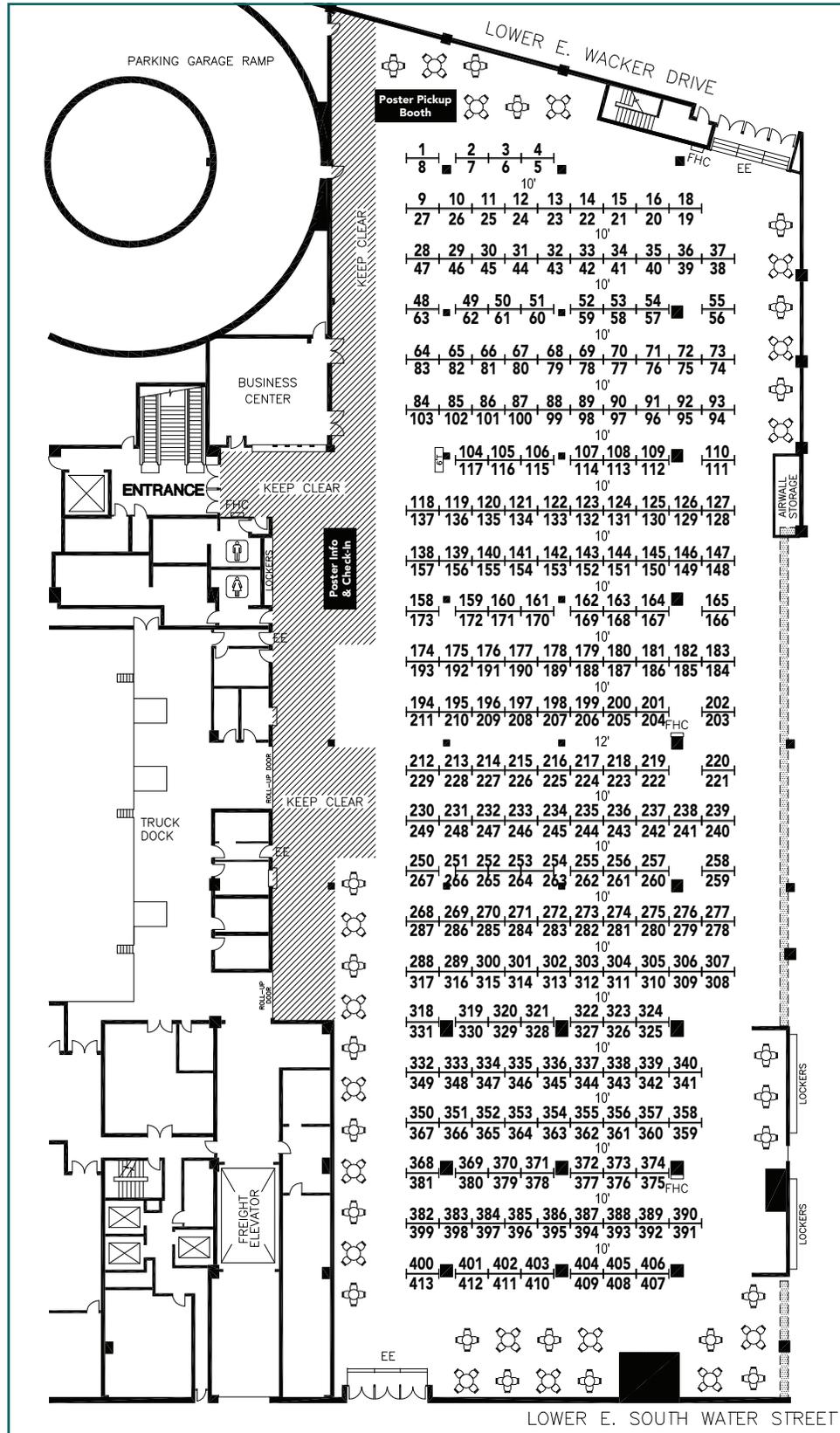
Example: AM1 (230).

See the Abstract Category Key for Anesthesia Subspecialty Topics below.

### Abstract Key for Anesthesia Subspecialty Topics

Subspecialty Abbreviations	Subspecialty Category	Subspecialty Abbreviations	Subspecialty Category
<b>AM</b>	Airway Management	<b>O</b>	Obesity
<b>AMB</b>	Ambulatory Anesthesia	<b>OB</b>	Obstetric Anesthesiology
<b>AP</b>	Anesthetic Pharmacology	<b>PAP</b>	Pain and Addiction Pathways
<b>BS</b>	Bench Science	<b>PME</b>	Pain Mechanisms
<b>BLD</b>	Blood Management	<b>PM</b>	Pain Medicine
<b>CA</b>	Cardiovascular Anesthesiology	<b>PS</b>	Patient Safety
<b>CC</b>	Critical Care	<b>PED</b>	Pediatric Anesthesiology
<b>EEP</b>	Economics, Education and Policy	<b>PA</b>	Perioperative Anesthesia
<b>GA</b>	Geriatric Anesthesia	<b>RA</b>	Regional Anesthesia
<b>GH</b>	Global Health	<b>RES</b>	Respiration
<b>L</b>	Liver	<b>SM</b>	Sleep Medicine
<b>MCC</b>	Medically Challenging Cases	<b>TCSEM</b>	Technology, Computing and Simulation, Equipment Monitoring
<b>MPC</b>	Metabolism and Perioperative Care	<b>T</b>	Trauma
<b>NR</b>	Neuroscience in Anesthesiology and Perioperative Medicine		

# Poster Room Diagram



# AUA 2018 Annual Meeting Abstract Awards

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## Margaret Wood Resident Research Award

The \$1,000 Margaret Wood Resident Research Award is presented to the author of the best research paper submitted by a resident or fellow and selected for an oral presentation at the Scientific Advisory Board (SAB) sessions.

**PS 60 (1146)**

**Derivation, Validation, and Sustained Performance of a Hospital-Wide Elective Surgery Delirium Risk Tool (AWOL-S)**

**Elizabeth L. Whitlock**, Anne L. Donovan, Matthias R. Braehler, Jennifer A. Kaplan, Emily Finlayson, Stephanie E. Rogers, Vanja C. Douglas

*University of California, San Francisco School of Medicine, San Francisco, California*

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## Resident Travel Award

Two Resident Travel Awards are awarded to the top scoring resident abstracts, including a \$1,000 travel award for each winner, judged by the SAB and chosen for oral presentation at the SAB sessions.

**NR 122 (1153)**

**The Pro-Apoptotic Protein BAX is Necessary for Neuron Death Associated with Exposure to Isoflurane General Anesthesia in a Neonatal Mouse Model**

**Andrew Slupe**<sup>1</sup>, Laura E. Villasana<sup>1</sup>, Kevin Wright<sup>2</sup>

*<sup>1</sup>Oregon Health and Science University, Portland, Oregon, <sup>2</sup>Vollum Institute, Portland, Oregon*

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**T 151 (768)**

**Extracellular miRNAs and Innate Immune Activation Following Polytraumatic Injury in Mice**

**Andrew O. Suen**, Sheng Wang, Olivia Conn, Lin Zou, Rosemary Kozar, Catriona Miller, Wei Chao

*University of Maryland School of Medicine, Baltimore, Baltimore, Maryland*

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## Abstract Award Winners, *continued*

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### Junior Faculty Travel Awards in Pediatric Anesthesia and Perioperative Medicine

Two \$500 Junior Faculty Travel Awards in the specific area of pediatric anesthesia or perioperative medicine, emphasizing the work of academic anesthesiologists at the beginning of their careers, are chosen for oral presentation at the SAB sessions.

### Junior Faculty Travel Awards in Pediatric Anesthesia

**PED 150 (1124)**

#### Unplanned Postoperative Intubation in Infant and Neonatal Surgical Patients: Predictors and Associated Mortality

Lisa Eisler<sup>1</sup>, Minjae Kim<sup>1</sup>, Fatemah Mamdani<sup>1</sup>, May Hua<sup>1</sup>, Guohua Li<sup>2</sup>, Lena Sun<sup>1</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Columbia University College of Physicians and Surgeons, Mailman School of Public Health, New York, New York

### Junior Faculty Travel Award in Perioperative Medicine

**PA 141 (1408)**

#### Echocardiographic Assessment Using Subxiphoid-Only View (EASy) Compared to Focused Transthoracic Echocardiography (FoTE) in the Perioperative Period: A Multicenter Prospective Study

Kevin Emr<sup>1</sup>, Nibras Bughrara<sup>1</sup>, Johnathan R. Renew<sup>2</sup>, Jose Diaz-Gomez<sup>2</sup>, Kirti Sahu<sup>1</sup>, Kevin Roberts<sup>1</sup>

<sup>1</sup>Albany Medical Center, Albany, New York, <sup>2</sup>Mayo Clinic Florida, Jacksonville, Florida

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### Junior Faculty Research Award

Two Junior Faculty Research Awards, emphasizing the work of academic anesthesiologists at the beginning of their careers, are chosen for oral presentation at the SAB sessions.

**BS 19 (1314)**

#### Pharmacological Calcium/Calmodulin-Dependent Protein Kinase (CaMKII) Inhibition Protects Against Purkinje Cell Damage Following Cardiac Arrest and Cardiopulmonary Resuscitation in Mice

Nidia Quillinan, Nicholas Chalmers, Katie Steklac, Paco Herson

University of Colorado Denver School of Medicine, Aurora, Colorado

**EEP 53 (1227)**

#### Concurrent Surgery and Perioperative Outcomes: A Retrospective Analysis from the Multicenter Perioperative Outcomes Group

Eric Sun<sup>1</sup>, Michelle Mello<sup>1</sup>, Christopher Rishel<sup>1</sup>, Shelley Housey<sup>2</sup>, Sachin Kheterpal<sup>2</sup>, Leif Saager<sup>2</sup>, Lee A. Fleisher<sup>3</sup>, Anupam Jena<sup>4</sup>

<sup>1</sup>Stanford University School of Medicine, Stanford, California, <sup>2</sup>University of Michigan Medicine, Ann Arbor, Michigan, <sup>3</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>4</sup>Harvard Medical School, Boston, Massachusetts

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# Moderated Poster Discussion Session I

Thursday, April 26, 2018 | 12:45 pm - 2:15 pm

CATEGORY	POSTER BOARD NUMBERS
Airway Management	1
Anesthetic Pharmacology	2-4, 6, 8-12
Bench Science	13-18, 20-25
Cardiovascular Anesthesiology	27-30, 32-35
Critical Care	38-43, 45-50, 52-55
Economics, Education and Policy	61-63, 65-66
Global Health	59-61
Medically Challenging Cases	68-72, 74-79
Neuroscience in Anesthesiology and Perioperative Medicine	81-86, 88-97, 99
Obstetric Anesthesiology	101-102, 104-106
Pain Medicine	31, 108-114
Patient Safety	116-121
Pediatric Anesthesiology	123-126, 128-132
Perioperative Anesthesia	134-141
Respiration	56-58
Sleep Medicine	103, 143-149
Technology, Computing and Simulation, Equipment Monitoring	98
Trauma	5, 151-155

# Moderated Poster Discussion Session I

Thursday, April 26, 2018 | 12:45 pm - 2:15 pm

## Group 1: Airway Management, Cardiovascular Anesthesiology, Medically Challenging Cases, Perioperative Anesthesia, and Regional Anesthesia

**Moderator:** Warren Sandberg, MD, Vanderbilt University School of Medicine, Nashville, Tennessee

### AM 1 (1004)

**A Pilot Study of Radiological Variables to Predict Fiberoptic Intubation in Ankylosing Spondylitis with Cervical Spine Involvement**

Lu Che<sup>1</sup>, ZhuHua Zhang<sup>1</sup>, LiJian Pei<sup>2</sup>, Yuguang Huang<sup>1</sup>

<sup>1</sup>Peking Union Medical College Hospital, Beijing, China, <sup>2</sup>Peking Union Medical College, Beijing, China

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### PA 2 (990)

**CHA2DS2-VASc Score for Risk Prediction of Venous Thromboembolic Events after Total Joint Arthroplasty**

Lu Che<sup>1</sup>, Yuguang Huang<sup>1</sup>, Hui Liu<sup>2</sup>

<sup>1</sup>Peking Union Medical College Hospital, Beijing, China, <sup>2</sup>Peking University, Beijing, China

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### AM 3 (1156)

**Ultra Low Cost & Minimally Stimulating Method of Relieving Airway Obstruction During MAC**

Sapan Shah, H.T. Lee

<sup>1</sup>Columbia University Medical Center, New York, New York

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### MCC 4 (1140)

**Anesthetic Management of Quaternary C/S in a Patient with Diffuse, Destructive Malignant Metastatic Lesions**

Sapan Shah, Laurence Ring

Columbia University Medical Center, New York, New York

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### CA 5 (1164)

**Acute Bleeding from an Aortic Pseudoaneurysm Due to Sneezing after CABG Surgery**

Sapan Shah, Jacob Schaff

Columbia University Medical Center, New York, New York

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### RA 6 (807)

**Report of Acute Delirium in a Healthy Patient with Rectus Sheath Catheters**

Sapan Shah<sup>1</sup>, Robert Maniker<sup>2</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Columbia University, New York, New York

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continued on page 42

## Moderated Poster Discussion Session I, *continued*

### Group 2: Airway Management, Anesthetic Pharmacology, and Patient Safety

**Moderator:** Stephanie B. Jones, MD, Beth Israel Deaconess Medical Center, Boston, Massachusetts

**AM 8 (1446)**

**Anaesthetic Technique, Outcome and Our Experience in Two Hundred Cases of Trans Oral Robotic Surgery [TORS]: A Retrospective Study**

Itee Chowdhury, Soumi Pathak, Jitendra Dubey

*Ragiv Gandhi Cancer Institute & Research Centre, Delhi, India*

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**AM 9 (1257)**

**Non-Invasive Ventilation in Perioperative Surgical Patients**

Brooke LeBlanc<sup>1</sup>, Phillip Boysen<sup>2</sup>, Bobby Nossaman<sup>2</sup>, Michael Townsend<sup>2</sup>, Jacqueline Wilson<sup>1</sup>

*<sup>1</sup>Ochsner Medical Center, New Orleans, Louisiana, <sup>2</sup>Ochsner Clinic Foundation, New Orleans, Louisiana*

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**AM 10 (790)**

**A Comparison of Clinical Simulation and Classical Learning for Airway Management in Medical Undergraduate Students: A Randomized Controlled Trial**

David J. Romero, Maria C. Niño, Leopoldo E. Ferrer, Juan C. Díaz, Diego Aguirre

*Fundación Santa Fe de Bogotá, Bogotá, Cundinamarca*

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**PS 11 (783)**

**Radiological Assessment of Gastric Emptying of Water Soluble Contrast Media: New Data Security from a Cohort Study**

David J. Romero, Maria C. Niño, Leopoldo E. Ferrer, Juan C. Díaz, Diego Aguirre

*Fundación Santa Fe de Bogotá, Bogotá, Cundinamarca*

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**AM 12 (1104)**

**Difficult Tracheal Extubation in Adult Surgical Intensive Care**

Tim Ziethen<sup>1</sup>, Phillip Boysen<sup>2</sup>, Bobby Nossaman<sup>2</sup>, Michael Townsend<sup>2</sup>, Jacqueline Wilson<sup>1</sup>

*<sup>1</sup>Ochsner Medical Center, New Orleans, Louisiana, <sup>2</sup>Ochsner Clinic Foundation, New Orleans, Louisiana*

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**AP 13 (1335)**

**Suppressors of Volatile Anesthetic Sensitivity in *C. Elegans***

Simon Johnson<sup>1</sup>, Margaret Sedensky<sup>2</sup>, Philip Morgan<sup>2</sup>

*<sup>1</sup>Seattle Children's Research Institute, Seattle, Washington, <sup>2</sup>University of Washington Medicine, Seattle, Washington*

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## Moderated Poster Discussion Session I, *continued*

### Group 3: Anesthetic Pharmacology, and Bench Science

**Moderator:** Tobias Eckle, MD, PhD, University of Colorado Denver School of Medicine, Aurora, Colorado

#### AP 15 (670)

##### Putative Binding Site of Dexmedetomidine in Alpha-Adrenergic 2A Receptor

Thomas T. Joseph<sup>1</sup>, Andrew McKinstry-Wu<sup>1</sup>, Kellie Woll<sup>1</sup>, Roderic G. Eckenhoff<sup>1</sup>, Grace Brannigan<sup>2</sup>

<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>2</sup>Rutgers University, Camden, New Jersey

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#### BS 16 (580)

##### Dependence of Ketamine-GPCR Interaction on Protonation States

Thomas T. Joseph<sup>1</sup>, Weiming Bu<sup>1</sup>, Roderic G. Eckenhoff<sup>1</sup>, Grace Brannigan<sup>2</sup>

<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>2</sup>Rutgers University, Camden, New Jersey

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#### BS 17 (1238)

##### Light Elicited Cardio-Protection Reveals Circadian Entrainment as a Mechanism that Requires PER2 to Mimic HIF $\alpha$ Mediated Metabolic Adaptation to Ischemia

Colleen M. Bartman<sup>1</sup>, Yoshimasa Oyama<sup>1</sup>, Tobias Eckle<sup>2</sup>

<sup>1</sup>University of Colorado Anschutz Medical Campus, Aurora, Colorado, <sup>2</sup>University of Colorado Denver School of Medicine, Aurora, Colorado

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#### BS 18 (784)

##### Signaling in Vascular Endothelium by Varying Degrees of Mechanical Stretch

Yunbo Ke, Chenou Zhang, Yue Li, Trang Nguyen, Pratap Karki, Konstantin Birukov, Anna Birukova

University of Maryland School of Medicine, Baltimore, Maryland

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#### BS 19 (1314)

##### Pharmacological Calcium/Calmodulin-Dependent Protein Kinase (CaMKII) Inhibition Protects against Purkinje Cell Damage Following Cardiac Arrest and Cardiopulmonary Resuscitation in Mice

Nidia Quillinan, Nicholas Chalmers, Katie Steklac, Paco Herson

University of Colorado Denver School of Medicine, Aurora, Colorado

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## Moderated Poster Discussion Session I, *continued*

### Group 4: Blood Management, and Technology, Computing and Simulation, Equipment Monitoring

**Moderator:** Michael Aziz, MD, Oregon Health & Science University, Portland, Oregon

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**BLD 22 (1348)**

**Factor IX from Prothrombin Complex Concentrate Augments Low Tissue Factor-triggered Thrombin Generation – An Exploratory In Vitro Study**

**Ezeldeen Abuelkasem**<sup>1</sup>, Shaheer Shaheer Hasan<sup>2</sup>, Brittney Williams<sup>2</sup>, Reney Handerson<sup>2</sup>, Michael A. Mazzeffi<sup>2</sup>, Kenichi Tanaka<sup>2</sup>

*<sup>1</sup>University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, <sup>2</sup>University of Maryland School of Medicine, Baltimore, Maryland*

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**BLD 23 (1199)**

**Efficacy of Intraoperative Cell Salvage in Spine Surgery: A Meta-analysis**

**Thomas Cheriyan**<sup>1</sup>, Thomas Errico<sup>2</sup>, Anterpreet Dua<sup>2</sup>, Vikas Kumar<sup>3</sup>

*<sup>1</sup>Augusta University Medical Center, Augusta, Georgia, <sup>2</sup>New York University-Hospital for Joint Diseases, New York, New York, <sup>3</sup>Augusta University, Augusta, Georgia*

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**TCSEM 24 (743)**

**Efficacy of Bispectral Index in Reducing Intraoperative Awareness: A Meta-Analysis of Randomized Controlled Studies**

**Thomas Cheriyan**<sup>1</sup>, Kevin Bai<sup>2</sup>, Anterpreet Dua<sup>2</sup>, Vikas Kumar<sup>2</sup>

*<sup>1</sup>Augusta University Medical Center, Augusta, Georgia, <sup>2</sup>Augusta University, Augusta, Georgia*

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**BLD 25 (838)**

**Contrasting Effects of Stored Allogeneic Red Blood Cells and Their Supernatants on Permeability and Inflammatory Responses by Human Pulmonary Artery Endothelial Cells**

**Junghyun Kim**, Trang Nguyen, Michael A. Mazzeffi, Kenichi Tanaka, Anna Birukova, Konstantin Birukov  
*University of Maryland School of Medicine, Baltimore, Maryland*

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**BLD 26 (1042)**

**Impact of Reinforced, Strict Guidelines on the Usage of Packed Red Blood Cells (PRBC)**

**Theresa Kuhlmann**, Katharina-Stefanie Haeusler, Michael Booke

*Hospital of Bad Soden, Bad Soden Ts., Germany*

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## Moderated Poster Discussion Session I, *continued*

### Group 5: Cardiovascular Anesthesiology

**Moderator:** George Gallos, MD, Columbia University, New York, New York

CA 29 (1424)

**Spinal Cord Stimulation Reduces Myocardial Ischemia Induced Ventricular Arrhythmias via GABA Receptor Mediated Pathways in a Porcine Model**

Kimberly Howard-Quijano, Yukiko Kubo, Andyshea Afyouni, Jasmine Kipke, Mansoureh Eghbali, Aman Mahajan  
University of California, Los Angeles David Geffen School of Medicine, Los Angeles, California

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CA 30 (1242)

**Impact of Methylprednisolone on the Incidence of Postoperative Complications in Cardiac Surgery Patients**

Felix Balzer, Ralf F. Trauzeddel, Martin Ertmer, Torsten Geyer, Herko Grubitzsch, Sascha Treskatsch  
Charite - Universitätsmedizin Berlin, Germany

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CA 31 (924)

**Fatigue and Dyspnea on Exertion in a Patient with Previous Aortic Valve Surgery**

Chris Denny, Charles Baysinger, Randall M. Schell  
University of Kentucky HealthCare, Lexington, Kentucky

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CA 32 (1058)

**Active Intrathoracic Pressure Regulation: A Novel Non-invasive Device to Improve Hemodynamics after Blood Loss in a Porcine Model of Hemorrhage**

Anja Metzger<sup>1</sup>, Paul Berger<sup>2</sup>, Michael Lick<sup>3</sup>, Keith Lurie<sup>1</sup>

<sup>1</sup>University of Minnesota Medical School, St. Paul, Minnesota, <sup>2</sup>Zoll Medical, St. Paul, Minnesota, <sup>3</sup>Minneapolis Medical Research Foundation, Minneapolis, Minnesota

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CA 33 (936)

**Variant Apolipoprotein L1 (APOLI) Alleles Are Associated with Increased Risk of Post-Cardiac Surgery Acute Kidney Injury**

Jamie Privratsky<sup>1</sup>, Yi-Ju Li<sup>1</sup>, Carol Haynes<sup>2</sup>, Joseph P. Mathew<sup>2</sup>, Mihai Podgoreanu<sup>2</sup>, Svati Shah<sup>2</sup>, Mark Stafford-Smith<sup>2</sup>

<sup>1</sup>Duke University Medical Center, Durham, North Carolina, <sup>2</sup>Duke University School of Medicine, Durham, North Carolina

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CA 34 (932)

**Cardiac Output Monitoring: A Comparative Prospective Observational Study of the Conventional Cardiac Output Monitor and a New Smartphone Based Application**

Shagun B. Shah<sup>1</sup>, Ajay K. Bhargava<sup>2</sup>, Uma Hariharan<sup>2</sup>, Gayatri Vishvakarma<sup>1</sup>, Chamound R. Jain<sup>1</sup>, Anamika Kansal<sup>1</sup>

<sup>1</sup>Rajiv Gandhi Cancer Institute and Research Centre, Delhi, India, <sup>2</sup>Dr. Ram Manohar Lohia Hospital and Pgimer, Delhi, India

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## Moderated Poster Discussion Session I, *continued*

### Group 6: Critical Care

**Moderator:** Ines P. Koerner, MD, PhD, Oregon Health & Science University, Portland, Oregon

#### CC 37 (1258)

##### The Prognostic Value of Cardiac Power Output in Septic Patients

**Beliz Bilgili**, Zuhail Aykac, Muserref Turker

*Marmara University, School of Medicine, Istanbul, Turkey*

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#### CC 38 (1088)

##### Focused Transthoracic Echocardiography and In-Hospital Cardiac Arrest: A Case Series of 10 Resident-Obtained Echocardiograms in the Peri-Resuscitative Period

**Susan L. Herrick**, Nibras Bughrara, Kirti Sahu, Scott Groudine, Kevin Roberts

*Albany Medical College, Albany, New York*

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#### CC 40 (606)

##### Long-Term Outcomes Following Extracorporeal Life Support for Acute Respiratory Failure

**Michael D. McDonald**<sup>1</sup>, Danielle K. Sandsmark<sup>1</sup>, Jessica Palakshappa<sup>2</sup>, Mark E. Mikkelsen<sup>1</sup>, Brian J. Anderson<sup>1</sup>, Jacob Gutsche<sup>1</sup>

*<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>2</sup>Wake Forest School of Medicine, Winston-Salem, North Carolina*

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#### CC 41 (867)

##### Hyperacute Catheter-Associated Pulmonary Embolus in the Immediate Postoperative Period Following Spinal Surgery

**Ergit Paparisto**, Daniel Donoho, Michael Kim, Kevin Blaine

*Keck School of Medicine of University of Southern California, Los Angeles, California*

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#### CC 42 (1329)

##### Sepsis Upregulates HIF-1 Independent of Tissue Oxygenation

**Robert Thiele**, Keita Ikeda, Hari Osuru, Zhiyi E. Zuo

*University of Virginia School of Medicine, Charlottesville, Virginia*

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*continued on page 47*

## Moderated Poster Discussion Session I, *continued*

### Group 7: Economics, Education and Policy, and Technology, Computing and Simulation, Equipment Monitoring

**Moderator:** May C. M. Pian-Smith, MD, MS, Harvard Medical School; Massachusetts General Hospital; Boston, Massachusetts

#### EEP 45 (864)

##### The “Mock OSCE”: Preparing Residents for the ABA Objective Structured Clinical Examination

**Marianne H. Gelter**<sup>1</sup>, Phillip Boysen<sup>2</sup>, Leo Nunnink<sup>3</sup>, Robin Stedman<sup>4</sup>, Kelly Ural<sup>4</sup>, Elaine Pages-Arroyo<sup>4</sup>

<sup>1</sup>Ochsner Main Campus, New Orleans, Louisiana, <sup>2</sup>Ochsner Clinic Foundation, New Orleans, Louisiana, <sup>3</sup>The University of Queensland, New Orleans, Louisiana, <sup>4</sup>Ochsner Health System, New Orleans, Louisiana

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#### EEP 46 (700)

##### Perspective on Leadership and Millennial Physicians

**Marianne H. Gelter**<sup>1</sup>, Phillip Boysen<sup>2</sup>

<sup>1</sup>Ochsner Clinic Foundation, New Orleans, Louisiana, <sup>2</sup>University of Queensland Ochsner Clinical School, New Orleans, Louisiana

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#### EEP 47 (591)

##### Metacognition Principles in a Didactic TEE Education Program

**Sheldon Goldstein**<sup>1</sup>, Dennis Feierman<sup>2</sup>, Ellise Delphin<sup>2</sup>, Yuriy Gubenko<sup>3</sup>, Nikolas Skubas<sup>4</sup>

<sup>1</sup>Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, New York, <sup>2</sup>Maimonides Medical Center, Brooklyn, New York, <sup>3</sup>Rutgers N. J. Medical School - Newark, Newark, New Jersey, <sup>4</sup>Cleveland Clinic, Cleveland, Ohio

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#### EEP 48 (810)

##### Building an Academic Anesthesiology Career Using the Medical Academic Grid (MAG©)

**Sheldon Goldstein**

Montefiore Medical Center Albert Einstein College of Medicine, Bronx, New York

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#### TCSEM 49 (995)

##### Comparison of Pulse Oximeter Readings from Two Locations during Anesthesia

**Sheldon Goldstein**<sup>1</sup>, Gabriela Samayoa<sup>2</sup>, Jeremy Dennis<sup>2</sup>, Alyson Dennis<sup>2</sup>, Malka Stohl<sup>4</sup>, Sakina Nayaz<sup>3</sup>

<sup>1</sup>Montefiore Medical Center/Albert Einstein College of Medicine, Bronx, New York, <sup>2</sup>Barnard College, New York, New York, <sup>3</sup>New York Psychiatric Institute, New York, New York, <sup>4</sup>University of Rochester, Rochester, New York

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## Moderated Poster Discussion Session I, *continued*

### Group 8: Economics, Education and Policy, and Patient Safety

**Moderator:** William Peruzzi, MD, Henry Ford Health System, Detroit, Michigan

#### EEP 51 (665)

##### The High Cost of Severe Pediatric Caries

**Helen H. Lee**<sup>1</sup>, Luis Chacon<sup>2</sup>, Cassandra Yarbrough<sup>2</sup>, Kamyar Nasseh<sup>2</sup>, Anthony LoSasso<sup>1</sup>

<sup>1</sup>University of Illinois at Chicago, Chicago, Illinois, <sup>2</sup>American Dental Association, Chicago, Illinois

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#### EEP 52 (806)

##### The Impact of Preventive Care Reimbursements on Use of Preventive and Tertiary Oral Health Services

**Helen H. Lee**<sup>1</sup>, Luis Chacon<sup>2</sup>, Cassandra Yarbrough<sup>2</sup>, Kamyar Nasseh<sup>2</sup>, Anthony LoSasso<sup>1</sup>

<sup>1</sup>University of Illinois at Chicago, Chicago, Illinois, <sup>2</sup>American Dental Association, Chicago, Illinois

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#### EEP 53 (1227)

##### Concurrent Surgery and Perioperative Outcomes: A Retrospective Analysis from the Multicenter Perioperative Outcomes Group

**Eric Sun**<sup>1</sup>, Michelle Mello<sup>1</sup>, Christopher Rishel<sup>1</sup>, Shelley Housey<sup>2</sup>, Sachin Kheterpal<sup>2</sup>, Leif Saager<sup>2</sup>, Lee A. Fleisher<sup>3</sup>, Anupam Jena<sup>4</sup>

<sup>1</sup>Stanford University School of Medicine, Stanford, California, <sup>2</sup>University of Michigan Medicine, Ann Arbor, Michigan, <sup>3</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>4</sup>Harvard University, Boston, Massachusetts

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#### PS 54 (958)

##### Disruptive Intraoperative Behavior: Reporting to Management and Satisfaction with Management's Response

**Ian Fast**<sup>1</sup>, Alexander Villafranca<sup>2</sup>, Bernadette Henrichs<sup>2</sup>, Kirby Magid<sup>2</sup>, Chris Christodoulou<sup>2</sup>, Eric Jacobsohn<sup>1</sup>

<sup>1</sup>University of Manitoba, Winnipeg, Manitoba, Canada, <sup>2</sup>Washington University School of Medicine in St. Louis, St. Louis, Missouri

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#### PS 55 (1284)

##### Disruptive Intraoperative Behavior: Reporting to Management and Satisfaction with Management's Response: Supraclavicular Brachial Plexus Block Analgesia with or without Perineural Dexamethasone for Creation of Arteriovenous Fistula in End Stage Renal Disease Patients

**Indu M. Sen**, Aparna Pande, Ashish Sharma

Pgimer, Chandigarh, India

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## Moderated Poster Discussion Session I, *continued*

### Group 9: Geriatric Anesthesia, and Patient Safety

**Moderator:** Robert Whittington, MD, Columbia University New York Presbyterian Hospital, New York, New York

#### GA 58 (785)

##### Depth of Sedation as an Interventional Target to Reduce Postoperative Delirium: A Randomized Clinical Trial

**Frederick Sieber**, Karin Neufeld, Allan Gottschalk, Esther Oh, Jean Pierre Ouanes, George Bigelow, Naeyuh Wang

*Johns Hopkins Medical Institutions, Baltimore, Maryland*

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#### GA 59 (502)

##### Dexmedetomidine with Sufentanil in Intravenous Patient-Controlled Analgesia for Relief from Postoperative Pain, Inflammation, and Delirium after Esophageal Cancer Surgery

**Chaoliang Tang**<sup>1</sup>, Juan Li<sup>2</sup>, Weifeng Yao<sup>3</sup>, Lydia W. Tai<sup>4</sup>, Si Shi<sup>1</sup>, Zhongyuan Xia<sup>1</sup>

<sup>1</sup>Renmin Hospital of Wuhan University, Wuhan, China, <sup>2</sup>Anhui Provincial Hospital of Anhui Medical University, Hefei, Anhui, <sup>3</sup>The Third Affiliated Hospital of Sun Yat-sen University, Guangzhou, Guangdong, <sup>4</sup>The University of Hong Kong, Hong Kong

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#### PS 60 (1146)

##### Derivation, Validation, and Sustained Performance of a Hospital-Wide Elective Surgery Delirium Risk Tool (AWOL-S)

**Elizabeth L. Whitlock**, Anne L. Donovan, Matthias R. Braehler, Jennifer A. Kaplan, Emily Finlayson, Stephanie E. Rogers, Vanja C. Douglas

*University of California, San Francisco School of Medicine, San Francisco, California*

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#### GA 61 (1386)

##### Cognitive Change after Cardiac Surgery or Cardiac Catheterization: An Epidemiological Study

**Elizabeth L. Whitlock**, L. G. Diaz-Ramirez, M. M. Glymour, W. J. Boscardin, Kenneth E. Covinsky, Alexander K. Smith

*University of California, San Francisco School of Medicine, San Francisco, California*

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#### GA 62 (558)

##### Long-Term Caregiving is Associated with Impaired Cardiovascular Baroreflex – Implications on Anesthesia Care

**Kevin K. Wu**<sup>1</sup>, Taylor Bos<sup>2</sup>, Brent Mausbach<sup>3</sup>, Igor Grant<sup>3</sup>

<sup>1</sup>Frank H. Netter MD School of Medicine at Quinnipiac University, Hamden, Connecticut, <sup>2</sup>San Diego State University, San Diego, California, <sup>3</sup>University of California, San Diego School of Medicine, California

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## Moderated Poster Discussion Session I, *continued*

### Group 10: Liver, Metabolism and Perioperative Care, and Obesity

**Moderator:** Mark Rice, MD, Vanderbilt University Medical Center, Nashville, Tennessee

#### L 65 (562)

##### **Predicting Postoperative Liver Dysfunction Using Indocyanine Green Clearance after Cardiac Surgery**

Kaila Gordo<sup>1</sup>, Gebhard Wagener<sup>2</sup>

<sup>1</sup>Columbia University, New York, New York, <sup>2</sup>College of Physicians and Surgeons of Columbia University Medical Center, New York, New York

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#### L 66 (1179)

##### **Novel Insights Into a Mitochondrial Immuno-Metabolism Connection Detected by RNA-Sequence Analysis of Experimental Drug-Induced Hepatitis in BALB/c Mice**

Anthony Franchetti<sup>1</sup>, Alyssa R. Padover<sup>1</sup>, Merylin Cottagiri<sup>1</sup>, Connover Talbot<sup>2</sup>, Dolores B. Njoku<sup>1</sup>

<sup>1</sup>Johns Hopkins Hospital, Baltimore, Maryland, <sup>2</sup>Johns Hopkins School of Medicine, Baltimore, Maryland

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#### MPC 67 (786)

##### **The Effects of Major Hepatobiliary Surgery and General Anesthesia on Skeletal Muscle Mitochondrial Respiration. A Pilot Study**

Jia Liu Stevens<sup>1</sup>, Daniel Martin<sup>1</sup>, Helen McKenna<sup>2</sup>, Andrew Murray<sup>2</sup>, Gavin Jell<sup>1</sup>

<sup>1</sup>University College London, London, England, <sup>2</sup>University of Cambridge, Cambridge, England

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#### MPC 68 (1066)

##### **Isoflurane, Unlike Propofol, Increases Reactive Aldehyde Metabolism in Both Wild Type Mitochondrial Aldehyde Dehydrogenase 2 (ALDH2) and ALDH2\*2 Rodents**

Eric R. Gross, Adriana M. Gardner, Pritam Sinharoy

Stanford University School of Medicine, Stanford, California

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#### MPC 69 (916)

##### **Increase in Minute CO<sub>2</sub> Removal May Be More Valuable Than Other Clinical Parameters for Clinical Diagnosis of Malignant Hyperthermia: A Case Series from a Single Large Medical Center in North America**

Zeping Xu<sup>1</sup>, Paul J. St. Jacques<sup>1</sup>, Kevin Scharfman<sup>1</sup>, Yandong Jiang<sup>2</sup>, Jonathan Wanderer<sup>2</sup>

<sup>1</sup>Vanderbilt University Medical Center, Nashville, Tennessee, <sup>2</sup>Vanderbilt University School of Medicine, Nashville, Tennessee

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#### O 70 (851)

##### **Severity and Duration of Hypoxemia During Outpatient Endoscopy in Obese Patients**

Anton Laffin<sup>1</sup>, Samir Kendale<sup>2</sup>, Tessa K. Huncke<sup>2</sup>

<sup>1</sup>New York University / NYU Health, New York, New York, <sup>2</sup>New York University School of Medicine, New York, New York

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## Moderated Poster Discussion Session I, *continued*

O 71 (1333)

### Effect of Pediatric Obesity Pre-Anesthesia Evaluation Guidelines in Anesthetic Complications: A Multidisciplinary Effort

Vera A. Sergeeva, Amy Andersen, Brian D. Soriano, Maida L. Chen, Grace Kim, Nathalia Jimenez  
Seattle Children's Hospital, Seattle, Washington

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## Group 11: Medically Challenging Cases, and Perioperative Anesthesia

**Moderator:** Michael H. Andreae, MD, Penn State Health Milton S. Hershey Medical Center, Hershey, Pennsylvania, and Paul Picton, MD, MRCP, FRCA, University of Michigan Medicine, Ann Arbor, Michigan

MCC 75 (529)

### A Novel Association of Juvenile Polyposis Syndrome with Atrial Septal Aneurysm and Patent Foramen Ovale

Kunal Karamchandani<sup>1</sup>, Melanio Bruceta<sup>2</sup>, Luisa M. De Souza<sup>2</sup>, Kunal Karamchandani<sup>1</sup>, Anthony Bonavia<sup>1</sup>, Zyad Carr<sup>1</sup>  
<sup>1</sup>Penn State Health Milton S. Hershey Medical Center, Hershey, Pennsylvania, <sup>2</sup>Penn State College of Medicine, Hershey, Pennsylvania

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PA 76 (555)

### Association of Preoperative Anticholinergic Medication Exposure with Postoperative Healthcare Resource Use and Outcomes: A Population-Based Cohort Study

Deric B. Diep<sup>1</sup>, Coralie Wong<sup>2</sup>, Carl van Walraven<sup>2</sup>, Daniel I. McIsaac<sup>3</sup>

<sup>1</sup>University of Ottawa, Ottawa, Ontario, Canada, <sup>2</sup>The Ottawa Hospital Research Institute, Ottawa, Ontario, Canada, <sup>3</sup>University of Ottawa Faculty of Medicine, Ottawa, Ontario, Canada,

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MCC 77 (999)

### The Anesthetic Management of an Adolescent with Autism Spectrum Disorder and Super-Super Obesity: A Case Report

Deric B. Diep<sup>1</sup>, Jonathan Hooper<sup>1</sup>, Naveen Eipe<sup>2</sup>

<sup>1</sup>University of Ottawa, Ottawa, Ontario, Canada, <sup>2</sup>University of Ottawa Faculty of Medicine, Ottawa, Ontario, Canada

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MCC 78 (1217)

### Anesthetic Challenges of Emergency Gynecological Surgery in a Jehovah's Witness with Fontan Circulation: A Case Report

Deric B. Diep, Malcolm Lucy, Ashraf Fayad

University of Ottawa, Ottawa, Ontario, Canada

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## Moderated Poster Discussion Session I, *continued*

### MCC 79 (1220)

#### Transesophageal Echocardiography in the Intraoperative Management of Renal Cell Carcinoma with Inferior Vena Cava Thrombus: A Case Report

**Deric B. Diep**, Malcolm Lucy, Ashraf Fayad

*University of Ottawa, Ottawa, Ontario, Canada*

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### MCC 80 (637)

#### PICC Line Challenge

**Pavel Balduyeu**, Laurie Davies

*University of Florida College of Medicine, Gainesville, Florida*

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## Group 12: Medically Challenging Cases

**Moderator:** Annette Rebel, MD, University of Kentucky College of Medicine, Lexington, Kentucky

### MCC 83 (682)

#### The Use of High Flow Nasal Oxygenation in the Anesthetic Management of Tracheal Stent Deployment: A Case Report

**Tracey Straker**<sup>1</sup>, Valerie Armstead<sup>2</sup>

*<sup>1</sup>Montefiore Medical Center, Bronx, New York, <sup>2</sup>Jefferson Memorial, Philadelphia, Pennsylvania*

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### MCC 84 (792)

#### How Findings on Transesophageal Echocardiography Can Change the Surgical Approach for Management of a Pericardial Effusion from Penetrating Chest Trauma

**Patrick J. Coleman**, Matthew D. Read

*San Antonio Military Medical Center, San Antonio, Texas*

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### MCC 86 (925)

#### Successful Treatment of Recurrent Chronic Scrotal Pain Secondary to Post Laminectomy Syndrome with Spinal Cord Stimulation

**Matthew M. Skoblar**, Brian Monroe, Ahmed Shaik

*Geisinger Medical Center, Danville, Pennsylvania*

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## Moderated Poster Discussion Session I, *continued*

**MCC 87 (949)**

**Management of Scimitar Syndrome in Two Pregnant Patients**

**Laura Lombardi-Karl**, Suzanne Mankowitz

*Columbia University Medical Center, New York, New York*

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**MCC 89 (1080)**

**Management of Severe Fire-related Inhalation Injury with Venovenous Extracorporeal Membrane Oxygenation: A Case Report**

**Grant J. Heydinger**, Aalok K. Kacha, Vijal Patel

*The University of Chicago Medicine, Chicago, Illinois*

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### Group 13: Medically Challenging Cases

**Moderator:** Carlos Mantilla, MD, Mayo Clinic, Rochester, Minnesota

**MCC 96 (1128)**

**A Case of Unexplained Septic Shock**

**Jaclyn Yeung**, Laurie Mark

*Rush University Medical Center, Chicago, Illinois*

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**MCC 97 (1157)**

**Compartment Syndrome as a Complication of Invasive Blood Pressure Monitoring in Patients Receiving Catheter Directed Thrombolysis**

**Syed Z. Ali**, Cheryl Richie, Joseph Bobadilla, Annette Rebel

*University of Kentucky College of Medicine, Lexington, Kentucky*

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**MCC 98 (1163)**

**Is the Tracheostomy Working? – Medically Challenging Case Presentation**

**Syed Z. Ali**, Zohn Centimole

*University of Kentucky College of Medicine, Lexington, Kentucky*

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## Moderated Poster Discussion Session I, *continued*

### Group 14: Medically Challenging Cases and Perioperative Anesthesia

**Moderator:** Stuart A. Forman, MD, PhD, Massachusetts General Hospital, Boston, Massachusetts

#### MCC 101 (1361)

##### **New Anterior Mediastinal Mass Discovered Day of Surgery: A Case Report**

**John Kroger**, Lakshmi Gudimella

*The University of Texas Medical Branch, Galveston, Texas*

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#### MCC 102 (1378)

##### **Itching and Amniotic Fluid Embolism with Circulatory Collapse in a Full-term Pregnant Patient**

**Azfar Niazi**<sup>1</sup>, Partha J. Saha<sup>2</sup>, Paul W. Minko<sup>2</sup>, Assad Ali<sup>2</sup>, Kavita Elliott<sup>2</sup>, Eric Chiang<sup>2</sup>, Jia Liu<sup>2</sup>, Sabry Ayad<sup>2</sup>

<sup>1</sup>Cleveland Clinic, Cleveland, Ohio, <sup>2</sup>Cleveland Clinic Fairview Hospital, Cleveland, Ohio

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#### PA 103 (1416)

##### **Quality Improvement Project: Does Pre-procedural General Cognition and Neurocognitive Diagnoses Affect Colonoscopy Preparation in Older Adults?**

**Francesca Arias**<sup>1</sup>, Michael Riverso<sup>1</sup>, Shellie-Anne Levy<sup>1</sup>, Cynthia Garvan<sup>1</sup>, Patrick J. Tighe<sup>1</sup>, David S. Estores<sup>1</sup>, Catherine Price<sup>2</sup>

<sup>1</sup>University of Florida College of Medicine, Gainesville, Florida, <sup>2</sup>Associate Professor/Paul Satz Term Professor Clinical and Health Psychology/Anesthesiology, University of Florida College of Medicine, Gainesville, Florida

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#### MCC 104 (1422)

##### **Current Cognitive Impairment in a Patient with a History of Delirium: A Preoperative Dilemma**

**Francesca Arias**<sup>1</sup>, Alberto Bursian<sup>1</sup>, Joshua Sappenfield<sup>1</sup>, Catherine Price<sup>2</sup>

<sup>1</sup>University of Florida College of Medicine, Gainesville, Florida, <sup>2</sup>Associate Professor/Paul Satz Term Professor Clinical and Health Psychology/Anesthesiology, University of Florida College of Medicine, Gainesville, Florida

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#### MCC 105 (1420)

##### **Ethical Conflicts in Extracorporeal Membrane Oxygenation: A Case Report**

**Elizabeth McIntyre**, Elio Beta, Rachel Kadar

*McGaw Medical Center of Northwestern University, Chicago, Illinois*

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#### MCC 106 (1421)

##### **Perioperative Management of a Patient with von Gierke Disease Undergoing Hepatic Surgery**

**Amar M. Bhatt**, Floria Chae, Brandon Pruett, Sree V. Satyapriya

*Wexner Medical Center at The Ohio State University, Columbus, Ohio*

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## Moderated Poster Discussion Session I, *continued*

### Group 15: Neuroscience in Anesthesiology and Perioperative Medicine, and Pediatric Anesthesiology

**Moderator:** Monica S. Vavilala, MD, University of Washington Medicine, Seattle, Washington

**NR 109 (1057)**

**Perioperative Trajectory of Alzheimer's Disease Biomarkers in Surgical Patients and Matched Non-Surgical Controls**

**Yee Ching Vanessa Cheong**<sup>1</sup>, Mary Cooter<sup>2</sup>, Richard L. Huang<sup>3</sup>, Heather E. Whitson<sup>2</sup>, Harvey J. Cohen<sup>2</sup>, Joseph P. Mathew<sup>2</sup>, Miles Berger<sup>2</sup>

<sup>1</sup>Duke-NUS Medical School, Singapore, Singapore, <sup>2</sup>Duke University Medical Center, Durham, North Carolina, <sup>3</sup>Duke University School of Medicine, Durham, North Carolina

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**NR 110 (953)**

**Power Spectrum and Frontal Alpha Band Activity Saturation Predicts Loss of Response to Verbal Command in Older Adults during Anesthetic Induction with Propofol: a Diagnostic Test Approach**

**Carlos M. Fuentes**, Juan C. Pedemonte, Andrea Sanchez, Martin Irani, Mohit Rana, Victor Contreras, Ignacio Cortinez

*Pontificia Universidad Católica de Chile, Santiago de Chile, Chile*

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**NR 111 (537)**

**Sugammadex Offers a New Option for Early Cessation of Neuromuscular Blockade to Facilitate Spinal Cord Evoked Potential Monitoring**

**Jackson M. Hylton**, Michael Scott

*Virginia Commonwealth University Health System, Richmond, Virginia*

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**NR 112 (1325)**

**Discriminative Capacity of EEG Power for the Onset and Severity of Delirium in the Postoperative Period**

**Ying Jiang**, Emma R. Trammel, Ginika Apakama, James W. Spencer, Troy Wildes, Michael Avidan, Ben Palanca

*Washington University School of Medicine in St. Louis, St. Louis, Missouri*

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**NR 113 (1418)**

**Serum Angiotensin-2 in Children with Traumatic Brain Injury**

**Abhijit V. Lele**<sup>1</sup>, Viharika Lakireddy<sup>2</sup>, Hope Clark-Bell<sup>2</sup>, Anne Moore<sup>2</sup>, Jerry Zimmerman<sup>2</sup>, Randall Chesnut<sup>1</sup>, Bill Armstead<sup>2</sup>, Monica S. Vavilala<sup>1</sup>

<sup>1</sup>University of Washington Medicine, Seattle, Washington, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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## Moderated Poster Discussion Session I, *continued*

**PED 114 (1317)**

**Prevalence and Clinical Factors Associated with Impaired Cerebral Autoregulation in Children with Mild Complex Traumatic Brain Injury**

**Abhijit V. Lele**<sup>1</sup>, Viharika Lakireddy<sup>2</sup>, Hope Clark-Bell<sup>2</sup>, Anne Moore<sup>2</sup>, Jerry Zimmerman<sup>2</sup>, Randall Chesnut<sup>1</sup>, Bill Armstead<sup>2</sup>, Monica S. Vavilala<sup>1</sup>

<sup>1</sup>University of Washington Medicine, Seattle, Washington, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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### Group 16: Neuroscience in Anesthesiology and Perioperative Medicine

**Moderator:** Tomoki Hashimoto, MD, University of California, San Francisco School of Medicine, San Francisco, California

**NR 119 (840)**

**Sevoflurane Interferes Cell Cycle through Inhibition of Wnt/ $\beta$ -Catenin Signaling Pathway in Mouse Neural Stem Cells**

**Shiwen Liu**

Shanghai Zhongshan Hospital, Shanghai, China

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**NR 120 (621)**

**Neonatal Disruption of PSD-95 PDZ Domain-Mediated Protein-Protein Interactions Alters Dendritic Spine Morphology, Long-Term Potentiation, and Causes Deficits in Learning and Memory in Mice**

**Michele L. Schaefer**, Meina Wang, Patric Perez, Jing Xu, Reilley P. Mathena, Roger A. Johns

Johns Hopkins University School of Medicine, Baltimore, Maryland

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**NR 121 (771)**

**The Association Between Angiotensin Converting Enzyme Inhibitors and Angiotensin Receptor Blocker Use and the Incidence of Delirium in Surgical ICU Patients**

**Christopher Sheerer**, Jacob Ezell, Maged Y. Argalious, Wael Ali Sakr Esa, Daniel I. Sessler, Nicole Zimmerman, Ehab Farag

Cleveland Clinic Foundation, Cleveland, Ohio

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**NR 122 (1153)**

**The Pro-Apoptotic Protein BAX is Necessary for Neuron Death Associated with Exposure to Isoflurane General Anesthesia in a Neonatal Mouse Model**

**Andrew Slupe**<sup>1</sup>, Laura E. Villasana<sup>1</sup>, Kevin Wright<sup>2</sup>

<sup>1</sup>Oregon Health and Science University, Portland, Oregon, <sup>2</sup>Vollum Institute, Portland, Oregon

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## Moderated Poster Discussion Session I, *continued*

### Group 17: Medically Challenging Cases, Neuroscience in Anesthesiology and Perioperative Medicine, Obesity, Obstetric Anesthesiology, and Pediatric Anesthesiology

**Moderator:** Manuel C. Vallejo, MD, DMD, West Virginia University, Morgantown, West Virginia, and Jonathan Waters, MD, University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

#### NR 124 (1177)

##### **Propofol Anesthesia Does Not Increase the Removal of Brain Wastes in Humans**

Li Li, Deepak Sharma, Koichiro Nandate, James G. Hecker, Nathalie Bentov, Daniel Raftery, Nagana Gowda  
*University of Washington Medicine, Seattle, Washington*

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#### PED 125 (1172)

##### **High-Throughput Screen for Inhibitors of Anesthetic-Induced Neurotoxicity in *C. elegans***

Li Li<sup>1</sup>, Simon Johnson<sup>2</sup>, Margaret Sedensky<sup>2</sup>, Philip Morgan<sup>1</sup>

<sup>1</sup>University of Washington Medicine, Seattle, Washington, <sup>2</sup>Seattle Children's Research Institute, Seattle, Washington

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#### OB 126 (753)

##### **Transcutaneous P6 Acupoint Electrical Stimulation Prevents Both Nausea and Vomiting during Elective Cesarean Section under Combined Spinal-Epidural, a Randomized Control Clinical Trial**

Danielle Levin, Shaul Cohen, Scott Mellender, Adil Mohiuddin, Rong Zhao, Geza Kiss, Enrique Pantin  
*Rutgers Robert Wood Johnson Medical School, New Brunswick, New Jersey*

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#### OB 127 (799)

##### **Does the Application of Scopolamine Patch with Intra-Operative Acupressure Point P6 Stimulation Increase Parturients' Intra-Cesarean Satisfaction? Prospective Randomized Clinical Trial**

Danielle Levin, Shaul Cohen, Scott Mellender, Adil Mohiuddin, Ushma Shah, Rong Zhao, Geza Kiss  
*Rutgers Robert Wood Johnson Medical School, New Brunswick, New Jersey*

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#### O 128 (835)

##### **Paternal BMI Affects Neonatal Weight: A Retrospective Study**

Danielle Levin, Shaul Cohen, Scott Mellender, Rong Zhao, Adil Mohiuddin, Ushma Shah, Geza Kiss  
*Rutgers Robert Wood Johnson Medical School, New Brunswick, New Jersey*

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#### MCC 129 (839)

##### **Successful Anesthetic Management of a Patient with Multiple Trauma and Severe Hypothermia: A Case Report**

Danielle Levin, Shaul Cohen, Scott Mellender, Preet Patel, Adil Mohiuddin, Ushma Shah, Geza Kiss  
*Rutgers Robert Wood Johnson Medical School, New Brunswick, New Jersey*

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*continued on page 58*

## Moderated Poster Discussion Session I, *continued*

### Group 18: Pain and Addiction Pathways, Pain Mechanisms, and Pain Medicine

**Moderator:** Lucy Chen, MD, Massachusetts General Hospital; Harvard Medical School, Boston, Massachusetts

**PM 132 (570)**

**Comparison of Postoperative Analgesic Effect of Preemptive Use of Tramadol Versus Ketamine in Laparoscopic Surgery**

**Xin Wang**

*The 4th Center Hospital, Tianjin, Tianjin*

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**PME 133 (955)**

**GABA Neurons in the Rostromedial Tegmental Nucleus Modulate Analgesia in Mice**

**Norman E. Taylor**<sup>1</sup>, Hu Long<sup>2</sup>, JunZhu Pei<sup>2</sup>, Phanidhar Kukutla<sup>1</sup>, Ksenia Y. Vlasov<sup>3</sup>, Ken Solt<sup>4</sup>, Gary J. Brenner<sup>4</sup>

<sup>1</sup>Massachusetts General Hospital, Boston, Massachusetts, <sup>2</sup>West China Hospital of Stomatology, Chengdu, China,

<sup>3</sup>Massachusetts Institute of Technology, Cambridge, Massachusetts, <sup>4</sup>Harvard Medical School, Boston, Massachusetts

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**PME 134 (1029)**

**Mobile Detection of Simulated Opioid Overdose Events**

**Jacob Sunshine**, Rajalakshmi Nandakumar, Shyamnath Gollakota

*University of Washington Medicine, Seattle, Washington*

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**PM 135 (1235)**

**Role of Pain Specialists in Reducing Healthcare Costs for Patients with Chronic Pain**

**Jennifer Anderson**<sup>1</sup>, Kathryn Komaki<sup>2</sup>, Steven Prakken<sup>2</sup>, Lance Roy<sup>1</sup>, Thomas Buchheit<sup>2</sup>, John Hunting<sup>2</sup>, Padma Gulur<sup>2</sup>

<sup>1</sup>Duke University Medical Center, Durham, North Carolina, <sup>2</sup>Duke University School of Medicine, Durham, Washington

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**PME 136 (992)**

**Car8 Analgesia Assessed in Morphine Equivalence Using Mechanical Antinociception: Implications for Allometric Dosing and Translation from Mice to Humans**

**Eugene Fu**, Konstantinos D. Sarantopoulous, Gerald Z. Zhuang, Udit Upadhyay, Yuan Kang, Roy C. Levitt

*University of Miami, Miller School of Medicine, Miami, Florida*

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**PME 137 (793)**

**Are the Patients with Opioid Use Disorder Prone to Relapse to Opioids in the Postoperative Period?**

**Khodadad Namiranian**

*VA Maryland Health Care System, Baltimore, Maryland*

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*continued on page 59*

## Moderated Poster Discussion Session I, *continued*

### Group 19: Pain Mechanisms

**Moderator:** James Eisenach, MD, Wake Forest School of Medicine, Winston-Salem, North Carolina

#### PME 141 (883)

##### **Analgesic Responses are Regulated by Genetic Variation of Dorsal Root Ganglia Carbonic Anhydrase-8 in Mice**

Roy C. Levitt<sup>1</sup>, Gerald Z. Zhuang<sup>1</sup>, Yuan Kang<sup>1</sup>, Udit Upadhyay<sup>1</sup>, Eugene Fu<sup>1</sup>, Tim Wiltshire<sup>2</sup>, Konstantinos D. Sarantopoulos<sup>1</sup>

<sup>1</sup>University of Miami, Miller School of Medicine, Miami, Florida, <sup>3</sup>University of North Carolina, Chapel Hill, North Carolina

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#### PME 142 (880)

##### **Gain Without Pain: CA8-204 Represents a Novel Analgesic Therapeutic Candidate**

Roy C. Levitt<sup>1</sup>, Udit Upadhyay<sup>1</sup>, Luda Diatchenko<sup>2</sup>, Gerald Z. Zhuang<sup>1</sup>, Yuan Kang<sup>1</sup>, Eugene Fu<sup>1</sup>, Konstantinos D. Sarantopoulos<sup>1</sup>

<sup>1</sup>University of Miami, Miller School of Medicine, Miami, Florida, <sup>2</sup>McGill University, Montreal, Quebec

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#### PME 143 (882)

##### **Addressing a Missing Link in Pain Medicine: Preclinical Validation CA8 Biotherapeutics as Long Acting Local Analgesics/Anesthetics (LALA)**

Roy C. Levitt, Gerald Z. Zhuang, Udit Upadhyay, Yuan Kang, Eugene Fu, Konstantinos D. Sarantopoulos

University of Miami, Miller School of Medicine, Miami, Florida

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#### PME 144 (1405)

##### **Skin Overexpression of Neurturin Upregulates TNF- $\alpha$ in CFA Inflammation**

Marsha E. Ritter Jones, Kathryn Albers, Brian Davis

University of Pittsburgh, Pittsburgh, Pennsylvania

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#### PME 145 (994)

##### **Muscle Sensory Dysfunction in a Rat Model of Peripheral Arterial Disease: The Role of Microglial Activation in Chronic Limb Pain**

Hanjun Wang, Irving H. Zucker, Ting Li, Juan Hong, Andrew J. Patterson, Steven J. Lisco

University of Nebraska Medical Center, Omaha, Nebraska

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#### PME 146 (910)

##### **Ketamine Inhibits the Aversive Symptoms of Chronic Pain via Inhibition of NMDA Signaling in the Anterior Cingulate Cortex**

Jing Wang, Haocheng Zhou, Erik Martinez, Qiaosheng Zhang, Kevin Liu, Eric Zhang

New York University School of Medicine, New York, New York

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## Moderated Poster Discussion Session I, *continued*

### Group 20: Pediatric Anesthesiology

**Moderator:** Richard J. Levy, MD, FAAP, Columbia University, New York, New York

#### PED 150 (1124)

##### Unplanned Postoperative Intubation in Infant and Neonatal Surgical Patients: Predictors and Associated Mortality

Lisa Eisler<sup>1</sup>, Minjae Kim<sup>1</sup>, Fatemah Mamdani<sup>1</sup>, May Hua<sup>1</sup>, Guohua Li<sup>2</sup>, Lena Sun<sup>1</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Columbia University College of Physicians and Surgeons, Mailman School of Public Health, New York, New York

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#### PED 151 (548)

##### Perioperative Outcomes and Management in LeFort III Midface Advancement Surgery: A Multicenter Study from the Pediatric Craniofacial Collaborative Group

Chris D. Glover<sup>1</sup>, Allison M. Fernandez<sup>2</sup>, Henry Huang<sup>1</sup>, Nicholas M. Dalesio<sup>3</sup>, John Zhong<sup>4</sup>, Wendy Binstock<sup>5</sup>, Paul A. Stricker<sup>6</sup>

<sup>1</sup>Baylor College of Medicine, Houston, Texas, <sup>2</sup>Johns Hopkins All Children's Hospital, St. Petersburg, Florida, <sup>3</sup>Johns Hopkins University, Baltimore, Maryland, <sup>4</sup>Children's Medical Center, Dallas, Texas, <sup>5</sup>University of Chicago, Chicago, Illinois, <sup>6</sup>The Children's Hospital of Philadelphia / Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania

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#### PED 152 (847)

##### Comparison of Endotracheal Intubation vs. Natural Airway during Initial Percutaneous Endoscopic Gastrostomy Insertion

Jacquelin Peck, Aditi Dey, Sorany Son, Ernest Amankwah, Anthony H. Nguyen, Michael Wilsey, Mohamed Rehman  
Johns Hopkins All Children's Hospital, St. Petersburg, Florida

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#### PED 153 (845)

##### Comparison of Endotracheal Intubation vs. Natural Airway during Endoscopic Foreign Body Removal

Jacquelin Peck, Aditi Dey, Sorany Son, Sharon Ghazarian, Michael Wilsey, Mohamed Rehman  
Johns Hopkins All Children's Hospital, St. Petersburg, Florida

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#### PED 155 (1055)

##### Transition from Acute to Chronic Postsurgical Pain: Trajectories of Pain, Function and Health after Adolescent Spine Surgery

Jennifer A. Rabbitts, Tonya Palermo, Chuan Zhou  
University of Washington Medicine, Seattle, Washington

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## Moderated Poster Discussion Session I, *continued*

### Group 21: Perioperative Anesthesia

**Moderator:** Kenneth Cummings, MD, MS, Cleveland Clinic, Cleveland, Ohio, and Vijay Krishnamoorthy, MD, PhD, Duke University School of Medicine, Durham, North Carolina

PA 159 (869)

**Effect of Dexamethasone on Postoperative Pain Scores in a Resource-Limited Setting: A Randomized Double-blind Placebo Controlled Clinical Trial**

**Nodreen C. Ayupo**<sup>1</sup>, Emmanuel Ayebale<sup>2</sup>, Fred Bulamba<sup>2</sup>, Arthur Kwizera<sup>2</sup>

<sup>1</sup>Makerere University, Cleveland, Ohio, <sup>2</sup>Makerere University, Kampala, Uganda

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PA 160 (740)

**The iShuddle: A Strategy to Decreases Turn-Over-Time by Improving Culture in the Operating Room**

**Richard J. Banchs**<sup>1</sup>, Molly Driscoll<sup>2</sup>, Hokuto Nishioka<sup>2</sup>

<sup>1</sup>University of Illinois Chicago, Chicago, Illinois, <sup>2</sup>University of Illinois Hospital, Chicago, Illinois

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PA 161 (1229)

**Addition of Focused Transthoracic Echocardiography (FoTE) Learning into Existing Anesthesiology Residency Training Programs: A Prospective Multicenter Study of Blended Learning**

Nibras Bughrara<sup>2</sup>, **Mercades Meuli**<sup>1</sup>, Tanya Richvalsky<sup>2</sup>, Mark Hamlin<sup>2</sup>, Kirti Sahu<sup>1</sup>, Kevin Roberts<sup>2</sup>

<sup>1</sup>Albany Medical Center, Albany, New York, <sup>2</sup>University of Vermont Medical Center, Burlington, Vermont

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PA 163 (1371)

**Post-Operative Sepsis: What is the Current Picture?**

**Amber N. Campbell**<sup>1</sup>, George W. Williams<sup>2</sup>, Navneet Grewal<sup>3</sup>, Velvet Patterson<sup>4</sup>, Daniel Contreras<sup>4</sup>, Robert Wegner<sup>4</sup>, Rabail Chaudry<sup>4</sup>

<sup>1</sup>University of Texas Houston-McGovern Medical School, Houston, Texas, <sup>2</sup>McGovern School of Medicine at the University of Texas Health Science Center, Houston, Texas, <sup>3</sup>University of Texas, Houston, Texas, <sup>4</sup>University of Toronto, Toronto, Canada

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## Moderated Poster Discussion Session I, *continued*

### Group 22: Perioperative Anesthesia

**Moderator:** Bhiken Naik, MBBCh, University of Virginia School of Medicine, Charlottesville, Virginia

#### PA 168 (1015)

##### **A Nationwide Study of Dental Injuries in Relation to General Anesthesia**

**Rasmus E. Christensen**, Josefine S. Baekgaard, Lars S. Rasmussen

*Rigshospitalet, Copenhagen, Denmark*

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#### PA 169 (1169)

##### **A Systematic Review and Meta-Analysis Examining the Impact of Sleep Disturbance on Post-Operative Delirium**

**Ayotunde B. Fadayomi**<sup>1</sup>, Reine Ibalá<sup>2</sup>, Hao Deng<sup>2</sup>, Michael B. Westover<sup>2</sup>, Oluwaseun Johnson-Akeju<sup>2</sup>

*<sup>1</sup>Brigham and Women's Hospital, Boston, Massachusetts, <sup>2</sup>Massachusetts General Hospital, Boston, Massachusetts, Harvard Medical School, Boston, Massachusetts*

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#### PA 171 (1370)

##### **Impact of ICU Admission on the Perioperative Trajectory of Elderly Surgical Patients**

Pakeezah Saadat, **Romain Jouffroy**, Yannick Le Manach

*McMaster University, Hamilton, Ontario, Canada*

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#### PA 173 (1444)

##### **Stroke Volume Assessment by Invasive Arterial Blood Pressure Tracing, SpO<sub>2</sub> and Bioreactance: A Comparative Study**

**Jasper Wylleman**<sup>1</sup>, Tina Maes<sup>2</sup>, Roxane Cool<sup>2</sup>, Michel Vervoort<sup>2</sup>, Jan Poelaert<sup>2</sup>

*<sup>1</sup>UZ Brussel, Brussel, Belgium, <sup>2</sup>Vrije Universiteit Brussel (VUB), Brussels, Belgium*

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### Group 23: Pain Medicine, and Regional Anesthesia

**Moderator:** Promil Kukreja, MD, PhD, The University of Alabama at Birmingham, Birmingham, Alabama

#### RA 178 (907)

##### **Early Experience with 2-Chloroprocaine for Spinal Anesthesia: A Retrospective Analysis at One Institution**

David Kim, Richard Kahn, Andrew Lee, Sarah Ortolan, Jacques YaDeau, Phuong Dinh Mac, **Nicole Brunetti**

*Hospital for Special Surgery, New York, New York*

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*continued on page 63*

## Moderated Poster Discussion Session I, *continued*

RA 179 (757)

**Differential Effect of Paravertebral Block Amongst Mastectomy Patients: Phenotyping Using Preoperatively Determined Psychosocial and Psychophysical Characteristics**

Kristin Schreiber, Natt Zinboonyahgoon, Robert R. Edwards

*Brigham and Women's Hospital, Boston, Massachusetts*

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PM 180 (758)

**The Impact of a Yoga-based Daily Exercise Program on Pain, Sleep, and Stress in Patients with Fibromyalgia**

Kristin Schreiber, Asmina Lazaridou, Alexandra Buliteanu, Robert R. Edwards

*Brigham and Women's Hospital, Boston, Massachusetts*

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RA 181 (1009)

**Successful Management of 73 Patients for Total Knee Arthroplasty Using a Combination of Ultrasound-Guided Nerve Block and Targeted Sedation**

Man-Ling Wang<sup>1</sup>, Yu-Jiun Fan<sup>2</sup>, Chia-Jung Tsai<sup>2</sup>, Pei-Jiuan Yu<sup>1</sup>, Ying-Lu Lee<sup>1</sup>, Ching-Chuan Jiang<sup>2</sup>, Ya-Jung Cheng<sup>1</sup>

*<sup>1</sup>National Taiwan University Hospital, Taipei, Taiwan, <sup>2</sup>Orthopedics, Fu-Jen Catholic University Hospital, Taipei, Taiwan*

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### Group 24: Technology, Computing and Simulation, Equipment Monitoring, and Trauma

**Moderator:** Christos Koutentis, MBChB, MS, Columbia University, Mailman School of Public Health, New York, New York

TCSEM 184 (1181)

**Perioperative Central Volume Status in Healthy Children and in Children with Congenital Heart Disease**

David Leopold<sup>1</sup>, Kristen Campbell<sup>2</sup>, Laura Pyle<sup>2</sup>, Richard Ing<sup>2</sup>, Jane Mulligan<sup>3</sup>, Mark Twite<sup>2</sup>, Steven Moulton<sup>2</sup>

*<sup>1</sup>Children's Hospital Colorado, Aurora, Colorado, <sup>2</sup>University of Colorado Denver School of Medicine, Aurora, Colorado,*

*<sup>3</sup>Flashback Technologies, Inc., Louisville, Colorado*

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TCSEM 185 (1365)

**Joint Modeling and the Compensatory Reserve Index: Insight into Hemodynamic Compensation during the Induction of General Anesthesia**

David Leopold<sup>1</sup>, Kristen Campbell<sup>2</sup>, Laura Pyle<sup>2</sup>, Richard Ing<sup>2</sup>, Jane Mulligan<sup>3</sup>, Mark Twite<sup>2</sup>, Steven Moulton<sup>2</sup>

*<sup>1</sup>Children's Hospital Colorado, Aurora, Colorado, <sup>2</sup>University of Colorado Denver School of Medicine, Aurora, Colorado,*

*<sup>3</sup>Flashback Technologies, Inc., Louisville, Colorado*

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## Moderated Poster Discussion Session I, *continued*

### TCSEM 186 (1126)

#### Virtual Reality Use in Adult ICU to Mitigate Anxiety for a Patient on V-V ECMO: A Feasibility Trial

Gregory J. Blair<sup>1</sup>, Sheela Pai Cole<sup>2</sup>, Sam Rodriguez<sup>2</sup>

<sup>1</sup>Stanford Hospital, Mountain View, California, <sup>2</sup>Stanford University School of Medicine, Stanford, California

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### TCSEM 187 (697)

#### The Simulation Wars: A Competition to Increase Participation in Emergency Manuals Simulation Training and a Novel Tool for Rating Simulation Competitions

Khoa Nguyen<sup>1</sup>, Jeffrey Huang<sup>1</sup>

<sup>1</sup>University of Central Florida, Orlando, Florida

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### T 188 (937)

#### Cervical Spine Clearance in Patients with Unreliable Clinical Exam: Delays and Complications

Josefine S. Baekgaard<sup>1</sup>, Trine G. Eskesen<sup>1</sup>, Jacob Steinmetz<sup>1</sup>, Lars S. Rasmussen<sup>1</sup>, David King<sup>2</sup>, George C. Velmahos<sup>2</sup>

<sup>1</sup>Rigshospitalet, Copenhagen, Denmark, <sup>2</sup>Massachusetts General Hospital, Boston, Massachusetts

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### T 189 (944)

#### Supplemental Oxygen for Trauma Patients – Current Practice in Two Trauma Centers

Trine G. Eskesen<sup>1</sup>, Josefine S. Baekgaard<sup>1</sup>, Rasmus E. Christensen<sup>1</sup>, Jae Moo Lee<sup>2</sup>, George C. Velmahos<sup>2</sup>, Jacob Steinmetz<sup>1</sup>, Lars S. Rasmussen<sup>1</sup>

<sup>1</sup>Rigshospitalet, Copenhagen, Denmark, <sup>2</sup>Massachusetts General Hospital, Boston, Massachusetts

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## Moderated Poster Discussion Session II

Friday, April 27, 2018 | 1:30 pm - 3:00 pm

CATEGORY	POSTER BOARD NUMBERS
Airway Management	1, 3, 8-10, 12
Anesthetic Pharmacology	13, 15
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## Moderated Poster Discussion Session II

Friday, April 27, 2018 | 1:30 pm - 3:00 pm

### Group 1: Airway Management, Anesthetic Pharmacology, and Trauma

**Moderator:** Michael Aziz, MD, Oregon Health & Science University, Portland, Oregon, and Lena Sun, MD, Columbia University Medical Center, New York, New York

#### AM 1 (703)

#### Comparison of Oxygenation and Ventilation in Patients Undergoing Colonoscopy during Anesthesia: A Prospective Randomized Trial

**Yandong Jiang**, Zeping Xu, Yiping Bai, Meera Chandrashekar, Paul J. St. Jacques, Yafen Liang, Koffi Kla  
*Vanderbilt University Medical Center, Nashville, Tennessee*

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#### AP 2 (730)

#### In Monkeys, Reversal of the Ultra-Short Acting NMBA 1759-50 by Either D- or L-cysteine is Equally Rapid. Glutathione (GSH) is Also a Rapidly-acting and Effective Antagonist

**John J. Savarese**<sup>1</sup>, Jeff McGilvra<sup>2</sup>, Hiroshi Sunaga<sup>3</sup>, Farrell Cooke<sup>1</sup>, Paul M. Heerdt<sup>4</sup>

<sup>1</sup>Weill Cornell Medical College, New York, New York, <sup>2</sup>Cedarbury-Hausser Pharmaceuticals, Grafton, Wisconsin, <sup>3</sup>Jikei University School of Medicine, Tokyo, Japan, <sup>4</sup>Yale University School of Medicine, New Haven, Connecticut

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#### AP 3 (741)

#### Desflurane Alters Layer-Specific Neuronal Interactions in Rat Visual Cortex

**Anthony Hudetz**<sup>1</sup>, Siveshigan Pillay<sup>2</sup>

<sup>1</sup>University of Michigan Medicine, Ann Arbor, Michigan, <sup>2</sup>Medical College of Wisconsin, Milwaukee, Wisconsin

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#### AP 4 (782)

#### Volatile Anesthetics and Mitochondria: Hypoxia and Hyperoxia Modulate Toxicity of Isoflurane in a *Drosophila Melanogaster* Model of Leigh Syndrome

**Misha Perouansky**, Zacharia Olu Olufs, Carin Loewen, Barry Ganetzky, David Wassarman

*University of Wisconsin-Madison, Madison, Wisconsin*

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#### AP 6 (917)

#### A Prokaryotic- $\alpha 1\beta 3$ GABA(A) Receptor Chimera is a Biochemical Model of Neurosteroid Potentiation of the $\alpha 1\beta 3$ GABA(A) Receptor

**Wayland W. Cheng**<sup>1</sup>, Yusuke Sugawara<sup>1</sup>, Qiang Chen<sup>2</sup>, Douglas F. Covey<sup>1</sup>, Pei Tang<sup>2</sup>, Gustav Akk<sup>1</sup>, Alex Evers<sup>1</sup>

<sup>1</sup>Washington University School of Medicine in St. Louis, St. Louis, Missouri, <sup>2</sup>University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania

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## Moderated Poster Discussion Session II, *continued*

### Group 2: Anesthetic Pharmacology

**Moderator:** Mark Rice, MD, Vanderbilt University Medical Center, Nashville, Tennessee

**AP 8 (923)**

**Illuminate the Structural Basis of Neurosteroid Action on GABA<sub>A</sub> Receptors Using Crystallography**

Pei Tang, Qiang Chen, Palaniappa Arjunan, Marta M. Wells, Tommy S. Tillman, Yan Xu

*University of Pittsburgh School of Medicine, Pittsburgh, Pennsylvania*

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**AP 9 (956)**

**Nitrous Oxide As Treatment For Tinnitus: A Randomized Crossover Trial**

Peter Nagele, Helena Hong, Omar Karadaghy, Dorina Kallogjeri, Frank Brown, Branden Yee, Jay F. Piccirillo

*Washington University School of Medicine in St. Louis, St. Louis, Missouri*

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**AP 10 (962)**

**Caffeine Accelerates Emergence from Isoflurane Anesthesia in Human Volunteers**

Zheng Xie, Robert Fong, Jeffrey Apfelbaum, James P. Zacny, Aaron P. Fox

*The University of Chicago Medicine, Chicago, Illinois*

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**AP 11 (1355)**

**Do Anesthetics Prevent Consciousness by Dampening Microtubule Vibrations Inside Brain Neurons?**

Stuart Hameroff

*Banner-University of Arizona Medical Center, Tucson, Arizona*

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**AP 12 (1410)**

**Identification of a Modulatory Site of Action for the Volatile Anesthetic Isoflurane in TREK1 Tandem Pore Potassium Channels**

Paul M. Riegelhaupt<sup>1</sup>, Kellie Woll<sup>2</sup>, Thomas T. Joseph<sup>2</sup>, Kiran A. Vaidya<sup>1</sup>, Crina M. Nimigean<sup>1</sup>, Roderic G. Eckenhoff<sup>2</sup>

<sup>1</sup>Weill Cornell Medicine, New York, New York, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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## Moderated Poster Discussion Session II, *continued*

### Group 3: Bench Science

**Moderator:** Talmage Egan, MD, University of Utah, Salt Lake City, Utah, and Stuart Forman, MD, PhD, Massachusetts General Hospital, Boston, Massachusetts

#### BS 13 (516)

##### **Gut Commensal Metabolites Regulate Sterile Lung Inflammation in Mice: A Role for Acetate and Propionate**

**Arun Prakash**, Xiaoli Tian, Judith Hellman

*University of California, San Francisco School of Medicine, San Francisco, California*

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#### BS 14 (544)

##### **Evidence of a Discrete and Targetable Mitochondrial Defect in the Developing Fragile X Syndrome Brain**

**Richard J. Levy**<sup>1</sup>, Keren K. Griffiths<sup>1</sup>, Aili Wang<sup>1</sup>, Lifei Wang<sup>1</sup>, Matthew Tracey<sup>1</sup>, Catarin Quinzii<sup>1</sup>, Elizabeth A. Jonas<sup>2</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Yale School of Medicine, New Haven, Connecticut

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#### BS 15 (748)

##### **A Novel $\alpha 2$ Agonist Photolabel Reveals a Binding Site for Dexmedetomidine on the $\alpha 2$ Adrenergic Receptor**

**Andrew McKinstry-Wu**, Kellie Woll, E. Railey White, Natarajan Bhanu, Benjamin Garcia, William Dailey, Roderic G. Eckenhoff

*Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania*

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#### BS 16 (919)

##### **Extracellular miR-146a Binds to Toll-Like Receptor 7 and Induces Inflammatory Response in a Murine Sepsis Model**

**Sheng Wang**, Jinjin Xu, Yan Feng, Lin Zou, Wei Chao

*University of Maryland School of Medicine, Baltimore, Maryland*

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#### BS 17 (943)

##### **Creating a Model of Anesthetic Sensitivity Using Zebrafish**

**Victoria Bedell**, Micheal A. Pack, Max B. Kelz, Roderic G. Eckenhoff

*Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania*

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#### BS 18 (1103)

##### **Genome-Wide Association Study of Heart Rate Variability**

**Martin I. Sigurdsson**<sup>1</sup>, Nathan H. Waldron<sup>2</sup>, Andrey V. Bortsov<sup>1</sup>, Shad B. Smith<sup>1</sup>, Gary Slade<sup>3</sup>, Luda Diatchenko<sup>4</sup>, William Maixner<sup>1</sup>

<sup>1</sup>Duke University Hospital, Durham, North Carolina, <sup>2</sup>Duke University Medical Center, Durham, North Carolina,

<sup>3</sup>University of North Carolina, Chapel Hill, North Carolina, <sup>4</sup>McGill University, Montreal, Quebec

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*continued on page 69*

## Moderated Poster Discussion Session II, *continued*

### Group 4: Bench Science

**Moderator:** Tobias Eckle, MD, PhD, University of Colorado Denver School of Medicine, Aurora, Colorado

#### BS 20 (1168)

**Attenuation of Murine and Human Airway Contraction by a Gelsolin Peptide Containing the PIP<sub>2</sub> Binding Domain**

Maya Mikami<sup>1</sup>, Jose F. Perez-Zoghbi<sup>2</sup>, Yi Zhang<sup>1</sup>, Charles W. Emala<sup>1</sup>

<sup>1</sup>Columbia University, New York, New York, <sup>2</sup>Columbia University Medical Center, New York, New York

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#### BS 21 (1251)

**Identification of Abundant and Evolutionarily Conserved Opioid Receptor Circular RNAs, and their Modulation in the Mouse Nervous System by Chronic Morphine**

Takeshi Irie, Rebecca Shum, Ioanna Deni, Roger Wilson, Gregory Fischer, Ying-Xian Pan, Gavril Pasternak

Memorial Sloan Kettering Cancer Center, New York, New York

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#### BS 22 (1293)

**Ergodic Mice: Implications of Behavioral State Transitions at Constant Anesthetic Concentration**

Andrew McKinstry-Wu, Andrej Wasilczuk, Alex Proekt

Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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#### BS 23 (1301)

**Stochastic Behavioral Transitions: Contributions to Hysteresis**

Alex Proekt, Andrej Wasilczuk, Max B. Kelz, Andrew McKinstry-Wu

Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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#### BS 24 (1322)

**Delayed Inhibition of TRPM2 Channels Reverses Impaired Synaptic Function after Global Cerebral Ischemia**

Paco Herson, Robert Dietz, James Orfila, Guiying Deng, Nicholas Chalmers, Nidia Quillinan

University of Colorado Denver School of Medicine, Aurora, Colorado

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#### BS 25 (1354)

**Rescue of Proinflammatory Rat Microglial Mitochondrial Function and IL-1 $\beta$  and Nitric Oxide Release by Idebenone**

Brian M. Polster, Evan A. Bordt, Sausan Jaber, Joshua L. Milstein, James P. Barrett, David J. Loane

University of Maryland School of Medicine, Baltimore, Maryland

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## Moderated Poster Discussion Session II, *continued*

### Group 5: Cardiovascular Anesthesiology

**Moderator:** George Gallos, MD, Columbia University, New York, New York

#### CA 27 (841)

##### Phenotyping Anesthesiology Providers for Hypotension Episodes during Coronary Artery Bypass Surgery

**Miguel Ármengol de la Hoz**, Ariel Mueller, Sarah Nabel, Balachundhar Subramaniam, Satya Krishna Ramachandran

*Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts*

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#### CA 28 (1192)

##### Intraoperative Blood Pressure Thresholds and Major Adverse Events Following Cardiac Surgery: An Exploratory Analysis

**Miguel Ármengol de la Hoz**, Ariel Mueller, Satya Krishna Ramachandran, Sarah Nabel, Balachundhar Subramaniam

*Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, Massachusetts*

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#### CA 29 (1356)

##### Atrial Fibrillation Ablation Induces Changes in Central Autonomic Networks

**Nathan H. Waldron**<sup>1</sup>, Ashley Flynn<sup>1</sup>, Jeffrey N. Browndyke<sup>1</sup>, Miles Berger<sup>1</sup>, Jonathan P. Piccini<sup>1</sup>, Allen W. Song<sup>1</sup>, Joseph P. Mathew<sup>2</sup>

*<sup>1</sup>Duke University Medical Center, Durham, North Carolina, <sup>2</sup>Duke University School of Medicine, Durham, North Carolina*

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#### CA 30 (1381)

##### Epicardial Botulinum Toxin Injection Induces Early Changes in Heart Rate Dynamics

**Nathan H. Waldron**<sup>1</sup>, Martin I. Sigurdsson<sup>2</sup>, Marat Fudim<sup>1</sup>, Carmelo A. Milano<sup>1</sup>, Jonathan P. Piccini<sup>1</sup>, Joseph P. Mathew<sup>3</sup>

*<sup>1</sup>Duke University Medical Center, Durham, North Carolina, <sup>2</sup>Duke University Hospital, Durham, North Carolina, <sup>3</sup>Duke University School of Medicine, Durham, North Carolina*

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#### PM 31 (1054)

##### Is High-Frequency Heart Rate Variability Index a Marker for the Balance between Analgesia and Nociception During Laparoscopic Cholecystectomy in Adults under General Anesthesia?

**Thomas A. Anderson**<sup>1</sup>, Timothy Houle<sup>2</sup>, Hao Deng<sup>2</sup>, Chihiro Toda<sup>2</sup>, Abdolnabi S. Sabouri<sup>2</sup>, Aaron S. Rudin<sup>2</sup>, Joshua R. Segaran<sup>3</sup>

*<sup>1</sup>Stanford University School of Medicine, Stanford, California, <sup>2</sup>Massachusetts General Hospital, Boston, Massachusetts, <sup>3</sup>Massachusetts Institute of Technology, Cambridge, Massachusetts*

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## Moderated Poster Discussion Session II, *continued*

### Group 6: Cardiovascular Anesthesiology

**Moderator:** Christos Koutentis, MBChB, MS, New York, New York

#### CA 32 (903)

#### **Inhibition of Histone Deacetylase 6 Activity Provides Protection against Atherogenesis: A Role for HDAC6 NEDDylation**

**Dan Berkowitz**, Yohei Nomura, Max C. Rossberg, Anil Bhatta, Lew Romer, Deepesh Pandey

*Johns Hopkins School of Medicine, Baltimore, Maryland*

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#### CA 33 (1237)

#### **ST Segment Variability in Coronary Allograft Vasculopathy after Pediatric Heart Transplantation**

**Eric L. Vu**, Dean Andropoulos, William Dreyer, R. B. Easley, Kathy K. Kibler, Craig G. Rusin, Ken M. Brady

*Baylor College of Medicine / Texas Children's Hospital, Houston, Texas*

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#### CA 34 (1334)

#### **Development of a Large Canine Model of TEVAR Resulting in Ischemic Spinal Cord Injury and Paralysis**

**Hamdy Awad**, Sara Moore, Esmerina Tili, Katherine Binzel, Hesham Kelani, Hosam El Sayed, Michael Knopp, Ralph Beltran, Valerie Bergdall

*The Ohio State University, Columbus, Ohio*

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#### CA 35 (987)

#### **Pulmonary Thrombo-Endarterectomy (PTE) for Chronic Thromboembolic Pulmonary Hypertension (CTEPH): A Single Center 13-Year Report**

Hema Nair<sup>1</sup>, Devi Shetty<sup>2</sup>, Julius Punnen<sup>2</sup>, Varun Shetty<sup>2</sup>, Bhairavi N. Bajlekar<sup>2</sup>, **Kumar Belani**<sup>2</sup>

*<sup>1</sup>Narayana Health, Bangalore, Karnataka, <sup>2</sup>University of Minnesota Masonic Children's Hospital, Minneapolis, Minnesota*

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### Group 7: Critical Care

**Moderator:** Tomoki Hashimoto, MD, University of California, San Francisco School of Medicine, San Francisco, California

#### CC 38 (1002)

#### **Making ECMO 'Work': Teamwork. An Observational, Qualitative Study into Teams and Teamwork**

**Johnny Kenth**<sup>1</sup>, Ignacio Malagon<sup>2</sup>, Andrew Smith<sup>3</sup>, Maggie Mort<sup>4</sup>

*<sup>1</sup>Royal Manchester Children's Hospital, Manchester, England, <sup>2</sup>Manchester Foundation Trust, Manchester, England, <sup>3</sup>Royal Lancaster Infirmary, Lancaster, Lancashire, England <sup>4</sup>Lancaster University, Lancaster, Lancashire, England*

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## Moderated Poster Discussion Session II, *continued*

### CC 39 (1003)

#### Intercorporeal 'Knowing' for Extracorporeal Membrane Oxygenation: Constructing and Enacting a Culture of Safety. A Qualitative, Observational Study

Johnny Kenth<sup>1</sup>, Ignacio Malagon<sup>2</sup>, Maggie Mort<sup>3</sup>, Andrew Smith<sup>4</sup>

<sup>1</sup>Royal Manchester Children's Hospital, Manchester, England, <sup>2</sup>Manchester Foundation Trust, Manchester, England, <sup>3</sup>Lancaster University, Lancaster, Lancashire, England <sup>4</sup>Royal Lancaster Infirmary, Lancaster, Lancashire, England

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### CC 40 (711)

#### The Modified Early Warning System in Unplanned SICU Admission: An Analysis in 263 Consecutive Patients

Annandita Kumar<sup>1</sup>, Hussam Ghabra<sup>1</sup>, Fiona Winterbottom<sup>1</sup>, Michael Townsend<sup>2</sup>, Phillip Boysen<sup>2</sup>, Bobby Nossaman<sup>2</sup>

<sup>1</sup>Ochsner Health Systems, New Orleans, Louisiana, <sup>2</sup>Ochsner Clinic Foundation, New Orleans, Louisiana

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### CC 41 (584)

#### Association between Mean Arterial Pressure and Acute Kidney Injury and a Composite of Myocardial Injury and Mortality in Postoperative Critically Ill Patients

Ashish K. Khanna<sup>1</sup>, Kamal Maheshwari<sup>1</sup>, Guangmei Mao<sup>1</sup>, Edward J. Mascha<sup>1</sup>, Praneeta Chodavarapu<sup>1</sup>, Yehoshua Schacham<sup>2</sup>, Daniel I. Sessler<sup>1</sup>

<sup>1</sup>Cleveland Clinic Foundation, Cleveland, Ohio, <sup>2</sup>University of Cincinnati, Cincinnati, Ohio

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### CC 42 (904)

#### Estrogens Alleviate Parasympathetic-induced, $\alpha$ nAChR-mediated Mortality from secondary *P. aeruginosa* Lung Infection after Traumatic Brain Injury in Mice

Brant Wagener, Jean-Francois Pittet, Angela Brandon, Cilina Evans, Rebekah Muthalaly

The University of Alabama at Birmingham, Birmingham, Alabama

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### CC 43 (884)

#### Noninvasive Venous Waveform Analysis (NIVA) Detects Blood Loss in Human Blood Donors and a Porcine Hemorrhage Model

Bret D. Alvis<sup>1</sup>, Reid McCallister<sup>2</sup>, Susan Eagle<sup>1</sup>, Franz Baudenbacher<sup>2</sup>, Richard B. Boyer<sup>2</sup>, Colleen Brophy<sup>1</sup>, Kyle M. Hocking<sup>1</sup>

<sup>1</sup>Vanderbilt University Medical Center, Nashville, Tennessee, <sup>2</sup>Massachusetts General Hospital, Boston, Massachusetts

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## Moderated Poster Discussion Session II, *continued*

### Group 8: Critical Care

**Moderator:** Ines Koerner, MD, PhD, Oregon Health & Science University, Portland, Oregon

#### CC 45 (702)

##### Role of Toll-like Receptor Signaling in Sepsis-induced Coagulopathy in Mice

**Brittney Williams**, Ping Cui, Olivia Conn, Kenichi Tanaka, Lin Zou, Wei Chao

*University of Maryland School of Medicine, Baltimore, Maryland*

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#### CC 46 (563)

##### The Use of a Succinate Prodrug to Improve Respiration in Blood Cells from Patients with Sepsis

**David Eckmann**, David Jang, Stephen W. Hallisey, Utsha Khatri, Antonio Davila, Shawn Oweridu, John Greenwood

*Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania*

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#### CC 47 (1180)

##### Kidney Proximal Tubular Toll-Like Receptor 9 (TLR9) Exacerbates Ischemic Acute Kidney Injury in Mice

**H.T. Lee**<sup>1</sup>, Sang Jun Han<sup>2</sup>, Hongmei Li<sup>2</sup>, Mihwa Kim<sup>2</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Columbia University, New York, New York

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#### CC 48 (620)

##### Severe Myxedema Coma - A Diagnostic Dilemma and Management Challenges

**Hina Faisal**<sup>1</sup>, Navneet Grewal<sup>2</sup>, Nasir Tanauli<sup>3</sup>, Farrakh Khawaja<sup>3</sup>

<sup>1</sup>McGovern Medical School at UT Houston Science Center, Houston, Texas, <sup>2</sup>University of Texas, Houston, Houston, Texas, <sup>3</sup>USAP, Houston, Texas

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#### CC 49 (1033)

##### Therapeutic Effects of Hyaluronic Acid Following Lung Injury Induced by *E.coli* Derived Extracellular Vesicles

**Jae-Woo Lee**, Airan Liu, Jeonghyun Park, Xiwen Zhang, Hideya Kato, Jaehoon Lee, Michael Matthay

*University of California, San Francisco School of Medicine, San Francisco, California*

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#### CC 50 (1038)

##### Therapeutic Effect of High Molecular Weight Hyaluronic Acid in Polymicrobial Sepsis in Mice

**Jaehoon Lee**, Airan Liu, Hideya Kato, Qi Hao, Jae-Woo Lee

*University of California, San Francisco School of Medicine, San Francisco, California*

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## Moderated Poster Discussion Session II, *continued*

### Group 9: Critical Care

**Moderators:** Jeffrey D. White, MD, University of Florida College of Medicine, and Thomas Floyd, MD, Stony Brook University, Stony Brook, New York

#### CC 52 (737)

#### Clinical Utility of Hemodynamic Transesophageal Echocardiography (hTEE) in the Management of Unstable Cardiothoracic ICU Patients

Joshua C. Peterson<sup>1</sup>, Brigid C. Flynn<sup>1</sup>, Maung Hlaing<sup>2</sup>, Nicholas A. Haglund<sup>1</sup>, Hiroo Takayama<sup>3</sup>

<sup>1</sup>University of Kansas, Kansas City, Kansas, <sup>2</sup>University of Colorado, Denver School of Medicine, Aurora, Colorado,

<sup>3</sup>Columbia University, New York, New York

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#### CC 53 (1018)

#### Risk Stratification for 30-day Mortality in Patients with Acute Kidney Injury after High-Risk General Surgery

Minjae Kim<sup>1</sup>, Melanie Wall<sup>2</sup>, Ravi Kiran<sup>1</sup>, Guohua Li<sup>2</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Columbia University College of Physicians and Surgeons, New York, New York

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#### CC 54 (1447)

#### Catheter-Associated Urinary Tract Infection in a Low Resource Intensive Care Unit

Adaobi Amucheazi, Adaobi Amucheazi, Obinna V. Ajuzieogu

University of Nigeria, Enugu, Nigeria

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#### CC 55 (1385)

#### Non-invasive Optical Cerebral Blood Flow and Oxygenation Monitoring in Critically Brain-injured Patients

Wesley Baker<sup>1</sup>, Ramani Balu<sup>1</sup>, Lian He<sup>1</sup>, David Busch<sup>2</sup>, Arjun G. Yodh<sup>1</sup>, Keith St. Lawrence<sup>3</sup>, William A. Kofke<sup>1</sup>, Venkaiah Kavuri<sup>3</sup>, Daniel Milej<sup>3</sup>, Mamadou Diop<sup>1</sup>

<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania <sup>2</sup>University of Texas Southwestern, Dallas, Texas, <sup>3</sup>University of Western Ontario, London, Ontario

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## Moderated Poster Discussion Session II, *continued*

### Group 10: Global Health, and Respiration

**Moderators:** Feyce Peralta, MD, Northwestern University Feinberg School of Medicine, Chicago, Illinois, and Y.S. Prakash, MD, PhD, Mayo Clinic College of Medicine and Science, Rochester, Minnesota

#### RES 56 (644)

**Ginger and its Bioactive Component Relax Human Airway Smooth Muscle in Precision Cut Lung Slices and Inhibit Lung Inflammation in a Murine Asthma Model**

Gene T. Yocum<sup>1</sup>, Maya Mikami<sup>1</sup>, Jose F. Perez-Zoghbi<sup>2</sup>, Charles W. Emala<sup>1</sup>

<sup>1</sup>Columbia University, New York, New York, <sup>2</sup>Columbia University Medical Center, New York, New York

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#### RES 57 (1052)

**Antagonism of the TMEM16A Calcium-Activated Chloride Channel Attenuates Allergic Lung Inflammation**

Jennifer Danielsson, Maya Mikami, Gene T. Yocum, Aisha Kuforiji, Charles W. Emala

Columbia University, New York, New York

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#### RES 58 (1130)

**Light Mediated Relaxation of Small Airways in Precision Cut Lung Slice**

Peter Yim<sup>1</sup>, Jose F. Perez-Zoghbi<sup>2</sup>, Amy Wu<sup>2</sup>, Charles W. Emala<sup>1</sup>

<sup>1</sup>Columbia University, New York, New York, <sup>2</sup>Columbia University Medical Center, New York, New York

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#### GH 59 (525)

**Increasing Evidence-Based Interventions for Patients with Acute Infections in a Rural Village in Rwanda**

Andrew J. Patterson<sup>1</sup>, Olivier Urayenzeza<sup>2</sup>, Joseph C. Farmer<sup>3</sup>, Martin Dunser<sup>4</sup>, Lori Harmon<sup>5</sup>, Julia T. Hoffman<sup>1</sup>, Danstan Bagenda<sup>1</sup>

<sup>1</sup>University of Nebraska Medical Center, Omaha, New York, <sup>2</sup>Gitwe Hospital, Los Angeles, California, <sup>3</sup>Mayo Clinic, Phoenix, Arizona, <sup>4</sup>University College London, London, England, <sup>5</sup>Society of Critical Care Medicine, Mount Prospect, Illinois

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#### GH 60 (493)

**Factors Limiting the Provision of Safe Obstetric Anaesthesia in Low-Income Countries: A Cross-Sectional Survey of 64 Hospitals in Uganda**

Isabella Epiu

University of California Global Health Institute, Nairobi

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## Moderated Poster Discussion Session II, *continued*

### Group 11: Economics, Education and Policy

**Moderator:** Annette Rebel, MD, University of Kentucky Health Care, Lexington, Kentucky

#### EEP 62 (1132)

##### Perception of Educational Environment and its Association with In-Training Examination Scores in an Anesthesiology Residency Program

**Allen Kwong**<sup>1</sup>, Minjae Kim<sup>2</sup>, Shuang Wang<sup>2</sup>, Parwane Pagano<sup>1</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Mailman School of Public Health at Columbia University, New York, New York

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#### EEP 63 (899)

##### Effectiveness of a Flipped Classroom Model Compared to a Traditional Format in Anesthesiology Education

**Brian Egan**<sup>1</sup>, Jonathan Hastie<sup>1</sup>, Meiko Lin<sup>2</sup>, Danielle Ludwin<sup>2</sup>, Maya Hastie<sup>1</sup>

<sup>1</sup>Columbia University Medical Center, New York, New York, <sup>2</sup>Teachers College, New York, New York

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#### EEP 65 (1152)

##### Novel Recycling Practices in Anesthesiology

**Laura Pasternack**<sup>1</sup>, Seema Ghandi<sup>2</sup>

<sup>1</sup>Drexel College of Medicine, Philadelphia, Pennsylvania, <sup>2</sup>University of California, San Francisco School of Medicine, San Francisco, California

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#### EEP 66 (1382)

##### The Status of Women in Academic Anesthesiology: A Ten-Year Update

**Paloma Toledo**, Martha Bissing, Elizabeth M. Lange, Cynthia Wong, Robert McCarthy, Wilmer Davila, M. C. Stock

Northwestern University Feinberg School of Medicine, Chicago, Illinois

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### Group 12: Medically Challenging Cases

**Moderator:** Promil Kukreja, MD, PhD, The University of Alabama at Birmingham, Birmingham, Alabama

#### MCC 68 (519)

##### Postoperative Migration of Functioning Epidural Catheter to Intrathecal Space Following Fetoscopic Myelomeningocele Repair: A Case Report

**Caitlin D. Sutton**<sup>1</sup>, Titilopemi Aina<sup>2</sup>

<sup>1</sup>Baylor College of Medicine, Houston, Texas, <sup>2</sup>Texas Children's Hospital/Baylor College of Medicine, Houston, Texas

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## Moderated Poster Discussion Session II, *continued*

### MCC 69 (1036)

#### Loss of Secure Airway after Difficult Intubation in a Patient with Osteogenesis Imperfecta Undergoing Cesarean Delivery

Caitlin D. Sutton<sup>1</sup>, Allison McDonald<sup>2</sup>, Brendan Carvalho<sup>3</sup>

<sup>1</sup>Baylor College of Medicine, Houston, Texas, <sup>2</sup>Stanford University School of Medicine, Stanford, California, <sup>3</sup>Kaiser Permanente, San Jose, California

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### MCC 70 (1343)

#### The Best Awake Fiberoptic Airway Technique

Afia Ohemeng, Gennadiy Voronov, Brandon Isler

John H. Stroger Hospital of Cook County, Chicago, Illinois

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### MCC 71 (1246)

#### Case Report: Novel Use of Thromboelastography to Diagnose Hypercoagulability and Enoxaparin Failure Despite Therapeutic anti-FXa activity in a Patient with Bladder Cancer

Alexander Hawson

University of California, San Francisco School of Medicine, San Francisco, California

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### MCC 72 (1022)

#### Perioperative Pain Management Emphasizing Peripheral Nerve Blockade in a Homozygous Sickle Cell Disease Patient Undergoing Total Hip Arthroplasty

Francisco Perese<sup>1</sup>, Jinlei Li<sup>2</sup>, Lee Rubin<sup>2</sup>, Daniel Carlyle<sup>1</sup>

<sup>1</sup>Yale New Haven Hospital, New Haven, Connecticut, <sup>2</sup>Yale University School of Medicine, New Haven, Connecticut

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## Group 13: Medically Challenging Cases

**Moderator:** Carlos B. Mantilla, MD, Mayo Clinic, Rochester, Minnesota

### MCC 74 (825)

#### Cesarean Section and Subsequent Ventriculostomy in a Parturient with Pre-Eclampsia and Obstructive Hydrocephalus: A True Anesthetic Challenge

Daniel Garcia, Liang Huang, Jeffrey Bernstein, David Adams, Sergey Pisklakov

Albert Einstein College of Medicine, Bronx, New York

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### MCC 75 (1092)

#### Erector Spinae Plane Block for Minimally Invasive Pectus Excavatum Repair: A Case Series

Eugene Chung<sup>1</sup>, Caitlin D. Sutton<sup>2</sup>, Craig Belon<sup>1</sup>, Adam C. Adler<sup>3</sup>, Nihar V. Patel<sup>2</sup>

<sup>1</sup>Baylor College of Medicine; Texas Children's Hospital, Houston, Texas, <sup>2</sup>Baylor College of Medicine, Houston, Texas, <sup>3</sup>Texas Children's Hospital, Houston, Texas

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## Moderated Poster Discussion Session II, *continued*

### MCC 76 (1014)

#### Anesthetic Management of Staged Thoracoabdominal Aortic Aneurysm Repair Complicated by Neck Hematoma: A Medically-Challenging Case Report

Jeffrey D. Davis, Marshall Lee

Oregon Health & Science University, Portland, Oregon

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### MCC 77 (908)

#### Perioperative Management of an Adult with Severe Aortic Coarctation Presenting for TEVAR

Katie Barnett, Nadine Odo, Vaibhav Bora

Augusta University, Augusta, Georgia

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### MCC 78 (1186)

#### A Case Series of Anesthetic management of 3 Patients with Wolf Parkinson White Syndrome

Mario Leandre, Debbie Chandler, Shilpadevi Patil, Chizoba N. Mosieri

Louisiana State University Health, New Orleans, Louisiana

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### MCC 79 (1026)

#### Caudal Anesthesia and Natural Airway for Ambulatory Urologic Surgery in Infant with Epidermolysis Bullosa

Pulsar Li, Omar Al-Qudsi

Loyola University Medical Center, Maywood, Illinois

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## Group 14: Neuroscience in Anesthesiology and Perioperative Medicine

**Moderator:** Paul Picton, MD, MRCP, FRCA, University of Michigan Medicine, Ann Arbor, Michigan

### NR 81 (646)

#### Measuring Post-Operative Cognitive Dysfunction in Older Adults Using the Dalhousie Computerized Attention Battery

Yaesh Sardiwala, Gail Eskes, Ronald B. George, Michael Schmidt

Dalhousie University, Halifax, Nova Scotia

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### NR 82 (695)

#### Non-invasive Optical Quantification of Absolute Cerebral Blood Flow in Adults: Validation against MRI

Wesley B. Baker<sup>1</sup>, Daniel Milej<sup>2</sup>, Mamadou Diop<sup>2</sup>, Ramani Balu<sup>1</sup>, John A. Detre<sup>1</sup>, Arjun G. Yodh<sup>1</sup>, Keith St. Lawrence<sup>2</sup>, Lian He<sup>1</sup>, Androu Abdalalak<sup>3</sup>, Sudipto Dolui<sup>3</sup>, Uduanna Anazodo<sup>3</sup>, Venkaiah Kavuri<sup>3</sup>, William Pavlosky<sup>3</sup>, Olivia Amendolia<sup>3</sup>, Francis Quattrone<sup>3</sup>

<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>2</sup>University of Western Ontario, London, Ontario, <sup>3</sup>University of Western Ontario, London, Ontario

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## Moderated Poster Discussion Session II, *continued*

**NR 83 (940)**

**Preliminary Evidence of Neural Inertia in Human Subjects Undergoing Xenon Anesthesia**

**Charles W. Carspecken**, Andrew McKinstry-Wu, Alexander Proekt, Max B. Kelz

*Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania*

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**NR 84 (954)**

**Adult-Born Hippocampal Neurons Drive Recurrent Excitatory Circuits During Epileptogenesis in Mice**

**Eric Schnell**<sup>1</sup>, William D. Hendricks<sup>2</sup>, Gary L. Westbrook<sup>2</sup>

<sup>1</sup>Oregon Health & Science University, Portland, Oregon, <sup>2</sup>Vollum Institute, Portland, Oregon

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**NR 85 (957)**

**Auditory Novelty Detection in Awake and Anesthetized States: An Intracranial Electrophysiology Study**

**Matthew Banks**<sup>1</sup>, Kirill V. Nourski<sup>2</sup>, Ariane E. Rhone<sup>2</sup>, Mitchell Steinschneider<sup>3</sup>, Hiroto Kawasaki<sup>2</sup>,

Matthew A. Howard<sup>2</sup>

<sup>1</sup>University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin, <sup>2</sup>University of Iowa, Iowa City, Iowa,

<sup>3</sup>Albert Einstein College of Medicine, New York, New York

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### Group 15: Neuroscience in Anesthesiology and Perioperative Medicine

**Moderator:** Robert Whittington, MD, Columbia University Medical Center; New York–Presbyterian Hospital, New York, New York

**NR 88 (1039)**

**Adolescent Rats Display Long-Lasting Abnormalities in REM Sleep Quantity and Structure after Postnatal Anesthesia**

**Nadia Lunardi**, Ryan Sica, Navya Atluri, Zhiyi E. Zuo

*University of Virginia School of Medicine, Charlottesville, Virginia*

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**NR 89 (1040)**

**Defining Subareas of the Ventral Respiratory Column Functionally with AMPA and DAMGO Injections in Adult Rabbits In Vivo**

**Astrid Stucke**<sup>1</sup>, Justin R. Miller<sup>2</sup>, Eckehard A. Stuth<sup>1</sup>, Francis A. Hopp<sup>2</sup>, Edward J. Zuperku<sup>1</sup>

<sup>1</sup>Medical College of Wisconsin, Milwaukee, Wisconsin, <sup>2</sup>Carthage College, Kenosha, Wisconsin, <sup>3</sup>Zablocki VA Medical Center, Milwaukee, Wisconsin

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**NR 90 (1077)**

**Ketamine's Antidepressant Effect is blocked by a  $\mu$ -Opioid Receptor Antagonist in Humans and Mice**

**Boris D. Heifets**, Nolan Williams, Keith Sudheimer, Heather Pankow, Christine Blasey, David Lyons, Alan F. Schatzberg

*Stanford University School of Medicine, Stanford, California*

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## Moderated Poster Discussion Session II, *continued*

NR 91 (1137)

**Can EEG Metrics Collected Prior to Laryngoscopy Predict Isolated Forearm Test Responsiveness after Laryngoscopy? A Secondary Analysis of the Conscious Study**

**Robert Sanders<sup>1</sup>**, Amy Gaskell<sup>2</sup>, Darren F. Hight<sup>2</sup>, Vincent Bonhomme<sup>3</sup>, Jamie Sleight<sup>2</sup>

<sup>1</sup>University of Wisconsin-Madison, Madison, Wisconsin, <sup>2</sup>Waikato Hospital, Hamilton, New Zealand, <sup>3</sup>Waikato Clinical School, Hamilton, Waikato, <sup>3</sup>Coma Science Center, Liege, Belgium

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NR 92 (1158)

**Pain after Craniotomy and the Development of Long-Term Headaches after These Procedures: Can We Improve Outcomes?**

**Walter S. Jellish**, Tewodrose Aseffa

Loyola University Medical Center, Maywood, Illinois

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NR 93 (1190)

**Differential Methylation of Hippocampal DNA Three Weeks after Exposure to Surgery and Anesthesia in Aging Mice**

**Katie J. Schenning**, Brett Davis, Lucia Carbone, Daniel Hong, Joseph Quinn, Nabil Alkayed

Oregon Health & Science University, Portland, Oregon

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## Group 16: Neuroscience in Anesthesiology and Perioperative Medicine, and Technology, Computing and Simulation, Equipment Monitoring

**Moderator:** Helene Benveniste, MD, PhD, Yale School of Medicine, New Haven, Connecticut

NR 94 (1205)

**Can National Surgical Quality Improvement Program (NSQIP) Risk Scores Aid in the Prediction of Patients at Risk of Postoperative Delirium? A Preliminary Analysis of the IPOD-B3 Study**

**Sara Twadell<sup>1</sup>**, Heidi Lindroth<sup>2</sup>, Jane Kildow<sup>2</sup>, Lily Turner<sup>2</sup>, Wesley Chang<sup>2</sup>, Robert Sanders<sup>2</sup>

<sup>1</sup>University of Wisconsin Madison, Madison, Wisconsin, <sup>2</sup>University of Wisconsin Hospital and Clinics, Madison, Wisconsin

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NR 95 (1277)

**A Novel Theoretical Basis for Anesthetic Hysteresis**

**Andrew Hudson<sup>1</sup>**, Alex Proekt<sup>2</sup>

<sup>1</sup>University of California, Los Angeles David Geffen School of Medicine, Los Angeles, California, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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## Moderated Poster Discussion Session II, *continued*

**NR 96 (1300)**

### Value of Early Myocardial Workload Following Severe Traumatic Brain Injury

Vijay Krishnamoorthy<sup>1</sup>, Ali Rowhani-Rahbar<sup>2</sup>, Nophanan Chaikittisilpa<sup>2</sup>, Abhijit V. Lele<sup>2</sup>, Edward Gibbons<sup>2</sup>,  
Monica S. Vavilala<sup>2</sup>

<sup>1</sup>Duke University School of Medicine, Durham, North Carolina, <sup>2</sup>University of Washington Medicine, Seattle, Washington

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**NR 97 (1393)**

### Optical Neuromonitoring Detects Brain Hypoxia

David R. Busch<sup>1</sup>, Wesley Baker<sup>2</sup>, Wensheng Guo<sup>2</sup>, Ramani Balu<sup>2</sup>, Keith St. Lawrence<sup>3</sup>, Arjun G. Yodh<sup>2</sup>,  
William A. Kofke<sup>2</sup>, Lian He<sup>2</sup>, Mamadou Diop<sup>4</sup>, Daniel Milej<sup>3</sup>

<sup>1</sup>University of Texas Southwestern, Dallas, Texas, <sup>2</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>3</sup>University of Western Ontario, London, Ontario

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**TCSEM 98 (1215)**

### Monitoring of Spinal Cord Blood Flow during Orthopedic Surgery in an Ovine Model

David R. Busch<sup>1</sup>, Wei Lin<sup>2</sup>, Alissa Cutrone<sup>2</sup>, Jakub Tatka<sup>2</sup>, Arjun G. Yodh<sup>3</sup>, James Barsi<sup>2</sup>, Thomas F. Floyd<sup>1</sup>

<sup>1</sup>University of Texas Southwestern, Dallas, Texas, <sup>2</sup>Stony Brook University, Stony Brook, New York, <sup>3</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania

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**NR 99 (1400)**

### Sevoflurane and Isoflurane Exposure in Aged Male Mice Leads to Synaptic Alterations in the Hippocampus

Matthew B. Friese, Xinling Xu, Deborah J. Culley, Gregory Crosby

Harvard Medical School/Brigham and Women's Hospital, Boston, Massachusetts

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## Group 17: Obstetric Anesthesiology, and Sleep Medicine

**Moderator:** Jonathan Waters, MD, University of Pittsburgh, Pittsburgh, Pennsylvania

**OB 102 (1176)**

### 6-Shogaol (Bioactive Metabolite of Zingiber Officinale) Attenuates Human Uterine Smooth Muscle (USM) Contractility

Shunsuke Hyuga, Wen Fu, Elvedin Lukovic, Joy Vink, Charles W. Emala, George Gallos

Columbia University, New York, New York

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## Moderated Poster Discussion Session II, *continued*

### SM 103 (1265)

#### Surface Ultrasound as a Screening Tool for Obstructive Sleep Apnea (OSA): A Systemic Review of Literature

Mandeep Singh<sup>1</sup>, David Wong<sup>1</sup>, Arvind Tuteja<sup>2</sup>, Akash Goel<sup>2</sup>, Aditya Trivedi<sup>3</sup>, Vincent Chan<sup>2</sup>

<sup>1</sup>University of Toronto, Toronto, Ontario, Canada <sup>2</sup>University Health Network, Toronto, Ontario, Canada, <sup>3</sup>McMaster University, Hamilton, Ontario, Canada

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### OB 104 (1282)

#### The Pattern and Distribution of Body Fluid During Pregnancy: A Systematic Review

Mandeep Singh<sup>1</sup>, Julia Pasquale<sup>2</sup>, Mrinalini Balki<sup>2</sup>, Sally Hu<sup>1</sup>

<sup>1</sup>University of Toronto, Toronto, Ontario, Canada, <sup>2</sup>Mount Sinai Hospital, Toronto, Canada

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### OB 105 (1296)

#### Do Obstetric Anesthesiologists Provide More Guideline-Concordant Care for Patients Undergoing Cesarean Delivery?

Benjamin Cobb<sup>1</sup>, Meghan Lane-Fall<sup>1</sup>, Richard C. Month<sup>1</sup>, Onyi C. Onuoha<sup>1</sup>, Sindhu Srinivas<sup>1</sup>, Mark D. Neuman<sup>1</sup>

<sup>1</sup>Perelman School of Medicine, University of Pennsylvania, Philadelphia, Pennsylvania, <sup>2</sup>Leonard Davis Institute of Health Economics, Philadelphia, Pennsylvania

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### OB 106 (1434)

#### Emotional Burden and Psychophysical Predictors of Labor Pain

Grace Lim<sup>1</sup>, Lia M. Farrell<sup>1</sup>, Andrea Gillman<sup>1</sup>, Robert R. Edwards<sup>2</sup>, Ajay D. Wasan<sup>1</sup>

<sup>1</sup>University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania, <sup>2</sup>Brigham and Women's Hospital, Boston, Massachusetts

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## Group 18: Pain Medicine

**Moderator:** Shireen Ahmad, MD, Northwestern University Feinberg School of Medicine, Chicago, Illinois

### PM 108 (596)

#### Squamous Cell Carcinoma of the Nasopharynx: Successfully Achieving Pain Control in a Newly Diagnosed Cancer

Raymond E. Kennedy

University of Wisconsin, Madison, Wisconsin

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### PM 109 (597)

#### Long-Term Pain Control in Severe Lumbar Spinal Stenosis Prior to Surgical Intervention

Raymond E. Kennedy

University of Wisconsin, Madison, Wisconsin

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## Moderated Poster Discussion Session II, *continued*

**PM 111 (805)**

**Predictors of Moderate-to-Severe Acute Pain after Video-Assisted Thoracoscopic Surgery**

**Emine O. Bayman**, Kaplaj R. Parekh, John C. Keech, Tim Brennan

*University of Iowa, Iowa City, Iowa*

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**PM 112 (1059)**

**Enhanced Recovery after Procedure (ERAP): A Multimodal, Perioperative Analgesia Protocol in the Interventional Radiology (IR) Suite**

**Rafael Vazquez**, Joseph McDowell, Vanessa Kurzweil, Dan B. Ellis, Brinda B. Kamdar, Melvin Omodon, Ronald S. Arellano

*Massachusetts General Hospital, Boston, Massachusetts*

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**PM 113 (1165)**

**Molecular Interactions of Dexmedetomidine with Kappa Opioid Receptor**

**Renyu Liu**, Jiafu Ji, Jin Xi, Hasan Babazada, Si Zeng, Thomas T. Joseph

*Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania*

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**PM 114 (1397)**

**The Application of Bayes' Theorem for Diagnosing Herniated Nucleus Pulposus (HNP) Based on Physical Exam Findings**

**Maunak Rana**<sup>1</sup>, Luis Soliz<sup>2</sup>

*<sup>1</sup>University of Chicago, Chicago, Illinois, <sup>2</sup>Rush University Medical Center, Chicago, Illinois*

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### Group 19: Patient Safety

**Moderator:** Manuel Vallejo, MD, DMD, West Virginia University School of Medicine, Morgantown, West Virginia

**PS 116 (560)**

**Burnout in Certified Anesthesiologist Assistants**

**Henry Kroll**<sup>1</sup>, Michelle T. Jesse<sup>1</sup>, Katherine S. Monroe<sup>2</sup>, Nikolas Davies<sup>3</sup>

*<sup>1</sup>Henry Ford Health System, Detroit, Michigan, <sup>2</sup>Emory University School of Medicine, Atlanta, Georgia, <sup>3</sup>Memorial Hospital West, Pembroke Pines, Florida*

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**PS 117 (633)**

**Burnout in Certified Registered Nurse Anesthetists**

**Henry Kroll**, Michelle T. Jesse, Joshua Olson

*Henry Ford Health System, Detroit, Michigan*

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## Moderated Poster Discussion Session II, *continued*

PS 118 (729)

**Safety of Anesthesia for Percutaneous Endoscopic Gastrostomy in Patients with Amyotrophic Lateral Sclerosis**

Andrew Moss<sup>1</sup>, Eric J. Heyer<sup>2</sup>, Andrea N. Miltiades<sup>2</sup>

<sup>1</sup>Columbia University College of Physicians and Surgeons, New York, New York, <sup>2</sup>Columbia University Medical Center, New York, New York

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PS 119 (733)

**Impact of Implementation of the Integrated Pulmonary Index (IPI) in Low-Acuity Inpatients**

Robert E. Freundlich<sup>1</sup>, Jeremy P. Walco<sup>1</sup>, Dorothee Mueller<sup>2</sup>, Adam Kingeter<sup>2</sup>, Marcos G. Lopez<sup>1</sup>, Liza M. Weavind<sup>1</sup>

<sup>1</sup>Vanderbilt University Medical Center, Nashville, Tennessee, <sup>2</sup>Vanderbilt University School of Medicine, Nashville, Tennessee

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PS 120 (878)

**Identifying Risky Practices Related to Perioperative Phenylephrine Infusions: An Audit-based Approach to Link Root Cause Analysis (RCA) to Quality Improvement (QI)**

Kellie Jaremko<sup>2</sup>, Jeremi Mountjoy<sup>2</sup>, Aalok V. Agarwala<sup>1</sup>, Allison Doney<sup>2</sup>, May C. Pian-Smith<sup>1</sup>

<sup>1</sup>Massachusetts General Hospital, Boston, Massachusetts, <sup>2</sup>Harvard Medical School, Boston, Massachusetts

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PS 121 (989)

**Laparoscopic Specimen Bag Designs – Impact on Patient Safety**

Asha Mohammed, Matthew Molyneux, Joshua Heslop

University of Bristol, Bristol, England

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### Group 20: Pediatric Anesthesiology

**Moderator:** Richard Levy, MD, FAAP, Columbia University, New York, New York

PED 123 (542)

**Perioperative Outcomes Comparing High Surgical Volume vs. Low Surgical Volume Centers for Complex Cranial Vault Reconstruction: A Multicenter Study from the Pediatric Craniofacial Collaborative Group**

Srijaya K. Reddy<sup>1</sup>, Allison M. Fernandez<sup>2</sup>, Heather Gordish-Dressman<sup>3</sup>, Bridget L. Muldowney<sup>4</sup>, Jose L. Martinez<sup>5</sup>, Franklin Chiao<sup>6</sup>, Paul A. Stricker<sup>7</sup>

<sup>1</sup>Monroe Carroll Jr. Children's Hospital / Vanderbilt University Medical Center, Nashville, Tennessee, <sup>2</sup>Johns Hopkins All Children's Hospital, St. Petersburg, Florida, <sup>3</sup>Children's National Health System / The George Washington School of Medicine and Health Sciences, Washington, District of Columbia, <sup>4</sup>University of Wisconsin School of Medicine and Public Health, Madison, Wisconsin, <sup>5</sup>CHU Sainte-Justine / University of Montreal, Montreal, Quebec, <sup>6</sup>Weill Cornell Medical College, New York, New York, <sup>7</sup>The Children's Hospital of Philadelphia / Perelman School of Medicine at the University of Pennsylvania, Philadelphia, Pennsylvania

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## Moderated Poster Discussion Session II, *continued*

### PED 124 (607)

#### Retrospective Review of Anesthetic Dose and Duration for Brain MRI in Children Less Than 3 Years of Age

Jamie W. Sinton<sup>1</sup>, Dean Andropoulos<sup>2</sup>, Andres Jimenez<sup>1</sup>, Marcia K. Kukreja<sup>1</sup>, Huirong Zhu<sup>1</sup>

<sup>1</sup>Baylor College of Medicine, Houston, Texas, <sup>2</sup>Baylor College of Medicine / Texas Children's Hospital, Houston, Texas

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### PED 125 (608)

#### Retrospective Review of Indications and Diagnostic Yield of Brain MRI with Anesthesia in Children Fewer Than 3 Years of Age

Jamie W. Sinton<sup>1</sup>, Dean Andropoulos<sup>2</sup>, Andres Jimenez<sup>1</sup>, Marcia K. Kukreja<sup>1</sup>, Huirong Zhu<sup>2</sup>, Eduardo Medellin<sup>1</sup>

<sup>1</sup>Baylor College of Medicine, Houston, Texas, <sup>2</sup>Baylor College of Medicine / Texas Children's Hospital, Houston, Texas

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## Group 21: Pediatric Anesthesiology

**Moderator:** Lucy Chen, MD, Massachusetts General Hospital; Harvard Medical School, Boston, Massachusetts

### PED 128 (1115)

#### Trajectories of Brain Lactate Do Not Contribute to Aerobic Glycolysis across Childhood

Sabah Rid<sup>1</sup>, Zvi Jacob<sup>2</sup>, Rany Makaryus<sup>3</sup>, Fahmeed Hyder<sup>1</sup>, Gerald Dienel<sup>2</sup>, Douglas L. Rothman<sup>4</sup>, Helene Benveniste<sup>1</sup>

<sup>1</sup>Yale School of Medicine, New Haven, Connecticut, <sup>2</sup>Stony Brook University, Stony Brook, New York, <sup>3</sup>University of New Mexico, Albuquerque, New Mexico, <sup>4</sup>Yale School of Engineering and Applied Sciences, New Haven, Connecticut

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### PED 129 (1125)

#### Reducing Postoperative Opioid Use in Children after Adenotonsillectomy

Amanda Lorin<sup>1</sup>, Maria Grig<sup>2</sup>, Thanh Nguyen<sup>1</sup>, Shilin Zhao<sup>2</sup>, Chelsea Bodystun<sup>3</sup>

<sup>1</sup>Vanderbilt University Medical Center, Nashville, Tennessee, <sup>2</sup>Vanderbilt University School of Medicine, Nashville, Connecticut, <sup>3</sup>Weill Cornell Medicine, New York City, New York

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### PED 130 (1248)

#### Children and Adults with Univentricular Hearts Score Lower on Full Scale Intelligence Testing Compared to Children with Biventricular Congenital Heart Disease: A Meta-analysis

William M. Jackson<sup>1</sup>, Nicholas Davis<sup>1</sup>, Johanna Calderon<sup>2</sup>, David C. Bellinger<sup>2</sup>, Lena Sun<sup>1</sup>

<sup>1</sup>Columbia University College of Physicians and Surgeons, New York, New York, <sup>2</sup>Boston Children's Hospital, Boston, Massachusetts

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## Moderated Poster Discussion Session II, *continued*

### **PED 132 (1430)**

#### **Dosing Variation in Pediatric Regional Blockade: A PRAN Database Study**

**David M. Polaner**<sup>1</sup>, Matthew Hoyt<sup>2</sup>, Andreas Taenzer<sup>3</sup>

<sup>1</sup>University of Colorado Denver School of Medicine, Aurora, Colorado, <sup>2</sup>Dartmouth Medical School, Lebanon, New Hampshire, <sup>3</sup>Dartmouth-Hitchcock Medical Center, Hanover, New Hampshire

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### **Group 22: Perioperative Anesthesia**

**Moderator:** Bhiken Naik, MBBCh, University of Virginia School of Medicine, Charlottesville, Virginia

### **PA 134 (587)**

#### **Opioid Administration and the Interaction of Patient Race and Sex in the Emergency Room**

**Julia M. Rosenbloom**<sup>1</sup>, Sara M. Burns<sup>1</sup>, Eugene Kim<sup>3</sup>, David August<sup>1</sup>, Vilma Ortiz<sup>1</sup>, Timothy Houle<sup>1</sup>

<sup>1</sup>Massachusetts General Hospital, Boston, Massachusetts, <sup>2</sup>Harvard Medical School, Boston, Massachusetts, <sup>3</sup>Beth Israel Deaconess Medical Center, Boston Massachusetts

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### **PA 135 (605)**

#### **Perception of Disparities in the Perioperative Setting: A Survey Study at a Large Tertiary-Care Institution**

**Jaleesa Jackson**, Julia M. Rosenbloom, Jaleesa Jackson, Kiara Alvarez, Margarita Alegria

Massachusetts General Hospital, Boston, Massachusetts

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### **PA 136 (618)**

#### **A New EPOCH: Enhanced Perioperative Oncologic Care Holistically**

**Joshua A. Bloomstone**

Envision Healthcare, Phoenix, Arizona

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### **PA 137 (638)**

#### **Design of a Tool for Resident Education When Planning Anesthetics for Intracranial Neurosurgical Procedures**

**Robert A. Peterfreund**<sup>2</sup>, Pamela S. Jones<sup>2</sup>, Michele D. Szabo<sup>2</sup>, Oluwaseun Johnson-Akeju<sup>2</sup>, Meerim (Cindy) Kim<sup>1</sup>

<sup>1</sup>Massachusetts General Hospital, Boston, Massachusetts, <sup>2</sup>Harvard Medical School, Boston, Massachusetts

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### Group 23: Perioperative Anesthesia

**Moderator:** John F. Butterworth IV, MD, Virginia Commonwealth University School of Medicine, Richmond, Virginia, and Holger K. Eltzschig, MD, PhD, University of Texas, Houston, Texas

#### PA 138 (766)

**Effect of Lidocaine on Src Kinase Activity in Circulating Tumor Cells Isolated from KPC Mice with Pancreatic Cancer**

**Effrossyni G. Votta-Velis<sup>1</sup>**, Sandeep Kumar<sup>2</sup>, Alain Borgeat<sup>2</sup>, Ajay Rana<sup>4</sup>

<sup>1</sup>University of Illinois at Chicago, Chicago, Illinois, <sup>2</sup>Balgrist University Hospital, Zurich, Switzerland

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#### PA 139 (977)

**Postoperative Hypoxemic Events are Independently Associated with Increased Mortality within One Year from the Date of Surgery**

**Ana Fernandez-Bustamante<sup>1</sup>**, Leslie Jameson<sup>1</sup>, Ken Bullard<sup>1</sup>, Alexander M. Kaizer<sup>2</sup>, Karsten Bartels<sup>1</sup>

<sup>1</sup>University of Colorado Denver School of Medicine, Aurora, Colorado, <sup>2</sup>University of Colorado-Anschutz Medical Campus, Denver, Colorado

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#### PA 140 (1310)

**The Triple Variable Index Reveals Shared Patterns of Physiology that Broaden the Utility of Common Intraoperative Monitoring Systems to Capture Risk Information Not Identified by Established Models**

**Michael P. Schnetz<sup>1</sup>**, David Danks<sup>2</sup>, Douglas Landsittel<sup>1</sup>, Keith M. Vogt<sup>1</sup>, James W Ibinson<sup>1</sup>, Steven Whitehurst<sup>3</sup>, Ata M. Kaynar<sup>1</sup>

<sup>1</sup>University of Pittsburgh, Pittsburgh, Pennsylvania, <sup>2</sup>Carnegie Mellon University, Pittsburgh, Pennsylvania, <sup>3</sup>University of Pittsburgh Medical Center, Pittsburgh, Pennsylvania

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#### PA 141 (1408)

**Echocardiographic Assessment Using Subxiphoid-Only View (EASy) Compared to Focused Transthoracic Echocardiography (FoTE) in the Perioperative Period: A Multicenter Prospective Study**

**Kevin Emr<sup>1</sup>**, Nibras Bughrara<sup>2</sup>, Johnathan R. Renew<sup>3</sup>, Jose Diaz-Gomez<sup>3</sup>, Kirti Sahu<sup>1</sup>, Kevin Roberts<sup>2</sup>

<sup>1</sup>Albany Medical Center, Albany, New York, <sup>2</sup>Albany Medical College, Albany, New York, <sup>3</sup>Mayo Clinic Florida, Jacksonville, Florida

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### Group 24: Sleep Medicine

**Moderator:** Stephanie B. Jones, MD, Beth Israel Deaconess Medical Center, Boston, Massachusetts

#### SM 145 (684)

##### **Association between Difficult Airway and Obstructive Sleep Apnea in Patients Undergoing Surgery: A Systematic Review and Bayesian Meta-Analysis of Prospective and Retrospective Cohort Studies**

**Mahesh Nagappa**<sup>1</sup>, David Wong<sup>2</sup>, Crispiana Cozowicz<sup>3</sup>, Satya Krishna Ramachandran<sup>4</sup>, Stavros G. Memtsoudis<sup>2</sup>, Frances F. Chung<sup>5</sup>

<sup>1</sup>Western University, London, Ontario, Canada, <sup>2</sup>University of Toronto, Toronto, Ontario, Canada, <sup>3</sup>Hospital for Special Surgery, New York, New York, <sup>4</sup>Harvard Medical School at Beth Israel Deaconess Medical Center, Boston, Massachusetts, <sup>5</sup>University of Toronto Faculty of Medicine, Toronto, Ontario, Canada

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#### SM 146 (1166)

##### **Risk Factors for Obstructive Sleep Apnea during Pregnancy: A Meta-Analysis**

**Mahesh Nagappa**<sup>1</sup>, Sebastian Borowiec<sup>1</sup>, Yamini Subramani<sup>1</sup>, Frances F. Chung<sup>2</sup>

<sup>1</sup>Western University, London, Ontario, Canada, <sup>2</sup>University of Toronto Faculty of Medicine, Toronto, Ontario

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#### SM 148 (1064)

##### **Familial Advanced Sleep Phase Mutant PER2 and CK1d Mouse Models Provide Potential Insight into the Coupling of the Homeostatic Sleep Process to Circadian Rhythm**

**Philip A. Kurien**, Jacy Leon, Ying Hui Fu, Louis Ptacek, David Wu

<sup>1</sup>University of California, San Francisco School of Medicine, San Francisco, California

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#### SM 149 (1219)

##### **Is Obstructive Sleep Apnea Associated with Postoperative Delirium and Cognitive Decline?**

**Michael Devinney**<sup>1</sup>, Yee Ching Vanessa Cheong<sup>2</sup>, Victoria Wickenheisser<sup>2</sup>, Mary Cooter<sup>2</sup>, Jennifer Dominguez<sup>2</sup>, Miles Berger<sup>2</sup>

<sup>1</sup>Duke University Hospital, Durham, North Carolina, <sup>2</sup>Duke University Medical Center, Durham, North Carolina

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### Group 25: Trauma

**Moderator:** Edward Sherwood, MD, Vanderbilt University Medical Center, Nashville, Tennessee

#### T 151 (768)

##### **Extracellular miRNAs and Innate Immune Activation Following Polytraumatic Injury in Mice**

**Andrew O. Suen**, Sheng Wang, Olivia Conn, Lin Zou, Rosemary Kozar, Catriona Miller, Wei Chao

*University of Maryland School of Medicine, Baltimore, Maryland*

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#### T 152 (897)

##### **Air-Evacuation-Relevant Hypobaria Following Traumatic Brain Injury Plus Hemorrhagic Shock Increases Lung and Gut Injury and Mortality**

**Gary Fiskum**, Juliana Medina, Parisa Rangghran, Julie Proctor, Ashley Moore, Rosemary Kozar

*University of Maryland School of Medicine, Baltimore, Maryland*

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#### T 153 (1167)

##### **Inhibition of miR-155 Attenuates Neurotoxic Neuroinflammation and Improves Functional Recovery after Experimental Traumatic Brain Injury in Mice**

**Rebecca J. Henry**, Sarah Doran, James P. Barrett, Boris Sabirzhanov, Bogdan A. Stoica, Alan I. Faden, David J. Loane

*University of Maryland School of Medicine, Baltimore, Baltimore, Maryland*

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#### T 154 (1262)

##### **Chronic Alterations in Systemic Immune Function after Experimental Traumatic Brain Injury in Mice**

**David Loane**, Sarah Doran, James P. Barrett, Rebecca J. Henry, Elise Ma, Alan I. Faden, Rodney Ritzel

*University of Maryland School of Medicine, Baltimore, Maryland*

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#### T 155 (1425)

##### **Type I Interferons Drive Pro-Inflammatory Activation and Neurodegeneration Following Experimental Traumatic Brain Injury in Mice**

**James P. Barrett**, Rebecca Henry, Kari Ann Shirey, Bogdan A. Stoica, Alan I. Faden, Stefanie Vogel, David J. Loane

*University of Maryland School of Medicine, Baltimore, Maryland*

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**MPDS-I • AM 3 (1156)**

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**Anupama Wadhwa, MBBS**, University of Louisville School of Medicine, Louisville, Kentucky

**Gebhard Wagener, MD**, College of Physicians and Surgeons of Columbia University Medical Center, New York, New York

**Michael Wall, MD, FCCM**, University of Minnesota Medical School, Minneapolis, Minnesota

**Michael Walsh, MD**, Mayo Clinic Florida, Jacksonville, Florida

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## May 16 – May 17, 2019

# AUA 2019 ANNUAL MEETING

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