

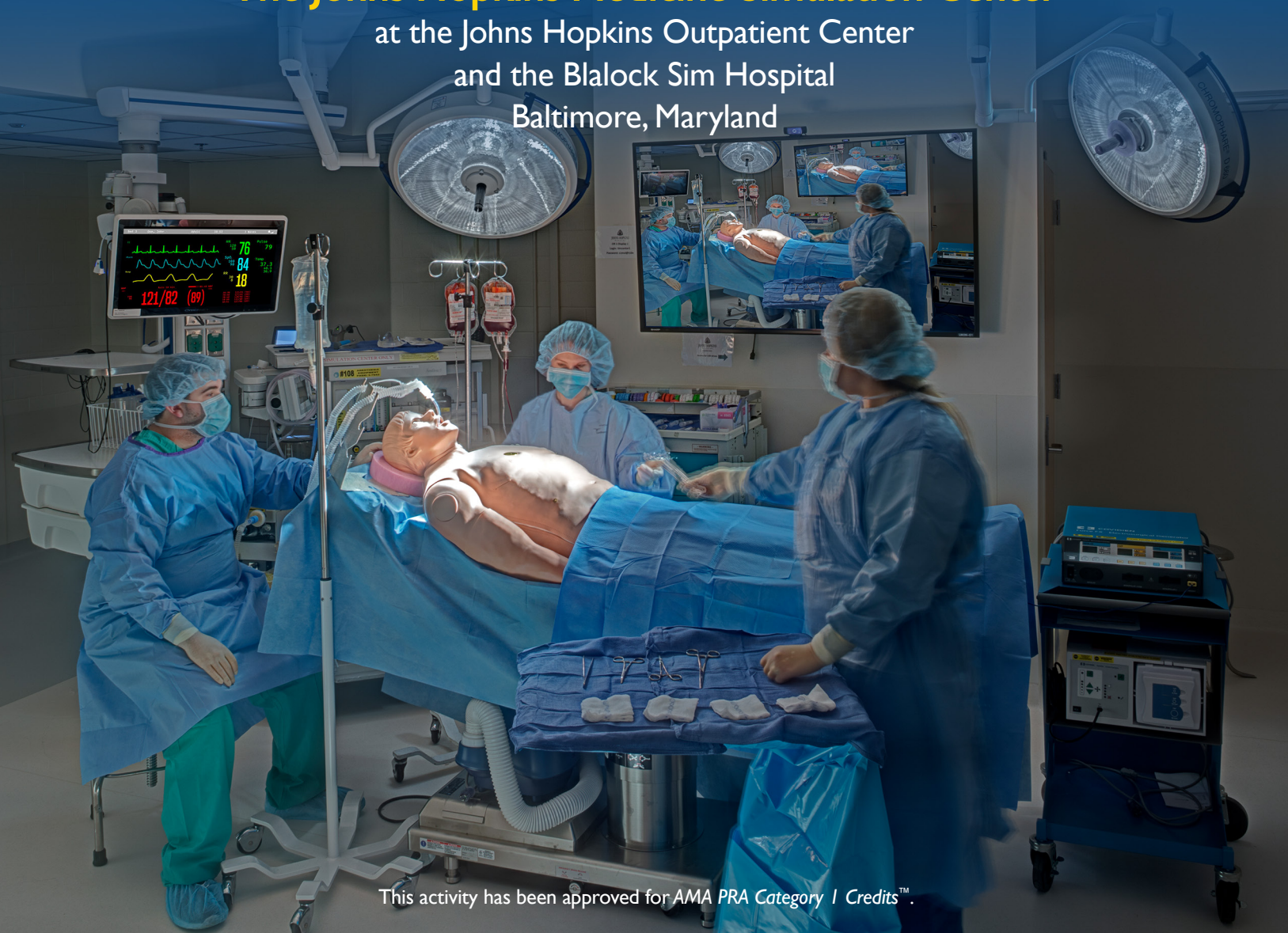
Department of Anesthesiology and Critical Care Medicine presents

# POINT-OF-CARE ULTRASONOGRAPHY for the Acute Care Provider

**April 27–28, 2019**

**The Johns Hopkins Medicine Simulation Center**

at the Johns Hopkins Outpatient Center  
and the Blalock Sim Hospital  
Baltimore, Maryland



This activity has been approved for AMA PRA Category 1 Credits™.



# POINT-OF-CARE ULTRASONOGRAPHY

for the Acute Care Provider

April 27–28, 2019



## DESCRIPTION

This course will familiarize participants with basic acquisition skills and image interpretation associated with point-of-care ultrasonography. Participants will learn point-of-care imaging concepts associated with examination of cardiac, lung, abdominal, and vascular procedures through a mixture of didactic lectures, hands on training sessions, case discussions, and simulation experiences.

## WHO SHOULD ATTEND

This activity is intended for anesthesiologists, cardiovascular disease physicians, critical care medicine physicians, emergency medicine physicians, internists, pulmonologists, surgeons, as well as physician assistants, and nurse practitioners.

## OBJECTIVES

After attending this activity, the participant will demonstrate the ability to:

- Identify evidence-based applications of ultrasound for the management of the acute care patient.
- Describe and interpret basic views for real-time ultrasound-guided vascular access and vascular examination.
- Describe and interpret basic trans-thoracic cardiac and lung ultrasound views.
- Discuss basic ultrasound algorithms for the assessment of the unstable patient.

## ACCREDITATION STATEMENT

The Johns Hopkins University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.



## CREDIT DESIGNATION STATEMENT

The Johns Hopkins University School of Medicine designates this live activity for a maximum of 14.25 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

## MAINTENANCE OF CERTIFICATION

Maintenance of Certification in Anesthesiology™ program and MOCA® are registered trademarks of The American Board of Anesthesiology®. MOCA 2.0® is a trademark of The American Board of Anesthesiology®.



This activity contributes to the CME component of the American Board of Anesthesiology's redesigned Maintenance of Certification in Anesthesiology™ MOCA® program known as MOCA 2.0®. Please consult the ABA website, [www.theABA.org](http://www.theABA.org), for a list of all MOCA 2.0 requirements.

Successful completion of this CME activity, which includes participation in the evaluation component, enables the participant to earn up to 14.25 Medical Knowledge MOC points in the American Board of Internal Medicine's (ABIM) Maintenance of Certification (MOC) program. Participants will earn MOC points equivalent to the amount of CME credits claimed for the activity. It is the CME activity provider's responsibility to submit participant completion information to ACCME for the purpose of granting ABIM MOC credit.





## OTHER CREDITS

### American Academy of Nurse Practitioners National Certification Program

American Academy of Nurse Practitioners National Certification Program accepts AMA PRA Category 1 Credit™ from organizations accredited by the ACCME.

### American Nurses Credentialing Center

American Nurses Credentialing Center (ANCC) accepts AMA PRA Category 1 Credit™ from organizations accredited by the ACCME.

### National Commission on Certification of Physician Assistants

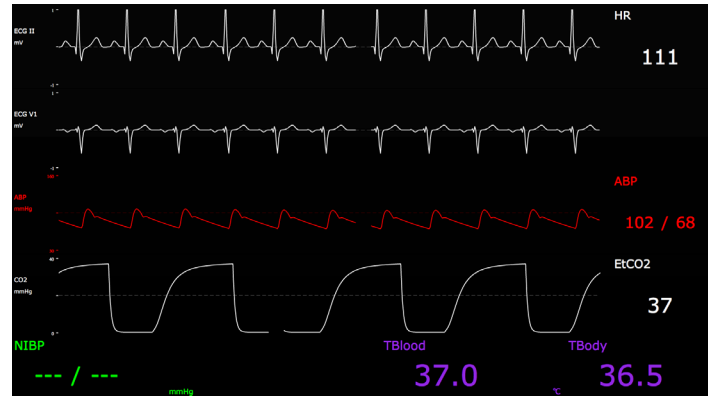
PAs may claim a maximum of 14.25 Category 1 credits for completing this activity. NCCPA accepts AMA PRA Category 1 Credit™ from organizations accredited by ACCME or a recognized state medical society.

### Contact Hours for Non-Physicians

The Johns Hopkins University has approved this activity for 14.25 contact hours for non-physicians.

## POLICY ON SPEAKER AND PROVIDER DISCLOSURE

It is the policy of the Johns Hopkins University School of Medicine that the speaker and provider globally disclose conflicts of interest. The Johns Hopkins University School of Medicine OCME has established policies that will identify and resolve conflicts of interest prior to this educational activity. Detailed disclosure will be made prior to presentation of the education.



## GENERAL INFORMATION

### REGISTRATION

April 27, 2019 • 7:00 a.m.

### LOCATIONS

Johns Hopkins Medicine Simulation Center has two locations.

Phone: (410) 614-0847

[hopkinsmedicine.org/simulation\\_center](http://hopkinsmedicine.org/simulation_center)

Please note the location for each day below.

#### April 27, 2019

Johns Hopkins Medicine Simulation Center  
at the Johns Hopkins Outpatient Center  
601 North Caroline Street, Outpatient Center, Room 8210  
Baltimore, Maryland 21287

The closest garage to the Johns Hopkins Outpatient Center is the Caroline Street Garage, which is located off of North Caroline Street between Monument and Orleans (Route 40) Streets.

#### April 28, 2019

Johns Hopkins Medicine Simulation Center  
at the Blalock Sim Hospital  
The Johns Hopkins Hospital  
600 North Wolfe Street, Blalock Building, Room 701  
Baltimore, Maryland 21287

The closest garage to The Johns Hopkins Hospital is the Orleans Street Garage, which is located on Orleans Street (Route 40) between North Wolfe Street and Broadway.

Handicapped parking is available in both garages.

For further directions and campus parking information are available under Contact Us tab at [hopkinscme.cloud-cme.com](http://hopkinscme.cloud-cme.com).

Johns Hopkins is smoke-free.

### FEES

Register Online:

[hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820](http://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820)

**Methods of Payment:** We require full payment prior to the start of the activity. On-site payments by credit card only. The registration fee includes instructional materials, continental breakfasts, refreshment breaks and lunches.

Physicians	\$1,600
Residents*/Fellows*/Nurses/NPs/PAs/Allied Health Professionals	\$1,400
*with verification of status	

You will receive a confirmation by e-mail. If you have not received it by **April 22, 2019**, call (410) 502-9636 to confirm that you are registered.

The Johns Hopkins University reserves the right to cancel or postpone any activity due to unforeseen circumstances. In this event, the University will refund the registration fee but is not responsible for travel expenses. Additionally, we reserve the right to change the venue to a comparable venue. Under such circumstances registrants will be notified as soon as possible.

### LATE FEE AND REFUND POLICY

A \$50 late fee applies to registrations received after 5:00 p.m. ET on **April 22, 2019**. A handling fee of \$50 will be deducted for cancellation. An additional fee may apply for cancellation of other events, including workshops and social activities. Refund requests must be received by fax or mail by **April 22, 2019**. No refunds will be made thereafter. Transfer of registration to another Johns Hopkins activity in lieu of cancellation is not possible. A transcript of attendance will be available upon attestation of your credit hours and submission of the post activity online evaluation.

### SYLLABUS

The syllabus will be accessible online and via your mobile device in the CloudCME App prior to the activity.

## HOTEL AND TRAVEL INFORMATION

We strongly encourage you to book your accommodations at the **Residence Inn Baltimore at The Johns Hopkins Medical Campus**, which is the conference headquarters hotel. The Johns Hopkins Office of CME makes every effort to secure the best rate for overnight accommodations. The rate is part of a negotiated conference package that incorporates many services. By staying at the host hotel and booking within the room block, you help us maintain current conference benefits and keep future registration fees reasonable. Please consider this when making your overnight accommodations decision.

### Residence Inn Baltimore at The Johns Hopkins Medical Campus

800 North Wolfe Street  
Baltimore, Maryland 21205  
(443) 524-8400  
Website: <https://bit.ly/2U3dxXG>

#### HOTEL RESERVATION CUT-OFF DATE:

**April 12, 2019**

**A limited block of sleeping rooms has been reserved for your convenience and will be available on a first come, first served basis.**

The Residence Inn Baltimore at The Johns Hopkins Medical Campus is a brand new, all suite facility located on the campus of The Johns Hopkins Medical Campus, with complimentary breakfast, room service and high-speed Internet. The hotel is conveniently located near Johns Hopkins and a short taxi ride from Baltimore's Inner Harbor. Make your reservation online at <https://bit.ly/2U3dxXG> or call the hotel directly and specify that you are attending the Johns Hopkins Infectious Diseases conference to receive the special group rate of \$149, single or double, plus tax. Onsite parking is available at an additional charge. Check-in time is 4:00 p.m. Check-out time is 12:00 noon.

## HOW TO OBTAIN CREDIT

Post activity, an online evaluation will be available to attendees to evaluate the activity and individual presentations and to identify future educational needs. Upon completion of the evaluation, the learner must attest to the number of hours in attendance. Credits earned will be added to the learner's transcript and immediately available for print.

**The last day to access the evaluation and attest to your credits is  
June 12, 2019.**

An outcome survey will be sent to all physician attendees within two months post activity to assist us in determining what impact this activity had on the learner's practice.

## EMERGENCY CALLS

On April 27-28, 2019, direct emergency calls to (410) 614-0847 and ask that a message be sent to the Point-of-Care Ultrasonography for the Acute Care Provider registration desk. Messages will be posted for participants.

## AMERICANS WITH DISABILITIES ACT

The Johns Hopkins University School of Medicine fully complies with the legal requirements of the ADA and the rules and regulations thereof. Please notify us if you have any special needs.

## TO REGISTER OR FOR FURTHER INFORMATION

### Register Online

[hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820](http://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820)

Register by Phone ..... (410) 502-9636  
Register by Fax ..... (866) 510-7088  
Confirmation/Certificates/Transcripts ..... (410) 502-9636  
General Information ..... (410) 955-2959  
E-mail the Office of CME ..... [cmenet@jhmi.edu](mailto:cmenet@jhmi.edu)

Follow us on Twitter: [twitter.com/HopkinsCME](https://twitter.com/HopkinsCME)

Facebook: [facebook.com/HopkinsCME](https://facebook.com/HopkinsCME)

# CloudCME

Check out our mobile app CloudCME.

Organization Code: *HopkinsCME*

For website and CloudCME mobile app technical difficulties, email: [cmtechsupport@jhmi.edu](mailto:cmtechsupport@jhmi.edu)

Sponsoring Department Website:

[anesthesiology.hopkinsmedicine.org](http://anesthesiology.hopkinsmedicine.org)

For general information, please visit the activity webpage at [hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820](http://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820)

## ACKNOWLEDGEMENT

Applications for commercial support from health care related industries are pending. A complete list of contributors will be provided in the syllabus. Please note that commercial support received is solely for the educational component of the activity and will not be used to provide food and beverage.

*Please note:* The Physician Payments Sunshine Act was enacted by Congress to increase public awareness of financial relationships between drug and medical device manufacturers and physicians. In compliance with the requirements of this Act, the commercial supporter/s of this activity may require the Johns Hopkins University School of Medicine to report certain professional information (such as name, address, National Provider Identifier (NPI), and State License number) of physician attendees who receive complimentary food and beverage in conjunction with a CME activity. The commercial supporter is required to submit the collected data to the Centers for Medicare and Medicaid Services which will then publish the data on its website.



# PROGRAM

## SATURDAY, APRIL 27, 2019

7:00 – 8:00 Registration and Continental Breakfast

8:00 – 8:20 **Welcome and Goals**

### DIDACTICS

8:20 – 8:50 **Basic TTE Views**  
Lena Mathews, MD

8:50 – 9:10 **LV Function**  
Stephanie Cha, MD

9:10 – 9:30 **RV Function**  
Megan Kostibas, MD

9:30 – 9:50 **TEE Essentials**  
Mary Beth Brady, MD

9:50 – 10:00 Refreshment Break

### HANDS-ON TRAINING

10:00–12:00 **TTE Views and Basic TEE**

Michael Banks, MD, Mary Beth Brady, MD, Nibras Bughrara, MBChB, Stephanie Cha, MD, Brian Garibaldi, MD, Mark Hamlin, MD, Youn-Hoa Jung, MD, Megan Kostibas, MD, Laeben Lester, MD, Gigi Liu, MD, MSc, Lena Mathews, MD, Pedro Mendez-Tellez, MD, Asif Padiyath, MD, Aliaksei Pustavoitau, MD, MPH, and Erik Su, MD

12:00 Pick Up Box Lunches

### LUNCH CASE PRESENTATIONS

12:10 – 12:30 **Adjunct to Physical Exam: i.e., Tamponad**  
Gigi Liu, MD, MSc

12:30 – 12:50 **PE, Vascular Exam**  
Erik Su, MD

### DIDACTICS

12:50 – 1:20 **Lung**  
Mark Hamlin, MD, and Aliaksei Pustavoitau, MD, MPH

1:20 – 1:40 **Trauma**  
Larry Lee, MD, MS

1:40 – 2:00 **Procedural Guidance**  
Laeben Lester, MD

2:00 – 2:30 **Putting It Together: Preload Responsiveness vs. Fluid Tolerance**  
Pedro Mendez-Tellez, MD

2:30 – 2:40 Refreshment Break

### HANDS-ON TRAINING

2:40 – 3:10 **Lung Exam**  
Mark Hamlin, MD, and Aliaksei Pustavoitau, MD, MPH

3:10 – 3:40 **Abdomen**  
Brian Garibaldi, MD, Larry Lee, MD, MS, and Gigi Liu, MD, MSc

3:40 – 4:10 **Procedural Guidance**  
Megan Kostibas, MD, and Laeben Lester, MD

4:10 – 4:40 **Preload Responsiveness**  
Nibras Bughrara, MBChB, Youn-Hoa Jung, MD, Pedro Mendez-Tellez, MD, and Asif Pandiyath, MD

4:40 – 5:00 **Summary**  
Stephanie Cha, MD, and Aliaksei Pustavoitau, MD, MPH

## SUNDAY, APRIL 28, 2019

7:30 – 8:00 Continental Breakfast

8:00 – 8:30 **Welcome and Goals**

8:30 – 8:50 **Simulation and US Training**  
Stephanie Cha, MD

8:50 – 9:20 **Putting It Together: Algorithms for Shock and Respiratory Failure**  
Mark Hamlin, MD

9:20 – 9:30 Refreshment Break

### SIMULATION STATIONS

(each participant will rotate through stations)

9:30 – 11:30 **Simulation Stations**  
(each participant will rotate through stations)

11:30 Pick Up Box Lunches

### LUNCH LECTURE

11:45 – 12:15 **Ultrasound in Cardiac Arrest**  
Nibras Bughrara, MBChB

12:30 – 2:30 **Simulation Stations**  
(each participant will rotate through stations)

#### Station 1: PACU Cases

- Acute Respiratory Distress (Hypoventilation, Atelectasis)
- Acute Hypotension (Acute LV Failure)  
Michael Banks, MD, Lee Goeddel, MD, MPH, Megan Kostibas, MD, and Laeben Lester, MD

#### Station 2: RRT Cases

- Acute Respiratory Distress (LV Failure/Pulmonary Edema)
- Acute Hypotension (Sepsis/Diastolic Dysfunction)  
Youn-Hoa Jung, MD, Gigi Liu, MD, MSc, and Asif Padiyath, MD

#### Station 3: Grab-bag Cases

- Neuro Patient with Acute Respiratory Distress (Aspiration Pneumonia)
- Pre-partum Patient with Hypotension (Placental Abruption)  
David Berman, MD, Pedro Mendez-Tellez, MD, and Erik Su, MD

#### Station 4: ACLS Cases

- Nibras Bughrara, MBChB, Stephanie Cha, MD, Mark Hamlin, MD, Christina Miller, MD, PhD, MS, Aliaksei Pustavoitau, MD, MPH, and Adam Schiavi, MD, PhD, MS

2:30 – 3:00 **Questions and Answers / Summary**

Stephanie Cha, MD, and Aliaksei Pustavoitau, MD, MPH

3:00 Adjourn

*You will receive an email notification to complete the evaluation form and to attest to the number of hours in attendance.*

*The registration desk will remain open during conference hours.*

# SPEAKERS

## ACTIVITY CO-DIRECTORS

**Stephanie Cha, MD**

Assistant Professor of Anesthesiology/  
Critical Care Medicine  
Divisions of Critical Care Medicine  
and Cardiothoracic Anesthesia

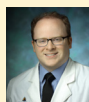
**Aliaksei Pustavoitau, MD, MPH**

Assistant Professor of Anesthesiology/  
Critical Care Medicine  
Division of Critical Care Medicine  
Program Director, Liver Transplant  
Anesthesiology  
Director, Adult Medical Respiratory  
Therapies

## JOHNS HOPKINS SPEAKERS

**Michael Banks, MD**

Assistant Professor of Anesthesiology/  
Critical Care Medicine  
Associate Residency  
Program Director  
Division of Critical Care Medicine

**David Berman, MD**

Assistant Professor of Anesthesiology/  
Critical Care Medicine  
Division of Obstetric, Gynecologic  
and Fetal Anesthesia

**Mary Beth Brady, MD**

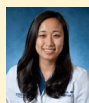
Associate Professor of Anesthesiology/  
Critical Care Medicine  
Division of Cardiac Anesthesia  
Vice Chair, Education, Department of  
Anesthesiology/Critical Care Medicine  
Medical Director, Johns Hopkins Post  
Anesthesia Care Unit  
Director, Intraoperative  
Transesophageal Echocardiography

**Brian Garibaldi, MD**

Associate Professor of Medicine  
and Physiology  
Division of Pulmonary and  
Critical Care Medicine  
Director, Johns Hopkins  
Biocontainment Unit  
Associate Program Director,  
Osler International Medicine  
Residency Program

**Lee Goeddel, MD, MPH**

Assistant Professor of Anesthesiology/  
Critical Care Medicine  
Divisions of Critical Care Medicine  
and Cardiothoracic Anesthesia  
Program Director, Critical Care  
Medicine Fellowship  
Director, Peri-operative Ultrasound  
Research

**Youn-Hoa Jung, MD**

Clinical Fellow of Anesthesiology/  
Critical Care Medicine  
Division of Critical Care Medicine

**Megan Kostibas, MD**

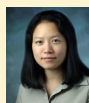
Assistant Professor of Anesthesiology/  
Critical Care Medicine  
Associate Fellowship Program  
Director, Adult Cardiothoracic  
Anesthesiology Fellowship  
Division of Adult Cardiothoracic  
Anesthesiology

**Larry Lee, MD, MS**

Assistant of Surgery  
Division of Acute Care Surgery

**Laeben Lester, MD**

Assistant Professor of Anesthesiology/  
Critical Care Medicine and  
Emergency Medicine  
Division of Adult Cardiothoracic  
Anesthesia

**Gigi Liu, MD, MSc**

Instructor of Medicine  
Division of Internal Medicine  
Johns Hopkins Hospitalist Program  
Department of Radiology and  
Radiological Science

**Lena Mathews, MD**

Assistant Professor of Medicine  
Divisions of Cardiology and  
Cardiovascular

**Pedro Mendez-Tellez, MD**

Assistant Professor of Anesthesiology/  
Critical Care Medicine and Surgery  
Medical Director, Respiratory  
Care Services  
Divisions of Critical Care Medicine  
and Acute Care and Adult Trauma  
Surgery

**Christina Miller, MD, PhD, MS**

Assistant Professor of Anesthesiology/  
Critical Care Medicine and  
Otolaryngology-  
Head and Neck Surgery  
Division of Neuroanesthesia

**Asif Pandiyath, MD**

Clinical Fellow of Anesthesiology/  
Critical Care Medicine

**Adam Schiavi, MD, PhD, MS**

Assistant Professor of Anesthesiology/  
Critical Care Medicine and Neurology  
Director, Simulation Education  
Division of Neuroanesthesia

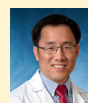
## GUEST SPEAKERS

**Nibras Bughara, MBChB**

Assistant Professor of Anesthesiology/  
Critical Care Medicine and Surgery  
Director, Division of Anesthesia  
Critical Care Medicine  
Director, Critical Care  
Echocardiography Training Program  
Albany Medical College  
Albany, New York

**Mark Hamlin, MD**

Professor of Anesthesiology  
and Surgery  
Larner College of Medicine,  
University of Vermont  
Vice Chair, Clinical Affairs  
Director, Quality and Patient Safety  
Medical Director, Respiratory  
Care Services  
The University of Vermont  
Medical Center  
Burlington, Vermont

**Erik Su, MD**

Cardiovascular ICU Senior Fellow  
Division of Pediatric Cardiology  
Stanford University  
School of Medicine  
Palo Alto, California

## Point-of-Care Ultrasonography for the Acute Care Provider April 27-28, 2019

### To Register:

Online: [hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820](http://hopkinscme.cloud-cme.com/aph.aspx?P=5&EID=17820)

Fax: (866) 510-7088 Phone: (410) 502-9636

Or mail this form to the Johns Hopkins University, Office of Continuing Medical Education,  
720 Rutland Avenue, Turner Room 20, Baltimore, Maryland 21205-2195.

I am a Johns Hopkins speaker for this activity.

Last Name		First Name		M.I.	
Highest Degree		Primary Specialty		Hopkins Faculty/Staff Only – JHED ID:	
For Physicians Only	NPI 10 digit #	State License #		State of License:	
ABA ID#	ABIM ID#	Birth Month		Birthday Day	
Organization		Mailing Address			
City		State	Zip + 4 Code	Country	
Daytime Telephone		Fax Number			
Email (required)					

Check here if you wish to receive e-mail and/or fax notices about upcoming CME activities.

I plan to stay at the Residence Inn Baltimore at The Johns Hopkins Medical Campus in Baltimore, Maryland

What do you hope to learn by attending this activity?

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Please notify us if you have any special needs.

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### Registration Fees:

Physicians	\$1,600
Residents*/Fellows*/Nurses/NPs/PAs/Allied Health Professionals	\$1,400
<small>*with verification of status</small>	

The registration fee includes instructional materials and food and beverage. For registrations received after 5:00 p.m. ET on **April 22, 2019**, include a \$50 late fee. On-site registrations are payable only by credit card.

**Total amount enclosed \$** \_\_\_\_\_

### Payment Type:

**JHU Faculty/Staff Only:** If you are using your Tuition Remission Benefit or an ION budget, please upload your fully completed and approved form in the payment section of the online activity link above.

TR Form: [benefits.jhu.edu/documents/trffacandstaff.pdf](http://benefits.jhu.edu/documents/trffacandstaff.pdf)

ION Form: [hopkinscme.edu/migration/lonRequest.pdf](http://hopkinscme.edu/migration/lonRequest.pdf)

e-Check: Routing Number: \_\_\_\_\_

Account Number: \_\_\_\_\_

Credit Card:  VISA  MASTERCARD  DISCOVER  AMEX

Card # \_\_\_\_\_ Exp. Date \_\_\_\_\_

Billing Zip Code \_\_\_\_\_ Security Code \_\_\_\_\_

\_\_\_\_\_  
Name on Card

\_\_\_\_\_  
Signature and Date

