

# 2019 FPA ANNUAL MEETING SCIENTIFIC SCHEDULE

Flying Physicians Association, Inc.

June 1 – 4, 2019

President: Mark C. Eidson, MD, FAAFP Program Chair: R. Stephen Smith, MD, RDMS, FACS

## Saturday, June 1, 2019

12:30 pm

Registrant Sign-In

12:45 pm

Welcome and Announcements

1:00 pm – 5:30 pm

SESSION ONE

1:00 pm

### **Sepsis: New definitions, new conceptions, new approaches**

*What specific diagnostic and therapeutic interventions must be completed immediately upon suspicion of sepsis?*

Timothy G. Buchman, PhD, MD, FACS, FCCP, MCCM, Professor of Surgery, Anesthesiology, and Biomedical Informatics, Emory University School of Medicine, Atlanta, Georgia

*Upon completion of this presentation, the learner will be prepared to:*

- Describe and discuss the contemporary definition of sepsis (Sepsis-3).
- Recognize, compare, and contrast the hyper inflammatory and hypo inflammatory responses to overwhelming infection.
- Discuss and use contemporary approaches to detection of sepsis, treatment of sepsis, and mitigation of sepsis sequelae.

1:45 pm Audience question and answer

2:00 pm

### **Vulnerabilities of Space Assets and the Impact on General Aviation: How would their loss affect your ability to fly? (non-CME)**

*What unique risks will pilots face in the event of loss of space assets?*

Mark R. Mercier, MS, 2nd Lieutenant, US Air Force, Kirtland Air Force Base, Albuquerque, New Mexico

*Upon completion of this presentation, the learner will be prepared to:*

- Itemize and discuss the currently known risks to space assets availability.
- Discuss the potential effects a loss of space capabilities could have on general aviation.

2:25 pm Audience question and answer

2:30 pm

Break

2:45 pm

### **The Pilot with Heart Disease: Becoming airworthy again!**

*What are the certification requirements for cardiac patients to fly?*

Andrew H. Miller, MD, FACC, FCAMA, Aviation and Interventional Cardiology, Clinical Physician, The Heart Place, Dallas-Fort Worth, Texas

*Upon completion of the presentation, the learner will be prepared to:*

- Care for pilots that develop cardiac disease.
- Outline and implement requirements for patients/pilots with cardiac disease to be cleared for flight duties.

3:15 pm Audience question and answer

3:30 pm

### **Deep Brain Stimulation for Tremor**

*When is deep brain stimulation indicated for patients with tremor? Can pilots with tremor be certified to fly?*

John Gorecki, MD, FRCS, FACC, Neurosurgeon, Neurology Answers LLC, Cummings, Georgia,

*Upon completion of the presentation, the learner will be prepared to:*

- Discuss indications for surgery for Parkinson's Disease or essential tremor.
- Outline the obstacles a patient treated for tremor may encounter in qualifying for a plot medical certificate.

3:50 pm Audience question and answer

4:00 pm

**Infectious Disease Update**

*What are the latest immunization protocols, resistant bugs, and needle stick algorithms?*

Richard S. Roth, MD, Infectious Disease, RSR Medical Inc., Savannah, Georgia

*Upon completion of the presentation, the learner will be prepared to:*

- Incorporate into clinical practice the most recent changes in 2018 vaccination protocols.
- Promote awareness among clinical staff of emerging resistant pathogens in the outpatient setting.
- Identify needle stick algorithms and protocols regarding exposure to blood and body fluid exposures.

4:40 pm Audience question and answer

4:45 pm

**Haiti: Medical Mission Opportunities for Flying Physicians**

*What is it like to be involved in a medical mission in an underdeveloped country?*

Richard T. McGlaughlin, MD, Gastroenterology, Alabama Digestive Diseases PC, Birmingham, Alabama

*Upon completion of the presentation, the learner will be prepared to:*

- Participate in international medical mission flights.
- Describe opportunities for medical mission work in Haiti.

5:15 pm Audience question and answer

5:30 pm

Adjourn for the day

**Sunday, June 2, 2019**

8:00 am

Announcements

8:15 am – 1:00 pm

SESSION TWO

8:15 am

**National Transportation Safety Board (NTSB) Update** (non-CME)

*Why do crashes still happen, and what can I do to make my flight operation as safe as possible?*

Bruce S. Landsberg, ATP, CFII, ME, Aviation Safety, Past Executive Director, AOPA Safety Institute, Vice Chair National Transportation Safety Board, Mt. Pleasant, South Carolina, and Washington, DC.

*Upon completion of the presentation, the learner will be prepared to:*

- Operate an aircraft safely.
- Describe the leading causes of general aviation accidents.

8:45 am Audience question and answer

9:00 am

**Acute Pain Management for Total Joint Arthroplasty**

*What criteria are used in choosing between regional block, single injection vs continuous and the choice of technique, regional vs general?*

Donald S. Bohannon, MD, Associate Professor of Anesthesiology, University of Florida, Gainesville, Florida

*Upon completion of the presentation, the learner will be prepared to:*

- Explain choices and make recommendations for pain management to patients and colleagues.
- Outline the risks and benefits of pain management options.

9:20 am Audience question and answer

- 9:30 am **What a Pilot Taught Me About Negotiations** (a Practice Management presentation)  
*How can I improve the outcomes of my negotiations?*  
David J. Norris, MD, MBA, Cardiac Anesthesiologist, Assistant Professor of Anesthesiology, University of Kansas School of Medicine, Wichita, Kansas  
*Upon completion of the presentation, the learner will be prepared to:*
- Cite the importance of using a system in preparing for negotiations.
  - Use a checklist to manage emotions and improve decision-making in negotiations
  - Describe the impact of a physician's mindset upon the negotiations.
- 9:55 am Audience question and answer
- 10:00 am Break
- 10:15 am **Balance Disorders and the Elderly**  
*What should I consider when evaluating and treating balance disorders in older patients?*  
Vincent B. Ostrowski, MD, Otolaryngologist, Midwest Ear Institute, Indianapolis, Indiana  
*Upon completion of the presentation, the learner will be prepared to:*
- Cite the most common causes of imbalance in the elderly.
  - List common treatment options to decrease symptoms and fall risk.
- 10:45 am Audience question and answer
- 11:00 am **'Big Iron' and 'Cold Steel': Checklists for Aviation and Surgery**  
*Have checklists improved safety and outcomes in medicine?*  
Scott C. Brakenridge, MD, FACS, Assistant Professor of Surgery, University of Florida, Gainesville, Florida  
*Upon completion of the presentation, the learner will be prepared to:*
- Explain the benefits of checklists in aviation and medicine.
  - Apply checklists in patient care and management.
- 11:25 pm Audience question and answer
- 11:30 am **Hypoxia in General Aviation**  
*What is the risk of hypoxia for the general aviation pilot and for patients traveling by air?*  
James R. Elliott, MD, MPH, FAsMA, Aerospace Medicine and General Preventive Medicine, Manager, ATC Virtual Hiring Team, Federal Aviation Administration, Ft. Worth, Texas  
*Upon completion of the presentation, the learner will be prepared to:*
- List four common mechanisms of hypoxia and discuss the pathophysiology of each type.
  - Discuss the impact of hypoxia on performance and cognitive function.
  - Identify the impact of obstructive sleep apnea on performance and airman medical certification.
- 12:05 pm Audience question and answer
- 12:15 pm **American Board of Surgery (ABS) Continuing Certification: The Surgical Biennial Flight Review**  
*How does ongoing certification help me as a physician, and how did aviation experience impact ABS thinking?*  
Tyler G. Hughes, MD, FACS, Professor of Surgery, University of Kansas School of Medicine, Salina, Kansas  
*Upon completion of the presentation, the learner will be prepared to:*
- List the precepts of continuing medical certification.
  - Describe the steps in ongoing medical/surgical certification.
  - Describe adult learning concepts for medical/surgical certification.
- 12:50 pm Audience question and answer
- 1:00 pm Adjourn for the day

**Monday, June 3, 2019**

8:00 am Announcements

8:15 am – 12:00 pm SESSION THREE

8:15 am **Medications That May Cut Your Flying Career Short: A simple guide to sleep-related medications**

*Why has this Restless Leg Syndrome (RLS) medication disqualified me (or my patient) from flying?*

Frank M. Ralls, MD, Associate Professor of Internal Medicine, Program Director, Sleep Medicine Fellowship, Medical Director Sleep Disorders Center, University of New Mexico School of Medicine, Albuquerque, New Mexico

*Upon completion of the presentation, the learner will be prepared to:*

- Categorize insomnia medications into 4-main categories.
- Explain the half-lives of the most commonly used “sleep meds”.
- Describe good alternatives to treating RLS and Periodic Limb Movements of sleep (PLMS).

8:50 am Audience question and answer

9:00 am **Formation, Consideration & Breach: Oh My!** (Practice Management presentation)

*What major considerations should a physician contract include?*

Kimberly Ann Cleveland, Esq., MSN, RN, C-MBC, Lecturer and Health Care Policy Coordinator at graduate and undergraduate levels, College of Nursing, Kent State University, United States Supreme Court Bar member, Ohio Supreme Court Bar member, Canal Fulton, Ohio

*Upon completion of the presentation, the learner will be prepared to:*

- Identify key components of physician contracts.
- List three things to review prior to signing a contract.

9:35 am Audience question and answer

9:45 am **The Appraiser Will See You Now: Using Aircraft Valuation to Successfully Treat Your Aircraft Transactions** (non-CME)

*How can an appropriate appraisal benefit an aircraft owner in the purchase, sale or donation of an aircraft?*

Ronald L. Herold, PhD, NCSA (National Aircraft Appraisers Association Certified Senior Appraiser), Aircraft-Appraiser.com, Annandale, Virginia

*Upon completion of the presentation, the learner will be prepared to:*

- List the elements of aircraft valuation and appraiser certification standards.
- Use aircraft valuation to facilitate the process of aircraft purchase/sale, including finding the correct aircraft, pertinent contract considerations, using an appraisal in financing, and closing the sale.
- Obtain a sustainable tax deduction for donated aircraft by understanding IRS appraisal requirements.

10:20 am Audience question and answer

10:30 am Break

10:45 am **CO: It's a Gas! The Carlos Acosta Memorial Medical and Aviation Safety Lecture\***

*Why should I care about CO in my general aviation aircraft?*

Michael T. Montefusco, CFII, American Bonanza Society (ABS) Beechcraft Pilot Proficiency Program (BPPP) Instructor, FAA Certificated Flight Instructor – Instrument, Denton, Texas

*Upon completion of the presentation, the learner will be prepared to:*

- Assess the potential for carbon monoxide (CO) poisoning in small general aviation aircraft.
- Apply methods to reduce the potential for CO poisoning during routine maintenance, pre-flight planning, and flight execution.

11:10 am Audience question and answer

*\*Carlos Acosta, a neurosurgeon and a LIFE member of FPA, was most recently a resident of Arlington. Prior to his July 2018 death, Dr. Acosta suggested to Michael Montefusco that his presentation on CO would benefit FPA members. Dr. Acosta's commitment to FPA, and its mission of charity, pilot and medical safety continues. Special thanks to Dr. Acosta's RFS, Aileen, or this contribution to the 2019 Annual Meeting.*

- 11:15 am **American Airlines, Aerospace Medical Association and USN Dual Designator Observations**  
**The 2019 AsMA Exchange Presentation**  
*How do commercial airlines assure that passengers and employees are optimally and medically taken care of?*  
 Kris M. Belland, DO, MPH, MBA, MSS, Aerospace Medicine and Family Practice, American Airlines  
 Chief Medical Officer, Premise Health, Dallas-Fort Worth, Texas  
*Upon completion of the presentation, the learner will be prepared to:*
- Discuss the medical organization of the world's largest commercial airlines with over 125K employees, 30K flight attendants and 15K pilots.
  - Describe how the Aerospace Medical Association advances the art and science of aerospace medicine.
  - Discuss the current state of the US Navy Dual Designator Program (Flight Surgeon Pilot).
- 11:50 am Audience question and answer
- 12:00 pm Adjourn for the Day
- 1:00 pm ***Optional Special Session by pre-registration only***  
**Stop The Bleed Course** (box lunch included)  
**Hands on Certification Course** Limited to 16 Participants  
*How do I respond when emergency accidents or incidents occur, insuring that I most effectively assist victims before first-responders arrive?*  
 R. Stephen Smith MD RDMS FACS, Professor of Surgery, Trauma Medical Director, University of Florida  
 College of Medicine, Gainesville, Florida and Scott C. Brakenridge, MD FACS, Assistant Professor of  
 Surgery, University of Florida, Gainesville Florida.  
*Upon completion of this presentation the learner will be prepared to:*
- Recognize life-threatening hemorrhage from extremity trauma.
  - Perform techniques that provide hemostasis in life-threatening extremity injuries
- 6:00 pm **Stump the IA** (non-CME)  
*What burning aviation mechanics questions do I have that Mike Busch can discuss and answer – and keep me flying without emptying the bank account?*  
 Mike Busch, A&A/IA

**Tuesday, June 4, 2019**

- 8:00 am Announcements
- 8:15 am – 12:15 pm SESSION FOUR
- 8:15 am **Powerplant Management for Efficiency and Longevity** (non-CME)  
*How should I operate my piston powerplant to achieve optimal efficiency and longevity?*  
 Michael D. Busch, A&P/IA, CFIA/I/ME, Aviation Educator and Entrepreneur, Savvy Aviation, Inc.,  
 Arroyo Grande, California  
*Upon completion of the presentation, the learner will be prepared to:*
- Discuss the benefits of 'oversquare' operation.
  - Discuss the benefits of lean-of-peak (LOP) operation.
  - Explain why low RPM is essential to LOP operation.
- 9:15 am Audience question and answer.

- 9:30 am **Minimally Invasive Techniques for Maximally Devastating Injuries**  
**REBOA: A novel method of hemorrhage control**  
*What advances in hemorrhage control and trauma surgery have been made recently?*  
Andrew C. Skattum, DO, Trauma Surgery, Associate Trauma Medical Director, Osceola Regional Medical Center, Kissimmee, Florida  
*Upon completion of the presentation, the learner will be prepared to:*
- Describe the advantages and benefits of the REBOA catheter.
  - Describe major advances in the care of the injured patient.
  - Discover new ways to diagnose and treat traumatic coagulopathies.
- 10:05 am Audience question and answer
- 10:15 am Break
- 10:30 am **How to Reduce Opioid Dependency When Treating Chronic Pain**  
*How many patients are flying while on controlled substances?*  
CAPT. Miguel A. Cubano, MD, MBA, FACS, Commanding Officer, General Surgeon, Naval Health Clinic (US Navy), Corpus Christi, Texas  
*Upon completion of the presentation, the learner will be prepared to:*
- Develop a plan to reduce the opioid dependency in their patient population.
  - Cite accepted wean percentages on patients on long term opioids/controlled substances.
  - Explain how to monitor and sustain progress when opioids levels are either reduced or discontinued.
- 11:05 am Audience question and answer
- 11:15 am **Aviation Toxicology**  
*What constitutes a dangerous environment in toxin exposure when piloting and/or maintaining an aircraft?*  
Mark E. Thoman, MD, FAAP, FACMT, FAA, Medical Toxicologist, Sr. Aviation Medical Examiner, Scientific Review Panel member, NIH, National Library of Medicine, CAPTAIN, Flight Surgeon, USN (Ret), Port Orchard, Washington  
*Upon completion of the presentation, the learner will be prepared to:*
- Discuss contemporary hazards of toxin exposure when piloting an aircraft.
  - Identify the adverse impacts of toxin exposure while maintaining or building an aircraft.
- 11:50 am Audience question and answer
- 12:00 pm Adjourn Scientific/Aviation Program
- 12:15 pm Flying Physicians Association, Inc., Annual Business Meeting

#### BACK-UP PRESENTATION

##### **Modern Blood Transfusion Strategies**

*What are the negative impacts of a blood transfusion when used inappropriately?*

R. Stephen Smith, MD RDMS FACS, Professor of Surgery, Trauma Medical Director, University of Florida, Gainesville, Florida

*Upon completion of this presentation the learner will be prepared to:*

- Describe contemporary indications for blood product transfusion.
- Outline the adverse impacts of blood transfusion.
- Discuss monitoring of coagulation status with TEG.