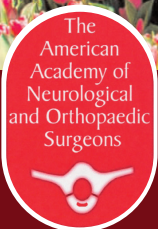


# SCIENTIFIC PROGRAM

43<sup>RD</sup> ANNUAL SURGICAL UPDATE

THE ART AND SCIENCE OF SURGERY

REPAIR ❖ REJUVENATE ❖ RENEW



NEMACOLIN WOODLANDS RESORT - PENNSYLVANIA

May 2-4, 2019



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# WELCOME FROM THE GOVERNOR OF PENNSYLVANIA



COMMONWEALTH OF PENNSYLVANIA  
OFFICE OF THE GOVERNOR



## GREETINGS:

It is my pleasure to join with the American Academy of Neurological and Orthopaedic Surgeons to welcome all those gathered for the 43rd Annual Scientific Meeting; The Art of Science: Repair- Rejuvenate – Renew.

Since its founding in 1976, the American Academy of Neurological and Orthopaedic Surgeons has worked to improve the quality of care provided to patients in these two specialty fields. AANOS has stayed true to this vision by setting high standards for training, credentialing, and the continuing surgical education in the practice of orthopaedics and neurosurgery. The Annual Scientific Meeting provides an opportunity for surgeons and their guests to study the newest and most promising developments in the world of surgery and we are honored that this year's event is taking place in Pennsylvania. It is my hope that this event's example of passion and innovation will inspire others, and I am certain that those in attendance will continue to make a difference for years to come.

As Governor, and on behalf of all citizens of the Commonwealth of Pennsylvania, I am delighted to welcome you all the American Academy of Neurological and Orthopaedic Surgeons' 43rd Annual Scientific Meeting. Please accept my best wishes for an enjoyable event.



*Tom Wolf*  
**TOM WOLF**  
Governor  
May 2-4, 2019

## WELCOME FROM THE AMERICAN ACADEMY OF NEUROLOGICAL AND ORTHOPAEDIC SURGEONS CHAIRMAN OF THE BOARD



Dear Colleagues:

It is my pleasure to welcome you to the 43rd Annual Scientific Meeting of the American Academy of Neurological and Orthopaedic Surgeons. We are gathered here at the picturesque Nemacolin Woodlands Resort in the Laurel Highlands of Southwestern Pennsylvania for this annual gathering where an outstanding educational program has been arranged.

Our Scientific Organizing Committee has worked diligently to develop our program. Speakers will update us on a variety of Neurological, Orthopaedic and Spine related topics during the Academy's special scientific sessions on Friday and Saturday morning. I encourage you to review the following pages carefully to learn all about the various speakers and their presentations.

I am delighted that in this year's program we are able to include topics such as; *Imaging Alternatives in Pedicle Screw Placement - Adapting Machine Vision to Spinal Navigation*, *Management of Tarlov Cysts*, *Non-traumatic Intracerebral Hemorrhage: Surgical Indications and Technical Considerations*, *Endoscopic Management of Lumbar Spine*, and *From Cosmetic Surgery to Regenerative Medicine: An Awakening* presented by our Keynote Speaker, Dr. Greg Laurence, just to name a few. As always, there are a variety of submitted abstracts from members and non-members alike that will round out our program.

Please also note that the International College of Surgeons, as our educational partner, has worked closely with our Scientific Organizing Committee to develop additional programming that is of interest to all surgical specialties. On Thursday, Friday and Saturday afternoon we will have the opportunity to once again join ICS for several sessions including: a global surgery session entitled, *Surgical Consortia: A Practical Resource Building Strategy?*, a Pain Management and Ethics Symposium as well as the Trauma and Acute Care Surgery Forum.

I encourage every member of the Academy to peruse the program and participate in as many sessions as possible to earn the maximum number of CME credits. Don't forget to also complete the Needs Assessment survey so that we may continue to provide educational programming that benefits you.

I hope you have a most enjoyable visit here at the Nemacolin Woodlands Resort for our annual meeting!

Sincerely,

Mark N. Perlmutter, MD,  
Chairman of the Board  
American Academy of Neurological and Orthopaedic Surgeons

# AMERICAN ACADEMY OF NEUROLOGICAL AND ORTHOPAEDIC SURGEONS

## Board of Directors

### BOARD CHAIR

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**William Welch, MD, FICS**

Philadelphia, PA

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**Robert Mathews, MD, FICS**

Millersville, PA

**Charles, Xeller, MD, FICS, FAANOS**

Seabrook, TX

**W. Craig Clark, MD, FICS, FAANOS**

Eads, TN

**Sudhir Rao, MD**

Big Rapids, MI

**Lucia Zamorano, MD, FICS, FAANOS**

Birmingham, MI

**Maxime Coles, MD, FICS, FAANOS**

Boca Raton, FL

**R. Blaine Rawson, MD, FICS**

Petoskey, MI

**Honorary  
Kazem Fathie, MD, FICS**

Las Vegas, NV

**Clara Raquel Epstein, MD, FICS**

Cotapaxi, CO

**David Weiss, DO, FAANOS**

Morrisville, PA

## 2019 SCIENTIFIC ORGANIZING COMMITTEE

### Co-CHAIRS

**Maxime J.M. Coles, MD, FICS, FAANOS**

Orthopaedic Surgeon  
Boca Raton, FL

**Lucia Zamorano, MD, FICS, FAANOS**

Neurosurgeon  
Birmingham, MI

### MEMBERS

**Naga Suresh Cheppalli, MD**

**David Wren, MD**

**Clara Raquel Epstein, MD**

**Charles Xeller, MD, FAANOS**

**Jeffrey Epstein, MD, FAANOS**

**Mark Perlmutter MD,, FAANOS Ex-officio**

## CME ACCREDITATION INFORMATION

### Course Sponsor

International College of Surgeons  
United States Section  
An ACCME Accredited Provider

**Overall Course Objectives** The Annual Surgical Update is designed to offer information regarding the latest surgical advancements and technology to address gaps in knowledge that may exist for practicing surgeons in all surgical specialties, residents in training, and allied health professionals. The desired outcome of this program is increased knowledge, better competency in cutting edge treatment modalities, and enhanced treatment decision making. It is the expressed goal of the course to provide enough material that upon completion of the activity the participant can make educated decisions to incorporate the latest surgical techniques and technologies as well as discern when these procedures are warranted to provide optimum patient care.

Topics presented during the Annual Surgical Update have been designed to address and improve the attendee's knowledge and skills in the following competencies; patient care or patient-centered care, medical knowledge, practice-based learning & improvement, quality improvement and professionalism.

**Disclosure Policy** It is the policy of the International College of Surgeons-US Section that any individual who is involved in planning or presenting in a program designated for AMA Physician's Recognition Award Category 1 Credit™ must disclose all relevant financial relationships with a commercial interest prior to being included in the final program. This information is disclosed to the audience prior to the activity. The ICS-US has procedures in place to address a conflict of interest should one arise. Our complete Policy on Commercial Support and Independence is available on FICS Online or by request from Headquarters. Additionally,

faculty members are asked to disclose when any discussion of unapproved use of a pharmaceutical or medical device occurs.

**Accreditation** The International College of Surgeons-United States Section is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor Continuing Medical Education for physicians.

**Credit Designation** The International College of Surgeons-United States Section designates this live activity for a maximum of 16 AMA PRA Category 1 Credits. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

The following schedule and speaking commitments were accurate at time of printing; 3/25/19. For the most up to date information visit the website.

## 2019 NEW MEMBERS

**EMAD ABOUD**  
**NEUROSURGERY**  
**LITTLE ROCK, AR**

**HAYDER JAFFER**  
**NEUROSURGERY**  
**MERRILLVILLE, IN**

**LINDSEY JOHNSON**  
**NEUROLOGY**  
**DAYTONA BEACH, FL**



## WITH OUR THANKS

THE FOLLOWING INDIVIDUALS HAVE MADE FINANCIAL CONTRIBUTIONS TO THE ACADEMY  
DURING THE PAST 12 MONTHS ABOVE AND BEYOND THEIR ANNUAL DUES.

ANCA BEREANU

JAMES ST. VILLE

JOHN CHIU

DAVID WEISS

MARK PERLMUTTER

LUCIA ZAMORANO

# THE ART AND SCIENCE OF SURGERY REPAIR ♦ REJUVENATE ♦ RENEW

**Thursday, May 2, 2019**

**Marquis Salon 3**

**2pm-6pm**

**Friday May 3, 2019**

**Marquis Salon 1**

**8am-12pm**

## **OPENING SESSION - FEATURED LECTURES & SURGICAL CONSORTIA: A PRACTICAL RESOURCE BUILDING STRATEGY?**

The session will feature the Dr. Andre Crotti Lecture, where you will learn about a pivotal advance in transplantation, Laparoscopic Donor Nephrectomy; as well as the Dr. Arno Roscher Endowed Lecture during which the audience will learn about the aging process and how to slow, stop or reverse its effects. The audience will also learn about various initiatives related to Global Surgery and the humanitarian activities many ICS Fellows are undertaking. Included will be informative lectures about endeavors in Eastern Europe, Asia, Latin America, Africa and more. A presentation about the ongoing development and implementation of a registry to assist in the development of medical missions will also be included. Participants will gain a better understanding about how participation in humanitarian activities can not only benefit the underserved patients in low and middle income countries, but also how the unique cases experienced during these projects can positively impact a physician's practice back home in the United States.

**Moderators: Andrew Klein, MD; Demetrius Litwin, MD; Joshua Mammen, MD**

### **Update from the American Board of Surgery**

**Joshua Mammen, MD, PhD, FICS**, Kansas City, KS

### **The Dr. Andre Crotti Lecture**

**24 Years of Laparoscopic Donor Nephrectomy: A Pivotal Advance in Transplantation**

**Lloyd E. Ratner, MD, MPH**, New York, NY

### **The Dr. Arno Roscher Endowed Lecture**

**How to Slow, Stop or Reverse the Aging Process**

**Ara Tilkian, MD**, Mission Hills, CA

**Telemedicine Programs Albania and Cabo Verde: The Tales from Two Continents?**

**Rifat Latifi, MD, FICS**, Katonah, NY

**Matching Resources to Need: A Template for Collaboration**

**Mark N. Perlmutter, MD, FICS**, Rocky Mount, NC

**Mission Medicine (International Surgery)**

**Gene Bolles, MD, FICS**, Denver, CO

**World Surgical Foundation, What We Do and the Role of ICS**

**Domingo Alvear, MD, FICS**, Mechanicsburg, PA

**The ACS Approach: Capacity Building in Sub-Saharan Africa**

**Demetrius E.M. Litwin, MD, FICS**, Worcester, MA

**Team Broken Earth: The Evolution of a Sustainable Medical Relief Charity**

**Andrew Furey, MD**, St. John's, NL, Canada

**Making A Difference in Our World: Local Effect, Global Impact**

**Elizabeth McLellan, RN, MSN, MPH**, Portland, ME

## **AANOS ANNUAL SCIENTIFIC MEETING NEUROLOGICAL AND ORTHOPAEDIC SURGERY PART 1**

Participants in this session will receive valuable updates on the diagnosis and most advanced treatment options for a variety of Neurosurgical and Orthopaedic maladies. Learners will be informed about: an effective, readily available and affordable model for laboratory surgical training; the symptoms and treatment options for Tarlov cysts; distal radius fractures and the various methods of treatment that have evolved over the years; the role of electrodiagnostic testing for compression neuropathies and the appropriate situations that indicate the use of endoscopic surgery on the lumbar spine. Upon completion of the session, learners will be prepared to make better diagnoses and recommendations for treatment of the various conditions discussed. Learner will obtain the appropriate information during this session to determine whether further more advanced educational initiatives are required in order to effectively implement the information into practice.

**Moderators: Mark Perlmutter, MD; William Welch, MD; Charles Xeller, MD**

**Electrodiagnostic Testing for Compression Neuropathies: It's Role in Value-Based Healthcare**

**Mark Perlmutter, MD, FICS, FAANOS**, Rocky Mount, NC

**Endoscopic Management of Lumbar Spine**

**Lucia Zamorano, MD, FICS, FAANOS**, Birmingham, MI

**From Cosmetic Surgery to Regenerative Medicine: An Awakening**

**Gregory Laurence, MD**, Memphis, TN

**Evolution in the Treatment of Distal Radius Fractures**

**Sudhir Rao, MD**, Big Rapids, MI

**Management of Tarlov Cysts**

**William Welch, MD, FICS**, Philadelphia, PA

**Should We Wait for the Syringomyelia to Occur Before Treating Chiari Malformations?**

**Shankar Gopinath, MD, FICS**, Houston, TX

**Regenerative Medicine: Having Fun Again**

**Gregory Lawrence, MD**, Memphis, TN

**Medical-Legal Additions to Your Practice: IMEs, AMEs, RMEs, DDs**

**Charles Xeller, MD, FICS, FAANOS**, Seabrook, TX





**Friday May 3, 2019 8am-10:00am**  
**Marquis Salon 3**

## UPDATES ON HPB & ONCOLOGIC SURGERY

Participants in this session will receive an update about the indications and patient selection criteria for the newest techniques in breast cancer surgery and a review of the technical aspects of these procedures. Learners will also be presented with video vignettes of laparoscopic pancreatic surgery to demonstrate anatomy, exposure, suturing methods, and technical pearls. New options regarding the management of pancreatic cystic neoplasms will be discussed. Upon completion of this session, the learner will have a more comprehensive understanding of the issues presented and be able to appropriately apply what has been taught into their patient care activities.

**Moderators:** Peter Kennealey, MD; Tsuyoshi Todo, MD

**A New Conception of Oral Potentially Malignant Disorders (PMDs) and Surgical Management of PMDs**  
**Joji Sekine, DDS, PhD, FICS**, Nagasaki, Japan

**Technical Tips to Consider During Laparoscopic Pancreas Surgery**  
**Michael Jacobs, MD, FICS**, Birmingham, MI

**Management Algorithm for Pancreatic Cystic Neoplasms**  
**Thav Thambi-Pillai, MD, FICS**, Sioux Falls, SD

**Updates on the Surgical Management of Breast Cancer**  
**Colleen Murphy, MD**, Lone Tree, CO

**Laparoscopic Whipple**  
**Barish Edil, MD**, Oklahoma City, OK

**The Role of 3D Printing in Hepatic Surgery**  
**George Tsouffas, MD, PhD, FICS**, Thessaloniki, Greece

**Friday May 3, 2019 10am-12pm**  
**Marquis Salon 3**

## ADVANCES IN TRANSPLANT SURGERY

Participants will gain intensive instruction on many essential elements in transplant surgery such as; living donor liver transplant, uterus transplant, and access to transplantation among others. Upon completion of the course, surgeons of all specialties will have a better more comprehensive understanding of the various topics related to transplant surgery presented during the symposium.

**Moderators:** Todd Brennan, MD; Irene Kim, MD

**Access to Transplantation: Who Shall Live and Who Shall Die?**  
**Lloyd E. Ratner, MD, MPH**, New York, NY

**Living Donor Liver Transplant: Changing the Paradigm**  
**Abhinav Humar, MD**, Gibsonia, PA

**First Successful Uterus Transplantation in the United States**  
**Greg McKenna, MD**, Dallas, TX

**Transplant Surgery Considerations in the 21st Century**  
**Amit Tevar, MD**, Pittsburgh, PA

**Livers in a "Growing" Population**  
**Kenneth D. Chavin, MD, PhD FACS**, Cleveland, OH

**Friday May 3, 2019 4pm-5:15pm**  
**Marquis Salon 3**

## EMERGING SURGEONS FORUM

Providing the future surgeons of the world an opportunity to share their unique experiences with senior colleagues is a noteworthy goal of the International College of Surgeons. Case reports from surgical residents and medical students with an interest in surgery will be presented during this lead-in to the Annual Scholarship Competition.

**Moderators:** Tessa London, MD; Tracy Sambo, MD

**Traumatic Abdominal Wall Injuries: A Case Series**  
**Beatrice Caballero, MS**, Lubbock, TX

**Unique Constellation of Thoracoabdominal Injuries in a High-speed Motor Vehicle Collision**  
**Caroline Chung, BS, BA**, Lubbock, TX

**Transpopliteal GSW Causing an Acute Popliteal Venous Thrombosis and Associated Major Pulmonary Embolus**  
**Beatrice Caballero, MS**, Lubbock, TX

**A Unique Presentation of Traumatic Diaphragmatic Hernia Rupture in a 37-Year-Old Man**  
**Natalie Tully, BS**, Austin, TX

**Friday May 3, 2019 5:15pm-6:30pm**  
**Marquis Salon 3**

## ANNUAL RESEARCH SCHOLARSHIP COMPETITION

Surgical residents and medical students who have submitted research manuscripts will participate in this annual contest and present their research in an oral format. Manuscripts as well as the oral presentations of the competitors will be judged by a panel to determine the winners of various cash prizes. Attendees will be presented with fascinating information by some of the brightest minds in medicine – support the future of surgery by attending this session.

**Moderators:** Tessa London, MD; Tracy Sambo, MD

**Treatment of Cardiac Arrhythmia Associated with Subarachnoid Hemorrhage: A Literature and Protocol Review.**  
**Caitlin Clark, MD**, Cleveland Heights, OH

**Treatment of Appendicitis: Do Medicaid and Non-Medicaid Enrolled Patients Receive the Same Care?**  
**Amanda Fazzalari, MD**, Waterbury, CT

**Endobronchial Ultrasound With Transbronchial Needle Aspiration in The Diagnosis of Thoracic Diseases; A Single Center Experience**  
**Dwight Harris II, BS**, Manchester, KY

**Saturday May 4, 2019**

**8am-12pm**

**Marquis Salon 1**

## **AANOS ANNUAL SCIENTIFIC MEETING NEUROLOGICAL AND ORTHOPAEDIC SURGERY PART 2**

A continuation of the Friday session, participants in this session will receive valuable updates on the diagnosis and most advanced treatment options for a variety of Neurosurgical and Orthopaedic maladies. Learners will receive information about the latest technology in Orthopaedics; post-operative cognitive dysfunction; hip fracture protocols; intracerebral hemorrhage; practice related email use by surgeons; MIS lumbar fusion; infection related to spinal instrumentation; as well as current trends in hand and wrist surgery. Learners will have a more comprehensive understanding of these topics and if appropriate be able to utilize what they have learned into their practice.

**Moderators:** Naga Suresh Cheppalli, MD; Asem Salma, MD and Lucia Zamorano, MD

**Infection with Spinal Instrumentation: The Current Management Strategies**  
**Asem Salma, MD**, Lima, OH

**Minimally Invasive Spine Lumbar Fusion with Expandable Inter Body: Optimization of Sagittal Alignment**  
**Lucia Zamorano, MD, FICS, FAANOS**, Birmingham, MI

**Imaging Alternatives in Pedicle Screw Placement. Adapting Machine Vision to Spinal Navigation**  
**W Craig Clark, MD, PhD, FICS, FAANOS**, Carrollton, MS

**Non-traumatic Intracerebral Hemorrhage: Surgical Indications and Technical Considerations**  
**Asem Salma, MD**, Lima, OH

**Treatment of Cardiac Arrhythmia Associated with Subarachnoid Hemorrhage: A Literature and Protocol Review.**  
**Caitlin Clark, MD**, Cleveland Heights, OH

**Post-Operative Cognitive Dysfunction (POCD)**  
**Gene Bolles, MD, FICS**, Denver, CO

**Newer Technology in Orthopedics**  
**Naga Suresh Cheppalli, MD, FICS**, Albuquerque, NM

**Hospital Hip Fracture Protocol Leads to Improved Outcomes**  
**Kristy Fisher, MD, MSc, MBA**, Bellmore, NY

**Update in Total Hip Replacement Advancements and Painful Osteoarthritis of the Hip**  
**Robert Mathews, MD, PhD, FICS**, Millersville, PA

**Climate Change and Nutritional Perturbations in Children with Hydrocephalus**  
**Francis Gregory Samonte, MD**, San Diego, CA

**A 1-year Prospective Time Study of Email Use**  
**William Welch, MD, FICS**, Philadelphia, PA

**Current Trends in Hand and Wrist Surgery**  
**Mark Perlmuter, MD, FICS, FAANOS**, Rocky Mount, NC

**Saturday May 4, 2019**

**8am-10am**

**Marquis Salon 3**

## **GENERAL PLENARY SESSION OPEN FORUM**

Representing 18 surgically related specialties, ICSUS CME programs are rich in diversity. The multidisciplinary educational sessions presented in this activity seek to provide content that improves the learner's competence, performance or patient outcomes through interaction with peers. Due to the scope of our global organization, ICSUS encourages participants from all specialties to interact and learn from one another, thereby building a broad base of knowledge. In this session, topics will cover issues related to management of cleft lip in developing nations; issues and options for use of mesh in hernia repair; abdominal wall reconstruction, bariatric surgery, rural surgery and plastic surgery. Participants in this session will become more well-rounded physicians by having a better understanding of not only their own specialties, but also other specialties for which they may encounter during their treatment of patients.

**Moderators:** Harry Anderson, MD; Rifat Latifi, MD

**Cleft Lip Prevalence and Management in a Developing Nation**  
**Saman Ahmad, BDS**, New Delhi, India

**Contour Mapping of Human Surface Anatomy: Defining Focal Fat Pad Loci and Improving Surgical Outcomes with Anatomically-Guided Adipose Reconfiguration**  
**David Teplica, MD, MFA, FICS**, Chicago, IL

**Inguinal Hernia Repair with Mesh-How I do It**  
**Michael Jacobs, MD, FICS**, Birmingham, MI

**Complex Abdominal Wall Reconstruction: Practical Approaches**  
**Rifat Latifi, MD, FICS**, Katonah, NY

**The Role of Bariatric Surgery in the Treatment of Diabetes**  
**Sharique Nazir, MD, FICS**, Staten Island, NY

**Do Absorbable Mesh Get Integrated in Fascia in Real Life?**  
**Samim Chalabi, MD, FICS**, Towanda, PA

**Creation of a Vaginal Canal for De Novo Vaginoplasty and Salvage Vaginal Replacement For Transgender and Cisgender Women: A Proposed Novel Technique**  
**Maurice Garcia, MD**, Los Angeles, CA

**Up The Creek Without a Paddle: Adventures in Rural Surgery During My First Year**  
**Tracy Sambo, MD, FICS**, Edenton, NC



# THE ART AND SCIENCE OF SURGERY REPAIR ♦ REJUVENATE ♦ RENEW

**Saturday May 4, 2019 10am-12pm**  
**Marquis Salon 3**

## ADVANCES IN VASCULAR & THORACIC SURGERY

Representing two of the most active specialties in the United States Section of ICS, this session will provide updates on strategies and management options for the treatment of a variety of vascular and thoracic surgery topics as identified below. Some of the best in the field will inform the audience about Nutcracker Syndrome, Short Neck Infra-Renal AAA, Non-small Cell Lung and Esophageal GIST Cancers, Repair of Blunt Traumatic Aortic Injury, Complex Hemodialysis Access and more. Participants who practice Vascular or Thoracic surgery will have a comprehensive understanding of these topics and be able to utilize what they have learned into their practice if applicable.

**Moderators:** Dixon Santana, MD; Ehab Sorial, MD

**Delayed Endovascular Repair of Blunt Traumatic Aortic Injury**  
**Aditya Safaya, MD**, Ossining, NY

**Thinking Outside the Box. Complex Hemodialysis Access, Advanced Approaches and Creative Techniques**  
**Ehab Sorial, MD, FICS**, Los Gatos, CA

**Strategies and Management of Concurrent Non-small Cell Lung and Esophageal GIST Cancers**  
**Francis Podbielski, MS, MD, FICS**, Riverside, IL

**TAVR- a Multi-Disciplinary Model for the Future Structural Heart**  
**Tessa London, MD, MPH, FICS**, Lexington, KY

**Management of Short Neck Infra-Renal Abdominal Aortic Aneurysms With Fenestrated ZFEN Stents: Single Institution Experience**  
**Faisal Jehan, MD**, Valhalla, NY

**Changing Paradigm in the Treatment of Carotid Artery Disease**  
**Ehab Sorial, MD, FICS**, Los Gatos, CA

**Nutcracker Syndrome: A New Paradigm in the Diagnosis and Management?**  
**Thomas Pshak, MD, FICS**, Denver, CO

**Noncardiac Massive Thoracic Bleeding**  
**Raymond A. Dieter Jr., MD, FICS**, Glenn Ellyn, IL

**Saturday May 4, 2019 12pm-1:30pm**  
**Marquis Salon 2**

## HONORS LUNCHEON / SPECIAL PRESENTATION

This special lecture will provide attendees with valuable information about how to improve their surgical practice and manage costs. Avoiding unnecessary costs in a healthcare practice should be a top priority of every surgeon and attendees will learn how this can be accomplished.

**Moderator:** Andrew Klein, MD

**Cost Management in Healthcare**  
**Sibu Saha, MD, MBA, FICS**, Lexington, KY

**Saturday May 4, 2019 1:30pm-3:15pm**  
**Marquis Salon 3**

## TRAUMA AND ACUTE CARE SURGERY FORUM

Unique cases and how they were handled will be presented in this annual forum. The audience will be made aware of what can be encountered in the emergency room and will know what to do if they come across similar cases. Featured will be several presentations by medical students from Texas Tech who have a wide range of experience in this area.

**Moderator:** Sharique Nazir, MD

**Trauma Patients in the Rural Setting**  
**Sharique Nazir, MD, FICS**, Staten Island, NY

**Damage Control Surgery in Trauma**  
**Akella Chendrasekhar, MD, FICS**, Lake Hopatcong, NJ

**Clostridial Sepsis in the Trauma Patient**  
**Anthony Kopatsis, MD**, New York, NY

**Dog Bites - Dogmas and Evidences**  
**Saptarshi Biswas, MD, FICS**, Pittsburgh, PA

**Fulminant Myonecrosis from a Minor Puncture Wound. A Rare Case of Clostridial Septicum Gas Gangrene**  
**Saptarshi Biswas, MD, FICS**, Pittsburgh, PA

**Saturday May 4, 2019 3:30pm-6pm**  
**Marquis Salon 3**

## PAIN MANAGEMENT & ETHICS WORKSHOP

The audience will learn about the history of pain as it relates to patient care and how the use of opioids to treat pain has developed into an addiction epidemic. The differences between acute and chronic pain will also be discussed to provide the audience with the most recent research and recommendations on how prescribing should be handled. This interactive session will provide ample time for discussion and debate that will include significant audience participation and feedback. Upon completion of this session, learners will have a better understanding of how to appropriately prescribe pain medications and when the use of certain specific medications such as opioids are indicated based on current guidelines.

**Moderator:** Thavam Thambi-Pillai, MD

**Opium and Opioid History: Moving Beyond Opioids**  
**Frank P. Bongiorno, MD, FICS**, Murfreesboro, TN

**Current State of Acute and Chronic Pain Management: Identifying the Non-Opioid Alternatives!**  
**Vinita Singh, MD**, Atlanta, GA



# Nemacolin Woodlands Resort

When the College looks for a meeting destination, one aspect that is given a lot of thought is finding something unique. Our host property definitely answers that need. Following is just the beginning of what guests can explore while on property. To make sure that everyone has the time to Repair, Rejuvenate and Renew will take a break from regular CME programming from Noon-4pm on Friday. **Please be sure to make advance reservations by calling the hotel: 1-866-344-6957.** For more details and pricing information visit [www.nemacolin.com/activities](http://www.nemacolin.com/activities).

## MYSTIC ROCK

Voted #1 in Golfweek's "Best Courses in Pennsylvania," the Pete Dye designed Mystic Rock respects the natural environment and has a course rating of 77 and slope of 149 from the championship tees.

As former home to the 84 Lumber Classic, a PGA Tour event, Mystic Rock has played host to top professional players in the world including Phil Mickelson and Vijay Singh.

## SHEPHERD'S ROCK

Voted #5 in Golfweek's "Best Courses in Pennsylvania," the 7,151-yard Shepherd's Rock offers extraordinary golf in a spectacular setting. The rolling bucolic terrain is ideal to fully utilize Dye's brilliant imagination in fashioning an outing that is both fun and challenging for all golfers. The layout is a perfect companion to Nemacolin's PGA Tour-tested Mystic Rock.

## GOLF ACADEMY

The Nemacolin Golf Academy offers a unique blend of exceptional golf instruction, club fitting and technology designed exclusively to help elevate your game. Our professional instructors use state-of-the-art diagnostic tools to analyze your swing, putter stroke and ball flight to create tailored instruction.

## PRIDE & JOY AIRPLANE HANGAR

Located at the end of Nemacolin's airstrip, the Pride and Joy Vintage Airplane Hangar is open for the public and includes a private collection of vintage planes, including a 1931 Pitcarin PA-8. This rare and classic plane, fully restored and airworthy was once in the collection of the late movie star and Hollywood icon Steve McQueen.

## WOODLANDS SPA

Founded on the principles of Feng Shui, this soothing sanctuary for the mind, body and soul features rejuvenating treatments with massages, body scrubs and wraps, facials, manicures and pedicures. Signature services include a Water Path treatment, the Hot Stone Shiroadhara, and the Dream Catcher, a blend of Native American and Lomi Lomi healing techniques.

## HOLISTIC HEALING CENTER

The Holistic Healing Center focuses on integrative methods designed to achieve life balance and wellness. From acupuncture and healing meditation to infrared therapies and metabolic counseling, the center is committed to individual wellness.

## FITNESS CENTER

A total body workout awaits with strength equipment, elliptical cross trainers, treadmills, rowing machines, stationary bikes and free weights. Exercise enthusiasts will love the array of yoga, Pilates, TRX sessions, aqua aerobics and personal training sessions with our certified trainers.

## ADVENTURE CENTER

Nemacolin Woodlands Resort's Adventure Center, located at the Sundial Lodge, is the hub of outdoor activity, adventure and recreation. From weekend

warriors to accomplished athletes, be sure to carve out time to enjoy all the activities we have to offer.

- 20' Ropes Course
- 3,000' Fatbird Superflyer Dueling Zip Line
- 40' Fatbird Canopy Tour
- 50' Climbing Wall
- Biking & Hiking
- Bowling & Arcade Games
- Disc Golf
- Fallingbrook Miniature Golf
- Off-Road Driving Academy
- Little Tykes Ropes Course
- Target & Combat Paintball
- Tennis

## WILDLIFE ACADEMY

Educational programs that help guests learn about and appreciate the wild world. Bears, bison, lions and tigers are just some of the animals guests can see up close. Tours of the Wildlife Nursery are also available.

## CHILDREN'S PROGRAMS

Nemacolin offers fun activities for children

- 3' Kids pool
- Grove - Kids Spa
- Arcade
- Hardy Girls Gymnasium
- Kidz Klub
- Kidz Night Out
- Babysitting Services

## LITTLE TYKES

Qualified associates will provide children ages 6 weeks through 4 years with top-rated care and education.

## POOLS

Nemacolin offers five swimming pools for our guests' enjoyment.

Spa Lap Pool  
Adult Pool  
Falling Rock Infinity Pool  
Paradise Pool

## THE NEMACOLIN FIELD CLUB

Woven through 140 acres of woodlands, valleys and pastures in the Allegheny Mountains, the Nemacolin Field Club complex houses one of the nation's top sporting clays facilities and is the gateway to some of the finest fishing streams and creeks in the eastern United States.

## THE SHOOTING ACADEMY

Featuring 35 sporting clay stations that can be tailored to challenge everyone from the most seasoned wing shooter to the novice. National Sporting Clays Association (NSCA) certified instructors offer lessons for both beginners and advanced shooters.

## ORVIS® FLY FISHING

For anglers of any skill level, the Orvis® Endorsed Fly Fishing Lodge at the Nemacolin Field Club is in a class by itself. Anglers can choose from many Pennsylvania waters, including the Youghiogheny River.

## CULTURAL

Nemacolin is steeped in history, art and culture. From painting classes to sculpture tours, and an impressive art collection, guests can flex their artistic side.

The resort's tasting program invites guests to experience world class wines. The Wine Cellar is one of the most extensive in the country featuring upwards of 21,000 bottles of wine.

Tastings

Wine Cellar Tour

## HERITAGE COURT SHOPPES

Offering a selection of men's, women's and children's fashions, logo clothing, unique gift items, children's toys and much more.

## LADY LUCK CASINO NEMACOLIN

Place a bet. Listen to great live music. Bite into a juicy burger. Win! Lady Luck Casino Nemacolin includes approximately 600 slot machines, 29 table games and Otis & Henry's Bar and Grill, a casual dining restaurant that combines the comfort of a neighborhood bar with delicious favorites you'd cook at home. The Lone Wolf Bar features delicious food, live entertainment and great drinks.

\*Advanced registration is **STRONGLY** encouraged, additional fees may apply.



# FAANOS

## Fellow of the American Academy of Neurological and Orthopaedic Surgeons

A post-nominal title is used to indicate that a surgeon's education and training, professional qualifications, surgical competence, and ethical conduct have passed a rigorous evaluation, and have been found to be consistent with the high standards established and demanded by a professional society such as the American Academy of Neurological and Orthopaedic Surgeons (AANOS).

As such, the post-nominal title of **FAANOS** is now being offered to qualified members of the AANOS based on compliance with the following minimum requirements as adopted by its Board of Directors.

- Continuous active dues paid membership in the AANOS for a period of 5 years or more. Your dues must be current and paid up through this fiscal year (2019).
- Active participation in the annual scientific meetings of the AANOS (attendance at least once in the past three years, 2014-2016).
- Certification by a board recognized by the American Federation of Medical Accreditation or its equivalent (certification must be maintained as required by the certifying body and in the case of AFMA boards by completing appropriate reapplication every five years or FAANOS designation will be forfeited/suspended).
- Payment of a one-time non-refundable application fee of \$100.00 (to cover the cost of processing and production of an ornate certificate of Fellowship).

Please submit your completed application for review by the Credentials Sub-Committee to receive your certificate and begin using the FAANOS designation. Visit [www.AANOS.org](http://www.AANOS.org) and click on the Membership tab in the navigation bar at the top and then select FAANOS to obtain a copy of the application form.



Certificate dimensions are 11 inches by 14 inches see sample above (actual may differ slightly).

## SOCIAL EVENTS

### Alliance Board of Directors & General Membership Meeting

Thursday May 2 Marquis Salon 4

Please join us to discuss Alliance plans for the Annual Meeting and beyond. If you have ever wondered what the Alliance is or does, then this meeting shouldn't be missed.

### Welcome Reception

Thursday May 2 Reflection

Join us as we mark the opening of the 81st Annual Surgical Update. This is a moment to come together and meet new friends & catch up with long-time colleagues. This event, held in the resort's Reflection gallery will provide attendees with a personal viewing of specially curated contemporary artwork and scenic views of the property and beyond.

### Nemacolin Art Tour

Friday May 3 Chateau Lobby

Meet in the Chateau Lobby for a special private tour of the Nemacolin Art collection. **\$20/PERSON TICKETS MUST BE ORDERED IN ADVANCE.** (Event may be cancelled if there is not enough interest.)

### Honors Luncheon

Saturday May 4 Marquis Salon 2

Please join us as we induct our Section's new Fellows into the College and honor those who have contributed to the success of our meeting and our Section.

### Closing Dinner

Saturday May 4 Grand Ballroom

Join us as we come together for one last event before we bid farewell until next year. Andrew Klein, MD and Mark Perlmutter, MD invite you to attend the combined closing dinner of ICS-US and the AANOS. The black-tie optional event will feature complimentary wine at your table, award presentations and live entertainment. **PRICE: \$200/PERSON, TICKETS MUST BE ORDERED IN ADVANCE.**

## REGISTRATION INFORMATION

### Meeting Registration

Everyone attending or participating in educational sessions, including faculty, is expected to register for the meeting.

### Supplemental Registration

This category is not appropriate for physicians who will attend educational sessions. All other individuals who are present at meeting events must register in this category. Including: Spouses, Domestic Partners and Relatives. Included in this registration are: Breakfasts, Coffee Breaks, Lunches, non-ticketed Alliance Activities, and one ticket to the Opening Reception.

To register for the meeting, please visit the Meeting Registration Desk.

### Cancellation Policy

The cancellation deadline was April 2, 2019. Refunds will be issued, minus a \$75 processing fee, upon receipt of written notification via fax or mail. Verbal or written cancellations after April 2, will not be honored. Please allow four to six weeks after the meeting for your refund.

### Fees

Meeting-related fees must be paid in US funds. Checks as well as Visa, Master Card, and American Express are acceptable forms of payment.

### Language

The official language of this conference is English, and all sessions and events shall be conducted in English.

### Attire

Business casual attire is recommended in educational sessions and on-site social activities. Casual attire is appropriate for most off-site social events.

### Social Event Tickets

Tickets for social events MAY be available on-site on a VERY limited basis. However, staff is not responsible for events that are sold-out/unavailable or cancelled. Check with the Meeting Registration Desk as soon as possible.

### Special Needs and Questions

If you have any special needs that must be addressed to ensure your comfort and/or if you require information not listed in this brochure, please see the ICS-US Staff at the Registration Desk during the hours listed above. Every effort will be made to facilitate your request.

### Speaker Prep Area

A laptop computer has been setup near the registration area. Speakers who did not submit their presentations in advance of the meeting should load their PowerPoint files the day before their presentation. Speakers may also use this laptop to preview/review their files.

### Continuing Medical Education (CME) Information

CME Program Evaluation Forms are included in each registrant's packet. To receive CME Credit, you must complete a Program Evaluation Form for each educational session you attend. Leave the packets intact, including any blank sessions.

Program Evaluation Forms must be completed and returned to the Meeting Registration Desk prior to the conclusion of the conference. You may also mail your forms to:

ICS-US Headquarters  
Department of CME  
1516 North Lake Shore Drive  
Chicago, IL 60610-1694

The deadline for submission of all CME Program Evaluation forms is Tuesday, June 4, 2019.

### Transcripts

You must return your CME evaluation booklet to receive CME credit for this meeting. Transcripts will be made available to attendees 30 days after the conclusion of this meeting following completion of a post-meeting survey which will be emailed to you individually.



# SCHEDULE AT A GLANCE

## Thursday, May 2

### Marquis Salon Foyer

REGISTRATION  
7:30 AM-5:00 PM

### Marquis Salon 1

OFFICER BREAKFAST  
7:30 AM-9:00 AM

### Marquis Salon 1

ALL-DAY COFFEE BREAK  
9:00 AM-3:00 PM

### Marquis Salon 1

ICS-US Business Meetings  
Endowment  
Executive Committee  
Standing Committees  
CME  
Regents  
Executive Council  
House of Delegates  
8:00 AM-1:30 PM

### Marquis Salon 4

Alliance Board Meeting  
Noon-1:00 PM

### Marquis Salon 3

OPENING SESSION  
FEATURED LECTURES & SURGICAL  
CONSORTIA: A PRACTICAL RESOURCE  
BUILDING STRATEGY?  
2 PM-6 PM

### Reflection

(building Y on Resort Map)  
OPENING RECEPTION  
6:00 PM-7:00 PM

## Friday, May 3

### Marquis Salon Foyer

REGISTRATION  
7:30 AM-12:30 PM

### Marquis Salon 4

CONTINENTAL BREAKFAST  
7:30 AM-9:00 AM

### Marquis Salon 4

ALL-DAY COFFEE BREAK  
9:00 AM- Noon & 4:00 PM 5:30 PM

### Marquis Salon 1

AANOS ANNUAL SCIENTIFIC MEETING  
NEUROLOGICAL AND ORTHOPAEDIC  
SURGERY PART 1  
8:00 AM-Noon

### Marquis Salon 3

UPDATES ON HPB &  
ONCOLOGIC SURGERY  
8:00 AM-10:00 AM

### Gather in Chateau Lobby

NEMACOLIN ART TOUR  
10:00 AM-11:00 AM

### Marquis Salon 3

ADVANCES IN TRANSPLANT SURGERY  
10:00 AM-Noon

### Marquis Salon 2

AANOS BOARD OF DIRECTORS MEETING  
4:30 PM-6:30 PM

### Marquis Salon 3

EMERGING SURGEONS FORUM  
4:00 PM-5:15 PM

### Marquis Salon 3

ANNUAL RESEARCH SCHOLARSHIP  
COMPETITION  
5:15 PM-6:30 PM

## Saturday, May 4

### Marquis Salon Foyer

REGISTRATION  
7:30 AM-2:00 PM

### Marquis Salon 4

CONTINENTAL BREAKFAST  
7:30 AM-9:00 AM

### Marquis Salon 4

ALL-DAY COFFEE BREAK  
9:00 AM- 5:30 PM

### Marquis Salon 1

AANOS ANNUAL SCIENTIFIC MEETING  
NEUROLOGICAL AND ORTHOPAEDIC  
SURGERY PART 2  
8 AM-Noon

### Marquis Salon 3

GENERAL PLENARY SESSION  
OPEN FORUM  
8 AM-10:00 AM

### Marquis Salon 3

ADVANCES IN VASCULAR &  
THORACIC SURGERY  
10:00 AM-Noon

### Marquis Salon 2

HONORS LUNCHEON &  
SPECIAL PRESENTATION  
Noon-1:30 PM

### Marquis Salon 3

TRAUMA AND ACUTE CARE SURGERY  
FORUM  
1:30 PM-3:15 PM

### Marquis Salon 3

PAIN MANAGEMENT &  
ETHICS WORKSHOP  
3:30 PM-6 PM

### Grand Ballroom

GALA CLOSING DINNER  
7:30 PM-10:30 PM