**Thursday, March 15th**

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<td>7:00 a.m. – 5:30 p.m.</td>
<td>Registration</td>
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<td>7:30 a.m. – 5:30 p.m.</td>
<td>Poster Viewing and Poster Sessions (Details Below)</td>
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<td>7:30 a.m. – 8:00 a.m.</td>
<td>Continental Breakfast</td>
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<td>8:00 a.m. – 8:15 a.m.</td>
<td>Welcome and Introductions</td>
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**Refresher Course Lectures-Sapphire ABEF**

Moderator: Edward R. Mariano, M.D.

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| 8:15-9:00 a.m.  | Beneficial Effects of Local Anesthetics and Regional Anesthesia on the Immune System and Inflammatory Response  
                 Marcel Durieux, M.D., Ph.D.                          |
| 9:00-9:45 a.m.  | Evidence-Based Review of the Effects of Local Anesthetics and Regional Anesthesia on Cancer Reoccurrence and Surgical Site Infection  
                 Christopher L. Wu, M.D.                              |
| 9:45-10:15 a.m. | Morning Break                                              |
| 10:15-11:00 a.m.| Qualitative Anatomy of Peripheral Nerves: Correlation with Nerve Localization, Pharmacodynamics, and Nerve Injury  
                 Admir Hadzic, M.D., Ph.D.                             |
| 11:00-11:45 a.m.| Ultrasound-Guided Regional Anesthesia: An Update on Evidence-Based Outcomes  
                 Anahi Perlas, M.D.                                    |
| 11:45 a.m.-12:00 p.m. | Distinguished Service Award                              |
| 12:00-1:30 p.m. | Lunch on own                                               |
| 12:15-1:15 p.m. | PBLD Sessions 1-7 (Details Below) Sapphire IJ             |
| 1:30-2:15 p.m.  | Pharmacology of Anticoagulation and Implications for Regional Anesthesia  
                 John Rowlingson, M.D.                                 |
2:15-3:00 p.m.  Update on the Evidence for Perioperative Management of Regional Anesthesia and Anticoagulation
Terese T. Horlocker, M.D.

3:15-4:15 p.m.  Break with Exhibitors

4:15-5:00 p.m.  Continuous Peripheral Nerve Blocks: An Evidence-Based Outcome Review of Benefits and Complications
Brian Ilfeld, M.D., M.S

5:00-5:45 p.m.  Pediatric Regional Anesthesia Update: How Has Ultrasound Changed the Practice of Pediatric Regional Anesthesia?
Edward R. Mariano, M.D.

4:15-5:15 p.m.  PBLD Afternoon Sessions 8-12 (Details Below) Sapphire IJ

Poster Discussions-Foyer

8:00-9:30 a.m.  Poster Discussion Session 1 / 1-9
Moderator: Kenneth Drasner, M.D.

9:45-11:15 a.m.  Poster Discussion Session 2 / 10-17
Moderator: John F. Butterworth IV, M.D.

1:15 - 2:45 p.m.  Poster Discussion Session 3 / 18-26
Moderator: Denise Wedel, M.D.

4:15 -5:45 p.m.  Poster Discussion Session 4 / 27-37
Moderator: Marcel Durieux, M.D.

Opening Ceremony-Sapphire ABEF

5:45-6:45 p.m.  Jerry A. Cohen, M.D., American Society of Anesthesiologists President

6:45-7:00 p.m.  Julia E. Pollock, M.D., American Society of Regional Anesthesia, President

7:00-7:30 p.m.  Marc Van De Velde, M.D., PhD, European Society of Regional Anaesthesia, President
Exhibitor Reception (Following the Opening Ceremony)
Sapphire CDGHKLOP

7:30 – 9:00 p.m.

Workshops/(Pre-Registration Required)

Demonstration Focused Workshops (FW) Aqua 304, 306A, 300 and 310
(Physician Only Session/Registration Fee Required)

Unlike the 2-hour Hands-On Ultrasound and 4-hour Intensive Workshops, these Demonstration Focused Workshops (FW) are 1.5 hours duration and cover more specific block regions (e.g., generally 2 blocks). As related to the specific blocks in each FW, the faculty will review the following: 1) indications for the block(s) and relevant anatomy, 2) surface anatomy, 3) traditional techniques employing nerve stimulation (when applicable), 4) strategies to avoid complications, and 5) sonoanatomy and ultrasound-guided techniques when applicable. Participants should be aware that although the FW are designed to be small group sessions incorporating live models and interaction with faculty, these workshops are not designed as "hands-on" sessions with multiple stations for practice.

8:00-9:30 a.m.  Workshop 101: Distal Upper (Suprascapular, Forearm and Wrist) and Lower Extremity (Saphenous, LFC) Peripheral Nerve Blocks (Aqua 304)
Marie Hanna, M.D. and Colin McCartney, M.B.Ch.B., F.R.C.A.

Workshop 102: Thoracolumbar (TAP, II-IH, Rectus Sheath) Nerve Blocks (Aqua 306)
Mike Barrington, M.D. and Daniel Warren, M.D.

10:00-11:30 a.m.  Workshop 103: Infraclavicular and Axillary Brachial Plexus Block (Aqua 304)
Paul Bigeleisen, M.D. and Vincent Chan, M.D., F.R.C.P.C.

Workshop 104: Interscalene and Supravclavicular Brachial Plexus Nerve Blocks (Aqua 306)
William Urmey, M.D. and Joseph Neal, M.D.

1:15-2:45 p.m.  Workshop 105: Thoracic Epidural Block (Aqua 304)
Oscar DeLeon Cassasola, M.D. and Chad Brummett, M.D.

Workshop 106: Thoracic Paravertebral Block (Aqua 306)
Katharine Fleischman, M.D. and Laura Clark, M.D.

4:00-5:30 p.m.  Workshop 107: Femoral (Fascia Iliaca), Saphenous and Obturator Nerve Block (Aqua 304)
Danielle Ludwin, M.D. and Meg Rosenblatt, M.D.

**Workshop 108: Psoas Compartment-Proximal Sciatic Block (Aqua 306)**
Alan J. R. Macfarlane, MBChB, MRCP, FRCA and David MacLeod, M.D.

**Workshop 109: Popliteal Sciatic and Ankle Blocks (Aqua 300)**
Antoun Nader, M.D. and Guy Weinberg, M.D.

**Workshop 110: Basics of Ultrasound-Guided Nerve Block-Physics, Knobology, and Transducer-Needle Manipulation (Aqua 310)**
Michael F. Mulroy, M.D. and Kenneth Candido, M.D.

**Hands-On Ultrasound Workshops (US) (Aqua 306B)**
**(Physician Only Session/Registration Fee Required)**

These 2-hour Hands-On Ultrasound Workshops provide the opportunity to practice skills required to further develop ultrasound-guided/assisted techniques for regional blocks as specified for each session. Although no formal lecture will be given, the faculty will address the following: 1) sonoanatomy and sonographic landmarks, 2) scanning techniques to optimize target imaging, and 3) strategies to identify common artifacts and avoid complications. Throughout the workshop, there will be the emphasis on hands-on scanning practice using live models and/or phantoms. These sessions are designed for participants who have some familiarity with ultrasound. Participants who have limited ultrasound experience prior to this session are encouraged to attend the Demonstration Focused Workshops: "Ultrasound Machine Basics-Physics, Knobology and Hand-Eye Coordination Skills".

**US Workshop 121: Hands-On Upper Extremity**
Coordinator: Robert S. Weller, M.D.
Senior Faculty: Robert S. Weller, M.D., David Auyong M.D., Steve L. Orebaugh, M.D., Jacques Yadeau, M.D., Ph.D.
Associate Faculty: J. Wells Reynolds, M.D., Neil Hanson, M.D. and Mitchell Fingerman, M.D.

**US Workshop 122: Hands-On Lower Extremity**
Coordinator: Derek Dillane, M.D.
Senior Faculty: Derek Dillane, M.D. and Dave MacLeod, M.D., Lisa Warren, M.D. and Adam Jacob, M.D.
Associate Faculty: James Green, M.D., Michael Hogan, M.B., B.Ch. and Vivian Ip, M.D.
3:15 – 5:15 p.m.  
**US Workshop 123: Hands-On Challenging Anatomy**
Coordinator: Ban Tsui, M.D., M.Sc.
Senior Faculty: Ban Tsui, M.D., M.Sc., Ray Joseph, M.D., Andrew Gray, M.D., Ph.D. and James Hebl.
Associate Faculty: Matthew Abrahams, M.D., Stephen Choi, M.D., Kelly Byrne, M.D.

**Intensive Workshops (Aqua 308)**  
*(Physician Only Session/Registration Fee Required)*

Intensive workshops are 4 hour workshops that provide a comprehensive overview of a general area (either anatomical or subject) of regional anesthesia. Typically, participants will receive an introductory didactic overview (approximately 1 hour in duration) followed by several small group hands-on sessions with faculty. The intensive workshops are of longer duration and limited to small groups thus allowing ample opportunity to interact with faculty.

8:00 a.m. – 12:00 p.m.  
**Intensive Workshop 131: Intensive Lower Extremity**
Coordinator: De Q. Tran, M.D.
Senior Faculty: De Q. Tran, M.D., Jean-Louis Horn, M.D., Honorio Benzon, M.D. Timur Ozelsel, M.D., Carlo Franco, M.D.
Associate Faculty: Roderick Finlayson, M.D. and Rebecca Johnson, M.D.

1:30 a.m. – 5:30 p.m.  
**Intensive Workshop 132: Intensive Truncal-Paravertebral**
Associate Faculty: Sanjib Das Adhikary, M.D., Paul McHardy, MD FRCPC

**PBLD – Sapphire IJ**

**PBLD Breakout Sessions with Experts (Registration Fee Required)**
### Sapphire IJ

12:15-1:15 p.m. (Lunch included)

#### PBLD 1:
**Ultrasound Physics and Applied Knobology: How to Optimize the Sonographic Appearance of Target Structures and Needle-Tip Location**  
Anahi Perlas, M.D.

#### PBLD 2:
**Thoracolumbar Nerve Blocks: A Practical Approach to Placement and Management**  
Peter Hebbard, M.D.

#### PBLD 3:
**Regional Anesthesia in Private Practice: Making it Work**  
Brian Harrington, M.D.

#### PBLD 4:
**Managing Regional Anesthesia Complications from a Medico-Legal Perspective**  
Meg Rosenblatt, M.D.

#### PBLD 5:
**Practical Management of Ambulatory Spinal Anesthesia: Indications and Choice of Local Anesthetic/Adjuvant Agents**  
Kenneth Drasner, M.D.

#### PBLD 6:
**Current Concerns and Practical Management of Blood Pressure in the Sitting Beach Chair Position**  
Jacques YaDeau, M.D., Ph.D.

#### PBLD 7:
**Is There an Optimal Way to Teach Ultrasound-Guided Regional Anesthesia to Residents and Fellows?**  
Sandy Kopp, M.D.

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### PBLD Breakout Sessions with the Experts (Registration Fee Required)

#### Sapphire IJ

4:15-5:15 p.m. (Refreshments included)

#### PBLD 8:
**Perioperative Pain Management of the Opioid-Tolerant Patient**  
Stephen Macres, M.D.

#### PBLD 9:
**Practical Tips to Effectively and Efficiently Place Continuous Peripheral Nerve Blocks**  
Adam Jacob, M.D.

#### PBLD 10:
**Regional Anesthesia-Multimodal Pain Management for**
Major Joint Replacements
Asokumar Buvanendran, M.D.

PBLD 11:
Practice Management (Billing, Compliance, and Documentation) for Regional Anesthesia Procedures
David Auyong, M.D.

PBLD 12:
The Most Useful Blocks and Practical Tips for Pediatric Regional Anesthesia
Santhanam Suresh, M.D., Yogen Asher, M.D.

Friday, March 16

7:30 a.m. – 5:30 p.m. Registration
7:30 a.m. – 5:30 p.m. Poster Viewing
7:30 a.m. – 8:00 a.m. Continental Breakfast

General Session 1

2nd Neurological Complications of Regional Anesthesia and Pain Medicine Practice Advisory Part 1-Sapphire ABEF

Moderator: Joseph M. Neal, M.D.

8:00-8:05 a.m. Introduction
8:05-8:30 a.m. Overview of Incidence and Etiology
Michael Barrington, M.D.
8:30-9:00 a.m. Pathophysiology of Central Neuraxial (Spinal Cord) Injury
Joseph M. Neal, M.D.
9:00-9:30 a.m. **Neurological Workup of Suspected Central Neuraxial Injury**
James Watson, M.D.

9:30-10:30 a.m. **Morning Break with Exhibitors**

10:30-11:10 a.m. **Neuraxial Catastrophes-epidural hematoma vs. abscess vs. infarction**
Terese T. Horlocker, M.D.
James Rathmell, M.D.

11:10-11:40 a.m. **The Patient with Pre-Existing Central Neuraxial Disease**
James Hebl, M.D.

11:40 a.m. - 12:15 p.m. **Audience Input and Panel Discussion**

**Member Lunch and Labat Lecture (Lunch Provided)**
**Sapphire IJMN**

12:15-12:45 p.m. **Lunch**

12:45-1:30 p.m. **Gaston Labat Lecture**
Denise Wedel, M.D.

1:30-1:45 p.m. **Best of Abstract Poster Presentations**

**General Session 2**

**2nd Neurological Complications of Regional Anesthesia and Pain Medicine Practice Advisory Part 2-Sapphire ABEF**

2:00-2:30 p.m. **Pathophysiology of Peripheral Nerve Injury**
Admir Hadzic, M.D.

2:30-2:50 p.m. **Neurological Workup (EMG vs. NCV and timing) and Rehabilitation Expectations**
James Watson, M.D.

2:50-3:10 p.m. **Medical management of the Patient with Peripheral Nerve Injury in the Pain Clinic**
Marc Huntoon, M.D.

3:10-3:35 p.m. **The Patient with a Persistent Paresthesia (Neurological Deficit)**
Sandra Kopp, M.D.
3:35-4:00 p.m.  The Patient with Pre-Existing Neurological Disease  
James Hebl, M.D.

4:00-4:30 p.m.  Afternoon Break with Exhibitors

4:30-5:00 p.m.  Lessons from the ASA Closed Claims Analysis  
James Rathmell, M.D.

5:00-6:00 p.m.  PRO-CON DEBATE: Ultrasound-Guided Intentional Intraneural Injection  
Paul Bigeleisen, M.D.  
Richard Brull, M.D., F.R.C.P.C.

6:00-7:00 p.m.  Veterinary Anesthesia and Critical Care Medicine  
Mark Greenberg, M.D.

7:15-9:15 p.m.  Non-CME Satellite Symposium provided by Teleflex

Workshops/(Pre-Registration Required)

Demonstration Focused Workshops (FW) – Aqua 304, 306A, 300 and 310 (Physician Only Session/Registration Fee Required)

Unlike the 2-hour Hands-On Ultrasound and 4-hour Intensive Workshops, these Demonstration Focused Workshops (FW) are 1.5 hours duration and cover more specific block regions (e.g., generally 2 blocks). As related to the specific blocks in each FW, the faculty will review the following: 1) indications for the block(s) and relevant anatomy, 2) surface anatomy, 3) traditional techniques employing nerve stimulation (when applicable), 4) strategies to avoid complications, and 5) sonoanatomy and ultrasound-guided techniques when applicable. Participants should be aware that although the FW are designed to be small group sessions incorporating live models and interaction with faculty, these workshops are not designed as "hands-on" sessions with multiple stations for practice.

8:00-9:30 a.m.  Workshop 201: Interscalene and Supraclavicular Brachial Plexus Block  
(Aqua 304)  
William Urmey, M.D. and Danielle Ludwin, M.D.

   Workshop 202: Thoracic Paravertebral
**Workshop 203: Infraclavicular and Axillary Brachial Plexus Block (Aqua 304)**
Paul Bigeleisen, M.D. and Marie Hanna, M.D.

**Workshop 204: Psoas Compartment-Proximal Sciatic Nerve Block (Aqua 306A)**
Admir Hadzic, M.D., Ph.D. and Alan J. R. Macfarlane, MBChB, MRCP, FRCA

**Workshop 205: Basics of Ultrasound-Guided Nerve Block-Physics, Knobology, and Transducer-Needle Manipulation (Aqua 304)**
Guy Weinberg, M.D. and Kenneth Candido, M.D.

**Workshop 206: Thoracic Epidural Block (Aqua 306A)**
John Butterworth IV, M.D. and Michael F. Mulroy, M.D.

**Workshop 207: Femoral (Fascia Iliaca), Saphenous and Obturator Nerve Block (Aqua 304)**
Jeff Gadsden, M.D. and Marie Hanna, M.D.

**Workshop 208: Interscalene and Supraclavicular Brachial Plexus Block (Aqua 306A)**
Jeff Gonzales, M.D. and John Antonakakis, M.D.

**Workshop 209: Thoracolumbar (TAP, II-IH, Rectus Sheath) Nerve Blocks (Aqua 300)**
Meg Rosenblatt, M.D. and Daniel Warren, M.D.

**Workshop 210: Popliteal Sciatic and Ankle Block (Aqua 310)**
John Rowlingson, M.D. and Brian Harrington, M.D.

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**Hands-On Ultrasound Workshops (US) Aqua 306B (Physician Only Session/Registration Fee Required)**

These 2-hour Hands-On Ultrasound Workshops provide the opportunity to practice skills required to further develop ultrasound guided/assisted techniques for regional blocks as specified for each session. Although no formal lecture will be given, the faculty will address the following: 1)
sonoanatomy and sonographic landmarks, 2) scanning techniques to optimize target imaging, and 3) strategies to identify common artifacts and avoid complications. Throughout the workshop, there will be the emphasis on hands-on scanning practice using live models and/or phantoms. These sessions are designed for participants who have some familiarity with ultrasound. Participants who have limited ultrasound experience prior to this session are encouraged to attend the Demonstration Focused Workshops: "Ultrasound Machine Basics-Physics, Knobology and Hand-Eye Coordination Skills".

8:00-10:00 a.m.  **US Workshop 221: Ultrasound for Hands-On Upper Extremity**
Coordinator: Robert S. Weller, M.D.
Senior Faculty: Robert S. Weller, M.D., Santhanam Suresh, M.D. Steven L. Orebaugh, M.D., John Antonakakis, M.D.
Associate Faculty: Darryl Henshaw, M.D., Sanjay Sinha, M.D. and Michelle Parra, M.D.

10:15 a.m.-12:15 p.m.  **US Workshop 222: Hands-On Challenging Anatomy**
Coordinator: Ban Tsui, M.D., M.Sc.
Senior Faculty: Ban Tsui, M.D., M.Sc., Anahi Perlas, M.D., Andrew Gray M.D., Ph.D., Adam Jacob, M.D. David Auyong, M.D.
Associate Faculty: Kanupriya Kumar, M.D. and Adam Niesen, M.D. and Kelly Byrne, M.D.

2:00-4:00 p.m.  **US Workshop 223: Hands-On Lower Extremity**
Coordinator: Derek Dillane, M.D.
Senior Faculty: Derek Dillane, M.D. Stephen Macres, M.D. Antoun Nader, M.D. and Laura Clark, M.D.
Associate Faculty: James Green, M.D. Michael Hogan, M.B., B.Ch. and Vivian Ip, M.D.

**Intensive Workshops (Aqua 308) (Physician Only Session/Registration Fee Required)**

Intensive workshops are 4 hour workshops that provide a comprehensive overview of a general area (either anatomical or subject) of regional anesthesia. Typically, participants will receive an introductory didactic overview (approximately 1 hour in duration) followed by several small group hands-on sessions with faculty. The intensive workshops are of longer duration and limited to small groups thus allowing ample opportunity to interact with faculty.

8:00 a.m.-12:00 p.m.  **Intensive Workshop 231: Intensive Upper Extremity**
Coordinator: Brian M. Ilfeld, M.D., M.S.
Senior Faculty: Brian M. Ilfeld, M.D., M.S., Christopher L. Wu, M.D., Stuart Grant, M.B., Ch.B., Sandra Kopp, M.D., Edward R. Mariano, M.D.
Saturday, March 17

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<td>8:00 a.m. – 9:00 a.m.</td>
<td>PBLD Sessions 13-17 (Details Below)</td>
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<td>7:30 a.m. – 8:00 a.m.</td>
<td>Continental Breakfast</td>
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Parallel Session 1

**Learning and Teaching Regional Anesthesia Sapphire ABEF**

Moderator: James Rathmell, M.D.

8:30-8:35 a.m.  **Introduction**
James Rathmell, M.D.
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| 8:35-9:05 a.m. | Novel Methods to Increase the Effectiveness and Safety of Learning Regional Anesthesia 1: Simulation for Managing Local Anesthetic Systemic Toxicity  
Joseph Neal, M.D. |
| 9:05-9:35 a.m. | Novel Methods to Increase the Effectiveness and Safety of Learning Regional Anesthesia 2: Simulation for Peripheral Nerve Blockade  
Steven L. Orebaugh, M.D. |
| 9:35 -10:05 a.m. | Novel Methods to Increase the Effectiveness and Safety of Learning Regional Anesthesia 3: Real-Time vs. Web-Based Learning  
Sandra Kopp, M.D. |
| 10:05 - 11:00 a.m. | Morning Break with Exhibitors                                                                |
| 11:00-11:35 a.m. | What are the Benefits and Pitfalls of Concurrent Peripheral Nerve Stimulation When Learning Ultrasound-Guided Regional Anesthesia?  
Jeff Gadsden, M.D. |
| 11:35 a.m. -12:05 p.m. | What is the optimal way to learn regional anesthesia in private practice?  
Brian Harrington, M.D. |
| 12:05 - 12:30 p.m. | Panel discussion/audience questions                                                          |
| 12:30 -1:30 p.m. | Lunch on own                                                                               |
| 12:30 – 1:30 p.m. | PBLD Sessions 18-23 (Details Below)-Sapphire IJ                                              |

**Parallel Session 2**

**3rd Annual Journal Sponsored Symposium: Research Methodology for the Clinician-Sapphire ABEF**
1:30 - 1:35 p.m.  Introduction
Joseph Neal, M.D.

1:35 – 2:05 p.m.  Contemporary Issues In Journal Publication
Joseph Neal, M.D.

2:05 - 2:35 p.m.  Informed Consent and IRBs: Historical Overview and Modern Challenges
Brian Ilfeld, M.D., M.S

2:35 - 3:15 p.m.  Analgesia-Related Research: Self Reported Outcomes for Efficacy
Chad Brummett, M.D.

3:15 – 3:45 p.m.  The Publisher's Role in Facilitating Clinician-Focused Research
Matthew Jozwiak

3:45 - 4:00 p.m.  Afternoon Break

4:00 - 4:30 p.m.  Recent Articles in Anesthesiology That Have Moved Regional Anesthesia and Acute Pain Medicine Forward
James Eisenach, M.D.

4:30 – 5:00 p.m.  A Historic Look at Regional Anesthesia Articles in Anesthesia & Analgesia and Where We Have Come from There
Terese T. Horlocker, M.D.

5:00 – 5:30 p.m.  Recent Articles in RAPM That Have Moved Regional Anesthesia and Acute Pain Medicine Forward
Joseph Neal, M.D.

**Parallel Session 3**

**Peripheral Regional Anesthesia- Analgesia for the Chest and Abdomen-Sapphire MN**

Moderator: Michael Barrington, M.D.

1:30-2:25 p.m.  Thoracolumbar Nerve Blocks: A Review of the Anatomy, Approaches, and Techniques
Michael Barrington, M.D.

2:25-3:15 p.m.  Thoracic Paravertebral Blocks: A Review of the
Anatomy, Approaches, and Techniques
Katharine Fleischmann, M.D.

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<td>3:15-3:45 p.m.</td>
<td>Afternoon Break</td>
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| 3:45-4:35 p.m. | Evidenced-Based Review of Outcomes and Future Applications for Thoracolumbar Nerve Blocks
                      Peter Hebbard, M.D.                                               |
| 4:35-5:15 p.m. | Evidence-Based Outcomes for Thoracic Paravertebral Blocks              
                      Edward R. Mariano, M.D.                                          |
| 5:15-5:30 p.m. | Panel Discussion/Audience Questions                                    |

Workshops/Registration Fee Required

Demonstration Focused Workshops (FW) Sapphire Aqua 304, 306A, 300 and 310
(Physician Only Session/Registration Fee Required)

Unlike the 2-hour Hands-On Ultrasound and 4-hour Intensive Ultrasound Workshops, these Demonstration Focused Workshops (FW) are 1.5 hours duration and cover more specific block regions (e.g., generally 2 blocks). As related to the specific blocks in each FW, the faculty will review the following: 1) indications for the block(s) and relevant anatomy, 2) surface anatomy, 3) traditional techniques employing nerve stimulation (when applicable), 4) strategies to avoid complications, and 5) sonoanatomy and ultrasound-guided techniques when applicable. Participants should be aware that although the FW are designed to be small group sessions incorporating live models and interaction with faculty, these workshops are not designed as "hands-on" sessions with multiple stations for practice.

8:00-9:30 a.m.

**Workshop 301: Thoracolumbar (TAP, II-IH, Rectus Sheath) Nerve Blocks-(Aqua 304)**
Michael Barrington, M.D. and Santhanam Suresh, M.D.

**Workshop 302: Interscalene and Supraclavicular Brachial Plexus Block-(Aqua 306A)**
William Urmey, M.D. and Danielle Ludwin, M.D.
9:45-11:15 a.m.

Workshop 303: Thoracic Paravertebral Blocks-(Aqua 304)
Lisa Warren, M.D. and Laura Clark, M.D.

Workshop 304: Basics of Ultrasound-Guided Nerve Block-Physics, Knobology, and Transducer-Needle Manipulation-(Aqua 306A)
Kenneth Candido, M.D. and John Butterworth IV, M.D.

11:15 a.m.-12:45 p.m.

Workshop 305: Pediatric Regional Anesthesia -(Aqua 304)
Santhanam Suresh, M.D. and Yogen Asher, M.D.

Workshop 306: Lumbar Plexus-Proximal Sciatic Nerve Blocks-(Aqua 306A)
Alan J. R. MacFarlane, MBChB, MRCP, FRCA and Jeff Gonzales, M.D.

1:15-2:45 p.m.

Workshop 307: Infraglavian and Axillary Brachial Plexus Block-(Aqua 304)
John Rowlingson, M.D. and William Urmey, M.D.

Workshop 308: Thoracolumbar (TAP, TII-H, Rectus Sheath) Nerve Blocks -(Aqua 306A)
Daniel Warren, M.D. and Jeff Gadsden, M.D.

3:00-4:30 p.m.

Workshop 309: Femoral (Fascia Iliaca), Saphenous and Obturator Nerve Block -(Aqua 304)
James Hebl, M.D. and Michael F. Mulroy, MD

Workshop 310: Popliteal Sciatic and Ankle Blocks-(Aqua 306A)
Guy Weinberg, M.D. and Brian Harrington, M.D.

Hands-On Ultrasound Workshops (US) Aqua 306B
(Physician Only Session/Registration Fee Required)

These 2-hour Hands-On Ultrasound Workshops provide the opportunity to practice skills required to further develop ultrasound guided/assisted techniques for regional blocks as specified for each session. Although no formal lecture will be given, the faculty will address the following: 1) sonoanatomy and sonographic landmarks, 2) scanning techniques to optimize target imaging, and 3) strategies to identify common artifacts and avoid complications. Throughout the workshop, there will be the emphasis on hands-on scanning practice using live models and/or phantoms. These sessions are designed for participants who have some familiarity with
ultrasound. Participants who have limited ultrasound experience prior to this session are encouraged to attend the Demonstration Focused Workshops: "Ultrasound Machine Basics-Physics, Knobology and Hand-Eye Coordination Skills".

8:00-10:00 a.m.  
**US Workshop 321: Hands-On Upper Extremity**  
Coordinator: Robert S. Weller, M.D.  
Senior Faculty: Robert S. Weller, M.D., Jacques YaDeau M.D., Ph.D., Paul Bigeleisen, M.D., John Antonakakis, M.D.  
Associate Faculty: Sanjay Sinha, M.D., Darryl Henshaw, M.D. and T. Kyle Harrison, M.D.

1:00 -3:00 p.m.  
**US Workshop 322: Hands-On Lower Extremity**  
Coordinator: Derek Dillane, M.D.  
Senior Faculty: Derek Dillane, M.D., Stephen Macres, M.D., Antoun Nader, M.D. and Dave MacLeod, M.D.  
Associate Faculty: James Green, M.D. Michael Hogan, M.B., B.Ch. and Vivian Ip, M.D.

3:15-5:15 p.m.  
**US Workshop 323: Hands-On Challenging Anatomy**  
Coordinator: Ban C.H. Tsui, M.D., M.Sc.  
Senior Faculty: Ban C.H. Tsui, M.D., M.Sc., Anahi Perlas, M.D., Andrew Gray, M.D., Ph.D., Jeff Gonzales, M.D., F.R.C.P.C., Meg Rosenblatt, M.D.  
Associate Faculty: Kelly Byrne, M.D., Stephen Choi, M.D., and T. Edward Kim, M.D.

**Intensive Workshops Aqua 300**  
*(Physician Only Session/Registration Fee Required)*

Intensive workshops are 4 hour workshops that provide a comprehensive overview of a general area (either anatomical or subject) of regional anesthesia. Typically, participants will receive an introductory didactic overview (approximately 1 hour in duration) followed by several small group hands-on sessions with faculty. The intensive workshops are of longer duration and limited to small groups thus allowing ample opportunity to interact with faculty.

8:00 a.m.-12:00 p.m.  
**Intensive Workshop 331: Intensive Upper Extremity**  
Coordinator: Brian Ilfeld, M.D., M.S  
Faculty: Brian Ilfeld, M.D., M.S, Christopher L. Wu, M.D., Stuart Grant, M.B., Ch.B. Richard Brull, M.D., F.R.C.P.C. and Edward R. Mariano, M.D.  
Associate Faculty: Vanessa Loland, M.D. and Sarah Madison, M.D.
1:00-5:00 p.m.  

**Intensive Workshop 332: Intensive Lower Extremity**
Coordinator: De Q. Tran, M.D.
Faculty: De Q. Tran, M.D., Jean-Louis Horn, M.D., Honorio Benzon, M.D., Timur Ozelsel, M.D., Francis Salinas, M.D.
Associate Faculty: Roderick Finlayson, M.D., Rebecca Johnson, M.D.

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**PBLD – Sapphire IJ**

**PBLD Breakout Sessions with Experts (Registration Fee Required) Sapphire IJ**

8:00-9:00 a.m.

**PBLD 13:**
“Blocks of the Lumbar Plexus (Femoral Nerve or Psoas Compartment) and the Risk of Falls in Total Knee and Total Hip Arthroplasty”
Michael F. Mulroy, M.D.

**PBLD 14:**
Thoracolumbar Nerve Blocks for Emergent Laparotomy
Peter Hebbard, M.D.

**PBLD 15:**
Practical Management of the Imperfect Block: Rescue/Supplemental Blocks and Appropriate Sedation/Systemic Analgesic Adjuncts
Marie Hanna, M.D.

**PBLD 16:**
Multimodal Analgesia in Acute Pain Management
Eugene R. Viscusi, M.D.

**PBLD 17:**
Regional Anesthesia-Analgesia in the Anticoagulated Patient
Denise Wedel, M.D.

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**PBLD Breakout Sessions with Experts (Registration Fee Required) Sapphire IJ**

12:30-1:30 p.m.  
(Lunch included)

**PBLD 18:**
Regional Anesthesia-Analgesia for Patients with Acute Rib and Extremity Fractures
Laura Clark, M.D.

**PBLD 19:**
Treatment of Local Anesthetic Systemic Toxicity: Clinical and Systems Issues
Guy Weinberg, M.D.
PBLD 20: How to Establish Regional Anesthesia in Your Practice
(Selling Regional Anesthesia to Your Customers)
David Auyong, M.D.

PBLD 21: Continuous Peripheral Nerve Blocks in Inpatient and Ambulatory Setting: Indications and Perioperative Management
Adam Jacob, M.D.

PBLD 22: Regional Anesthesia in Patients with Pre-Existing Neurological Disease
Sandra Kopp, M.D.

PBLD 23: Ultrasound-Guided Intentional Intraneural Injection: Is There Really Any Advantage?
Admir Hadzic, M.D., Ph.D.

Sunday, March 18, 2012

8:00 a.m. – 11:00 a.m. Registration
7:30 a.m. – 8:00 a.m. Continental Breakfast

General Session 4

An Update on Applications of Ultrasound for Regional Anesthesia-Sapphire ABF

Moderator: Andrew Gray, M.D., Ph.D.

8:15-8:45 a.m. Ultrasound-Guided Central Neuraxial Block: Anatomy and Evidence

8:45-9:15 a.m. Ultrasound-Guided Thoracic Paravertebral Block: Anatomy and Techniques
Katharine Fleischmann, M.D.

9:15-9:45 a.m. Ultrasound-Guided Thoracolumbar Nerve (TAP and Rectus Sheath) Blocks
Peter Hebbard, M.D.
9:45-10:15 a.m. Multimodal Peripheral Nerve Localization
Sugantha Ganapathy, M.D.

10:15-10:45 a.m. Clinical Sonopathology for the Regional Anesthesiologist
Alan J. R. MacFarlane, MB ChB, MRCP, FRCA

10:45-11:00 p.m. Questions and Panel Discussion

Resident Program/Registration Required

Friday, March 16, 2012 – Aqua 300

5:30-5:45 p.m. Resident Abstract Award Presentation
Raymond Joseph, M.D.

7:00-8:15 p.m. Wine & Cheese Reception with Regional Anesthesia and Pain Medicine Fellowship Directors-Sapphire 410

Saturday, March 17, 2012 – Aqua 300

7:30-8:00 a.m. Continental Breakfast - Foyer

8:00-10:30 a.m. Resident Regional Anesthesia Boot Camp (Limited to Current Resident Only)- Aqua 300
Moderator: Raymond Joseph, M.D.
Associate Faculty: Rana Movahedi, M.D. and Carrie R. Guheen, M.D.
<table>
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<tr>
<th>Time</th>
<th>Activity</th>
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<tr>
<td>8:00-8:20 a.m.</td>
<td><strong>Introduction and Basic Training</strong>&lt;br&gt;Raymond Joseph, M.D.</td>
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<td>8:20-8:40 a.m.</td>
<td><strong>Basics of Ultrasound</strong>&lt;br&gt;Michelle Parra, M.D.</td>
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<td>8:40-9:00 a.m.</td>
<td><strong>Upper Extremity Neuroanatomy</strong>&lt;br&gt;Adam Niesen, M.D.</td>
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<td>9:00-9:20 a.m.</td>
<td><strong>Lower Extremity Neuroanatomy</strong>&lt;br&gt;Wynn Strodtbeck, M.D.</td>
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<td>9:20-9:40 a.m.</td>
<td><strong>Transversus Abdominis Plane and Rectus Sheath Anatomy</strong>&lt;br&gt;J. Wells Reynolds, M.D.</td>
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<td>9:40-10:00 a.m.</td>
<td><strong>Central Neuraxial and Paravertebral Anatomy</strong>&lt;br&gt;Matthew Abrahams, M.D.</td>
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<td>10:00-10:30 a.m.</td>
<td><strong>Morning Break with Exhibitors</strong></td>
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### Rotating Workshops Sessions /Pre-Registration Required
*(6 parallel stations, 25 minutes/per station)*- Aqua 300

- **10:30 a.m.-1:00 p.m.**  
  **Brachial Plexus Blockade Above the Clavicle**<br>Danielle Ludwin, M.D., Adam Niesen, M.D.
- **10:30 a.m.-1:00 p.m.**  
  **Brachial Plexus Blockade Below the Clavicle**<br>Mitchell Fingerman, M.D., Michelle Parra, M.D.
- **10:30 a.m.-1:00 p.m.**  
  **Sciatic Nerve Blockade**<br>Neil Hanson, M.D., Kanupriya Kumar, M.D.
- **10:30 a.m.-1:00 p.m.**  
  **Lumbar Plexus Blockade**<br>Loran Soliman, M.D., Wynn Strodtbeck, M.D.
- **10:30 a.m.-1:00 p.m.**  
  **Central Neuraxial and Thoracic Paravertebral**<br>T. Edward Kim, M.D., Matthew Abrahams, M.D.
- **10:30 a.m.-1:00 p.m.**  
  **Transversus Abdominis Plane and Rectus Sheath**<br>J. Wells Reynolds, M.D., T. Kyle Harrison, M.D.

### Resident Forum Luncheon: The Past, Present, and Future of Regional Anesthesia Fellowships (lunch included with this...
Session)-Aqua 300

1:00-1:10 p.m.  Introduction  Raymond Joseph, M.D.

1:10-1:50 p.m.  A Research Career in Regional Anesthesia and Pain Medicine: How Can I Get Started and Areas for Investigation  James Eisenach, M.D.

1:50-2:30 p.m.  Regional Anesthesia Fellowships: Updates, Current and Future Training Options  Raymond Joseph, M.D.

2:30-3:00 p.m.  Panel Discussion

Acute Pain Nursing Program

Saturday, March 17, 2012

Morning Session-Aqua 310

9:00-10:00 a.m.  Neuraxial anatomy and clinical applications for acute and chronic pain  Richard Rosenquist, M.D.

10:00-11:00 a.m.  Break with Exhibitors

11:00-12:00 a.m.  The role of regional analgesia in pain management-review of peripheral nerve catheter techniques  David Auyong, M.D.

12:00-1:00 p.m.  Lunch on Own

Afternoon Session-Aqua 310

1:15-2:15 p.m.  Critical Concepts and Assessment When Caring for Patients with Peripheral Nerve Catheters  Sheila Hoehn, RN, MAN, BC

2:15-3:15 p.m.  Complex Regional Pain Syndromes
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<th>Time</th>
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<tr>
<td>3:15-3:30 p.m.</td>
<td>Break</td>
<td>Marc Huntoon, M.D.</td>
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<td>3:30-4:30 p.m.</td>
<td>Managing pain effectively in postoperative patients using recreational drugs</td>
<td>Susan Dempsey, RN, MN, BC</td>
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<td>4:30-5:30 p.m.</td>
<td>Anticoagulation Concepts with regional/Neuraxial analgesia</td>
<td>Denise Wedel, M.D.</td>
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Disclaimer: Times, topics, and presenters are subject to change.