

ASRA FALL 19

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ASRA



18th Annual Pain Medicine Meeting

November 14-16, 2019

New Orleans, LA

Stronger Together



www.asra.com/pain

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the
dates

www.asra.com



Introduction to Perioperative Point-of-Care Ultrasound

December 7-8, 2019 | Hilton Orlando | Lake Buena Vista, Florida
February 29-March 1, 2020 | Omni San Diego | San Diego, California
June 6-7, 2020 | Hyatt Centric Chicago Magnificent Mile | Chicago, Illinois
#ASRAPoCUS



45th Annual Regional Anesthesiology and Acute Pain Medicine Meeting

April 23-25, 2020
Hilton San Francisco Union Square | San Francisco, California
#ASRASpring20



Pain Medicine and MSK Ultrasound Cadaver Course

June 6-7, 2020
Northwestern Simulation/Hyatt Centric Chicago Magnificent Mile
Chicago, Illinois



ASRA-ASA Ultrasound-Guided Regional Anesthesia Education Portfolio Cadaver Course

November 7-8, 2020
Northwestern Simulation/Hyatt Centric Chicago Magnificent Mile
Chicago, Illinois



19th Annual Pain Medicine Meeting

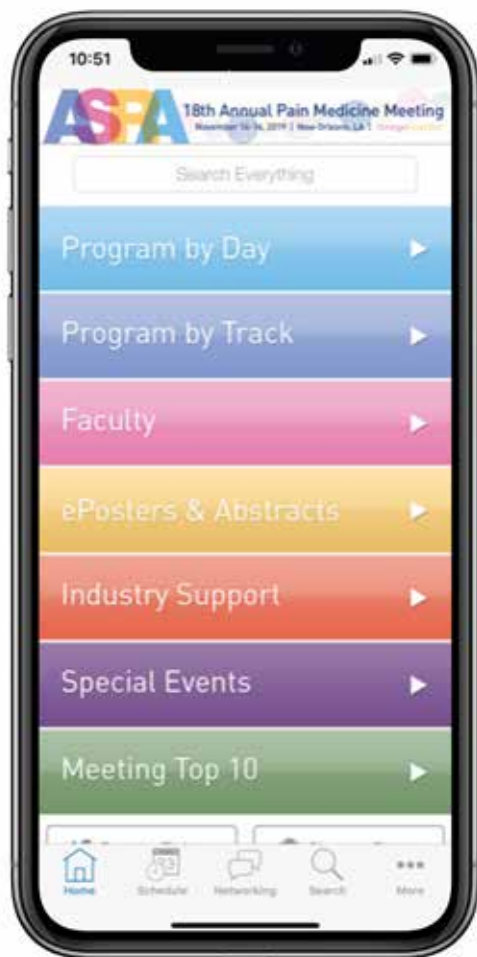
November 19-21, 2020
Caesars Palace | Las Vegas, Nevada
#ASRAFall20



46th Annual Regional Anesthesiology and Acute Pain Medicine Meeting

May 13-15, 2021
Disney's Yacht & Beach Club Resort | Lake Buena Vista, Florida
#ASRASpring21

The Meeting App code is ASRAFALL19 (not case sensitive).



Manage your schedule Download the free app

Scan the QR code or enter the URL in your device browser to download



<https://ativ.me/4dd>



<https://ativ.me/68t>



For all other devices
Web Version

<https://ativ.me/pn8>



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ativsoftware.com

To download the app, go to the App store or Google Play and search for **EventPilot** (not ASRA). Or, download our web version at <https://ativ.me/pn9>. Download the app and enter the code **ASRAFALL19**.

If you have downloaded the app from a previous ASRA meeting, click the **More** button in the lower right (three dots), select **Find Event**, and enter the code **ASRAFALL19**.

To view and download presentations: In the app, go to the specific session of interest and click on the PDF icon under the description. (Presentation downloading depends on your device.)

OR, go to the **More** button in the lower right (three dots) and select **Educational Materials**. Click on **Download Presentations**. Enter the password **ASRAFALL19**.

OR, visit the ASRA website at www.asra.com/pain and click on **Educational Materials**. Use password **ASRAFALL19**.

- If you are having trouble downloading the app or obtaining updated information, please clear your cache.
- You do not need to login to use most of the app features including viewing session schedules, presentations, faculty, ePosters & abstracts, industry support, and special events.
- Some features require you to create a profile, such as instant messaging and creating your own schedule. To create a profile, go to the **More** button in the lower left (3 dots) and select **Profile**.
- To locate sessions or abstracts on any topic or to search by faculty, click the magnifying glass at the bottom of your screen and enter your search term in the bar at the top.
- Alerts will be sent throughout the meeting. If you do not want to receive alerts, adjust your notifications through your device settings.

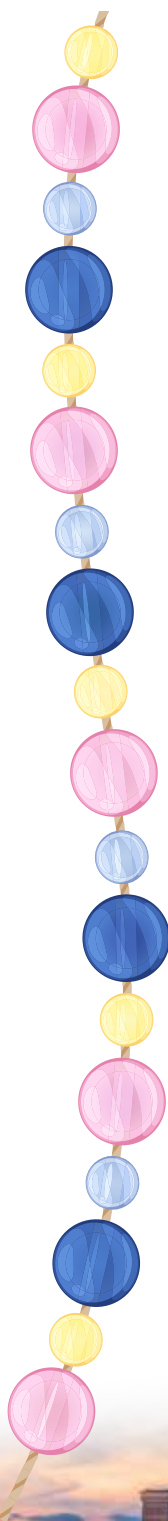
Meeting app supported by **Medtronic**

GET YOUR CME

To obtain your CME, go to www.surveymonkey.com/r/ASRAFALL19 by **December 3rd**. Complete the evaluation and enter your credit hours. You will receive your certificate via email in approximately 3 weeks.

Note: This link is also found on the website at www.asra.com/pain and in the follow-up email sent after the meeting. You can also find it by clicking CME on the **More** page of the app.

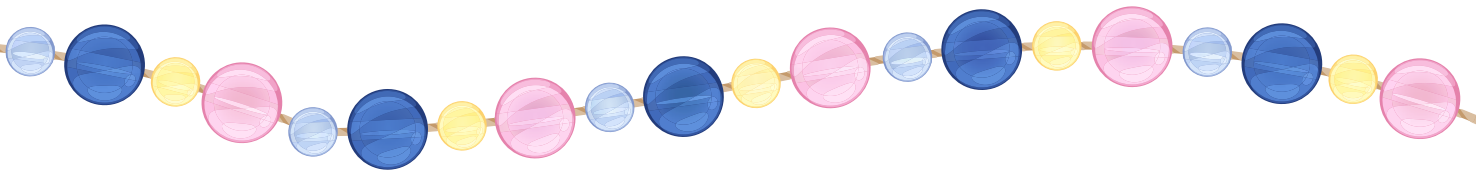
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Welcome to New Orleans!



On behalf of the Scientific/Education Planning Committee, I personally welcome you to the 18th Annual Pain Medicine Meeting taking place Thursday, November 14–Saturday, November 16, 2019, at the New Orleans Marriott located right on the edge of NOLA's French Quarter.

The importance of pain medicine, including clinical care and research, has never been more apparent. From novel pharmaceuticals to cutting-edge interventional techniques to the opioid crisis, qualified pain medicine leaders possess knowledge and skills to lead their patients and health systems with evidence-informed and evidence-based medicine. ASRA leaders and members have embraced this role, through work with the multisociety pain workgroup, to increasing funding available for junior and established researchers, and to participating in safety and appropriateness guidelines, such as guidelines on anticoagulation and ketamine.

This year's meeting program again features national and international experts in the field of pain medicine. Highlighted sessions include novel opioid targets, alcohol use in chronic pain, advances in advanced interventional care, and treating patients with challenging conditions, such as fibromyalgia, chronic fatigue syndrome, and headache. There will be additional input from NIH-funded researchers and pain medicine professionals who lead outside the clinic or lab through entrepreneurship, advocacy, and pain journalism. Finally, a session entitled "Stronger Together: The Future of Pain Medicine" will close the meeting and will be preceded by the Saturday award luncheon with the John J. Bonica Award Lecture.

In addition to the didactic sessions, you will have the opportunity to attend many hands-on workshops in areas of ultrasound and fluoroscopy including radiofrequency ablation techniques, regenerative medicine, advanced interventional techniques (vertebroplasty, percutaneous spine decompression), and surgical practicums. The highly popular musculoskeletal and pain medicine ultrasound workshops, first demonstrated at ASRA and continuously evolving to meet learner needs, will continue to offer a multi-staged curriculum for obtaining ASRA's Pain and MSK Interventional Ultrasound Certificate. Also, the ASA/ASRA practice management sessions are designed for interactive discussion on key aspects of coding/compliance, managing a variety of pain practice settings, and issues pertaining to patient retention and risk management. These sessions are truly a must for both physician leaders and practice management specialists.

We acknowledge and affirm the importance of non-physician providers in our busy healthcare system and continue to be excited about the growth of this aspect in our program. In addition to the dedicated PA/NP/Nursing program, participants also have the opportunity to attend targeted interactive sessions on intrathecal therapies, professional development, diagnostic imaging and electrodiagnostics, and the incredibly popular hands-on physical and neurological exam workshop.

In addition to the traditional sessions, abstract submissions, moderated ePosters, and problem-based learning discussions (PBLDs), we are excited to introduce ASRA's first ever Data Blitz, where trainees and junior faculty can present late-breaking and exciting research and interact directly with the internationally recognized translational and clinical researchers in an informal, relaxed, and fun setting!

And plan to stay for the Saturday evening celebration where faculty and participants can relax together, enjoy the wonderful entertainment, and "Laissez les Bon Temps Rouler" ("Let the Good Times Roll")!

We look forward to seeing you in the Big Easy!



Andrea Nicol, MD
Meeting Chair

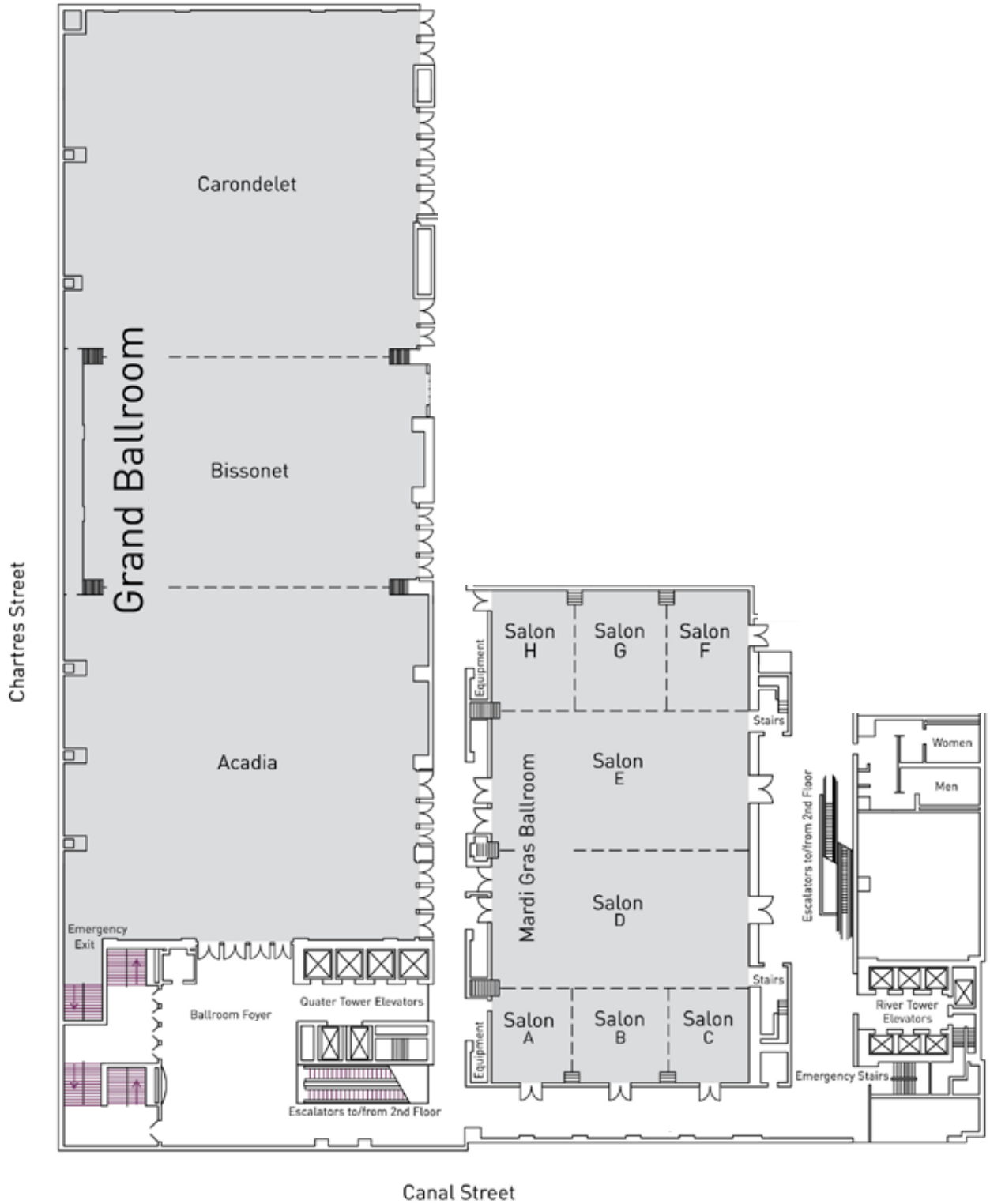


Eugene Viscusi, MD
ASRA President
2019-2021

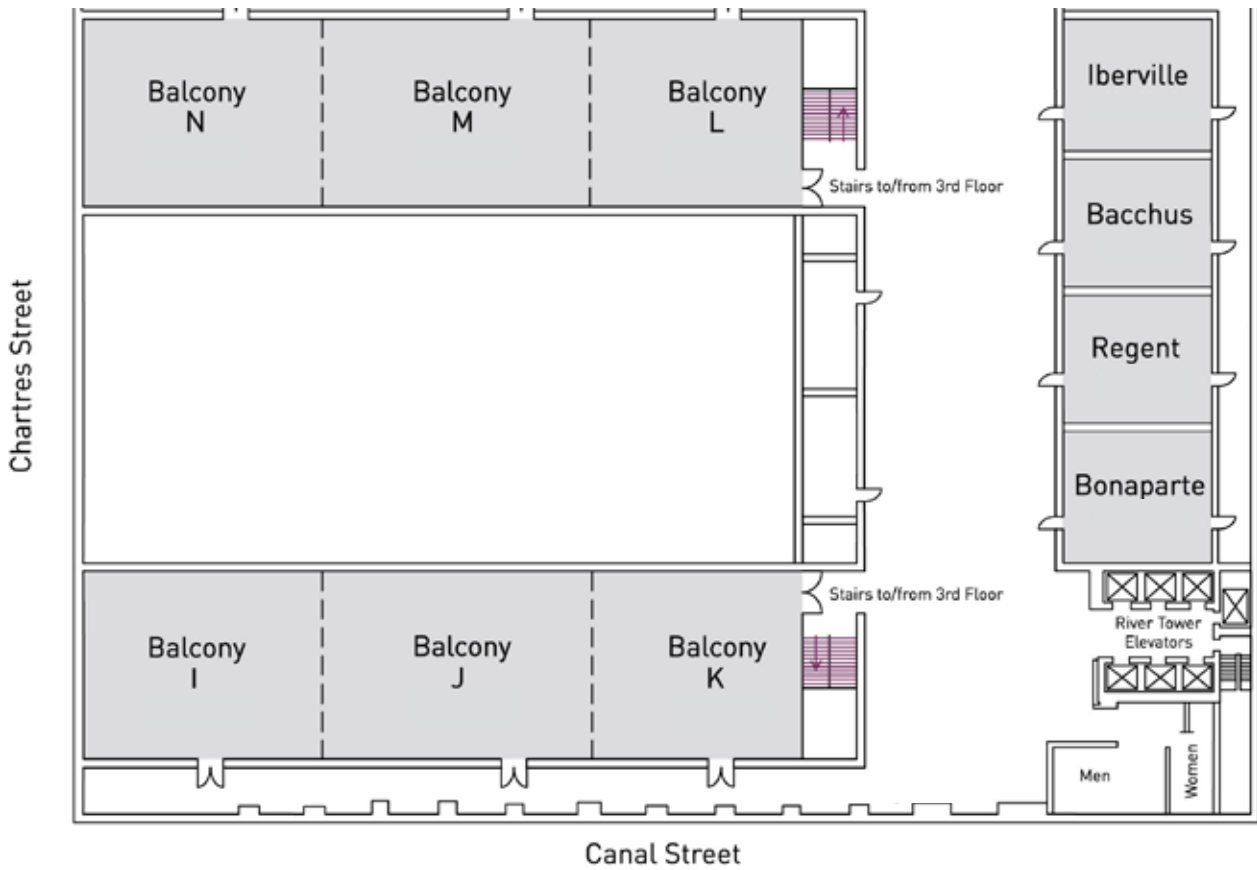
2nd Floor



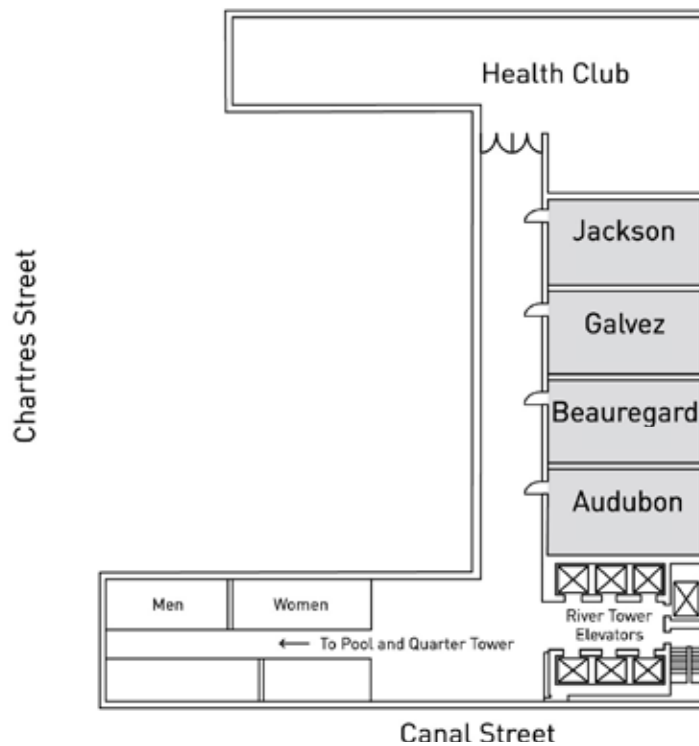
3rd Floor



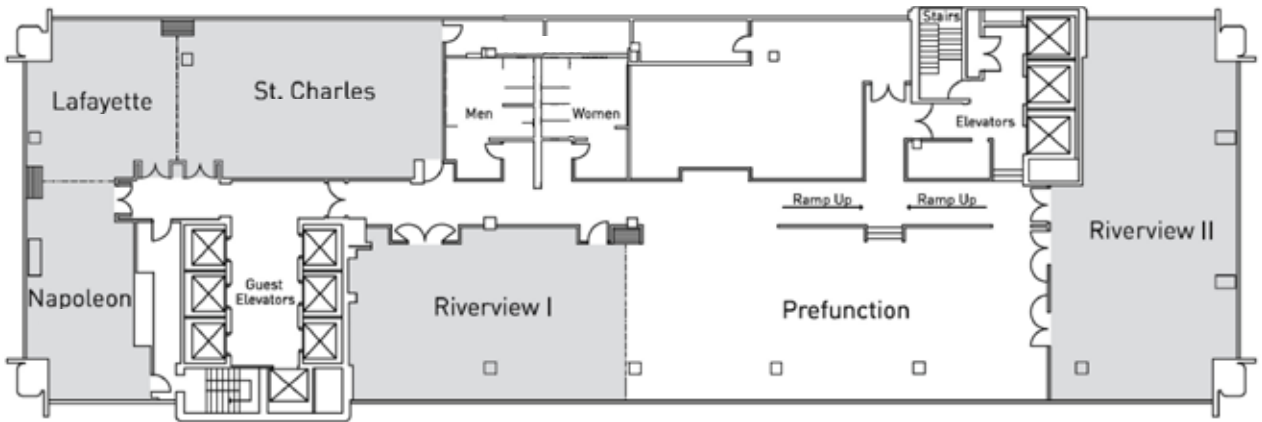
4th Floor



5th Floor



41st Floor



Location Quick Reference Guide

Registration	Acadia Foyer, 3rd Floor
Exhibit Hall.....	Bissonet & Carondelet, 3rd Floor
Refresher Courses.....	Acadia & Mardi Gras Ballroom D&E, 3rd Floor
Parallel Sessions	Acadia & Mardi Gras Ballroom D&E, 3rd Floor
Plenary Sessions	Acadia & Mardi Gras Ballroom D&E, 3rd Floor
Moderated Poster Sessions	Mardi Gras Ballroom A&B, 3rd Floor
Non-moderated ePosters.....	Exhibit Hall, 3rd Floor
Data Blitz Interactive Session.....	Mardi Gras Ballroom G&H, 3rd Floor
PBLDS.....	Mardi Gras Ballroom D&E, 3rd Floor
Workshops	Studios 2, 3, & 8, 2nd Floor
Resident Meet and Greet	Riverview Ballroom, 41st Floor
ASRA-ASA Practice Management Portfolio	Mardi Gras Ballroom G&H, 3rd Floor
PA/NP/ Nursing Program	Mardi Gras Ballroom D&E, 3rd Floor
ASRA Awards Luncheon	Acadia, 3rd Floor
Saturday Night Celebration	Riverview Ballroom, 41st Floor

Social Media

Extend the conversation beyond the meeting. Use **#ASRAFALL19** with your posts.

Twitter: @ASRA_Society

Facebook: /ASRAmeetings

Instagram: @asra_society

LinkedIn: American Society of Regional Anesthesia and Pain Medicine

YouTube: /AsraSocietyMedia



Stay connected before, during, and after the meeting by following the **#ASRAFALL19 Social Media Team**:

@MagdaAnitescuMD Magdalena Anitescu, MD, PhD

@drchadb Chad Brummett, MD

@dr_tinadoshi Tina Doshi, MD, MHS

@eckmann_max Maxim Eckmann, MD

@nelkassabany Nabil Elkassabany, MD, MSCE

@dr_rajgupta Rajnish Gupta, MD

@chunter_md Corey Hunter, MD

@Neuro_Kellie Kellie Jaremko, MD, PhD

@KohanLynn Lynn Kohan, MD

@EMARIANOMD Ed Mariano, MD, MAS

@NarouzeMD Samer Narouze, MD, PhD

@AmyPearsonMD Amy Pearson, MD

@garyschwartzmd Gary Schwartz, MD

@DoctorSivaMD Eellan Sivanesan, MD

#ASRALetsEat

Thursday, Friday • Dinner •

RSVP at ASRA Registration Desk (space is limited)

Are you looking for great conversation, good food, and a unique way to network with fellow attendees and ASRA leadership? If so, don't miss your opportunity to sign up for ASRA Let's Eat!

ASRA Let's Eat will be held Thursday and Friday at several restaurants near the meeting venue. Reservations are required; space is limited. Stop by the Registration Desk to sign up. Reservations will be in groups of 8. Use #ASRALetsEat along with #ASRAFALL19 to tell others about this great event!



Special Events



Wine and Bubbly Networking Reception

Thursday • 5:15-6:30 pm • Exhibit Hall

Free to all attendees • Guest tickets: \$30 • 21 years and over only

Cap off day one of the meeting with some wine or bubbly while enjoying light hors d'oeuvres with friends, colleagues, and exhibitors. This is your first chance to discover the exhibit hall and its vast array of products and services.



PA, Nurse Practitioner, and Nursing Meet and Greet

Friday • 9:45-10:30 am • Exhibit Hall Chat Room

Get a head start on the following day's dedicated program by meeting with fellow PA, NP, and Nursing colleagues. The chat room located in the exhibit hall will be the meeting point for a snack and networking.



New Member Meet and Greet

Friday • 3:30-4:15 pm • Exhibit Hall Chat Room

If you're a new member of ASRA, don't miss this opportunity to meet other new members and ASRA leaders. Network and make some new friends while asking your questions and learning more about your ASRA benefits and how to make the most of your membership. New ASRA members can also pick up a small welcome gift!



Resident/Fellow and Pain Program Directors Meet and Greet

Friday • 6:00-7:30 pm • Riverview Ballroom, 41st Floor

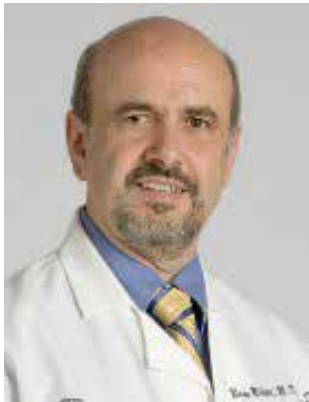
Free to all Residents and Fellows; no registration required
Jointly organized by: ASRA and the Association of Pain Program Directors (APPD)

Don't miss this opportunity to enjoy a beverage while networking with fellow trainees and members of the Association of Pain Program Directors (APPD), an independent non-profit organization committed to promoting pain medicine education and career development for pain specialists and trainees.

Generously supported by:

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Special Events



Excellence in ASRA Awards Luncheon

Saturday • 12:45-2:15 pm • Acadia

Presentation: free • Lunch tickets: \$10 member, \$20 non-member

Celebrate cutting-edge research with the Chronic Pain Research Grant Update and the John J. Bonica lecture by award recipient Dr. Nagy Mekhail.

ASRA Annual Meeting Celebration: Laissez Les Bons Temps Rouler!

Saturday • 7:00-10:00 pm • Riverview Ballroom, 41st Floor

Tickets: \$50 member, \$75 non-member, \$30 children 9 and under

The meeting will be capped off with a private event in the Riverview Ballroom on the 41st floor overlooking the Crescent City. Ask anyone who attended last year's bash, ASRA's closing parties are not-to-be-missed evenings of food, friends, and fun! This year's event will capture the French Quarter at its best and spark all your senses through local cuisine, entertainment and music. So, mark this date on your calendar to join us and laissez les bons temps rouler (let the good times roll)! Ticket prices include food, open bar, and entertainment.



Breaks, Exhibition, and Wellness

Breakfast and refreshment breaks are offered as indicated below.

While the Exhibit Hall is open, enjoy the exhibits, ePosters, ASRA Chat Room, and Internet Café.

Thursday

6:30-7:45 am—Breakfast in the Foyer

9:45-10:00 am—Morning Break/Refreshments in the Foyer

3:30-3:45 pm—Afternoon Break/Refreshments in the Foyer



Wine and Bubbly Networking Reception

5:15-6:30 pm—Exhibit Hall Grand Opening!

Cap off day one with some wine or bubbly while enjoying light hors d'oeuvres with friends, colleagues, and exhibitors. This is your first chance to discover the Exhibit Hall and its vast array of products and services. Reception is open to attendees; guests require a ticket, which can be purchased at the Registration Desk for \$30. This event is for those age 21 years and over only.

Friday

7:30-8:00 am Getting Started/Breakfast in the Exhibit Hall

8:00-9:45 am—Exhibit Hall remains open

9:45-10:30 am—Morning Break/Refreshments in the Exhibit Hall

3:30-4:15 pm—Afternoon Break/Refreshments in the Exhibit Hall

Saturday

7:30-8:00 am—Getting Started/Full Hot Buffet Breakfast in the Exhibit Hall

8:00-10:00 am—Exhibit Hall remains open

10:00-10:45 am—Morning Break/Refreshments—Exhibit Hall - *Last chance to visit the Exhibit Hall!*



ASRA Wellness Program

Yoga Class • Thursday • 6:15-7:15 am • Studio 10, 2nd Floor

Bark Break • Thursday • 3:30-3:45 pm • Near Mardi Gras C

Run/Walk Guided Tour of the French Quarter • Friday • 6:15-7:15 am • Start at hotel lobby

Yoga Class • Saturday • 6:15-7:15 am • Iberville Room, 4th Floor

Certified and insured instructors provided by Footprints to Fitness. Yoga mats will be provided. All classes are one hour.

Non-CME Ancillary Events

The American Society of Regional Anesthesia and Pain Medicine (ASRA) has provided space for these non-CME ancillary events. The programs were independently produced, not subject to review by ASRA, and are not part of the scientific/educational program offered by ASRA.



Thursday, November 14, 7-7:45 am, Breakfast Included, Mardi Gras DE Identifying and Differentiating Back Pain: The Role of Pain Specialists in Mechanical and Inflammatory Pain

Faculty: Stephen M. Lindsey, MD

Join us for a discussion on the presentation of chronic pain in axial spondyloarthritis (axSpA), the variation in pain profiles between men and women, and the important role of pain specialists in the management of these patients.



Friday, November 15, 7-7:45 am, Breakfast Included, Mardi Gras DE The Effectiveness of Cooled Radiofrequency Ablation: New Osteoarthritis Clinical Data and Animal Model Studies

Faculty: Arthur W. English, PhD; Lynn R. Kohan, MD

New scientific data will be presented showing distinct physiological differences in lesions created using COOLIEF* Cooled RF technology as compared to standard radiofrequency ablation. Additional clinical data will also demonstrate the effectiveness of cooled radiofrequency ablation as compared to viscosupplementation in the management of knee osteoarthritis.



Friday, November 15, 12:30-1:30 pm, Lunch Included, Acadia The Next Generation Platform from Nevro: A New System for Maximizing Versatility in SCS

Faculty: Kasra Amirdeflan, MD; Kerry Bradley; Leonardo Kapural, MD, PhD; Dawood Sayed, MD

Omnia is the first and only system designed to deliver and pair all frequencies between 2 and 10,000 Hz. Learn more about the technology, the waveforms and the therapeutic insights gained from the versatility of this system.



Friday, November 15, 12:30-1:30 pm, Lunch Included, Mardi Gras DE Lower the Dose, Raise Your Expectations

Faculty: Krishnan Chakravarthy, MD, PhD; Timothy Deer, MD; Steven Falowski, MD

Introducing the new, FDA-approved, Proclaim™ XR Recharge-free SCS System providing up to 10 years of battery life on low dose settings.* Faculty will present new data that demonstrates how clinicians can identify the lowest effective dose of BurstDR™ stimulation while delivering superior** pain relief. With the Proclaim XR SCS System, we're able to empower patients to live fuller lives free from the hassles of recharging.

*Up to 10yrs battery longevity at lowest dose setting: 0.6mA, 5000hms, duty cycle 30s on/360s off. NOTE: In neurostimulation therapy, 'dose' refers to the delivery of a quantity of energy to tissue. Safety comparisons and specific dose-response curves for each dosage have not been clinically established. Refer to the IFU for additional information. **Superiority when compared to traditional tonic spinal cord stimulation (SCS) in SUNBURST.



Saturday, November 16, 7-7:45 am, Breakfast Included, Mardi Gras DE SPRINT – Getting Out of the Starting Blocks with PNS

Faculty: Amit Gulati, MD; Einar Ottestad, MD; Henry Vucetic, MD

Learn from some of the world's best PNS implanters about how and where to get started using PNS in your practice. This breakfast symposium will focus on the treatment of shoulder pain in patients who often have very limited treatment options. The SPRINT PNS System's 60-day implant period provides significant and sustained pain relief in the majority of patients and offers the least-invasive PNS option available. Hear from SPRINT implanters as well as from a very special SPRINT patient!

Special Interest Group Meetings

ASRA special interest groups (SIGs) are designed to foster collaboration and networking among people with similar interests. ASRA SIG membership is open to all ASRA members. If you are not a member of a SIG, you can join at the respective meeting or visit members.asra.com/special-interest-groups/. All meetings will be held in the **Regent Room, 4th Floor**.

Thursday, November 14

- | | | |
|---------------|---------------|--|
| 2:00-3:00 pm: | Cancer | Cancer Pain and Supportive Care |
| 3:00-4:00 pm: | FMd | Functional Medicine for Anesthesiologists and Pain Practitioners |
| 4:00-5:00 pm: | Neu | Neuromodulation |

Friday, November 15

- | | | |
|--------------------|---------------|---|
| 7:00-8:30 am: | WRAPM | Women in Regional Anesthesia and Pain Medicine |
| 9:00-10:00 am: | PPP | Persistent Perioperative Pain |
| 10:30-11:30 am: | NP-PA | Nurse Practitioner, Physician Assistant, and Clinical Nurse |
| 11:30 am-12:30 pm: | HA | Headache |
| 12:30-1:30 pm: | PeriMd | Perioperative Medicine |
| 1:30-2:30 pm: | Ped | Pediatric Regional Anesthesia and Pain Management |
| 2:30-3:30 pm: | US | Ultrasonography in Pain Medicine |

Saturday, November 16

- | | | |
|--------------------|------------------------|---|
| 7:00-8:00 am: | Reg | Regenerative Pain Medicine |
| 8:00-9:00 am: | Abd& Pelvic | Abdominal and Pelvic Pain |
| 11:30 am-12:30 pm: | Pain& SUD | Pain and Substance Use Disorder |
| 2:15-3:15 pm: | PnEd | Resident and Medical Student Pain Education |



Make a
SIGNificant
Difference

Meeting Top 10

1. Meeting Venue and Hotel

New Orleans Marriott
555 Canal Street
New Orleans, Louisiana 70130
Tel: 1.504.581.1000

2. Meeting App

View your personal schedule, abstracts, ePosters, presentations, session locations, and important announcements with ASRA's meeting app. The app is optimized for Android and Apple iOS, however, other devices (e.g. Windows) can access the desktop version at <https://ativ.me/pn9>.

1. Visit the Apple App Store or Google Play.
2. Search for and download the **EventPilot App** (do not search for ASRA).
3. If you already have the app from a previous meeting, open it and click on "more" then "find event."
4. Enter the event code **ASRAFALL19**.
5. Note: Presentations in the app cannot be downloaded or emailed. See below for instructions on downloading educational materials from www.asra.com

Meeting app sponsored by:

Medtronic

3. Educational Materials and Presentations

Educational materials are viewable in the ASRA meeting app and downloadable on the ASRA website. Materials are available to meeting participants prior to, during, and after the meeting, up to one year, for educational purposes only. Access to particular content is provided based on meeting registration and is password protected. Distribution is limited, and none of the materials should be further distributed or reproduced.

Meeting App: Viewing only, materials cannot be downloaded; see above for access and password

ASRA.com: Download presentations with password **ASRAFALL19** at asra.com/page/2826/educational-materials.

4. Meeting Wifi

ASRA is pleased to provide complimentary wifi access to meeting participants. Please note, however, that meeting bandwidth is limited, so please minimize streaming video. Also, it may be necessary to log back in after several minutes of inactivity.

Network: ASRA Meeting
Password: ASRAFALL19

5. Registration

The ASRA registration desk is located in the **Grand Ballroom Foyer on the 3rd Floor**. Want to buy tickets to PBLDs, workshops, or special events? Questions or comments? The ASRA registration desk is here to help!

Wednesday: 4:00-6:00 pm – avoid the lines and pre-register!
Thursday: 6:30 am-5:30 pm
Friday: 7:30 am-6:00 pm
Saturday: 7:30 am-4:30 pm

Meeting Top 10

6. Exhibit Hall

The exhibit hall is the networking hub of the meeting. Learn about sponsors' products and services, view ePosters, print your boarding pass in the Internet café, get your caffeine fix, or pick up a healthy snack; the ASRA Exhibit Hall is the place to be!

Thursday:	5:15-6:30 pm	Wine and Bubbly Networking Reception and exhibition GRAND OPENING!
Friday:	7:30-8:00 am	Breakfast
	8:00-9:45 am	Exhibit Hall Open
	9:45-10:30 am	Morning Break and PA/NP/Nursing Meet and Greet
	3:30-4:15 pm	Afternoon Break and New Member Meet and Greet in ASRA Chat Room
Saturday:	7:30-8:00 am	Breakfast - a full, hot breakfast buffet will be served
	8:00-10:00 am	Exhibit Hall Open
	10:00-10:45 am	Morning Break - last chance to visit the exhibition

7. PBLDs, Workshops, Ask the Experts Interactive Sessions, and Special Event Tickets

Pre-registration and payment is mandatory for special sessions and events; tickets are required for entrance and pre-purchased tickets are provided with attendee badges. See the registration desk for remaining sessions along with ticket purchase for the following.

PBLDs and Workshops:	While availability lasts, see registration
Wine and Bubbly Networking Reception:	Thursday, 5:15-6:30 pm, Exhibit Hall, free to attendees, guest tickets for purchase, 21 and over
Resident/Fellow Meet and Greet:	Friday, 6:00-7:30 pm, Riverview Ballroom, 41st Floor, complimentary to Resident/Fellows and Fellowship Directors
ASRA Awards Luncheon:	Saturday, 12:45 pm-2:15 pm, Acadia, ticket required for lunch, presentations open to all attendees
Saturday Celebration:	Saturday, 7:00-10:00 pm, Riverview Ballroom, 41st Floor, ticket required, guests welcome, all ages

For Our Nursing Mothers: A Lactation Room will be open in the Preservation Hall Booth on the second floor during main meeting hours, Thursday through Saturday.

8. Abstracts & ePosters

See page 47 for more information on the multiple ways to view the abstract and ePoster submissions.

Moderated Sessions: Track A in Mardi Gras A, track B in Mardi Gras B. See pages 49 for the session schedule.

Scheduled Viewing in the Exhibit Hall: Remaining ePosters will have 15 minutes to showcase their work during exhibit hall hours. See page 49 for the session schedule and poster listing.

On-Demand, General Viewing of all ePosters

- All ePosters are available in the Exhibit Hall throughout the meeting.
- Meeting app includes all abstracts and ePosters.
- All ePosters are available via ePostersOnline® at <https://epostersonline.com/ASRAFALL19>.
- Authors are also encouraged to bring a tablet or smartphone as there is discussion space and all ePosters are available via ePostersOnline.®

Best of Meeting

- Best of Meeting presentations will take place throughout the meeting. See page 48 for details.
- Printed posters in the meeting area will also showcase the awardees' strong work.

9. Friends and Colleagues, Old and New

Connect with fellow participants, faculty, and industry sponsors during the daily breakfast, breaks, Thursday reception, Saturday celebration, via meeting app messaging, and following social media. See page 8 for information on the meeting's social media and hashtags.

10. Evaluations and CME Certificates

Your opinion matters! Evaluate sessions and faculty in real time via the meeting app. Evaluate the overall meeting and obtain your CME certificate by accessing the online system before **December 3** at www.surveymonkey.com/r/ASRAFALL19. See page 17 for more information on CME credits and certificates.

Attendance Policies

Attendee cancellation and refunds

Registration fees are refundable, minus a \$100 processing fee, if cancellation is received in writing no later than three (3) weeks prior to the event commencement. After this date, under no circumstances will refunds or credits be granted.

Attendee substitutions

Attendee substitutions are allowed if notification is made in writing no later than three (3) weeks prior to the event commencement. A \$100 processing fee will be charged. After this date, under no circumstances will substitutions be granted.

Attendee no-shows

No refunds or credits will be given to "no shows."

Attendee guests/accompanying persons

All event activities (including educational sessions, meal functions, exhibit hall, etc.) are exclusively reserved for registered attendees. Badges provided at registration are required for entrance into all functions and will be strictly enforced. Exceptions to this are as follows.

- **Educational session halls:** Only children who are held or harnessed (no strollers permitted) may accompany a registered attendee. Children may not occupy a seated spot. If a child becomes a distraction to attendees, the infant must be removed from the room immediately. No children, under any circumstance, are permitted in workshops or PBLDs.
- **Exhibit hall:** Infant children who are held or harnessed (no strollers are permitted) may accompany a registered attendee at any time. In addition, adult children ages 21 and over may purchase a guest ticket to accompany a registered attendee during the opening network reception only.
- **Saturday Celebration:** All children are welcome to the Saturday night celebration. Tickets must be purchased for any children over 2 years old.
- **Miscellaneous:** Lactation rooms will be available whenever possible. Please see program guide or registration desk for location. Please see hotel concierge for additional childcare options.

There will be no exceptions to the above for children, toddlers, or teens without prior written approval. Please send any requests to asrameetings@asra.com.

Photography and recording privileges

ASRA reserves exclusive rights to photograph and/or record (audio and video) all event proceedings and participants for use in marketing materials, presentations, and course content reproductions (online or other). Photography and/or recording by individuals is not permitted in the scientific, educational, and business meetings during any ASRA event, unless specifically pre-authorized by ASRA. Individuals granted such privileges shall be properly registered at the event and issued the proper proof of privileges (press badge or other).

ASRA modification or cancellation

ASRA reserves the right to modify the event's schedule or program, as necessary. ASRA also reserves the right to cancel this event, in which case a full refund of the registration fee will be provided. ASRA is unable to refund any attendee expenses (flight, hotel, etc.) in the case of ASRA cancellation.

Mailing list and attendee contact information

ASRA provides an attendee mailing list containing name, degree, title, organization, and mailing address to industry partners and fellow attendees; email addresses and telephone numbers are not provided. Attendees may opt-out of this list when registering. ASRA will also use a lead retrieval system in the exhibit hall. Participant badges will contain the following information: name, degree, organization, mailing address, telephone number, email address, and registration type. Attendees have the choice to allow exhibitors to scan their badge or not.

Liability and insurance

The American Society of Regional Anesthesia and Pain Medicine and meeting organizers cannot accept liability for personal accidents or loss of or damage to private property of participants, either during or indirectly arising from the meeting. Participants are advised to take out their own personal health and travel insurance for their trip.

Americans with Disabilities Act (ADA)

ASRA fully complies with the legal requirements of the ADA and the rules and regulations thereof. If any participant in this educational activity has a special need, please contact us at: **American Society of Regional Anesthesia and Pain Medicine, 3 Penn Center West, Suite 224, Pittsburgh, PA 15276**, asrameetings@asra.com, Toll-free in USA: 1.855.795.ASRA, Tel: 1.412.471.2718

Continuing Medical Education

To receive your CME certificate

1. Access the online system before December 3 by visiting www.surveymonkey.com/r/ASRAFALL19.
2. Complete the anonymous online evaluation.
3. Indicate the number of hours you attended (credit will be verified against registration).
4. Your certificate will be sent to the e-mail address provided approximately 3 weeks after submission.
5. Thank you for your feedback!

Educational objectives

After participating in this educational activity, participants should be able to:

- Review current basic science, clinical, and translational research in pain medicine and their role in the development/use of novel analgesics, targets for interventional techniques, and applicability to clinical practice.
- Evaluate new trends, techniques, therapies, and diagnostic procedures in pain management.
- Discuss current research and clinical issues in the opioid epidemic that impact the practice of pain medicine.
- Discuss how alcohol use and a variety of non-opioid analgesics may lead to complications in chronic pain patients.
- Develop a critical and balanced interpretation of current research and proposed new research methods on mechanisms underlying challenging pain syndromes in both adult and pediatric populations in order to offer patients the best evidence-based therapies.
- Address common clinical challenges in the management of acute and chronic pain, including those encountered in special populations.
- Improve awareness of safe practices and understand the role of risk mitigation for patient safety in pain medicine.
- Explore how pain medicine providers may impact the field outside of conventional clinical or research roles.
- Discuss important practice management issues in light of the always changing landscape of pain medicine practice.
- Recognize the value of interdisciplinary collaboration and providing comprehensive care in pain medicine.
- Identify the importance of physician and provider safety in pain clinics and ways to improve safety for all working in pain medicine clinics.
- Highlight the significance of wellness for both patients and physicians and explore potential personal adaptation strategies to address professional burnout and energize one's practice.
- Pontificate on the future of pain medicine and how the specialty is stronger when collectively striving for equality, inclusivity, and strength in the engagement of all disciplines involved in the progress of pain medicine.
- Thoughtfully engage and assemble a valuable network of diverse colleagues active in the field of pain medicine.

Target audience

The ASRA CME program provides educational activities to physicians, residents, fellows, and scientists. ASRA supports a multidisciplinary and interprofessional approach to continuing education and patient care by also providing relevant education for other healthcare professionals not directly engaging in interventional regional anesthesia and/or pain medicine procedures. ASRA offers learning opportunities to the national and international healthcare community.

Accreditation and credit designation statements

<u>Credits by Day</u>	<u>Maximum</u>
Thursday.....	8.25
Friday.....	8.50
Saturday	7.00
Total Credits:	23.75

Physicians: The American Society of Regional Anesthesia and Pain Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

The American Society of Regional Anesthesia and Pain Medicine designates this live activity for a maximum of 23.75 *AMA PRA Category 1 Credits*[™]. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

PA's (Physicians Assistants): AAPA accepts certificates of participation for educational activities certified for *AMA PRA Category 1 Credit*[™] from organizations accredited by ACCME or a recognized state medical society. Physician assistants may receive a maximum of 23.75 hours of Category 1 credit for completing this program.

Continuing Medical Education

Nurse Practitioners: The American Association of Nurse Practitioners (AANP) accepts *AMA PRA Category 1 Credits™* from organizations accredited by the ACCME. This activity has been approved for a maximum of 23.75 *AMA PRA Category 1 Credits™*.

Registered Nurses: Regulations dictate that only physicians may earn CME credits, however, many state Boards of Registered Nursing accept *AMA PRA Category 1 Credits™* from organizations accredited by the ACCME. Attendees are responsible for confirming their specific board's acceptance of ASRA-provided credits. This activity has been approved for a maximum of 23.75 *AMA PRA Category 1 Credits™*.

The American Board of Anesthesiology® MOCA®



Part 2 Patient Safety CME: This activity contributes to the patient safety CME requirement for the CME component of the American Board of Anesthesiology's (ABA) redesigned Maintenance of Certification in Anesthesiology™ program (MOCA®), known as MOCA 2.0®. Please consult the ABA website, www.theABA.org, for a list of all MOCA 2.0 requirements. Max. 13.75 credits.

Thursday (max. 6.50 credits)

- 8:15 am, Refresher Course, A Brave New World: Novel Opioid Targets (1.50 credits)
- 10:00 am, Refresher Course, The Intersection of Alcohol Use and Chronic Pain (2.00 credits)
- 12:15 pm, PBLD-07, Malfunctioning Baclofen Intrathecal Pumps: Managing This Potentially Deadly Complication (1.00 credit)
- 12:15 pm, PBLD-10, Tweet Tweet: How Social Media Can Transform Medical Education and Patient Safety (1.00 credit)
- 12:15 pm, PBLD-12, Logistics and Experiences with Inpatient Lidocaine and Ketamine Infusions for Acute and Chronic Pain Conditions (1.00 credit)
- 12:15 pm, PBLD-14, Prescribing Opioids for the Patient Using [Legal or Medicinal] Marijuana: Is It Safe? Are you Safe? (1.00 credit)
- 12:15 pm, PBLD-17, DRG Stimulation: Clinical Pearls Related to Trial and Implantation (1.00 credit)
- 1:30 pm, IS-03, Risk Mitigation and Complication Management for the Interventional Pain Practitioner (2.00 credits)

Friday (max. 5.25 credits)

- 8:00 am, PS-01a, Buprenorphine: It's Not What We Thought It Was (1.75 credits)
- 8:00 am, PS-01b, Not Forever Young: The Impact and Importance of Treating Pediatric Pain (1.75 credits)
- 1:45 pm, PS-03b, Addiction in Pain Medicine: It's Not Just About Opioids (1.75 credits)
- 1:45 pm, IS-07, Intrathecal Drug Delivery: Optimal Management of Patients with Pain and/or Spasticity (1.75 credits)
- 4:15 pm, IS-08, Cannabis and Cannabinoids in Pain Medicine (1.75 credits)

Saturday (max. 2.00 credits)

- 10:45 am, Plen-02, Primum Non Nocere: It Goes Both Ways (2.00 credits)

Credit Reporting to the ABA: ASRA is an ABA-approved provider and, as a service to ASRA members and participants, CME credits are reported to the ABA. Participants must include their correctly formatted ABA ID number (34567890) during the online evaluation and credit claim process available at the conclusion of the activity. Once the online evaluation and credit claim process is closed, certificates will be issued and credits reported to the ABA. After this time, participants may request their CME certificate by contacting asrameetings@asra.com, but ASRA will no longer report credits to the ABA, which will then be the individual participant's responsibility. Maintenance of Certification in Anesthesiology™ program and MOCA® are registered trademarks of The American Board of Anesthesiology®. MOCA 2.0® is a trademark of The American Board of Anesthesiology®.

ASRA-ASA Ultrasound-Guided Regional Anesthesia (UGRA) Education and Clinical Training Portfolio



The Ultrasound-Guided Regional Anesthesia Education and Clinical Training Portfolio is a joint ASRA - ASA initiative designed for anesthesiologists who wish to distinguish themselves in the field and provide evidence of training and experience. The portfolio guides participants through a comprehensive educational and training experience that fulfills current recommendations for ultrasound-guided regional anesthesia (UGRA). This ASRA course has been approved for knowledge base and technical skills components of the portfolio. For more information and approved sessions, visit the ASA website, education.asahq.org/totara/.

International credits

Royal College of Physicians and Surgeons of Canada: The Royal College of Physicians and Surgeons of Canada has agreements based on the mutual recognition of credit points with the American Medical Association for live and web-based (synchronous or asynchronous) educational events. You may submit your CME certificate directly for credit recognition of this accredited group learning activity (Section 1) as defined by the Maintenance of Certification program of The Royal College of Physicians and Surgeons of Canada. For more information, visit: www.royalcollege.ca.

European Accreditation Council for Continuing Medical Education (UEMS-EACCME): The UEMS-EACCME has agreements based on the mutual recognition of credit points with the American Medical Association for live and e-learning educational events. Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity. The EACCME is an institution of the European Union of Medical Specialists (UEMS): www.uems.net

Planning Committee and Faculty

Scientific/Education Planning Committee

Andrea Nicol, MD; 2019 Meeting Chair
Magdalena Anitescu, MD, PhD; 2020 Meeting Chair
Maged Guirguis, MD; 2021 Meeting Chair
Ignacio Badiola, MD; Member-at-Large
Karen Boretsky, MD; Member-at-Large
Bridget Calhoun, DrPH, PA-C; PA Representative
Vincent Chan, MD; Ex-Officio CME Committee
Shravani Durbhakula, MD; Member-at-Large
Maxim Eckmann, MD; Immediate Past Chair
Marc Huntoon, MD; Ex-Officio Editor-in-Chief
Robert Hurley, MD, PhD; Member-at-Large
Zohra Hussaini, NP; NP Representative
Kellie Jaremko, MD; Resident Section Chair
Carlos Pino, MD; Ex-Officio CME Committee
David Provenzano, MD; Board Liaison
Hariharan Shankar, MBBS; Resident Section Advisor
Reda Tolba, MD; Local Member-at-Large
Eugene Viscusi, MD; Ex-Officio President
Kevin Vorenkamp, MD; Practice Management Member-at-Large
Kayode Williams, MD; Practice Management Member-at-Large

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Magdalena Anitescu, MD, PhD; University of Chicago Medicine, Chicago, IL
Honorio Benzon, MD; Northwestern University, Chicago, IL
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Laura Bohn, PhD; Scripps Research, Jupiter, FL
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Michael Weinstein, MD; Thomas Jefferson University, Narberth, PA

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Christine Hunt, DO; Mayo Clinic, Rochester, MN

Usman Latif, MD, MBA; The University of Kansas Hospital, Leawood, KS

Trusharth Patel, MD; Emory University School of Medicine, Atlanta, GA

Amy Pearson, MD; University of Iowa Carver College of Medicine, Iowa City, IA

ASRA Administration

Angie Stengel, MS, CAE; Executive Director

Heidi C. Borter, CMP, HMCC; Meetings Manager

Kristen Brahier; Administrative Assistant

Athena Ermidis; Communications Coordinator

Tracey Escamilla; Director of Operations

Gretchen Hershberger; Projects Coordinator

Elizabeth Smith; Membership Manager

Anne Snively, MBA, CAE; Director of Communications, Deputy Executive Director

Sara Stuever, CPLP; Director of CME

Disclosure

and Resolution of Personal Conflicts of Interest

In accordance with the ACCME's Standards for Commercial Support and related policies, ASRA is committed to ensuring balance, independence, objectivity, and scientific rigor in its CME/CPD activities. Those in control of the educational content disclose all relevant relationships (financial or other) with any commercial interest that they or their spouse/partner have had within the past 12 months. If an individual refuses to disclose, they are disqualified from participating. Disclosure information is evaluated and conflicts of interest resolved. Disclosure is made to participants prior to the activity. Participants are asked to evaluate the objectivity and independence. Off-label or investigational use of a therapeutic product is also disclosed.

The following individuals have no conflicts of interest to disclose. Please see pages 22-28 for details for those faculty with disclosure information.

Nirmala Abraham (F)	Antoun Nader (F)
Karen Boretsky (F, P)	Ameet Nagpal (F)
Bridget Calhoun (P)	Samer Narouze (B, F)
Ki Jinn Chin (CME)	Trusharth Patel (AF)
May Chin (F)	Jeffrey Petersohn (F)
Mitchell Cohen (F)	Maunak Rana (F)
Michele Curatolo (F)	Eric Schwenk (F)
Shravani Durbhakula (P)	Jarna Shah (F)
Dalia Elmofty (F)	Hariharan Shankar (F, P)
F. Michael Ferrante (F)	Laura Simons (F)
Roderick Finlayson (F)	Eellan Sivanesan (F)
John A. Freeman (F)	Dmitri Souza (F)
Vasudha Goel (AF)	Natalie Strand (F)
Jennifer Grimmer (F)	Reda Tolba (F, P)
Padma Gulur (F)	Jan Van Zundert (F)
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Heather Jackson (F)	Mark Wallace (F)
Kellie Jaremko (P)	Daniel Warren (F)
Sandra Kopp (B)	Michael Weinstein (F)
Edward Mariano (B, F)	Kayode Williams (P)
Marte Martinez (F)	Jarred Younger (F)
James Modir (F)	ASRA Administrative Team (Borner, Stengel, Stuever) (Society, CME, and Meeting Management)

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Additional Disclosure Information

- Dr. Einar Ottestad is speaking at a non-CME promotional event for SPR Therapeutics.
- Dr. Amit Gulati is speaking at a non-CME promotional event for SPR Therapeutics.
- Dr. Steven Falowski is speaking at a non-CME promotional event for Abbott.
- Dr. Dawood Sayed is speaking at a non-CME promotional event for Nevro.
- Dr. Leonardo Kapural is speaking at a non-CME promotional event for Nevro.
- Dr. Lynn Kohan is speaking at a non-CME promotional event for Avanos.

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Last Name	First Name	Role	Honoraria / Expenses	Consulting / Advisory Board	Speakers Bureau	Funded Research (Individual)	Funded Research (Institution)	Royalties / Patent	Stock Options	Ownership Position	Employee	Other	Off-Label Usage
Abdallah	Rary	AF			Avanos								No
Abd-Elisayed	Alaa	F		Avanos, Medtronic, Sollis, Stimwave Technologies			Medtronic, Sollis	MG Academy, Springer	Thermaquil				No
Adams	Meredith	F				NIH NIBIB, NIH NIAMS, NIH NINDS						Spouse-Fellowship Educational Support (Medtronic)	No
Amin	Sandeep	F			Avanos, Boston Scientific, Medtronic, Neuro		Abbott, Boston Scientific, Neuro						No
Anitescu	Magdalena	F, P										Medtronic pays salary and professional development for our institution pain fellows	No
Badiola	Ignacio	AF, P				R21 NIH	R21 NIH					Multiple attorneys and practices as an expert witness	No
Benzon	Honorio	F		Sandoz International									No
Bhatia	Anuj	F	Medtronic				Medtronic						No
Bohn	Laura	F		Goldfinch Biosciences									No
Bruel	Brian	F		Biogen, Daiichi Sankyo, Flowonix, Revance Therapeutics	Medtronic, TerSera								No

AF — associate faculty; B — ASRA Board member; CME — CME committee member; F — faculty; P — planning committee

Disclosure and Resolution of Personnel Conflicts of Interest

Last Name	First Name	Role	Honoraria / Expenses	Consulting / Advisory Board	Speakers Bureau	Funded Research (Individual)	Funded Research (Institution)	Royalties / Patent	Stock Options	Owner / Equity Position	Employee	Other	Off-Label Usage
Brummelt	Chad	F		Heron Therapeutics, Recro Pharma			NIH-DHHS-US-17-PAF02680, NIH-DHHS-US-16-PAF06270, NIH0DHHS-US-16 PAF 07628, NIH-DHHS-US, MDHHS, NIH-DHHS, NIDA, UM Michigan Genomics Initiative	Peripheral Perineural Dexmedetomidine					No
Buvanendran	Asokumar	B		Fresenius Kabi									No
Calodney	Aaron	F		Medtronic, Nevro, Stryker, Veritos Medical									No
Chan	Vincent	CME, P	Philips Healthcare				University of Toronto (Merit Award), MSH-UHN AMO Innovation Fund						No
Christianson	Julie	F				Biogen							No
Claw	Daniel	F		Aptinyx, Daiichi Sankyo, Eli Lilly, Intec Pharma, Pfizer, Samumed, Theravance, Tonix, Zynerba			Aptinyx, Pfizer					Expert Witness: Nix, Patterson, Williams & Connolly	Yes
Cohen	Steven	B, F		AcclRx, Scilex, Scintilla		SPR Therapeutics							No
de Leon-Casasola	Oscar	F		US WorldMeds									Yes-Compounding medications for IT use

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Disclosure and Resolution of Personal Conflicts of Interest

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Doshi	Tina	F					Biohaven Pharmaceuticals						No
Eckmann	Maxim	F, P		Avanos			Abbott, Boston Scientific			Insight Dental Systems; iKare MTRC		Medico-legal consulting	No
Edwards	Scott	F		Avanos									No
Elkabbassy	Nabil	B, F		Foundry Therapeutics									No
Falowski	Steven	F		Abbott, Medtronic, Vertiflex	Abbott, Medtronic, Vertiflex		Abbott, Biontronic, Medtronic, Nuvectra			Saluda, SPR Therapeutics			No
Furlan	Andrea	F		Workplace Safety and Insurance Board			Canadian Institutes of Health Research					Employer owns app Opioid Manager; a paid app on iTunes	No
Germanovich	Andrew	AF	Nuvectra	Masimo		Masimo Corporation, Novartis Pharmaceuticals							No
Grant	Stuart	CME		B. Braun			SPR Therapeutics	Oxford University Press					No
Grider	Jay	F		Abbott, Intralink Spine, Medtronic, Vertos Medical			Abbott; Flowonix, Nevro, Vertos		Intralink Spine				No
Guirguis	Maged	F, P		Avanos, Boston Scientific, Nevro			Abbott, Avanos, Boston Scientific, Nevro						No
Gulati	Amitabh	F		AIS, Flowonix, Medtronic									No
Hassett	Alfon	F		AbbVie, Precision Health Economics									No
Hooten	W. Michael	F					NIH					US World-Meds	Yes, epidural administration of corticosteroids

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Disclosure and Resolution of Personnel Conflicts of Interest

Last Name	First Name	Role	Honoraria / Expenses	Consulting / Advisory Board	Speakers Bureau	Funded Research (Individual)	Funded Research (Institution)	Royalties / Patent	Stock Options	Owner / Equity Position	Employee	Other	Off-Label Usage
Howe	Erica	F										CEO of The Medical Educator	No
Huntoon	Marc	F, P			Mainstay Medical, Saluda								No
Hurley	Robert	F, P		Medtronic		NIH, AHRQ, Robert Wood Johnson Foundation	Avanos	University of Florida					No
Hussaini	Zohra	F, P	Flowonix, Medtronic, Nevro										No
Kapural	Leonardo	F		Abbott, Avanos, Biotronik, Gimer, Medtronic, Nalu Medical, Nevro, Stimgenics		Avanos, Biotronik, Gimer, Medtronic, Neuro Med-ical, Nevro, Saluda, SPR Therapeutics			Nalu				Yes. SCS for abdominal pain, unapproved systems in US, Saluda, Gimer
Khan	Talal	F					Nevro						No
Kohan	Lynn	F		Avanos			Avanos					Arnold and Palmer - expert opinion	No
Latif	Usman	AF				Mainstay Medical	Nevro, Sollis Therapeutics						No
Lema	Mark	F		DeGroote Pain Institute at McMaster University									No
Lubenow	Timothy	F		Abbott, Avanos, Boston Scientific, Flowonix, Medtronic, Nevro			Abbott, Boston Scientific						No

AF — associate faculty; B — ASRA Board member; CME — CME committee member; F — faculty; P — planning committee

Disclosure and Resolution of Personnel Conflicts of Interest

Last Name	First Name	Role	Honoraria / Expenses	Consulting / Advisory Board	Speakers Bureau	Funded Research (Individual)	Funded Research (Institution)	Royalties / Patent	Stock Options	Ownership Position	Employee	Other	Off-Label Usage
Mekhail	Nagy	F		Boston Scientific, Relievant Medsystems, Sollis Therapeutics			Halyard, Mallinckrodt, Mesoblast, Neuros Medical					Medical Monitor for closed-loop SCS "Evoke Study" Saluda Medical, HF-10 for PDN "Sensa-PDN study" Neuro Inc, Mild for LSS "Motion study" Vertos Medical, Ultra High Pulse width SCS "Hi-Fi study" Nuvetra	No
Memtsoudis	Stavros	B	Sandoz, Teikoku Pharma					Multicatheter infusion system			Owner SGM Consulting, FC Monmouth		No
Mina Nicol	Maged Andrea	F, CME, F, P			Pfizer, Salix	NIH							No
Ottestad	Einar	F		Bioness, Nine Continents Medical, Tullavi Medical									No
Palmer Pearson	Pamela Amy	F, AF							AcelRx	AcelRx		Social Media Manager for the Anesthesia Patient Safety Foundation (APSF) and receive compensation for this. [Nonprofit]	No
Petersen	Erika	F		Abbott, Medtronic, Neuros, Neuro, SynerFuse			Medtronic, Neuros, Neuro, ReNeuron	Springer	Synerfuse				Yes- PNS of head and face
Pino	Carlos	B, CME, F, P		Mainstay Medical									No

AF — associate faculty; B — ASRA Board member; CME — CME committee member; F — faculty; P — planning committee

Disclosure and Resolution of Personnel Conflicts of Interest

Last Name	First Name	Role	Honoraria / Expenses	Consulting / Advisory Board	Speakers Bureau	Funded Research (Individual)	Funded Research (Institution)	Royalties / Patent	Stock Options	Owner / Equity Position	Employee	Other	Off-Label Usage
Provenzano	David	B, F, P		Avanos, Boston Scientific, Esteve, Medtronic, Neuro, Salix			Abbott, Medtronic, Stimgenics						No
Rosenquist	Richard	F		Mainsay Medical				Springer, UpToDate		KURE/MART Pain Holdings, LLC			No
Sayed	Dawood	F		Abbott, Flow-onix, Neuro, PainTeg, SPR Therapeutics, Stimgenics, Vertiflex, Vertos Medical			Abbott, Biotronic, Neuro, Solis Therapeutics		SPR Therapeutics				No
Schreiber	Kristin	F		AAAPT, IASP travel grant advisory, IMPACT, VHA MERIT grant study section		NIH R35, NIH K23 (past), NSF, Foundation for the Study of the Therapeutic Encounter, Harvard/Osher Center for Integrative Medicine pilot grant (past), BWH Department of Anesthesiology, Perioperative and Pain Medicine							
Shah	Shalini	F		Averitas									No
Silberstein	Stephen	F	Abide Therapeutics, Alder Biopharmaceuticals, Allergan, Amgen, Avahir Pharmaceuticals, Biohaven Pharmaceuticals, Cefaly, Curelator, Dr. Reddy's Laboratories, Egaleet Corporation, GlaxoSmithKline, ENEURA, electroCore Medical, Impel NeuroPharma, Lilly USA, Medscape, Novartis, Saisuma Pharmaceuticals, Supernus Pharmaceuticals, Teva Pharmaceuticals, Theranica, Trigemina										No

AF — associate faculty; B — ASRA Board member; CME — CME committee member; F — faculty; P — planning committee

Disclosure and Resolution of Personnel Conflicts of Interest

Last Name	First Name	Role	Honoraria / Expenses	Consulting / Advisory Board	Speakers Bureau	Funded Research (Individual)	Funded Research (Institution)	Royalties / Patent	Stock Options	Owner / Equity Position	Employee	Other	Off-Label Usage
Sutherland	Stephani	F		Inland Valley Recovery Services									No
Vallejo	Ricardo	F		Medtronic	Avanos				Stimgenics	CEO Stimgenics			No
Viscusi	Eugene	B, F, P	AccelRx	Heron, Inncoll, Merck, Recro Pharma, Salix, Shionogi	Heron, Salix								No
Zadina	James	F						Inventor on patents covering compounds he will describe. These are assigned to Tulane University and the VA, who in turn has licensed them to Miranta Pharma.					No

AF — associate faculty; B — ASRA Board member; CME — CME committee member; F — faculty; P — planning committee

Key to Session Symbols



Session approved for CME credit for American Board of Anesthesiology's (ABA's) redesigned Maintenance of Certification in Anesthesiology Program® (MOCA®), known as MOCA 2.0™



Session is being recorded for availability as an archived webcast



Session applies toward the ASRA Pain & MSK Interventional Ultrasound Certificate



Session is part of the ASRA-ASA Practice Management Portfolio



Session applies toward the ASRA-ASA Ultrasound-Guided Regional Anesthesia (UGRA) Education and Clinical Training Portfolio

Key to ASRA Special Interest Group Symbols



Abdominal and Pelvic Pain



Pediatric Regional Anesthesia and Pain Management



Cancer Pain and Supportive Care



Perioperative Medicine



Functional Medicine for Anesthesiologists and Pain Practitioners



Persistent Perioperative Pain



Headache



Regenerative Pain Medicine



Neuromodulation



Resident and Medical Student Pain Education



Nurse Practitioner, Physician Assistant, and Clinical Nurse



Ultrasonography in Pain Medicine



Pain and Substance Use Disorder



Women in Regional Anesthesia and Pain Medicine

Learn more about ASRA special interest groups at members.asra.com/special-interest-groups/

Thursday at a Glance

Activity	Refresher Courses	PBLDs	Interactive Sessions	Workshops	Workshops	Workshops	Moderated ePoster A	Moderated ePoster B
Room	Acadia	Mardi Gras DE	Mardi Gras GH	Studio 8	Studio 3	Studio 2	Mardi Gras A	Mardi Gras B
6:30 AM								
7:00 AM		Non-CME Ancillary Event Novartis (breakfast included)						
7:15 AM								
7:30 AM								
7:45 AM								
8:00 AM								
8:15 AM	Refresher Course		IS-01: Ask the Experts Interactive Session	TICKET WS-01: Hands-On Ultrasound Workshop (live model)		TICKET WS-02: Hands-On Fluoroscopy Workshop (cadaver)	MP-01a: Moderated ePosters	MP-01b: Moderated ePosters
8:30 AM	A Brave New World: Novel Opioid Targets		Infusion Solutions: Inpatient and Outpatient IV Pain Therapies	Advanced Musculoskeletal Ultrasound for Pain Medicine (Advanced Course)		Lumbosacral Injections: Medial Branch Blocks, Selective Nerve Root Blocks, Transforaminal Epidural Steroid Injections		
8:45 AM								
9:00 AM								
9:15 AM								
9:30 AM								
9:45 AM								
10:00 AM	Refresher Course		IS-02: Ask the Experts Interactive Session	TICKET WS-03: Hands-On Ultrasound Workshop (live model)	TICKET Spec-01: Special Interactive Session	TICKET WS-04: Hands-On Fluoroscopy Workshop (cadaver)	MP-02a: Moderated ePosters	MP-02b: Moderated ePosters
10:15 AM	The Intersection of Alcohol Use and Chronic Pain		Trends and Trailblazers: Leaders in the Emerging Topics in Pain Research	Truncal/Interfascial Plane Blocks for Pain Management (Advanced Course)	Musculoskeletal and Neurologic Physical Examination for the Pain Medicine Practitioner	Sympathetic Blocks: Abdomen/Pelvis/Lower Extremities (Celiac, Splanchnic, LSB, Superior Hypogastric, Ganglion Impar)		
10:30 AM								
10:45 AM								
11:00 AM								
11:15 AM								
11:30 AM								
11:45 AM								
12:00 PM								
12:15 PM								
12:30 PM		TICKET PBLDs (lunch included)						
12:45 PM								
1:00 PM								
1:15 PM								
1:30 PM	Refresher Course		IS-03: Ask the Experts Interactive Session	TICKET WS-05: Half-Day Special Session Fluoroscopy & Ultrasound Workshop (cadaver, live model)	TICKET WS-06: Hands-On Ultrasound Workshop (live model)	TICKET WS-07: Hands-On Fluoroscopy Workshop (cadaver)	MP-03a: Moderated ePosters	MP-03b: Moderated ePosters
1:45 PM	Postsurgical Pain Syndromes: From Prevention to Treatment in 2019		Risk Mitigation and Complication Management for the Interventional Pain Practitioner	Major Joint Denervation Techniques: Radiofrequency and Cryoablation Lesions, Articular Nerve Blocks (Knee, Hip, Shoulder)	Ultrasound in Pain Medicine I: Axial Lumbar Facet, SJ, and Caudal	Cervical Injections: Epidural Steroid Injections and Medial Branch Blocks		
2:00 PM								
2:15 PM								
2:30 PM								
2:45 PM								
3:00 PM								
3:15 PM								
3:30 PM	Refresher Course		IS-04: Ask the Experts Interactive Session	TICKET Break and Refreshments in Foyer	TICKET WS-08: Hands-On Ultrasound Workshop (live model)	TICKET WS-09: Hands-On Fluoroscopy Workshop (cadaver)	MP-04a: Moderated ePosters	MP-04b: Moderated ePosters
3:45 PM	Radiofrequency Ablation: Where Are We in 2019?		ASRA's Inaugural Data Blitz: Emerging Research in Pain Medicine	Reading and Interpretation of Spinal Imaging and EMG	US in Pain Med II: Common Pain Procedures: Suprascap Nerve, Iliogastric Nerve, Genitofemoral Nerve, Stilette Ganglion, Grtr Occipital, Piriformis, Pudendal	Fluoroscopy for Blocks of the Head and Neck: Stellate Ganglion, SFG, Cervical Medial Branches/RFA, Trigeminal (Advanced Course)		
4:00 PM								
4:15 PM								
4:30 PM								
4:45 PM								
5:00 PM								
5:15 - 6:30 PM								
Special Event: Wine and Bubbly Networking Reception and Exhibit Hall Grand Opening								

Thursday Main Meeting Program

6:30 am - 7:45 am	Registration and Breakfast in Foyer		Acadia Foyer
7:00 am - 7:45 am	Non-CME Ancillary Event by Novartis (breakfast included) Identifying and Differentiating Back Pain: The Role of Pain Specialists in Mechanical and Inflammatory Pain		Mardi Gras DE
7:45 am - 8:15 am	Welcome and Opening Addresses		Acadia
7:45 am	Meeting Chair Welcome	Andrea Nicol, MD	
7:55 am	Distinguished Service Award	Mark Lema, MD	
8:00 am	Presidential Address	Eugene Viscusi, MD	
8:15 am - 9:45 am	Refresher Course A Brave New World: Novel Opioid Targets	Moderator: Maxim Eckmann, MD	Acadia 
8:15 am	Biased Ligands	Laura Bohn, PhD	1.50 credits
8:45 am	Endomorphin Analogs: Novel Opioids for Pain Control	James Zadina, PhD	
9:10 am	Low Dose Naltrexone: New Uses for an Old Drug	Jarred Younger, PhD	
9:30 am	Panel Discussion and Open Forum		
9:45 am - 10:00 am	Break and Refreshments in Foyer		Acadia Foyer
10:00 am - 12:00 pm	Refresher Course The Intersection of Alcohol Use and Chronic Pain	Moderator: Magdalena Anitescu, MD, PhD	Acadia 
10:00 am	Why Is Alcohol Use So Common in Chronic Pain Patients: A Basic Science Perspective	Scott Edwards, PhD	2.00 credits
10:25 am	PTSD, Chronic Pain, and Alcohol Use	Mitchell Cohen, MD	
10:50 am	The Clinical Importance of Concomitant Alcohol and Opioid Use	Andrea Furlan, MD	
11:10 am	How to Approach the Patient with Alcohol Use Disorder in the Chronic Pain Clinic	Daniel Warren, MD	
11:30 am	Panel Discussion and Open Forum		
12:00 pm - 1:30 pm or	Lunch On Own		
12:15 pm - 1:15 pm	Problem-Based Learning Discussions (PBLD) Lunch Open to all, tickets \$90, lunch included, see list		Mardi Gras DE 1.00 credit
1:30 pm - 3:30 pm	Refresher Course Postsurgical Pain Syndromes: From Prevention to Treatment in 2019	Moderator: Maxim Eckmann, MD	Acadia 
1:30 pm	Best of Meeting Abstract 177		2.00 credits
1:35 pm	Best of Resident/Fellow Travel Award Abstract 069		
1:40 pm	The Influence of Central Nervous System in the Development of Postsurgical Pain	Chad Brummett, MD	
2:05 pm	Psychological and Physiologic Factors That Influence Postsurgical Pain	Kristin Schreiber, MD, PhD	
2:25 pm	Pediatric and Adolescent Postsurgical Pain: Implications Across the Lifespan	Karen Boretzky, MD	
2:45 pm	Potential Mitigation of Postsurgical Pain: Is It Possible to "Prevent"	Eric Schwenk, MD	
3:05 pm	Panel Discussion and Open Forum		
3:30 pm - 3:45 pm	Break and Refreshments in Foyer		Acadia Foyer
3:45 pm - 5:15 pm	Refresher Course Radiofrequency Ablation: Where Are We in 2019?	Moderator: Magdalena Anitescu, MD, PhD	Acadia 
3:45 pm	Is the Jury Still Out? Evidence for the Use of RFA for Spine Arthropathy	Jan Van Zundert, MD	1.50 credits
4:10 pm	Cooled RF vs Conventional RF: Exploring the Evidence	Marc Huntoon, MD	
4:30 pm	It's All in the Design: How Do We Design Trials in RFA?	Steven P. Cohen, MD	
4:50 pm	Panel Discussion and Open Forum		
5:15 pm - 6:30 pm	Special Event: Wine and Bubbly Networking Reception and Exhibit Hall Grand Opening Free to all attendees, guest tickets \$30; 21 and over only		Exhibit Hall

Problem-Based Learning Discussions (PBLD) Lunch




Thursday, November 14, 2019, 12:15-1:15 pm
Mardi Gras DE
(open to all, \$90 additional fee, includes lunch)

PBLD-01	Fibromyalgia: The Diagnosis Pain Medicine Specialists Fear But Shouldn't - How to Take Care of These Challenging Patients	Daniel Clauw, MD	
PBLD-02	Buprenorphine: Should Pain Physicians Prescribe for Both Pain and Addiction?	Daniel Warren, MD	
PBLD-03	DRG, SCS, Burst, and High-Frequency: Oh My! How to Choose the Right Neuromodulation Therapy for Your Patient	Jan Van Zundert, MD	
PBLD-04	Regenerative Medicine: Tips and Tricks for Implementing This Modality into Your Practice	Dmitri Souza, MD	
PBLD-05	So You Want to Be a Pain Fellow? Strategies for Matching into Your Top Pain Medicine Program	Jarna Shah, MD Hariharan Shankar, MBBS	
PBLD-06	Pelvic Pain in Women and Men: Treatment Strategies for a Challenging Condition	Ameet Nagpal, MD	
PBLD-07	Malfunctioning Baclofen Intrathecal Pumps: Managing This Potentially Deadly Complication	Lynn Kohan, MD	
PBLD-08	Starting Research and Getting Funded in Your New Practice or Department	Meredith Adams, MD	
PBLD-09	Complex Regional Pain Syndrome (CRPS): Evidence-Based Knowledge and Treatment in 2019	Honorio Benzon, MD	
PBLD-10	Tweet Tweet: How Social Media Can Transform Medical Education and Patient Safety	Edward Mariano, MD	
PBLD-11	Can't Miss Headache Diagnoses and Emerging Treatment Therapies	Stephen Silberstein, MD	
PBLD-12	Logistics and Experiences with Inpatient Lidocaine and Ketamine Infusions for Acute and Chronic Pain Conditions	Eric Schwenk, MD	
PBLD-13	Tips and Tricks for a Symbiotic Clinical Relationship: Non-Physician Pain Providers and Physician Pain Providers	Talal Khan, MD Zohra Hussaini, MSN, FNP-BC, MBA	
PBLD-14	Prescribing Opioids for the Patient Using (Legal or Medicinal) Marijuana: Is It Safe? Are You Safe?	Mark Wallace, MD	
PBLD-15	The Role of Cognitive Behavioral Therapy in Opioid Tapering	Mitchell Cohen, MD	
PBLD-16	Telemedicine for Pain Medicine	Kevin Vorenkamp, MD	
PBLD-17	DRG Stimulation: Clinical Pearls Related to Trials and Implantation	Timothy Lubenow, MD	
PBLD-18	Healing That Broken Spine: How to Implement Vertebroplasty and Kyphoplasty into Your Interventional Practice	Dawood Sayed, MD	
PBLD-19	Doctors as Educators: Tips and Tricks for Being the Best Teacher You Can Be	Erica Howe, MD	
PBLD-20	Low-Dose Naltrexone for Fibromyalgia: How, When, and Why to Use It	Jarred Younger, PhD	

Thursday Workshops (additional fee, physicians only)

8:15 am - 9:45 am	WS-01 Hands-On Ultrasound Workshop (live model) (\$345) Advanced Musculoskeletal Ultrasound for Pain Medicine (Advanced Course)	Lead: Hariharan Shankar, MBBS		Studio 8
	Shoulder Hip Knee	Faculty: Dalia Elmofty, MD Maged Mina, MD David Provenzano, MD	Associate Faculty: Christine Hunt, DO	1.50 credits  
8:15 am - 9:45 am	WS-02 Hands-on Fluoroscopy Workshop (cadaver) (\$345) Lumbosacral Injections: Medial Branch Blocks, Selective Nerve Root Blocks, Transforaminal Epidural Steroid Injections	Lead: Jeffrey Petersohn, MD		Studio 2
		Faculty: Eellan Sivanesan, MD Kevin Vorenkamp, MD	Associate Faculty: Vasudha Goel, MD	1.50 credits
10:00 am - 12:00 pm	WS-03 Hands On Ultrasound Workshop (live model) (\$345) Truncal Intersfacial Plane Blocks for Pain Management (Advanced Course)	Lead: Samer Narouze, MD, PhD		Studio 8
	Erector Spinae Plane Block, Quadratus Lumborum Block, PECS Block, Serratus Plane Blocks	Faculty: Nabil Elkassabany, MD Edward Mariano, MD Hariharan Shankar, MBBS	Associate Faculty: Ignacio Badiola, MD	2.00 credits  
10:00 am - 12:00 pm	WS-04 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Sympathetic Blocks: Abdomen/Pelvis/Lower Extremities (Celiac, Splanchnic, LSB, Superior Hypogastric, Ganglion Impar)	Lead: Amitabh Gulati, MD		Studio 2
		Faculty: Nirmala Abraham, MD Timothy Lubenow, MD	Associate Faculty: Trusharth Patel, MD	2.00 credits 
1:30 pm - 5:15 pm	WS-05 Half-Day Special Session Fluoroscopy & Ultrasound Workshop (cadaver, live model) (\$445) Major Joint Denervation Techniques: Radiofrequency and Cryoablation Lesions, Articular Nerve Blocks (Knee, Hip, Shoulder)	Lead: Reda Tolba, MD		Studio 8
		Faculty: Alaa Abd-Elseyed, MD Sandeep Amin, MD Anuj Bhatia, MD Maunak Rana, MD	Associate Faculty: Julie Huang-Lionnet, MD Usman Latif, MD Trusharth Patel, MD	3.75 credits 
1:30 pm - 3:30 pm	WS-06 Hands-On Ultrasound Workshop (live model) (\$345) Ultrasound in Pain Medicine I: Axial Structures: Cervical Facet, Lumbar Facet, SIJ, and Caudal	Lead: Michele Curatolo, MD		Studio 3
		Faculty: Roderick Finlayson, MD Einar Ottestad, MD Carlos Pino, MD Hariharan Shankar, MBBS		2.00 credits 

Thursday Workshops (continued) (additional fee, physicians only)

1:30 pm - 3:30 pm	WS-07 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Cervical Injections: Epidural Steroid Injections and Medial Branch Blocks	Lead: Kevin Vorenkamp, MD		Studio 2
		Faculty: Eellan Sivanesan, MD	Associate Faculty: Christine Hunt, DO	2.00 credits
3:45 pm - 5:15 pm	WS-08 Hands-On Ultrasound Workshop (live model) (\$345) Ultrasound in Pain Medicine II: Common Pain Procedures: Suprascapular Nerve, Ilioinguinal Nerve, Genitofemoral Nerve, Stellate Ganglion, Greater Occipital, Piriformis, Pudendal	Lead: Michele Curatolo, MD		Studio 3
		Faculty: Tina Doshi, MD Dalia Elmofly, MD Maged Mina, MD Carlos Pino, MD		1.50 credits  
3:45 pm - 5:15 pm	WS-09 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Fluoroscopy for Blocks of the Head and Neck: Stellate Ganglion, SPG, Cervical Medial Branches/RFA, Trigeminal (Advanced Course)	Lead: Maxim Eckmann, MD		Studio 2
		Faculty: Lynn Kohan, MD	Associate Faculty: Amy Pearson, MD	1.50 credits 

Thursday Ask the Experts Interactive Sessions

(open to all, seats are limited)

8:15 am - 9:45 am	IS-01 Ask the Experts Interactive Session Infusion Solutions: Inpatient and Outpatient IV Pain Therapies	Moderator: May Chin, MD	Mardi Gras GH
8:15 am	Ketamine Infusions: Pros and Cons of Inpatient Infusion Service	Eric Schwenk, MD	1.50 credits
8:35 am	Ketamine Infusions: Pros and Cons of Outpatient Service	May Chin, MD	
8:55 am	IV Lidocaine Infusions: Is There a Role for This Modality in Acute and Chronic Pain	Lynn Kohan, MD	
9:15 am	Panel Discussion and Open Forum		
10:00 am - 12:00 pm	IS-02 Ask the Experts Interactive Session Trends and Trailblazers: Leaders in the Emerging Topics in Pain Research	Moderator: Marc Huntoon, MD	Mardi Gras GH
10:00 am	Informatics and Pain Medicine: Research That Can Transform Pain Education and Patient Outcomes	Meredith Adams, MD	2.00 credits
10:30 am	Novel Methods for Investigating Postoperative Pain Syndromes	Kristin Schreiber, MD, PhD	
11:00 am	Deep Impact: Research During the Opioid Epidemic	Chad Brummett, MD	
11:30 am	Panel Discussion and Open Forum		
10:00 am - 12:00 pm	Spec-01 Special Interactive Session (\$75, registration required) Musculoskeletal and Neurologic Physical Examination for the Pain Medicine Practitioner	Moderator: Ameet Nagpal, MD	Studio 3
	Faculty will demonstrate how to examine gait; coordination; mental status; cranial and peripheral nerves; motor; reflexes; small and large joint exam. Two models will be available for participants to practice under faculty guidance.	Brian Bruel, MD Amy Pearson, MD Shalini Shah, MD	2.00 credits 
1:30 pm - 3:30 pm	IS-03 Ask the Experts Interactive Session Risk Mitigation and Complication Management for the Interventional Pain Practitioner	Moderator: Maged Guirguis, MD	Mardi Gras GH
1:30 pm	To Stop or Not to Stop: Anticoagulation and Interventional Pain Procedures	Honorio Benzon, MD	2.00 credits
2:00 pm	Steroid Stewardship: How Much Is Too Much	Michael Hooten, MD	
2:30 pm	Bad Bugs: Infectious Disease Concerns Pertaining to Injections and Implantations	Jay Grider, DO	
3:00 pm	Panel Discussion and Open Forum		
3:45 pm - 5:15 pm	IS-04 Ask the Experts Interactive Session ASRA's Inaugural Data Blitz: Emerging Research in Pain Medicine	Moderator: Chad Brummett, MD	Mardi Gras GH
	Call for Attendee Submissions! 10 participants will have 3 minutes (strictly enforced) to concisely and creatively present preliminary, pilot, or completed clinical/basic science data. The panel of expert researchers, along with the audience, will then have 5 minutes to ask questions and provide feedback. Meant to be a fun, dynamic, and informal quorum for researchers!	Meredith Adams, MD Laura Bohn, PhD Julie Christianson, PhD Robert Hurley, MD, PhD	1.50 credits  
3:45 pm - 5:15 pm	Spec-02 Special Interactive Session (\$75, registration required) Reading and Interpretation of Spinal Imaging and EMG	Moderator: Amitabh Gulati, MD	Mardi Gras DE
3:45 pm	Interpretation and Utility of EMG/NCS: When to Order and How to Use in Caring for Patients	Ameet Nagpal, MD	1.50 credits
4:05 pm	Pain Generators: Correlating MRI Findings to Patient Symptoms	David Provenzano, MD	
4:25 pm	Just Because You Can, Doesn't Mean You Should: Choosing Candidates for Interventional Pain Procedures	Talal Khan, MD	
4:45 pm	Panel Discussion and Open Forum		

Friday at a Glance

Activity	Parallel Session A	Parallel Session B	Interactive Sessions	Workshops	Workshops	Workshops	Moderated ePoster A	Moderated ePoster B
Room	Acadia	Mardi Gras DE	Mardi Gras GH	Studio 8	Studio 3	Studio 2	Mardi Gras A	Mardi Gras B
7:00 AM		Non-CME Ancillary Event Avanos (breakfast included)						
7:15 AM								
7:30 AM								
7:45 AM								
Getting Started Breakfast, Exhibition, ePosters, ASRA Chat Room, Internet Café in Exhibit Hall								
8:00 AM	PS-01a Parallel Session Buprenorphine: It's Not What We Thought It Was	PS-01b Parallel Session Not Forever Young: The Impact and Importance of Treating Pediatric Pain	IS-05: Ask the Experts Interactive Session Striving and Thriving in Pain Medicine: Part I for the Professional	TICKET WS-10: Hands-On Fluor. & Ultrasound Wrkshp (cadaver, live model) Fusion: Ultrasound and Fluoroscopy for Blocks of Head and Neck (Trigeminal, SPG, Cervical, Medial Branches and Facet Injection, Cervical SNRB, GON/TON, Stellate Ganglion) (Advanced Course)	TICKET WS-11: Half-Day Special Session Fluoroscopy & Ultrasound Workshop (cadaver, live model) Regenerative Medicine	TICKET WS-12: Hands-On Fluoroscopy Workshop (cadaver) Neuromodulation for Beginners	MP-05a Moderated ePosters	MP-05b Moderated ePosters
8:15 AM								
8:30 AM								
8:45 AM								
9:00 AM								
9:15 AM								
9:30 AM								
9:45 AM								
10:00 AM								
10:15 AM								
10:30 AM	PS-02a Parallel Session Neurostimulation and Advanced Interventional Pain Treatments: 2019	PS-02b Parallel Session Under Pressure: The Influence of Stress and Importance of Wellness in Chronic Pain Patients	IS-06: Ask the Experts Interactive Session Striving and Thriving in Pain Medicine: Part II for the Professional	TICKET WS-13: Hands-On Fluoroscopy & Ultrasound Workshop (cadaver, live model) Fusion: Ultrasound and Fluoroscopy for Abdominal and Pelvic Blocks (TAP/Ilioinguinal, Pudendal Nerve, Piriformis, Quadratus Lumborum, Sacrocygeal Lig/Caudal Entry)			MP-06a Moderated ePosters	MP-06b Moderated ePosters
10:45 AM								
11:00 AM								
11:15 AM								
11:30 AM								
11:45 AM								
12:00 PM								
12:15 PM								
12:30 PM								
12:45 PM								
1:00 PM								
1:15 PM								
1:30 PM								
1:45 PM								
2:00 PM	PS-03a Parallel Session Centralized Pain Syndromes: Complex, Difficult, and So Important to Understand	PS-03b Parallel Session Addiction in Pain Medicine: It's Not Just About Opioids	IS-07: Ask the Experts Interactive Session Intrathecal Drug Delivery: Optimal Management of Patients with Pain and/or Spasticity	TICKET Spec-03: Special Interactive Session Musculoskeletal and Neurologic Physical Examination for the Pain Medicine Practitioner Open to all, additional fee	TICKET WS-15: Hands-On Fluoroscopy Workshop (cadaver) Cervical and Thoracic RFA: Cooled and Traditional RFA	TICKET WS-16: Half-Day Special Session Fluoroscopy Workshop (cadaver) Neuromodulation and DDS: Surgical Techniques, Novel Technology, and Troubleshooting (Advanced Course)	MP-07a Moderated ePosters	MP-07b Moderated ePosters
2:15 PM								
2:30 PM								
2:45 PM								
3:00 PM								
3:15 PM								
3:30 PM								
3:45 PM								
4:00 PM								
4:15 PM	PS-04a Parallel Session Regenerative Medicine in 2019: Advances, Pearls, and Pitfalls	PS-04b Parallel Session Headache Pain Medicine: Current Concepts and Emerging Therapies	IS-08: Ask the Experts Interactive Session Cannabinoids in Pain Medicine	TICKET WS-17: Hands-On Ultrasound Workshop (live model) Cryoablation of Peripheral Nerves	TICKET WS-18: Hands-On Fluoroscopy Workshop (cadaver) Lumbar and Sacra/SI RFA: Cooled, Multipolar, and Traditional RFA		MP-08a Moderated ePosters	MP-08b Moderated ePosters
4:30 PM								
4:45 PM								
5:00 PM								
5:15 PM								
5:30 PM								
5:45 PM								
6-7:30 PM								
Special Event: Resident/Fellow and Pain Program Directors Meet and Greet Riverview - 41st Floor								

Friday Main Meeting Program

7:00 am - 7:45 am	Non-CME Ancillary Event by Avanos (breakfast included) The Effectiveness of Cooled Radiofrequency Ablation: New Osteoarthritis Clinical Data and Animal Model Studies		Mardi Gras DE
7:30 am - 8:00 am	Getting Started Registration Breakfast, Exhibition, ePosters, ASRA Chat Room, Internet Café	Foyer Exhibit Hall	
8:00 am - 9:45 am	PS-01a Parallel Session Buprenorphine: It's Not What We Thought It Was	Moderator: Robert Hurley, MD, PhD	Acadia 
8:00 am	Buprenorphine in the Perioperative Setting: What to Do BEFORE Surgery?	Chad Brummett, MD	1.75 credits MOCA
8:20 am	Buprenorphine in the Perioperative Setting: What to Do AFTER Surgery?	Padma Gulur, MD	PnEd NP-PA Pain & SUD
8:40 am	The Role of Buprenorphine in the Treatment of Chronic Pain	Amitabh Gulati, MD	PeriMed PPP
9:00 am	Practical Considerations Surrounding Buprenorphine	Daniel Warren, MD	
9:20 am	Panel Discussion and Open Forum		
8:00 am - 9:45 am	PS-01b Parallel Session Not Forever Young: The Impact and Importance of Treating Pediatric Pain	Moderator: Shalini Shah, MD	Mardi Gras DE
8:00 am	The Adolescent and Vulnerability to Opioid Addiction Issues	Karen Boretzky, MD	1.75 credits
8:25 am	The Role of Intensive Pediatric Rehabilitation in Treating Chronic Pain for Amplified Pain	Laura Simons, PhD	MOCA
8:50 am	Treatment Strategies for Pediatric and Adolescent Pain	Maged Mina, MD	Ped
9:15 am	Panel Discussion and Open Forum		
9:45 am 10:30 am	Break in Exhibit Hall Refreshments, Exhibition, ePosters, ASRA Chat Room, Internet Café PA, Nurse Practitioner, and Nursing Meet and Greet		Exhibit Hall
10:30 am - 12:15 pm	PS-02a Parallel Session Neurostimulation and Advanced Interventional Pain Treatments: 2019	Moderator: May Chin, MD	Acadia 
10:30 am	Dorsal Root Ganglion Stimulation	David Provenzano, MD	1.75 credits
10:50 am	Peripheral Nerve Stimulation	Erika Petersen, MD	Abd & Pelvic Cancer
11:10 am	Spinal Cord Stimulation	Leonardo Kapural, MD, PhD	Neu
11:30 am	Advanced Cancer Pain Therapies	Dawood Sayed, MD	
11:50 am	Panel Discussion and Open Forum		
10:30 am - 12:15 pm	PS-02b Parallel Session Under Pressure: The Influence of Stress and Importance of Wellness in Chronic Pain Patients	Moderator: Oscar de Leon-Casasola, MD	Mardi Gras DE
10:30 am	The Impact of Early Life Stress on the Development and Maintenance of Pain	Julie Christianson, PhD	1.75 credits
10:50 am	PTSD and Chronic Pain: Overcoming Barriers on the Path to Wellness	Mitchell Cohen, MD	FMd
11:10 am	Stress and Catastrophizing: How Do We Help Our Patients Be Resilient in the Face of Pain	Afton Hassett, PsyD	Ped
11:30 am	Promoting Wellness for Chronic Pain Patients: How Caring About Healthy Behaviors is Half the Battle	Natalie Strand, MD	NP-PA
11:45 am	Panel Discussion and Open Forum		PnEd
12:15 pm - 1:45 pm	Lunch On Own		
or			
12:30 pm - 1:30 pm	Non-CME Ancillary Event by Nevro (lunch included) The Next Generation Platform from Nevro: A New System for Maximizing Versatility in SCS		Acadia
or			
12:30 pm - 1:30 pm	Non-CME Ancillary Event by Abbott (lunch included) Lower the Dose, Raise Your Expectations		Mardi Gras DE

Friday Main Meeting Program (continued)

1:45 pm - 3:30 pm	PS-03a Parallel Session Centralized Pain Syndromes: Complex, Difficult, and So Important to Understand	Moderator: Kristin Schreiber, MD, PhD	Acadia
1:45 pm	Central Sensitization, Nociceptive Pain, and Fibromyalgia: Overlapping Terms for the Same Underlying Problem	Daniel Clauw, MD	1.75 credits
2:05 pm	When you Give a Mouse a Centralized Pain Syndrome: The Peril and Power of Animal Models	Julie Christianson, PhD	
2:25 pm	Chronic Fatigue Syndrome/Myalgic Encephalomyelitis: Emerging Theories and Treatments	Jarred Younger, PhD	
2:45 pm	Centralized Pain in Pediatrics: The Case for Early Intervention to Avoid Pain Stickiness	Laura Simons, PhD	
3:05 PM	Panel Discussion and Open Forum		
1:45 pm - 3:30 pm	PS-03b Parallel Session Addiction in Pain Medicine: It's Not Just About Opioids	Moderator: Honorio Benzon, MD	Mardi  Gras DE
1:45 pm	Best of Resident/Fellow Travel Award Abstract 374		1.75 credits
1:50 pm	Recognizing Benzodiazepine Use Disorder and Addiction in the Clinical Setting	Andrea Furlan, MD	
2:15 pm	Tobacco Addiction and Chronic Pain: Why Should We Care?	W. Michael Hooten, MD	
2:40 pm	Cannabis and Cannabinoids: How Do We Know Our Patients Are Using This Safely?	Mark Wallace, MD	
3:05 pm	Panel Discussion and Open Forum		
3:30 pm - 4:15 pm	Break in Exhibit Hall Refreshments, Exhibition, ePosters, ASRA Chat Room, Internet Café New Member Meet and Greet		Exhibit Hall
4:15 pm - 6:00 pm	PS-04a Parallel Session Regenerative Medicine in 2019: Advances, Pearls, and Pitfalls	Moderator: Magdalena Anitescu, MD, PhD	Acadia
4:15 pm	Best of Meeting Abstract 423		1.75 credits
4:20 pm	Regenerative Medicine in 2019: Advances	Dmitri Souza, MD	
4:40 pm	Regenerative Medicine in 2019: Pitfalls	Ricardo Vallejo, MD	
5:00 pm	Integrating Regenerative Medicine into Your Practice: Pearls and Pitfalls	James Modir, MD	
5:20pm	Latest on Regulatory Landscape for Regenerative Medicine	Aaron Calodney, MD	
5:40 pm	Panel Discussion and Open Forum		
4:15 pm - 6:00 pm	PS-04b Parallel Session Headache Pain Medicine: Current Concepts and Emerging Therapies	Moderator: Eric Schwenk, MD	Mardi  Gras DE
4:15 pm	Best of Resident/Fellow Travel Award Abstract 143		1.75 credits
4:20 pm	Migraine	Stephen Silberstein, MD	
4:40 pm	Atypical Facial Pain / Trigeminal Neuralgia	Jan Van Zundert, MD	
5:00 pm	Cervicogenic Headache	Lynn Kohan, MD	
5:20 pm	Botulinum Toxin for Myofascial Pain and Headaches	Shalini Shah, MD	
5:40 pm	Panel Discussion and Open Forum		
6:00 pm - 7:30 pm	Special Event Resident/Fellow and Pain Program Directors Meet and Greet Complimentary to Residents/Fellows and Fellowship Directors		Riverview

Friday Workshops (additional fee, physicians only)

8:00 am - 10:00 am	WS-10 Hands-On Fluoroscopy & Ultrasound Workshop (cadaver, live model) [\$345] Fusion: Ultrasound and Fluoroscopy for Blocks of the Head and Neck (Trigeminal, SPG, Cervical Medial Branches and Facet Injection, Cervical SNRB, GON/TON, Stellate Ganglion) (Advanced Course)	Lead: Roderick Finlayson, MD		Studio 8
		Faculty: Alaa Abd-Elseyed, MD Maxim Eckmann, MD Antoun Nader, MD	Associate Faculty: Andrew Germanovich, MD Amy Pearson, MD	2.00 credits 
8:00 am - 12:15 pm	WS-11 Half-Day Special Session Fluoroscopy & Ultrasound Workshop (cadaver, live model) [\$445] Regenerative Medicine	Lead: Dmitry Souza, MD		Studio 3
		Faculty: Aaron Calodney, MD Marte Martinez, MD James Modir, MD Einar Ottestad, MD Ricardo Vallejo, MD	Associate Faculty: Christine Hunt, DO	4.25 credits 
8:00 am - 10:00 am	WS-12 Hands-On Fluoroscopy Workshop (cadaver) [\$345] Neuromodulation for Beginners	Lead: Timothy Lubenow, MD		Studio 2
		Faculty: Steven Falowski, MD Dawood Sayed, MD	Associate Faculty: Julie Huang-Lionnet, MD	2.00 credits 
10:30 am - 12:30 pm	WS-13 Hands-On Fluoroscopy & Ultrasound Workshop (cadaver, live model) [\$345] Fusion: Ultrasound and Fluoroscopy for Abdominal and Pelvic Blocks (TAP/Ilioinguinal, Pudendal Nerve, Piriformis, Quadratus Lumborum, Sacrococcygeal Lig/Caudal Entry)	Lead: Michele Curatolo, MD		Studio 8
		Faculty: Anuj Bhatia, MD Antoun Nader, MD Reda Tolba, MD	Associate Faculty: Vasudha Goel, MD Usman Latif, MD	2.00 credits 
10:30 am - 12:30 pm	WS-14 Hands-On Fluoroscopy Workshop (cadaver) [\$345] Intradiscal Procedures: Lumbar Disc Stimulation, Biaculoplasty (Advanced Course)	Lead: Maunak Rana, MD		Studio 2
		Faculty: Jeffrey Petersohn, MD Carlos Pino, MD		2.00 credits
1:30 pm - 3:30 pm	WS-15 Hands-on Fluoroscopy Workshop (cadaver) [\$345] Cervical and Thoracic RFA: Cooled and Traditional RFA	Lead: Maxim Eckmann, MD		Studio 3
		Faculty: Dalia Elmofly, MD	Associate Faculty: Vasudha Goel, MD	2.00 credits

Friday Workshops (continued) (additional fee, physicians only)

1:45 pm - 6:00 pm	WS-16 Half-Day Special Session Fluoroscopy Workshop (cadaver) (\$445) Neuromodulation and IDDS: Surgical Techniques, Novel Technology, and Troubleshooting (Advanced Course)	Lead: Steven Falowski, MD		Studio 2
		Faculty: Maged Guirguis, MD Timothy Lubenow, MD Erika Petersen, MD	Associate Faculty: Rany Abdallah, MD, PhD, MBA	4.25 credits 
4:00 pm - 6:00 pm	WS-17 Hands-on Ultrasound Workshop (live model) (\$345) Cryoablation of Peripheral Nerves	Lead: Maxim Eckmann, MD		Studio 8
		Faculty: Antoun Nader, MD Einar Ottestad, MD	Associate Faculty: Christine Hunt, DO	2.00 credits 
4:00 pm - 6:00 pm	WS-18 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Lumbar and Sacral/SI RFA: Cooled, Multipolar, and Traditional RFA	Lead: Steven P. Cohen, MD		Studio 3
		Faculty: Talal Khan, MD Jeffrey Petersohn, MD	Associate Faculty: Julie Huang-Lionnet, MD	2.00 credits

Friday Ask the Experts Interactive Sessions

(open to all, seats are limited)

8:00 am - 9:45 am	IS-05 Ask the Experts Interactive Session Striving and Thriving in Pain Medicine: Part I for the Professional	Moderator: May Chin, MD	Mardi Gras GH
8:00 am	Welcome and Significance of Professional Development	Andrea Nicol, MD	1.75 credits
8:05 am	Negotiation and Conflict Resolution 101: Getting Out of Your Emotional Basement	Erica Howe, MD	
9:20 am	Panel Discussion and Open Forum		
10:30 am - 12:15 pm	IS-06 Ask the Experts Interactive Session Striving and Thriving in Pain Medicine: Part II for the Professional	Moderator: Daniel Warren, MD	Mardi Gras GH
10:30 am	Creating Productive Dialogues During Difficult Discussions	Erica Howe, MD	1.75 credits
11:50 am	Panel Discussion and Open Forum		
1:30 pm - 3:30 pm	Spec-03 Special Interactive Session (\$75, registration required) Musculoskeletal and Neurologic Physical Examination for the Pain Medicine Practitioner	Moderator: F. Michael Ferrante, MD	Studio 8
	Faculty will demonstrate how to examine gait; coordination; mental status; cranial and peripheral nerves; motor; reflexes; small and large joint exam. Two models will be available for participants to practice under faculty guidance.	Sandeep Amin, MD	2.00 credits
		Andrew Germanovich, MD	
		Natalie Strand, MD	
1:45 pm - 3:30 pm	IS-07 Ask the Experts Interactive Session Intrathecal Drug Delivery: Optimal Management of Patients with Pain and/or Spasticity	Moderator: Nagy Mekhail, MD, PhD	Mardi Gras GH
1:45 pm	Cancer and Palliative Care IDDS Pearls and Pitfalls	Oscar de Leon-Casasola, MD	1.75 credits
2:05 pm	IDDS for Chronic Non-Cancer Pain: PRO	Alaa Abd-Elsayed, MD	
2:25 pm	IDDS for Chronic Non-Cancer Pain: CON	Jan Van Zundert, MD	
2:45 pm	IDDS for Spasticity	Lynn Kohan, MD	
3:05 pm	Panel Discussion and Open Forum		
4:15 pm - 6:00 pm	IS-08 Ask the Experts Interactive Session Cannabis and Cannabinoids in Pain Medicine	Moderator: Mark Wallace, MD	Mardi Gras GH
4:15 pm	Implications and Potential Utility of Cannabinoids in the Acute Pain Setting	Ignacio Badiola, MD	1.75 credits
4:35 pm	Management of the Patient Who Comes In Already Using Cannabis/Cannabinoids?	Carlos Pino, MD	
4:55 pm	Should Chronic Opioid Patients Use Concomitant Cannabis/Cannabinoids?	Mark Wallace, MD	
5:15 pm	Legal Implications for Patients and Prescribers	Richard Rosenquist, MD	
5:35 pm	Panel Discussion and Open Forum		

Saturday at a Glance

Activity	Plenary Sessions	PA/NP/Nursing	Practice Management	Workshops	Workshops	Workshops	Moderated ePoster A	Moderated ePoster B
Room	Acadia	Mardi Gras DE	Mardi Gras GH	Studio 8	Studio 3	Studio 2	Mardi Gras A	Mardi Gras B
7:00 AM		Non-CME Ancillary Event SPR Therapeutics (breakfast included)						
7:15 AM								
7:30 AM								
7:45 AM								
8:00 AM	Plen-01 Plenary Session	PA / NP / Nursing Program	PMP-01 ASRA-ASA Practice Management Portfolio	TICKET WS-19: Resident/Fellow Workshop	TICKET WS-20: Interactive Demonstration Workshop		MP-09a Moderated ePosters	MP-09b Moderated ePosters
8:15 AM								
8:30 AM								
8:45 AM	Lost in Translation: It's More Than Just Bench to Bedside	Inaugural PA/NP/Nursing Skills Lab	Prospering in the Current Healthcare Environment: Update 2019	Fluoroanatomy and Hands-On Fluoroscopy Workshop	Botulinum Toxin for Headache, Myofascial Pain, and Spasticity			
9:00 AM								
9:15 AM								
9:30 AM								
9:45 AM								
10:00 AM								
10:15 AM								
10:30 AM								
10:45 AM	Plen-02 Plenary Session	PA / NP / Nursing Program	PMP-02 ASRA-ASA Practice Management Portfolio	TICKET WS-21 Resident/Fellow Workshop	TICKET WS-22 Hands-On Fluoroscopy Workshop (cadaver)		MP-10a Moderated ePosters	MP-10b Moderated ePosters
11:00 AM								
11:15 AM								
11:30 AM	Primum Non-Nocere: It Goes Both Ways	Spinal Cord Stimulator and Intrathecal Drug Delivery System Hands-On Programming Skills Lab	The Business of Pain: Understanding the World We Work In	Sonoanatomy and Hands-On Ultrasound Workshops	Vertebral Augmentation I (Beginner): Balloon Kyphoplasty and Lumbar Vertebroplasty			
11:45 AM								
12:00 PM								
12:15 PM								
12:30 PM								
12:45 PM								
1:00 PM								
1:15 PM								
1:30 PM								
1:45 PM								
2:00 PM								
2:15 PM	Plen-03 Plenary Session	PA / NP / Nursing Program	PMP-03 ASRA-ASA Practice Management Portfolio	TICKET WS-23 Hands-on Fluoroscopy & Ultrasound Workshop (cadaver, live model)	TICKET WS-24: Hands-On Fluoroscopy Workshop (cadaver)	TICKET WS-25 Hands-On Fluoroscopy Workshop (cadaver)	MP-11a Moderated ePosters	MP-11b Moderated ePosters
2:30 PM								
2:45 PM	Stronger Together: The Future of Pain Medicine	Interpretation and Appropriate Use of Risk Stratification and Compliance Monitoring Tools in Opioid Prescribing	Making It Work: Optimizing Your Care Team to Ensure Success	Peripheral Nerve Stimulation and Ultrasound Neurography (Advanced Course)	Vertebral Augmentation II (Advanced): Thoracic Vertebral Augmentation, Vertebral Implants (KIVA), and Vertebral RFA (Advanced Course)	Direct and Indirect Percutaneous Spinal Decompression, Disc Decompression (Advanced Course)		
3:00 PM								
3:15 PM								
3:30 PM								
3:45 PM								
4:00 PM								
4:15 PM								
4:30 - 7:00 PM								
7:00 - 10:00 PM								
Session Adjournment and Free Time								
TICKET Annual Meeting Celebration: Laissez Les Bons Temps Rouler! Riverview - 41st Floor								

Saturday Main Meeting Program

7:00 am - 7:45 am	Non-CME Ancillary Event by SPR Therapeutics (breakfast included) SPRINT- Getting Out of the Starting Blocks with PNS		Mardi Gras DE
7:30 am - 8:00 am	Getting Started Registration Breakfast, Exhibition, ePosters, ASRA Chat Room, Internet Café	Foyer Exhibit Hall	
8:00 am - 10:00 am	Plen-01 Plenary Session Lost in Translation: It's More Than Just Bench to Bedside	Moderator: Andrea Nicol, MD	Acadia 
8:00 am	Best of Meeting Abstract 514		2.00 credits
8:05 am	The Role of the Clinician Scientist in Advancing Pain Medicine	Gina Votta-Velis, MD, PhD	
8:25 am	Entrepreneurship in Pain Medicine: From Brains to Business	Pamela Palmer, MD, PhD	
8:45 am	Pain Journalism: Why I Left My Lab to Write About Pain	Stefani Sutherland, PhD	
9:05 am	Policy and Advocacy in Pain Medicine: Fighting for the Greater Good	Padma Gulur, MD	
9:35 am	Panel Discussion and Open Forum		
10:00 am - 10:45 am	Break in Exhibit Hall Refreshments, Exhibition, ePosters, ASRA Chat Room, Internet Café		Exhibit Hall
10:45 am - 12:45 pm	Plen-02 Plenary Session Primum Non-Nocere: It Goes Both Ways	Moderator: Oscar de Leon-Casasola, MD	Acadia 
10:45 am	Violence in Pain Clinics: Why Does it Happen and How Do We Protect Ourselves?	Erica Howe, MD	2.00 credits
11:15 am	Suffering in Silence: The Influence of Burnout on Mental Health Problems and Suicide in Physicians	Michael Weinstein, MD	 
12:25 pm	Panel Discussion and Open Forum		
12:45 pm - 2:15 pm	Special Event Excellence in ASRA Awards Luncheon	Moderator: Chad Brummett, MD	Acadia 
12:45 pm	Buffet Lunch Service (lunch tickets: \$10 member, \$20 non-member)		0.75 credits
1:00 pm	Chronic Pain Award Research Grant Update	Eellan Sivanesan, MD	
1:10 pm	Introduction to Bonica Award Recipient	Samer Narouze, MD, PhD	
1:15 pm	John J. Bonica Award Lecture	Nagy Mekhail, MD, PhD	
2:00 pm	Adjournment and Move to Next Session		
2:15 pm - 4:30 pm	Plen-03 Plenary Session Stronger Together: The Future of Pain Medicine	Moderator: Steven P. Cohen, MD	Acadia 
2:15 pm	Inclusivity: Why We Should Care about Gender, Racial, and Ethnic Equality in Our Specialty	Tina Doshi, MD	2.25 credits
2:40 pm	Why We Should Avoid Being Only "Interventional Pain Medicine" Practitioners	Robert Hurley, MD, PhD	
3:15 pm	Leading the Way: Integrating Research Training Programs into Clinical Fellowship Programs	Meredith Adams, MD	
3:40 pm	Defining the Roles of Anesthesiologists and Pain Physicians in the Opioid Crisis	Chad Brummett, MD	
4:05 pm	Panel Discussion and Open Forum		
4:30 pm - 7:00 pm	Session Adjournment / Free Time		
7:00 pm - 10:00 pm	Special Event ASRA Annual Meeting Celebration: Laissez Les Bons Temps Rouler! Tickets: \$50 member, \$75 non-member, \$30 children 9 and under		Riverview

Saturday Workshops (additional fee, physicians only)

8:00 am - 10:00 am	WS-19 Resident/Fellow Workshop (cadaver) (\$30) Fluoroanatomy and Hands-On Fluoroscopy Workshop	Lead: Reda Tolba, MD		Studio 3
		Faculty: Sandeep Amin, MD Dalia Elmofty, MD Eellan Sivanesan, MD	Associate Faculty: Andrew Germanovich, MD Vasudha Goel, MD	2.00 credits
8:00 am - 10:00 am	WS-20 Interactive Demonstration Workshop (\$145) Botulinum Toxin for Headache and Myofascial Pain	Lead: Shalini Shah, MD		Studio 2
		Faculty: F. Michael Ferrante, MD		2.00 credits 
10:45 am - 12:45 pm	WS-21 Resident/Fellow Workshop (live model) (\$30) Sonoanatomy and Hands-On Ultrasound Workshops	Lead: Hariharan Shankar, MBBS		Studio 8
		Faculty: Michele Curatolo, MD Maged Mina, MD	Associate Faculty: Amy Pearson, MD	2.00 credits 
10:45 am - 12:45 pm	WS-22 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Vertebral Augmentation I (Beginner): Balloon Kyphoplasty and Lumbar Vertebroplasty	Lead: Jeffrey Petersohn, MD		Studio 3
		Faculty: Marte Martinez, MD Maunak Rana, MD	Associate Faculty: Rany Abdallah, MD, PhD, MBA	2.00 credits
2:15 pm - 4:15 pm	WS-23 Hands-on Fluoroscopy & Ultrasound Workshop (cadaver, live model) (\$345) Peripheral Nerve Stimulation and Ultrasound Neurography (Advanced Course)	Lead: Samer Narouze, MD, PhD		Studio 8
		Faculty: Maged Guirguis, MD Erika Petersen, MD Maunak Rana, MD		2.00 credits 
2:15 pm - 4:15 pm	WS-24 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Vertebral Augmentation II (Advanced): Thoracic Vertebral Augmentation, Vertebral Implants (KIVA), and Vertebral RFA	Lead: Brian Bruel, MD		Studio 3
		Faculty: Alaa Abd-Elsayed, MD Marte Martinez, MD	Associate Faculty: Andrew Germanovich, MD	2.00 credits 
2:15 pm - 4:15 pm	WS-25 Hands-On Fluoroscopy Workshop (cadaver) (\$345) Direct and Indirect Percutaneous Spinal Decompression, Disc Decompression (Advanced Course)	Lead: Leonardo Kapural, MD, PhD		Studio 2
		Faculty: Dawood Sayed, MD Ricardo Vallejo, MD, PhD		2.00 credits

ASRA-ASA Practice Management Portfolio

Saturday, November 16, 2019
Mardi Gras GH
(open to all, no registration required but seats are limited)

8:00 am - 10:00 am	PMP-01 ASRA-ASA Practice Management Portfolio Prospering in the Current Healthcare Environment: Update 2019	Moderator: David Provenzano, MD	Mardi Gras GH
8:00 am	Welcome and Introductions	David Provenzano, MD	2.00 credits
8:05 am	Pros and Cons of a Small Group Practice	Nirmala Abraham, MD	  
8:25 am	Pros and Cons of a Large Group Practice	Richard Rosenquist, MD	
8:40 am	Practice Models Part I: Pure Office Based Practice	Jeffrey Petersohn, MD	
9:00 am	Practice Models Part II: Office Based and Ambulatory Surgery Care Center Hybrid Practice	David Provenzano, MD	
9:20 am	Practice Models Part III: Transitional Pain Clinic	Jay Grider, DO	
9:35 am	Panel Discussion and Open Forum		
10:45 am - 12:45 pm	PMP-02 ASRA-ASA Practice Management Portfolio The Business of Pain: Understanding the World We Work In	Moderator: Jay Grider, DO	
10:45 am	Medical Billing: Ins and Outs and Updates for 2020	Jay Grider, DO	2.00 credits
11:05 am	What to Look For In a Contract: Understanding Before You Sign	Nirmala Abraham, MD	  
11:25 am	Revenue Management: Capturing Charges, Revenue Recovery, and AR Management Strategies	David Provenzano, MD	
11:45 am	Risk Management Strategies	Carlos Pino, MD	
12:05 pm	The Threat to Academic Pain Programs: Interventionalists Embedded in Surgical Practices	Richard Rosenquist, MD	
12:25 pm	Panel Discussion and Open Forum		
2:15 pm - 4:30 pm	PMP-03 ASRA-ASA Practice Management Portfolio Making It Work: Optimizing Your Care Team to Ensure Success	Moderator: Kevin Vorenkamp, MD	
2:15 pm	Stronger Together: Coordinating Care in a Practice of Physician and Non-Physician Care Extenders	Padma Gulur, MD	2.25 credits
2:35 pm	Multidisciplinary Pain Clinics: How to Build a Center for Streamlined Care	Tatal Khan, MD	  
2:55 pm	How to Cultivate Patient and Referral Source Loyalty	Kevin Vorenkamp, MD	
3:15 pm	Dual Care: Outpatient and Inpatient - How to Ensure a Successful Multi-Site Pain Program	Nirmala Abraham, MD	
3:40 pm	Strategies to Manage Patient Satisfaction Scores in the Current Opioid Crisis	Jay Grider, DO	
4:05 pm	Panel Discussion and Open Forum		

PA/Nurse Practitioner/Nursing Program

Friday, November 15, 2019

9:45 am - 10:30 am	PA/NP/Nursing Meet and Greet in the Chat Room		Exhibit Hall
	Refreshments, Exhibition, ePosters, ASRA Chat Room, Internet Café		

Saturday, November 16, 2019

7:30 am - 8:00 am	Getting Started		
	Registration		Foyer
	Breakfast, Exhibition, ePosters, ASRA Chat Room, Internet Café		Exhibit Hall
8:00 am - 10:00 am	Inaugural PA/NP/Nursing Skills Lab	Moderator: Zohra Hussaini, MSN, FNP-BC, MBA	Mardi Gras DE
8:00 am	Welcome and Introductions	Eugene Viscusi, MD	2.00 credits
8:05 am	Trigger Point Injections	Tina Doshi, MD	
9:00 am	Musculoskeletal / Neurologic Exam	John A. Freeman, DO	
10:00 am - 10:45 am	Break in Exhibit Hall		Exhibit Hall
	Refreshments, Exhibition, ePosters, ASRA Chat Room, Internet Café		
10:45 am - 12:45 pm	Spinal Cord Stimulator and Intrathecal Drug Delivery System Hands-On Programming Skills Lab	Moderator: Heather Jackson, MSN, FNP-BC	Mardi Gras DE
10:45 am	So Many Types of Neuromodulation! A Crash Course On The Different Systems	Leonardo Kapural, MD	2.00 credits
11:05 am	Troubleshooting Sub-Optimal SCS / IDDS Therapy	Brian Bruel, MD	
11:25 am	Recognizing and Managing Complications Related to SCS and IDDS Therapy	Steven Falowski, MD	
11:45 am	Panel Discussion and Open Forum	All Faculty	
12:05 pm	IDDS Programming/Pump Refill Practicum	Zohra Hussaini, MSN, FNP-BC, MBA	
2:15 pm - 4:30 pm	Interpretation and Appropriate Use of Risk Stratification and Compliance Monitoring Tools in Opioid Prescribing	Moderator: Heather Jackson, MSN, FNP-BC	Mardi Gras DE
2:15 pm	Refresher Lecture on CDC Guidelines and Medico-Legal Ramifications of Opioid Prescribing	Honorio Benzon, MD	2.25 credits
2:40 pm	It's Time to Taper: I Need Help in Reducing or Stopping These Meds!	Andrea Furlan, MD	
3:05 pm	Opioid Risk Assessment Tools and How to Risk Stratify	W. Michael Hooten, MD	
3:30 pm	How I Manage: A Panel Discussion on Chronic Opioid Patients	Jennifer Grimmer, DNP, FNP-BC	
4:00 pm	Panel Discussion and Open Forum	All Faculty Zohra Hussaini, MSN, FNP-BC, MBA	

Abstracts & ePosters

Moderated ePoster Tracks

Don't miss hearing from and asking questions of the top poster presenters. Track A will be held in Mardi Gras A and Track B will be held in Mardi Gras B.

- Presenters have 5 minutes to present and 3 minutes for Q&A (ePoster only, no slides).
- ePosters will be available on a large screen, in the order listed in the meeting app, and on ePostersOnline®.
- Authors should attend the entire session.

Scheduled Viewing in Exhibit Hall

- ePosters not presented during a moderated session are assigned 15-minute presentations in the Exhibit Hall.
- Times are hard-programmed into the ePoster system and will advance to the next poster automatically.
- ePosters will not be formally moderated during Exhibit Hall presentation.

On-Demand, General Viewing of All ePosters

In addition to the scheduled viewing, all ePosters will be available on one screen during exhibit hall opening hours. Authors are encouraged to bring tablets or smartphones as there is discussion space and all ePosters are available via ePostersOnline®.

ePostersOnline®

Easily access the online library where you can search full poster text by title, key words, author, or other criteria. ePosters will be available online during the meeting and for 3 months afterward (medically challenging cases) and for 3 years (scientific abstracts) at <http://epostersonline.com/ASRA FALL19>.

EventPilot Meeting App

All abstracts and ePosters are also available in the ASRA meeting app. Click on the "ePosters & Abstracts" track or search by abstract number, author, or any keyword by clicking on the magnifying glass/search box at the top of your screen. See page 1 for easy Meeting App download instructions.

ASRA Website

Abstracts are available as PDF downloads from the ASRA website by going to www.asra.com/pain/abstracts.

Best of Meeting Award Presentations

In honor of the outstanding work, the Best of Meeting posters will be showcased throughout the meeting and presented throughout the meeting in conjunction with content-related sessions. See next page for full details.

Abstract Awards

Authors will present from the podium during the sessions indicated below.

Best of Meeting Abstracts

177.

60-day Percutaneous Peripheral Nerve Stimulation Implant Produces Sustained Relief of Chronic Pain in Amputees: 12-Month Follow-Up of a Double-Blind, Randomized, Placebo-Controlled Trial

Christopher Gilmore, Brian Ilfeld, Joshua Rosenow, Sean Li, Mehul Desai, Corey Hunter, Antoun Nader, John Mak, Richard Rauck, Nathan Crosby, Joseph Boggs

SPR Therapeutics, Cleveland, OH

Podium Presentation: Thursday, 1:30 pm-1:35 pm, Refresher Course: Postsurgical Pain Syndromes: From Prevention to Treatment in 2019

423.

Human Adipose-derived Mesenchymal Stem Cells and Their Clinical Applications – How Can Lidocaine Affect Stem Cell Survival?

Hai Nie, Eva Kubrova, Tao Wu, Janet Denbeigh, Christine Hunt, Allan Dietz, Jay Smith, Wenchun Qu, Andre van Wijnen

Mayo Clinic, Rochester, MN

Podium Presentation: Friday, 4:15 pm-4:20 pm, PS-04a: Regenerative Medicine in 2019: Advances, Pearls, and Pitfalls

514.

Effect of SCS on M1 and M2 Microglia Activation

William Smith, Satya Sanapati, David Cedeno, Courtney Kelley, Dana Tilley, Ricardo Vallejo

Lumbrera LLC, Londonderry, NH

Podium Presentation: Saturday, 8:00 am-8:05 am, Plen-01: Lost in Translation: It's More Than Just Bench to Bedside

Resident/Fellow Travel Awards

069.

Successful Implementation of a Novel E-learning Opioid Curriculum for Graduate Medical Education Housestaff: The Early Phase Outcome of an Internal Medicine Residency Curriculum E-Learning Project

Will Novey, Shalini Shah, Donald Tan, Maylin Martinez, Abhinav Grover, Bindu Swaroop, Emilie Chow

University of California, Irvine, CA

Podium Presentation: Thursday, 1:35 pm-1:40 pm, Refresher Course: Postsurgical Pain Syndromes: From Prevention to Treatment in 2019

143.

A Multicenter Retrospective Study of Adverse Effects from Ketamine for Refractory Headache and CRPS

Andrew Mendelson, Lynn Kohan, Mariam Wanees, Tina Dailey, Robert Goldstein, Ana Iriwin, Reza Salajegheh, Xiaoning Zhu, Joseph Okai, Marc Torjman, Eugene Viscusi, Eric Schwenk, Joseph Gonnella

Thomas Jefferson University Hospital, Philadelphia, PA

Podium Presentation: Friday, 4:15 pm-4:20 pm, PS-04b: Headache Pain Medicine: Current Concepts and Emerging Therapies

374.

Overprescribed: Combating the Opioid Epidemic with Creation of an Institutional Electronic Prescription Drug Accountability Program

Wei-Chen Lin, Louis Lu, Bobak Koohian, Jila Rouhi, Shalini Shah

University of California, Irvine, CA

Podium Presentation: Friday, 1:45 pm-1:50 pm, PS-03b: Addiction in Pain Medicine: It's Not Just About Opioids

ePosters (Non CME)

Moderated Poster Sessions

Day	Room	Moderator	Room	Moderator
Thursday	Mardi Gras A	Track A Moderator	Mardi Gras B	Track B Moderator
8:15 am - 9:45 am	MP-01a	Karen Boretsky, MD	MP-01b	Steven P. Cohen, MD
10:00 am - 12:00 pm	MP-02a	Robert Hurley, MD, PhD	MP-02b	Roderick Finlayson, MD
1:30 pm - 3:30 pm	MP-03a	Nagy Mekhail, MD, PhD	MP-03b	Tina Doshi, MD
3:45 pm - 5:15 pm	MP-04a	Andrea Furlan, MD	MP-04b	May Chin, MD
Friday	Mardi Gras A	Track A Moderator	Mardi Gras B	Track B Moderator
8:00 am - 9:45 am	MP-05a	Jarred Younger, PhD	MP-05b	Andrea Furlan, MD
10:30 am - 12:15 pm	MP-06a	Gina Votta-Velis, MD, PhD	MP-06b	Kristin Schreiber, MD, PhD
1:45 pm - 3:30 pm	MP-07a	Eellan Sivanesan, MD	MP-07b	Meredith Adams, MD
4:15 pm - 6:00 pm	MP-08a	Sandeep Amin, MD	MP-08b	Leonardo Kapural, MD
Saturday	Mardi Gras A	Track A Moderator	Mardi Gras B	Track B Moderator
8:00 am - 10:00 am	MP-09a	Jan Van Zundert, MD	MP-09b	Stephen Silberstein, MD
10:45 am - 12:45 pm	MP-10a	W. Michael Hooten, MD	MP-10b	F. Michael Ferrante, MD
2:15 pm - 4:30 pm	MP-11a	Michele Curatolo, MD	MP-11b	Amitabh Gulati, MD

Exhibit Hall ePoster Facilitators

Thursday	Facilitator Screens 1-2	Facilitator Screens 3-4	Facilitator Screens 5
5:15 pm - 6:00 pm	Jay Grider, DO	Vasudha Goel, MD	Dalia Elmofty, MD
6:00 pm - 6:30 pm	Rany Abdallah, MD, PhD, MBA	Ignacio Badiola, MD	Marte Martinez, MD
Friday	Facilitator Screens 1-2	Facilitator Screens 3-4	Facilitator Screens 5
7:30 am - 8:00 am	Michele Curatolo, MD	Magdalena Anitescu, MD, PhD	Jeffrey Petersohn, MD
9:45 am - 10:30 am	Lynn Kohan, MD	Nabil Elkassabany, MD	Honorio Benzon, MD
3:30 pm - 4:15 pm	Usman Latif, MD	Tina Doshi, MD	Amy Pearson, MD
Saturday	Facilitator Screens 1-2	Facilitator Screens 3-4	Facilitator Screens 5
7:30 am - 8:00 am	Alaa Abd-Elseyed, MD	Rany Abdallah, MD, PhD, MBA	Marte Martinez, MD
10:00 am - 10:45 am	Trusharth Patel, MD	Jules Huang-Lionnet, MD	Amitabh Gulati, MD

Industry Support Disclosure

This course is supported, in part, by educational grants and in-kind support from industry. All support is managed in strict accordance with the ACCME's Standards for Commercial Support. Appropriate acknowledgement of all supporting organizations is made to participants prior to the educational activity in the program guide, on the event website, and with signage during the meeting.

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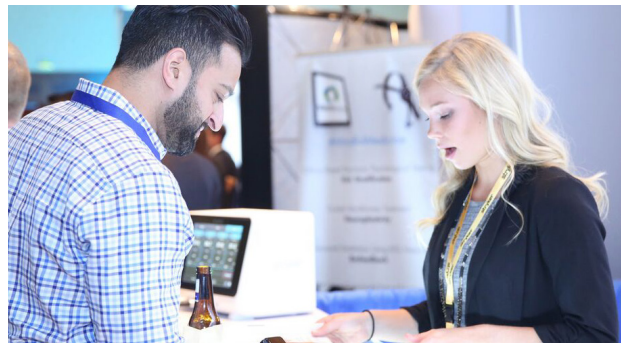


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Thank you to our Wine and Bubbly Networking Reception Sponsors

Thursday • 5:15-6:30 pm • Exhibit Hall

Free to all attendees • Guest tickets: \$30 • 21 years and over only

Cap off day one of the meeting with some wine or bubbly while enjoying light hors d'oeuvres with friends, colleagues, and exhibitors. This is your first chance to discover the exhibit hall and its vast array of products and services. A selection of wines and bubbly will be served from the following company booths. Beer, soda, and juice will also be available. Cheers!

Abbott, Booth 301

Sauvignon Blanc, Sea Pearl, New Zealand
Cabernet Sauvignon, Stone Cellars by Beringer, California

Avanos, Booth 207

Sauvignon Blanc, Sea Pearl, New Zealand
Cabernet Sauvignon, Stone Cellars by Beringer, California

Medtronic, Booth 201

Chardonnay, Chateau St. Jean, California
Merlot, Chateau St. Jean, California

Nevro, Booth 101

Chardonnay, Chateau St. Jean, California
Cabernet Sauvignon, Stone Cellars by Beringer, California



SPR Therapeutics, Inc., Booths 100 & 102

Chardonnay, Chateau St. Jean, California
Cabernet Sauvignon, Stone Cellars by Beringer, California

Stryker Interventional Spine, Booths 110 & 112

Sauvignon Blanc, Sea Pearl, New Zealand
Cabernet Sauvignon, Stone Cellars by Beringer, California

Vertos Medical, Booth 113

Sauvignon Blanc, Sea Pearl, New Zealand
Cabernet Sauvignon, Stone Cellars by Beringer, California

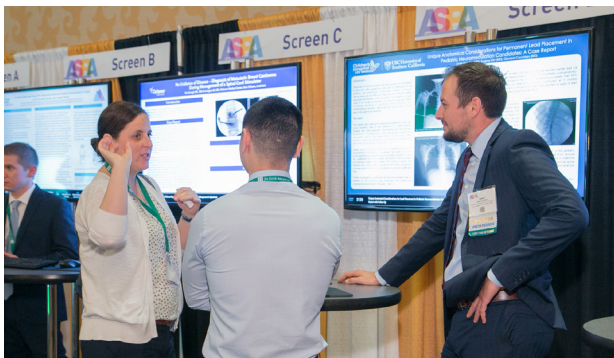


Exhibit Hall Hours

The exhibit hall is the networking hub of the meeting. Learn about sponsors' products and services, view ePosters, print your boarding pass in the Internet café, get your caffeine fix, or pick up a healthy snack; the ASRA exhibit hall is the place to be!



Thursday

5:15 - 6:30 pm

Wine and Bubbly Networking Reception and exhibition GRAND OPENING!

Friday

7:30 - 8:00 am

Breakfast

8:00 - 9:45 am

Exhibit Hall Open

9:45 - 10:30 am

Morning Break and PA/NP/Nursing Meet and Greet

3:30 - 4:15 pm

Afternoon Break and New Member Meet and Greet in ASRA Chat Room

Saturday

7:30 - 8:00 am

Breakfast - a full, hot breakfast buffet will be served

8:00 - 10:00 am

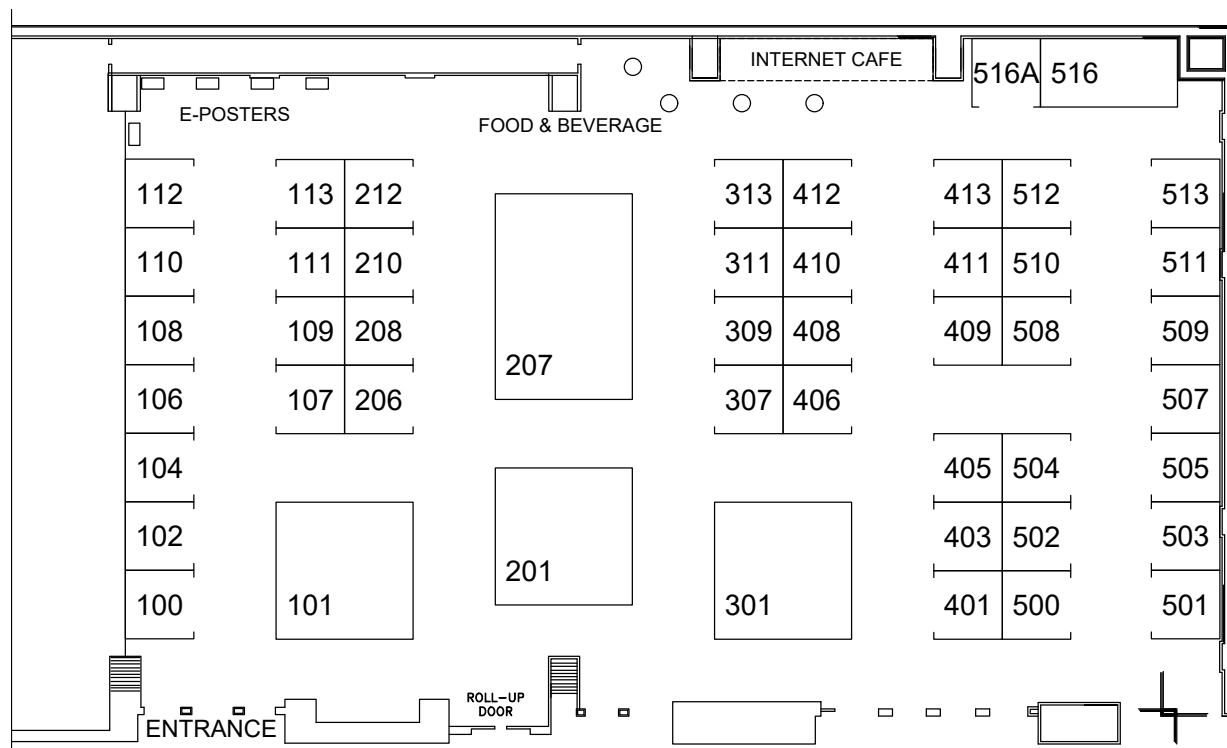
Exhibit Hall Open

10:00 - 10:45 am

Morning Break - last chance to visit the exhibition



Exhibit Hall



Abbott.....	301	Nevro.....	101
AcelRx Pharmaceuticals.....	500/502	NimbusRF.....	511
AIS HealthCare.....	307/309	North American Neuromodulation Society (NANS).....	509
Alpinion Medical Systems.....	313	Novartis Pharmaceutical Corporaton.....	210
The American Society of Anesthesiologists (ASA).....	503	Nuvecra.....	311
Avanos.....	207	Pain Medicine News.....	505
Axiom Regenerative Therapies.....	411	Pacira BioSciences, Inc.....	413
Basic Home Infusion.....	401	Pajunk Medical Systems.....	104
Bioness.....	106	Pentec Health.....	410
Boston Scientific.....	206/208	Prospira Pain Care.....	111
Custom Interventional Pain Management.....	406	Regional Anesthesia & Pain Medicine.....	510
Diros Technology Inc.....	405	Safersonic US, Inc.....	403
Epimed.....	412	SPR Therapeutics, Inc.....	100/102
Erchonia Corporation.....	508	Stimwave.....	512
Flowonix Medical.....	108	Stryker Interventional Spine.....	110/112
Fujifilm SonoSite.....	107	Terason.....	513
GE Healthcare.....	409	TerSera Therapeutics LLC.....	501
Havel's.....	212	Teva Pharmaceuticals.....	109
Heron Therapeutics, Inc.....	408	Vertos Medical.....	113
Konica Minolta Healthcare Americas.....	507	WellBrain.....	504
Medtronic.....	201		

Exhibitors

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Abbott, Booth 301

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At Abbott, we're committed to helping people live their best life through the power of health. For more than 125 years, we've brought new technologies to the world—in nutrition, diagnostics, medical devices and branded generic pharmaceuticals—that create more possibilities for more people at all stages of life. www.abbott.com



to system processors. ALPINION focuses on continuous innovation in acoustic technology. ALPINION has developed a range of transducer array types and applied them to ALPINION's innovative E-CUBE series.

The American Society of Anesthesiologists (ASA), Booth 503

www.asahq.org

ASA® is the leading anesthesiology professional society with more than



American Society of Anesthesiologists™

53,000 members globally. Since its founding in 1905, the Society raises and maintains the standard of the practice of anesthesiology through education, advocacy and quality improvement by focusing on patient care and safety. ASA is dedicated to helping physician anesthesiologists and their care teams provide the highest quality of care in a patient-centered, physician led environment.

AcelRx Pharmaceuticals, Booths 500/502

www.acerx.com

AcelRx Pharmaceuticals, Inc. is a specialty pharmaceutical company focused on the development and commercialization of innovative therapies for use in medically supervised settings. The company's non-invasive, sublingual formulation technology is designed to efficiently deliver highly lipophilic drugs with consistent pharmacokinetic profiles. In November of 2018, its lead product candidate DSUVIA™ (sufentanil sublingual tablet 30 mcg) was approved by the U.S. Food and Drug Administration. In the EU, the European Commission has granted marketing approval for DZUVEO (known in the US as DSUVIA) for use in medically monitored settings.



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Avanos, Booth 207

www.avanos.com

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Avanos is a medical technology company focused on delivering



clinically superior medical device solutions to improve patients' quality of life. Avanos is committed to addressing some of today's most important healthcare needs, such as reducing the use of opioids, providing longer-lasting pain relief and improving physical function. With a relentless focus on advancing change in the medical devices industry to address unmet medical needs, Avanos provides pioneering pain management solutions such as COOLIEF* Cooled RF. Learn more at: www.avanospainmanagement.com.

AIS HealthCare, Booths 307/309

www.aiscaregroup.com

AISTM HealthCare provides sterile, patient-specific intrathecal pain pump



medications for the management of chronic pain. AIS 503A pharmacy services are supported with Advanced Nursing Solutions, providing physicians and patients with in-home pump refills, and a patient-centric Care Coordination Center that assists patients in achieving self-management goals and optimal wellness.

Axiom Regenerative Therapies, Booth 411

www.carestreamamerica.com

Axiom Regenerative Therapies, a vanguard in empowering clinicians with evidence-based regenerative medicine, brings leading science to a chaotic "stem cell" landscape by



arming you with the best practices in biotechnologies, a National Patient Registry and Digital Patient Care. Axiom makes you the beacon in uncertain regulatory waters by navigating the risks and rewards of next-generation, cell-enhanced ortho/spine surgery and pain management.

Alpinion Medical Systems, Booth 313

www.alpinion.com

ALPINION's innovative and recognized ultrasound brand 'E-CUBE' principles ('Extreme Clarity', 'Efficient Workflow', 'Ergonomic Design') reflect ALPINION's technological philosophy that provides customers with uniform image quality throughout the product lifetime. ALPINION has focused on acoustic engineering and front-end technology since we initiated our ultrasound business. There has traditionally been a strong focus on back-end processing in ultrasound; however, we shifted attention to the front-end with a focus on the signal quality sent



JOIN US FOR BREAKFAST SATURDAY!

November 16th 7:00 am - 7:45 am, Mardi Gras Ballroom DE

GET STARTED WITH PNS



Learn about the SPRINT PNS System in the treatment of shoulder pain in patients who often have very limited treatment options.

Hear from some of the world's best Peripheral Nerve Stimulation (PNS) implanters about how and where to get started using PNS in your practice. The SPRINT PNS System is a 60-day implant that provides significant and sustained pain relief in the majority of patients.

FACULTY SPEAKERS:

Amit Gulati, MD, Director, Chronic Pain at Memorial Sloan Kettering Cancer Center

Einar Ottestad, MD, Associate Professor at Stanford University

Henry Vucetic, MD, Cleveland Clinic and Akron General Hospital

Help patients with pain return to a more active lifestyle without opioids, tissue destruction or permanent implants.

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This symposium is a Non-CME ancillary event organized by SPR Therapeutics. The American Society of Regional Anesthesia and Pain Medicine (ASRA) has provided space for this non-CME event. The program was independently produced, not subject to content review by ASRA, and is not part of the scientific/educational program offered by ASRA.

The SPRINT Peripheral Nerve Stimulation (PNS) System is indicated for up to 60 days in the back and/or extremities for: (i) Symptomatic relief of chronic, intractable pain, post-surgical and post-traumatic acute pain; (ii) Symptomatic relief of post-traumatic pain; and (iii) Symptomatic relief of post-operative pain. SPRINT is not intended to treat pain in the craniofacial region. Physicians should use their best judgment when deciding when to use SPRINT. For more information see the SPRINT IFU.

Most common adverse events are skin irritation and erythema. Results may vary. Rx only.
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Basic Home Infusion, Booth 401

www.basichomeinfusion.com

Basic Home Infusion specializes in providing pharmacy and nursing services for intrathecal pumps nationwide for chronic pain and spasticity. Over 30 years of unmatched



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Bioness, Booth 106

www.bioness.com

StimRouter is a peripheral nerve stimulation device that reduces pain by delivering gentle

StimRouter
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electrical pulses directly to a target peripheral nerve to disrupt pain signals. StimRouter is implanted via a minimally invasive, outpatient procedure and is approved to treat chronic pain of peripheral nerve origin, excluding pain the craniofacial region.

Boston Scientific, Booths 206/208

www.controlyourpain.com

Boston Scientific is dedicated to providing physicians with a variety of solutions to manage patients suffering from chronic pain. Our growing portfolio of pain management product offerings include leading technologies in spinal cord stimulation, minimally invasive indirect decompression and radiofrequency ablation. Boston Scientific, 25155 Rye Canyon Loop, Valencia, CA 91355 USA, 661.949.4000, www.bostonscientific.com/pain

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Pacira BioSciences, Inc., Booth 413

www.pacira.com

Pacira BioSciences, Inc. (NASDAQ: PCRX) is a leading provider of non-opioid pain management and regenerative health solutions dedicated to advancing and improving outcomes for health care practitioners and their patients. The company's long-acting local analgesic, EXPAREL® (bupivacaine liposome injectable suspension) was commercially launched in the United States in April 2012. EXPAREL utilizes DepoFoam®, a unique and proprietary product delivery technology that encapsulates drugs without altering their molecular structure, and releases them over a desired period of time. In April 2019, the company acquired the iovera® system, a handheld cryoanalgesia device used to deliver precise, controlled doses of cold temperature only to targeted nerves. To learn more about Pacira, including the corporate mission to reduce overreliance on opioids, visit www.pacira.com.

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Custom Interventional Pain Management, Booth 406

www.cipmtrays.com

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Diros Technology Inc., Booth 405

www.dirostech.com

Diros Technology Inc. is the designer, manufacturer, & distributor of the world re-

nowned DIROS OWL® Radiofrequency (RF) Products. At our booth you will find a unique combination of products that together have the longest experience and continued success in the RF Pain Management market. With the most innovative OWL® URF-3AP Lesion Generator + MLA-4 with patent pending Quadrapolar™ technology, RF probes, Trident™ RF Cannulae, RF Cannulae, and GD-pads - all of your RF needs are met here. The OWL® RF Products are the safest, most reliable, most accurate, and easiest to use in the world. Looking forward to seeing you at our booth!

DIROS
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Epimed, Booth 412

www.epimed.com

Epimed is a development, design,

manufacturing and distribution company focusing on standard and unique solutions for physicians with an emphasis on outcomes and safety. We've been creating specialty devices in Regional Anesthesia and Pain for over 40 years. At ASRA, view our Site Specific Catheters, including the Rac2® catheters, Spirol®, and the 24g Neo-Kath™ Spring Wound Catheter. We'll have our RX-2 Epidural Needles and Coudé® Blunt Nerve Block Needles. As for simulators, we'll display the injection simulators including the Genesis™, Thoraxis™ and newest simulator, the Spinalis. Finally, we will display our PainBlocker™ Cryo line of Cryoanalgesia.

EPIMED

Erchonia Corporation, Booth 508

www.erschonia.com

Erchonia Corporation was founded in 1996 as a small family business, and

even though we have grown into an international enterprise, we still operate under the founding principles that guided us to our present success. Our commitment to the legitimate advancement of low-level laser therapy (3LT®) through scientific and clinical research has transformed Erchonia into a world leader in the field of LLLT technology. The integrity, diligence, quality and commitment of our company are evident in the rigorous process we follow in taking a research hypothesis from concept to viable, agency-approved product and treatment method. To ensure a steadfast adherence to our unique all-encompassing approach, our company serves as manufacturer, marketer, developer, promoter, creator and user of all our products.



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Flowonix Medical, Booth 108

www.flowonix.com

Flowonix Medical Inc. is committed **FLOWONIX** to working with healthcare professionals to enhance patients' lives through targeted drug delivery innovation and therapy advancements. Founded in 2005, our work aims to provide physicians an optimal solution for the treatment of numerous neurological disorders, helping their patients improve their overall quality of living.

Fujifilm SonoSite, Booth 107

www.sonosite.com

SonoSite helped pioneer the concept of portable, point-of-care ultrasound, and it continues to be a world-leading manufacturer and innovator of bedside ultrasound systems. SonoSite's portable, compact systems are expanding the use of ultrasound across the clinical spectrum by cost-effectively bringing high-performance ultrasound to the point of patient care. For more information, go to: www.sonosite.com.

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GE Healthcare, Booth 409

www.gehealthcare.com

GE Healthcare is a leading provider of medical imaging, monitoring, biomanufacturing, and cell and gene therapy technologies. GE Healthcare enables precision health in diagnostics, therapeutics and monitoring through intelligent devices, data analytics, applications and services. With over 100 years of experience and leadership in the healthcare industry and more than 50,000 employees globally, GE Healthcare helps healthcare providers, researchers and life sciences companies in their mission to improve outcomes for patients around the world. Follow us on Facebook, LinkedIn, Twitter and The Pulse for the latest news, or visit our website www.gehealthcare.com for more information.



Heron Therapeutics, Inc., Booth 408

www.herontx.com

Heron's mission is to improve the lives of patients by developing novel, best-in-class treatments to address some of the most important unmet patient needs. We aim to develop patient-focused solutions by applying our innovative science and technologies with well-known pharmacology.



Konica Minolta Healthcare Americas, Booth 507

www.konicaminolta.com

Konica Minolta's ultrasound systems provide superior imaging for the visualization of structures around target areas to effectively perform nerve blocks and vascular access procedures. Using an advanced algorithm combining in-plane and out-of-plane methods to improve needle visibility, the SNV™ feature increases accuracy in needle placement, making it an ideal solution. <https://www.konicaminolta.com/medicalusa/solutions/ultrasound/>



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Making healthcare better is our priority and we believe technology can play an even greater role in improving people's lives. In addition to alleviating pain, restoring health, and extending lives, we work in partnership with others to create seamless, more efficient care. Learn how we're taking healthcare Further, Together at [Medtronic.com](http://www.medtronic.com).

Medtronic

Havel's, Booth 212

www.havels.com

Havel's revolutionary EchoStim®, Echo-Block®, and Echo-Block® MSK needles for Ultrasound Guided Peripheral Nerve Blocks and injections have 16 Corner Cube Reflectors (CCR®) in the first 5.5mm of the needle. This focus on the tip allows you to identify the most important part of the needle under ultrasound, and it allows Havel's to sell them at or below what most pay for a regular insulated needle. Havel's Micro Laser Etched (MLE™) needles are also bright under ultrasound and quite inexpensive. They have a variety of tips including block bevels, Quincke points, and the EchoTuohy™. Please call today for a free sample!



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Nevro, Booth 101

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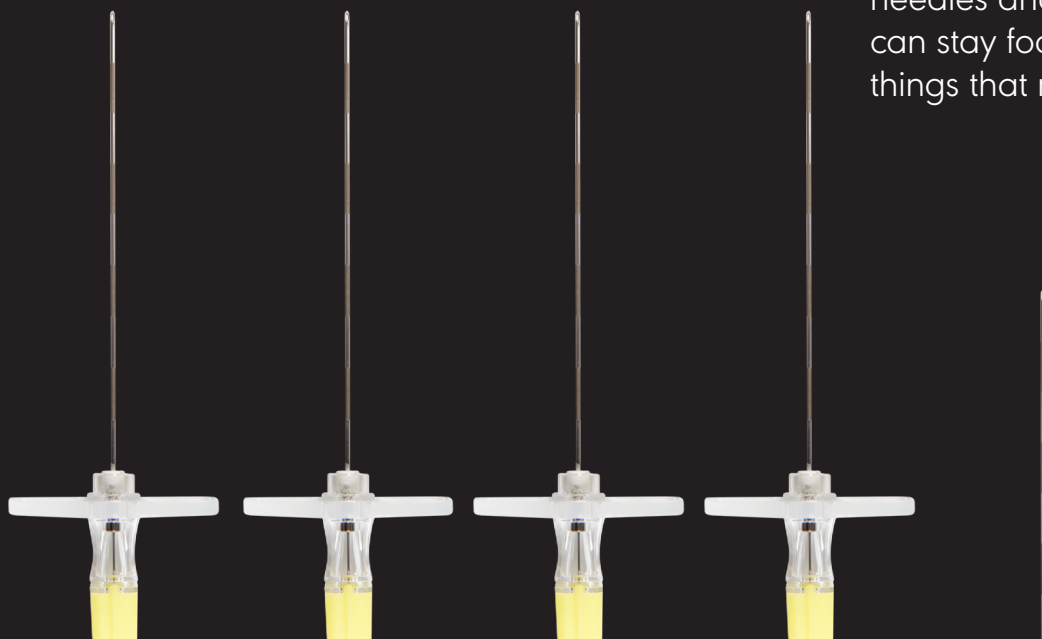
Nevro is a global medical device company focused on providing innovative therapies that improve the quality of life of patients suffering from chronic pain. Nevro's Senza® spinal cord stimulation system is an evidence-based neuromodulation platform developed for treating chronic pain and the only SCS system that delivers Nevro's proprietary HF10™ therapy.



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NimbusRF, Booth 511

www.nimbusrf.com

The Nimbus RF Multitined Expandable Electrode was developed to address the unmet need for an easy to use, efficient, cost-effective RF device that provides a large volume 8mm-10mm prolate spheroid lesion, which the interventional pain specialist can use to treat pain. Nimbus allows for a simple "down the beam" approach to treat both simple and complex RF targets for pain. When compared to other large volume RF techniques such as cooled electrodes, Nimbus is more cost effective, efficient and requires no special equipment. Nimbus is the only large lesion RF device for pain with MRI validation of lesion size (601.7mm³).



North American Neuromodulation Society (NANS), Booth 509

www.neuromodulation.org

The North American Neuromodulation Society (NANS), is a medical specialty organization devoted to the advancement of the field of neuromodulation. NANS is dedicated to the pursuit of excellence in the application of all neuromodulation therapies. NANS is dedicated to being the premier organization representing this field. We promote multidisciplinary collaboration among clinicians, scientists, engineers and others to advance neuromodulation through education, research, innovation and advocacy. Through these efforts, NANS seeks to promote and advance the highest quality patient care.



Novartis Pharmaceutical Corporation, Booth 210

www.novartis.com

Novartis provides innovative health-care solutions that address



the evolving needs of patients and societies. Headquartered in Basel, Switzerland, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, cost-saving generic and biosimilar pharmaceuticals and eye care. Novartis has leading positions globally in each of these areas. In 2017, the Group achieved net sales of USD 49.1 billion, while R&D throughout the Group amounted to approximately USD 9.0 billion. Novartis Group companies employ approximately 124,000 full-time-equivalent associates. Novartis products are sold in approximately 155 countries around the world. For more information, please visit <http://www.novartis.com>.

Nuvectra, Booth 311

www.nuvectramed.com

Nuvectra® is a neuro-modulation company committed to helping physicians improve the lives of people with chronic conditions. Nuvectra's Algovita® SCS system is approved in the United States and Europe for the treatment of chronic intractable pain of the trunk and/or limbs. To learn more about Nuvectra and our technologies, visit www.nuvectramed.com.



Pain Medicine News, Booth 505

www.painmedicineneeds.com

Pain Medicine News, the best-read



pain publication in the United States according to Kantar Media, is mailed 10 times per year to 46,450 pain-treating physicians and 3 times per year to 46,760 pain-treating nurse practitioners and physician assistants. It offers extensive coverage of major scientific meetings affecting the specialty, features articles on topics relevant to practicing providers, in-depth clinical reviews, practice management articles, medical education, as well as a full line of digital media, including the PainMedicineNews.com website, e-Newsletters, and multimedia content.

Pajunk Medical Systems, Booth 104

www.pajunkusa.com

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have a wide variety of products for single shot, continuous, and neuraxial procedures. Visit Booth 104 to learn more about our new echogenic SonoMSK needle for ultrasound-guided musculoskeletal injections; our Tuohy and TuohySono needles; a hubless RGN contrast needle; and custom procedural trays for chronic pain. Also available is the curved SPROTTE® needle for transforaminal epidural injections. In its 40th Anniversary year, the SPROTTE atraumatic spinal needle is getting a lot of fanfare. Stop by to learn more about how the Pajunk brothers and Prof. Sprotte created this innovation in 1979.

Pentec Health, Booth 410

www.pentechealth.com

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and infusion provider that specializes in providing comprehensive care for patients with implanted pumps treating severe pain and/or spasticity. Our proprietary electronic communications platform ensures all disciplines remain informed and focused on improving patient outcomes.

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jobs.asra.com

Prospira Pain Care, Booth 111

www.prospirapaincare.com

At Prospira PainCare, we are dedicated to recruiting and retaining world-class providers and are committed to ensuring their



satisfaction is our priority. As contributors to the success of our organization, their earning potential is something we place a high importance on that we are prepared to deliver. Our consistent and accelerated growth has enabled us today, to offer physicians the premium compensation package they deserve.

Regional Anesthesia & Pain Medicine, Booth 510

<https://rapm.bmj.com>

Regional Anesthesia & Pain Medicine, the official publication of the American Society of Regional Anesthesia and Pain Medicine (ASRA), is a monthly journal that publishes peer-reviewed scientific and clinical studies to advance the understanding and clinical application of regional techniques for surgical anesthesia and postoperative analgesia. Coverage includes intraoperative regional techniques, perioperative pain, chronic pain, obstetric anesthesia, pediatric anesthesia, outcome studies, and complications. Published for over thirty years, this respected journal also serves as the official publication of the European Society of Regional Anaesthesia and Pain Therapy (ESRA), the Asian and Oceanic Society of Regional Anesthesia (AOSRA), the Latin American Society of Regional Anesthesia (LASRA), the African Society for Regional Anesthesia (AFSRA), and the Academy of Regional Anaesthesia of India (AORA). Editor-in-Chief: Marc A. Huntoon, MD, Virginia Commonwealth University Medical Center

The logo for Regional Anesthesia & Pain Medicine (RAPM) consists of the letters "RAPM" in a bold, white, all-caps sans-serif font, centered within a dark blue square.

Safersonic US, Inc., Booth 403

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SPR Therapeutics, Inc., Booths 100/102

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Stimwave, Booth 512

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**Terason,
Booth 513**



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**TerSera Therapeutics LLC,
Booth 501**



www.TerSera.com

TerSera Therapeutics is a specialty pharmaceutical company headquartered in suburban Chicago with a focus on select therapeutic areas, including oncology and pain & inflammatory disorders. Our mission is to develop products which truly make a difference for patients. Our focus is to bring intelligent solutions to our customers that go beyond the therapy itself in order to provide improved patient outcomes. We look forward to meeting you!

Teva Pharmaceuticals, Booth 109



www.tevausea.com

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Vertos Medical, Booth 113

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Vertos Medical Inc. is a medical device company committed to developing innovative, minimally invasive treatments for lumbar spinal stenosis (LSS). Its proprietary technologies include mild®, which offers a safe, outpatient, minimally invasive, fluoroscopically guided therapeutic LSS treatment that requires no general anesthesia, no implants, and no stitches. LSS is primarily a degenerative, age-related narrowing of the lower spinal canal that causes symptoms of pain and numbness in the lower back, legs, or buttocks. mild® treats this condition by restoring space in the spinal canal using specialized mild® devices to remove hypertrophic ligamentum flavum through a 5.1 mm treatment portal. Clinical trials show that mild® can help LSS patients stand longer and walk farther with less pain, and no major device related complications have been reported. For more information, visit www.Vertosmed.com.



WellBrain, Booth 504

www.wellbrain.io

WellBrain is a digital chronic pain management and addiction prevention platform designed by doctors, for doctors. Founded by three Stanford, Harvard and Mayo Clinic trained pain physicians, WellBrain is designed to help providers understand their patients needs and facilitate optimal outcomes.

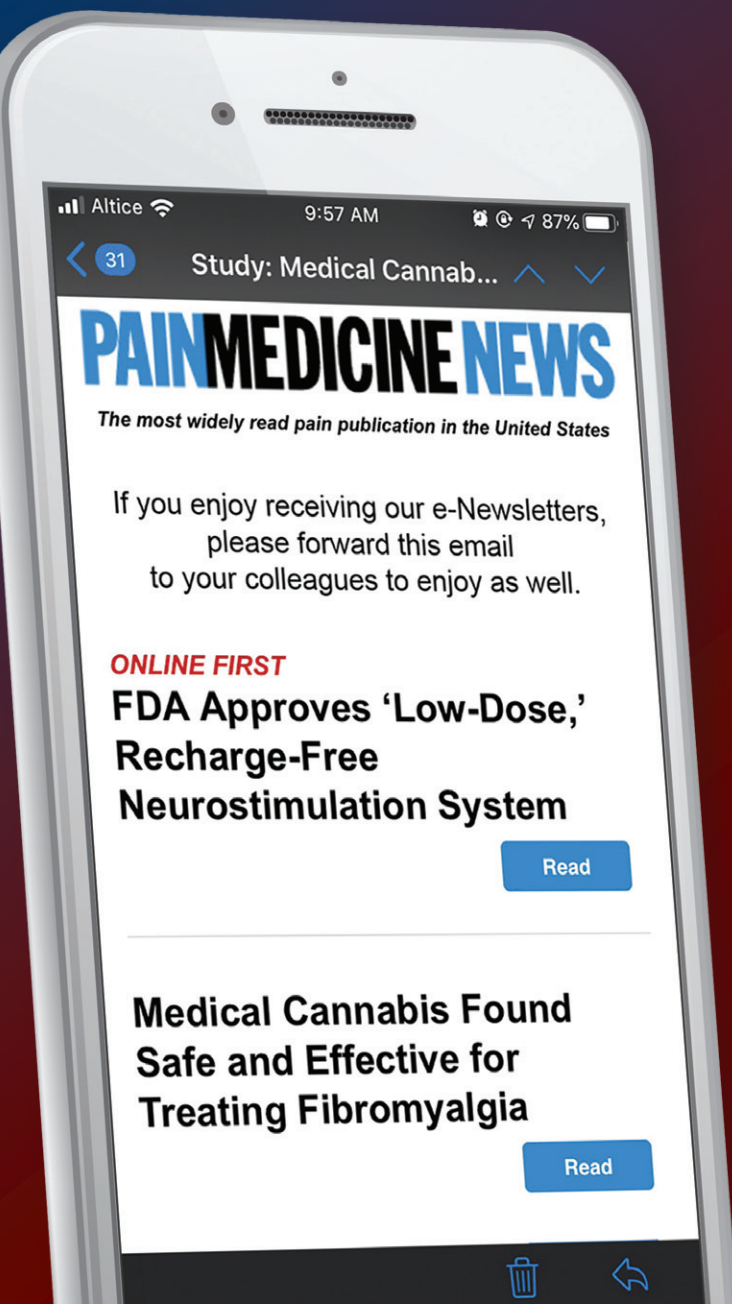
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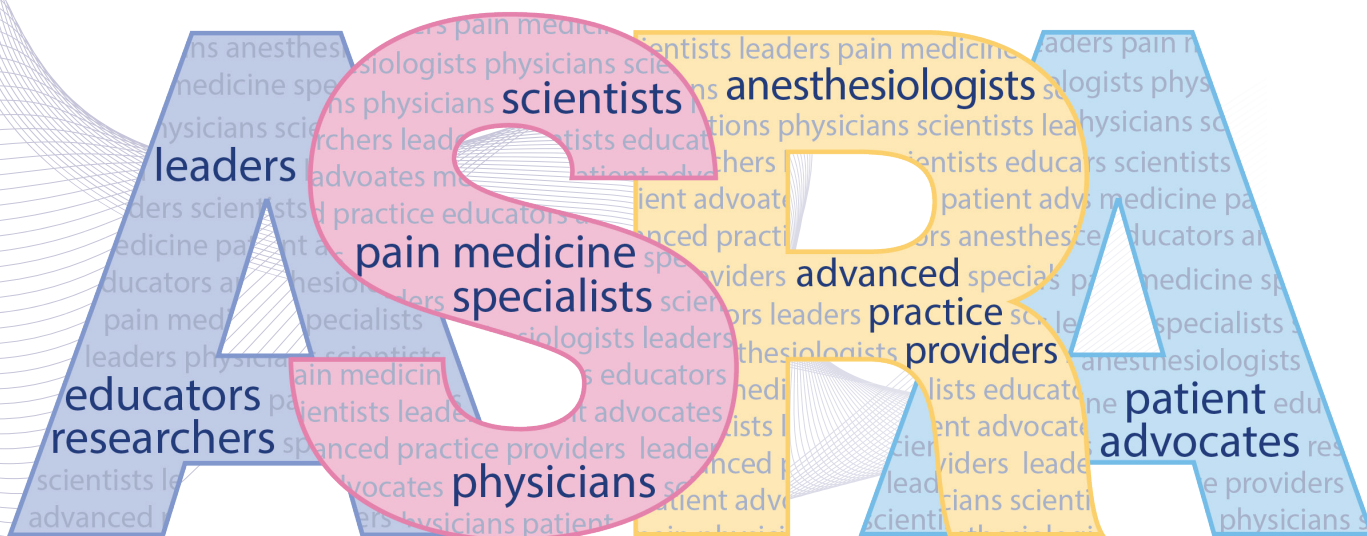
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