48th Annual Meeting of the AANS/CNS Section on
PEDIATRIC NEUROLOGICAL SURGERY
December 5–8, 2019
Hyatt Gainey Ranch | Scottsdale, Arizona

GET THE MEETING APP AT 360.AANS.ORG
### THURSDAY, DEC. 5

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>6:45 am-7 pm</td>
<td>Registration Desk</td>
<td>Vaquero Registration East</td>
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<tr>
<td>12-4 pm</td>
<td>Pediatric Section Executive Committee Meeting</td>
<td>Dunes AB</td>
</tr>
<tr>
<td>8 am-4:36 pm</td>
<td>Advanced Practice Provider (APP) Seminar (registration required)</td>
<td>Arizona Ballroom VI, VII, VIII</td>
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<tr>
<td></td>
<td><strong>Keynote Address — Teri Pipe, PhD, RN</strong></td>
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<tr>
<td>4-5 pm</td>
<td>Pediatric Section Education Committee Meeting</td>
<td>Dunes AB</td>
</tr>
<tr>
<td>6-7:30 pm</td>
<td>Opening Reception (ticket required)</td>
<td>Palm Grove</td>
</tr>
</tbody>
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Note: Time and location subject to change
# PROGRAM AT A GLANCE

## FRIDAY, DEC. 6

<table>
<thead>
<tr>
<th>Time</th>
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<tbody>
<tr>
<td>7 am-5 pm</td>
<td>Registration Desk</td>
<td>Vaquero Registration East</td>
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<tr>
<td>7:15-8 am</td>
<td>Continental Breakfast in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<tr>
<td></td>
<td><strong>Neuro Zone: Residents and Medical Students Meet the Leadership</strong></td>
<td></td>
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<tr>
<td>7:15 am-6 pm</td>
<td>Exhibit Hall Open</td>
<td>Vaquero Ballroom</td>
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<tr>
<td>8-10:08 am</td>
<td>Scientific Session I</td>
<td>Arizona Ballroom</td>
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<tr>
<td></td>
<td><strong>Raimondi Lecture — Sethuraman Panchanathan, PhD</strong></td>
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<tr>
<td>10:09-10:39 am</td>
<td>Beverage Break in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<tr>
<td>10:40-11:49 am</td>
<td>Scientific Session II</td>
<td>Arizona Ballroom</td>
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<tr>
<td>11:50 am-12:50 pm</td>
<td>Lunch in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<tr>
<td>12:51-2:36 pm</td>
<td>Scientific Session III</td>
<td>Arizona Ballroom</td>
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<tr>
<td></td>
<td><strong>Franc D. Ingraham Award — Arnold H. Menezes, MD, FAANS(L)</strong></td>
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<tr>
<td>2:37-3:07 pm</td>
<td>Beverage Break in the Exhibit Hall <strong>Honoring Dr. Menezes</strong></td>
<td>Vaquero Ballroom</td>
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<tr>
<td>3:08-4:29 pm</td>
<td>Scientific Session IV</td>
<td>Arizona Ballroom</td>
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<tr>
<td>4:30-4:44 pm</td>
<td>AANS/CNS Section on Pediatric Neurological Surgery Annual</td>
<td>Arizona Ballroom</td>
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<tr>
<td></td>
<td>Business Meeting</td>
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<tr>
<td>4:45-4:59 pm</td>
<td>AAP/SONS Business Meeting</td>
<td>Arizona Ballroom</td>
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<tr>
<td>5-6 pm</td>
<td>Wine and Cheese Reception in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<tr>
<td>7:15-8 am</td>
<td>Continental Breakfast in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<td></td>
<td><strong>Neuro Zone: Mentor Connection</strong></td>
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<tr>
<td>7:15 am-3:30 pm</td>
<td>Exhibit Hall Open</td>
<td>Vaquero Ballroom</td>
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<tr>
<td>8-9:56 am</td>
<td>Scientific Session V</td>
<td>Arizona Ballroom</td>
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<tr>
<td></td>
<td>AAP/SONS Lecture — Michael Berens, PhD</td>
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<tr>
<td>9:57-10:27 am</td>
<td>Beverage Break in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<tr>
<td></td>
<td><strong>Neuro Zone: Continue the Conversation with the AAP/SONS Lecturer, Michael Berens, PhD</strong></td>
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<tr>
<td>10:28-11:46 am</td>
<td>Scientific Session VI</td>
<td>Arizona Ballroom</td>
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<tr>
<td>11:47 am-12:47 pm</td>
<td>Lunch in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<tr>
<td>12:48-1:18 pm</td>
<td>Poster Viewing - Authors Stationed at their Posters for Q&amp;A</td>
<td>Arizona Ballroom</td>
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<tr>
<td>1:19-2:20 pm</td>
<td>Scientific Session VII</td>
<td>Arizona Ballroom</td>
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<td></td>
<td><strong>Poster Awards Announced</strong></td>
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<tr>
<td>2:21-2:51 pm</td>
<td>Beverage Break in the Exhibit Hall</td>
<td>Vaquero Ballroom</td>
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<td></td>
<td><strong>Neuro Zone: Continue the Conversation with the Presenters of the Collaborative Research Proposals and Raffle Prize Drawing</strong></td>
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<tr>
<td>2:52-4:37 pm</td>
<td>Scientific Session VIII</td>
<td>Arizona Ballroom</td>
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Note: Time and location subject to change
SUNDAY, DEC. 8

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<thead>
<tr>
<th>Time</th>
<th>Event</th>
<th>Location</th>
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<tbody>
<tr>
<td>7-11 am</td>
<td>Registration Desk</td>
<td>Vaquero Registration East</td>
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<tr>
<td>7:15-8 am</td>
<td>Continental Breakfast</td>
<td>Arizona Ballroom Foyer</td>
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<tr>
<td>8-9:34 am</td>
<td>Scientific Session IX</td>
<td>Arizona Ballroom</td>
</tr>
<tr>
<td>9:35-10:05 am</td>
<td>Beverage Break in Foyer</td>
<td>Arizona Ballroom Foyer</td>
</tr>
<tr>
<td>10:06-11:14 am</td>
<td>Scientific Session X</td>
<td>Arizona Ballroom</td>
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<tr>
<td></td>
<td><strong>Shulman, Hydrocephalus and AAP/SONS Abstract Awards Announced</strong></td>
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Note: Time and location subject to change

Joint Providership Accreditation Statement
This activity has been planned and implemented in accordance with the accreditation requirements and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of the AANS and the AANS/CNS Section on Pediatric Neurological Surgery. The AANS is accredited by the ACCME to provide continuing medical education for physicians.

Designation Statement
Continuing Medical Education Credits
The AANS designates this live activity for a maximum of 22 AMA PRA Category 1 Credits™. Physicians should claim only the credit commensurate with the extent of their participation in the activity.

Nursing Contact Hours
This activity has been submitted to the Ohio Nurses Association (OBN-001-91) for approval to award contact hours. The Ohio Nurses Association is accredited as an approver of continuing nursing education by the American Nurses Credentialing Center’s (ANCC) Commission on Accreditation.

Disclosure Statement
Prior to the start of this program, anyone in control of educational content for this activity will disclose the existence of any financial interest and/or the relationship they, or their significant other, have with an ACCME-defined commercial interest.

Disclosures are included in the meeting app, accessible at 360.aans.org.
CONFERENCE INFORMATION

Opening Reception
The Opening Reception is held in the Palm Grove at Hyatt Gainey Ranch. Attendees have the opportunity to network and connect with colleagues while enjoying an evening outdoors. Pearl Ridge Trio, a popular local acoustic group, provides the entertainment for a night of conversation and fun to kick off the meeting. *This is a ticketed event. All registered attendees and guests receive one complimentary ticket to this event. Additional tickets are available to purchase.*

Meeting App
Find an interactive meeting schedule, attendee and speaker listings, exhibitor map, poster abstracts and more within the AANS 360 app. Visit [360.aans.org](360.aans.org) to get started.

Join the Conversation in the Neuro Zone
Residents and medical students are invited to meet with leadership on Friday morning during breakfast in the exhibit hall. The three legacy speakers along with experienced advanced practice providers (APPs) are featured during Saturday morning breakfast for a casual forum, providing mentorship opportunities for young trainees and APPs new to the subspecialty. Key speakers will be available for additional dialogue following their talks. Check the program schedule for details.

Raffle Drawings
Receive one raffle ticket for each booth visited in the exhibit hall and enter for a chance to win a $250 Amazon gift card (two prizes awarded) or a $500 Amazon gift card (one prize awarded). Must be present to win. The prize drawing is held during the Saturday afternoon beverage break.

Abstract and Poster Presentations
Poster presenters are available to answer questions on Saturday, immediately following lunch. View posters and visit with presenters in the back of the general session room. Posters are available for viewing throughout the meeting.

Photography and Capture
By attending this meeting, you grant the AANS the right to use captured images, videos and biographies in print, electronic or other media. All postings become the property of the AANS and may be displayed, distributed or used by the AANS for any purpose. Attendees are prohibited from live streaming, photography and video capture without the consent of the AANS. The AANS is not responsible for unauthorized media capture performed by meeting attendees.
THURSDAY, DEC. 5

6:45 am-7 pm
Registration Desk
Location: Vaquero Registration East

7 am-6 pm
Speaker Ready Room
Location: Hyatt Boardroom

8-8:04 am
Welcome and Opening Remarks
Location: Arizona Ballroom VI, VII, VIII
Kathleen Ethel Klas, CPNP-PC

8:05-8:07 am
Introduction to the Keynote Address
P. David Adelson, MD, FAANS

8:08-8:38 am
Keynote Address: Mindfulness, Innovation and Creativity for Leaders
Teri Pipe, PhD, RN

8:39-8:59 am
Utilization of Neurosurgery APPs
Kathleen Ethel Klas, CPNP-PC

9-9:20 am
Advanced Pediatric Neuroimaging
Jeffrey H. Miller, MD

9:21-9:41 am
Intracranial Infections in the Pediatric Population
Donna Wallace, RN, MS, CPNP

9:42-10:02 am
Beverage Break

10:03-10:32 am
Pediatric Brain Tumors
Elizabeth Haley Vance, DNP, APRN, CPNP-AC

10:33-11:02 am
Overview of Pediatric Cerebrovascular Disorders and Management
Jennifer Judge, CPNP
<table>
<thead>
<tr>
<th>Time</th>
<th>Session</th>
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<tbody>
<tr>
<td>11:03-11:32 am</td>
<td>Transitional Care: It Sounds Good, But Does it Really Happen?</td>
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<td></td>
<td>Patti L. Batchelder, RN, MS, CPNP</td>
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<tr>
<td>11:33 am-12:02 pm</td>
<td>Time for E.A.T.S. (Evaluation and Treatment of Spasticity)</td>
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<tr>
<td></td>
<td>Christy Monson, RN, MSN, CPNP-AC</td>
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<tr>
<td>12:03-1:03 pm</td>
<td>Lunch</td>
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<td>Location: Desert Garden</td>
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<tr>
<td>1:04-1:07 pm</td>
<td>Introduction to Roundtable Discussions</td>
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<td></td>
<td>Kathleen Ethel Klas, CPNP-PC</td>
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<tr>
<td>1:08-3:56 pm</td>
<td>Roundtable Discussion Sessions</td>
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<td>Moderators present a case for discussion. Each participant is able to</td>
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<td></td>
<td>engage in five 30-minute “rounds”.</td>
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<td><strong>Table Topics:</strong></td>
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<tr>
<td></td>
<td>1. Incidental Findings in Radiology</td>
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<tr>
<td></td>
<td>Shelley Flecky, PA-C</td>
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<td></td>
<td>2. Spine</td>
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<td></td>
<td>Jamal McClendon Jr., MD</td>
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<td></td>
<td>3. Hydrocephalus: Do you Treat with ETV, Programmable or Fixed Pressure</td>
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<td>Shunt? Tish M. Reidy, RN</td>
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<td>4. Tips and Tricks in Procedures</td>
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<td></td>
<td>Jennifer Sachiko Ronecker, MD</td>
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<td>5. Craniosynostosis</td>
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<td>Ashley O’Connor, MSN</td>
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<td>6. Chiari Cases and Queries</td>
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<td></td>
<td>Camille Bloom, MS, MMS, RD, PA-C</td>
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<td></td>
<td>7. Neurosurgical Care of Children with Epilepsy</td>
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<td></td>
<td>Allyson L. Alexander, MD, PhD</td>
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<td></td>
<td>8. Mild to Moderate TBI</td>
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<tr>
<td></td>
<td>Lindsey Weak</td>
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<tr>
<td>3:59-4:30 pm</td>
<td>Moderator Wrap Up and Discussion</td>
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<tr>
<td>4:31-4:36 pm</td>
<td>Roundtable Session Summary and Evaluation</td>
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<tr>
<td></td>
<td>Kathleen Ethel Klas, CPNP-PC</td>
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## ANNUAL MEETING PROGRAM SCHEDULE

### THURSDAY, DEC. 5

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<td>AANS/CNS Section on Pediatric Neurological Surgery Executive Committee Meeting</td>
<td>Dunes AB</td>
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<td>4-5 pm</td>
<td>Education Committee</td>
<td>Dunes AB</td>
</tr>
<tr>
<td>6-7:30 pm</td>
<td>Opening Reception (ticket required)</td>
<td>Palm Grove</td>
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Music provided by Pearl Ridge Trio
Supported by Medtronic

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<td></td>
<td>Location: Vaquero Ballroom</td>
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<tr>
<td>8-10:08 am</td>
<td><strong>SCIENTIFIC SESSION I</strong></td>
<td>Arizona Ballroom</td>
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<td></td>
<td><strong>Moderators</strong></td>
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<tr>
<td></td>
<td>Jonathan A. Pindrik, MD, FAANS</td>
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<td></td>
<td>Jennifer Strahle, MD, FAANS</td>
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<tr>
<td>8-8:04 am</td>
<td><strong>Welcome and Opening Remarks</strong></td>
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<td><strong>Section Chair</strong></td>
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<td></td>
<td>Mark D. Krieger, MD, FAANS</td>
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<tr>
<td>2019 Annual Meeting</td>
<td><strong>Program Committee</strong></td>
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<td>P. David Adelson, MD, FAANS</td>
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<td></td>
<td>Ruth Bristol, MD, FAANS</td>
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<td>Kathleen Klas, CPNP-PC</td>
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*Signifies Award Candidate*
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<tr>
<td>8:05-8:13 am</td>
<td>A Legacy’s Perspective: From a Personal Side</td>
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<tr>
<td></td>
<td>R. Michael Scott, MD, FAANS(L)</td>
</tr>
<tr>
<td>8:14-8:20 am</td>
<td><strong>Abstract Group 1: Developmental Topics</strong></td>
</tr>
<tr>
<td>8:14-8:20 am</td>
<td>1. Predictors of Syrinx Resolution, Regression, Stability and Progression in Patients with Chiari Malformation Type I: A Study from the Park Reeves Syringomyelia Research Consortium</td>
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<td>Andrew Hale</td>
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<tr>
<td>8:21-8:27 am</td>
<td>2. Dural Augmentation Strategies and Complication Rates After Posterior Fossa Decompression for Chiari I Malformation and Syringomyelia: A Park Reeves Syringomyelia Research Consortium Study</td>
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<td></td>
<td>Alexander T Yahanda</td>
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<tr>
<td>8:28-8:34 am</td>
<td>3. Positional Posterior Plagiocephaly: A Single Center Review</td>
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<td>Ranbir S. Ahluwalia</td>
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<tr>
<td>8:35-8:41 am</td>
<td>4. Rare And De Novo Coding Variants In Chromodomain Genes In Type I Chiari Malformation</td>
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<td></td>
<td>Brooke Sadler, PhD</td>
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<tr>
<td>8:42-8:48 am</td>
<td><strong>Discussion Session—Abstract Group 1</strong></td>
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<tr>
<td>8:49-8:55 am</td>
<td>5. The Cytokine Response to Shunting in the Treatment of Hydrocephalus is Dependent on Revision History</td>
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<td>James (Pat) Patterson McAllister II, PhD</td>
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<tr>
<td>8:56-9:02 am</td>
<td>6. L1cam Mutation Exacerbates Neonatal Hydrocephalus in a CCDC39 Deficient Rat Model Characterized by Impaired Glymphatic CSF Flow</td>
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<td></td>
<td>Andrew Scott Emmert</td>
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<td>9:03-9:09 am</td>
<td>7. The Bacterial and Viral Complexity of Infant Postinfectious Hydrocephalus in Uganda</td>
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<td>Steven J. Schiff, MD, PhD, FAANS</td>
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<td>9:10-9:16 am</td>
<td>8. Lack of ventricular change during shunt malfunction</td>
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<td>Rebecca Anne Reynolds, MD</td>
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<td>9:24-10:08 am</td>
<td><strong>Raimondi Lecture: The Evolving Role of Innovation in Healthcare</strong></td>
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<td>Sethuraman Panchanathan, PhD</td>
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<tr>
<td>10:09-10:39 am</td>
<td><strong>Beverage Break in the Exhibit Hall</strong></td>
</tr>
<tr>
<td></td>
<td>Location: Vaquero Ballroom</td>
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</tbody>
</table>
Abstract Group 3: Trauma
10:40-10:46 am
9. Imaging, Surgery And Outcomes In Pediatric Head Trauma: Data From The Trauma Quality Improvement Program
Inge Arnoldina Maria Erp

10:47-10:53 am
10. Evaluating A Novel MRI Biomarker To Identify Retinal Hemorrhage
Kyle Gregory Halvorson, MD

10:54-11:00 am
Aaron Michael Yengo Kahn, MD

11:01-11:07 am
Hengameh B. Pajer

11:08-11:14 am
Discussion Session—Abstract Group 3

Abstract Group 4: Neoplasm
11:15-11:21 am
13. B7H3 Expression in PFA and PFB Ependymoma: Implications for Therapeutic Targetting
Derek Yecies, MD

11:22-11:28 am
14. A Longitudinal Analysis of Pediatric Solid Tumor Brain Metastases
Whitney Parker, MD

11:29-11:35 am
15. The Role of the SWI/SNF Complex Subunit SMARCD3 in Medulloblastoma
Vaibhav Sharma

11:36-11:42 am
16. Safety and Efficacy of Brainstem Biopsy in the Pediatric Population
David S. Hersh, MD

11:43-11:49 am
Discussion Session—Abstract Group 4

11:50 am-12:50 pm
Lunch in the Exhibit Hall
Location: Vaquero Ballroom
Abstract Group 5: Functional Neurosurgery
12:51-12:57 pm
Meghan E. Kramer

12:58-1:04 pm
18. Ventricular Decompression Mitigates Impaired Functional Connectivity in Post Hemorrhagic Hydrocephalus of Prematurity
Diego Martin Morales

1:05-1:11 pm
19. Somatosensory Evoked Fields Predict Response to Vagus Nerve Stimulation
Karim Mithani (Canada)

1:12-1:18 pm
20. Hemispheric Surgery Outcome Prediction Scale: Development and Validation of a Seizure Freedom Prediction Tool
Aria Fallah, MD, FAANS

2:01-2:36 pm
Franc D. Ingraham Award for Distinguished Service and Achievement
Introduced by:
Douglas L. Brockmeyer, MD, FAANS
Recipient:
Arnold H. Menezes, MD, FAANS(L)
The Making of a Pediatric Spinal Neurosurgeon
Presentation of Award:
Mark D. Krieger, MD, FAANS

Abstract Group 6: Socioeconomic
1:26-1:32 pm
21. Cost Effectiveness Analysis of Strategies in the Treatment of Post Infectious Hydrocephalus
Abbas Rattani

1:33-1:39 pm
22. Geospatial Mapping Of International Neurosurgical Partnerships And Evaluation Of Extent Of Training And Engagement
Daniel J. Olivieri

1:40-1:46 pm
23. How Do Parents Decide Whether To Allow A Child To Participate In Collision Sports?
Aaron Michael Yengo Kahn, MD

1:47-1:53 pm
24. Cost Comparison of Surgical Management of Non Sagittal Synostoses: Traditional Open vs Endoscopic Assisted Techniques
Esther Cleveland Beeson Dupepe, MSPH, MD
2:37-3:07 pm  
Beverage Break in the Exhibit Hall  
Honoring Dr. Menezes  
Location: Vaquero Ballroom

3:08-4:29 pm  
**SCIENTIFIC SESSION IV**  
Location: Arizona Ballroom  
Moderators  
Robert John Bollo, MD, FAANS  
Krystal Lynne Tomei, MD, MPH, FAANS

**Section Research Grants**  
3:08-3:11 pm  
Probing the Network Basis of Attention Deficits in Children with Epilepsy Using Stereotactic Intracranial Recordings  
George M. Ibrahim, MD, FAANS  
(Canada)

3:12-3:15 pm  
Nanoparticle Therapy for Pediatric Brain Tumors  
Peter Anthony Chiarelli, MD

**Abstract Group 7: Spine**  
3:16-3:22 pm  
25. Posterior Fossa Decompression With Or Without Duroplasty For Scoliosis Associated With Chiari Malformation With Syringomyelia  
Brooke Sadler, PhD

3:23-3:29 pm  
26. Perioperative Hypothermia In Pediatric Spinal Deformity Surgery: A Quality Improvement Initiative With Sustained Results  
Dianne Seibold, RN, BSN, CNOR

3:30-3:36 pm  
27. Defining the Role of the Condylar Sagittal Vertical Alignment in Chiari I Malformation  
Vijay Mysore Ravindra, MD

3:37-3:43 pm  
28. A Clinical And Radiographic Study of Pediatric Os Odontoideum: Use of MRI And Dynamic Radiographs in Evaluation  
Luke George Foley Smith, MD

3:44-3:50 pm  
Discussion Session—Abstract Group 7

**Abstract Group 8: Technical Advances**  
3:51-3:57 pm  
29. Cerebrospinal Fluid Cytokine Biomarker Diversity in Pediatric Hydrocephalus  
Mohamed Ahmed Zaazoue, MB Bch

3:58-4:04 pm  
30. Therapeutic Implications Of Infusate Molecular Weight In Targeting Diffuse Intrinsic Pontine Glioma By Convection Enhanced Delivery.  
David John Daniels, MD, PhD, FAANS
4:05-4:11 pm
31. Indwelling Neurosurgical Devices: Improving Caregivers’ Understanding of Electrocautery and MRI Recommendations
Jeffrey Steven Raskin, MD

4:12-4:18 pm
32. Automated Robotic Log Analysis Defines Efficiency of Pediatric Robotic SEEG Procedures
Jonathon J. Parker, MD, PhD

4:19-4:25 pm
Discussion Session—Abstract Group 8

4:26-4:29 pm
Announcements

4:30-4:44 pm
AANS/CNS Section on Pediatric Neurological Surgery Annual Business Meeting
Location: Arizona Ballroom

4:45-4:59 pm
AAP/SONS Business Meeting
Location: Arizona Ballroom

5-6 pm
Wine and Cheese Reception
Location: Vaquero Ballroom

SATURDAY, DEC. 7

7 am-5 pm
Registration Desk
Location: Vaquero Registration East

7:15 am-3:30 pm
Exhibit Hall Open
Location: Vaquero Ballroom

7 am-4 pm
Speaker Ready Room
Location: Hyatt Boardroom

7:15 am-8 am
Continental Breakfast in the Exhibit Hall
Neuro Zone: Mentor Connection
Location: Vaquero Ballroom

8-9:56 am
SCIENTIFIC SESSION V
Location: Arizona Ballroom
Moderators
Annie Drapeau, MD, FAANS
Gregory G. Heuer, MD

8-8:05 am
2020 Salt Lake City Meeting Preview
Douglas L. Brockmeyer, MD, FAANS

Abstract Group 9: Hydrocephalus 2
8:06-8:12 am
33. Head Circumference Growth Trends in Patients Born with Myelomeningocele: What is Happening?
Isaac Shamblin
8:13-8:19 am  
34. Brain Growth and Developmental Outcome After Treatment of Post infectious Hydrocephalus in Infants in Uganda  
Abhaya Vivek Kulkarni, MD, FAANS, FRCS (Canada)

8:20-8:26 am  
35. Initial Outcomes of Endoscopic Third Ventriculostomy with Choroid Plexus Coagulation (ETV+CPC) in Vietnam  
Jacob Richard Lepard, MD

8:27-8:33 am  
36. Endoscopic Third Ventriculostomy With Choroid Plexus Cauterization For Treatment Of Hydrocephalus In North American Children: A Cohort Study  
Emily Louise Day

8:34-8:40 am  
Discussion Session—Abstract Group 9

8:41-8:47 am  
37. Management of Pediatric Skull Base Chordoma in the Endoscopic Endonasal Era  
Michael M. McDowell, MD

8:48-8:54 am  
38. Effect of Dual Treatment with Low Grade Radiation (LDR) with 4 1BB Monoclonal Antibody on Group 3 Medulloblastoma and Surrounding Tissue in a Murine Model  
Mohammed Alshareef, MD

8:55-9:15 am  
Discussion Session—Abstract Group 10

9:16-9:56 am  
AAP/SONS Lecture: Promise and Perils of Liquid Biopsy in Pediatric Brain Tumor Care  
Michael E. Berens, PhD

9:57-10:27 am  
Beverage Break in the Exhibit Hall  
Neuro Zone: Continue the Conversation with the AAP/SONS Lecturer, Michael Berens, PhD  
Location: Vaquero Ballroom

10:28-11:46 am  
SCIENTIFIC SESSION VI  
Location: Arizona Ballroom  
Moderators:  
Allyson L. Alexander, MD, PhD  
Peter Anthony Chiarelli, MD

10:28-10:36 am  
A Legacy’s Perspective: A Neurosurgeon’s Education  
Marion L. Walker, MD, FAANS(L)
Abstract Group 11: Functional Neurosurgery
10:37-10:43 am
41. FOCUSED ULTRASOUND SURGERY FOR EPILEPSY
Travis S. Tierney, MD, PhD, FAANS

10:44-10:50 am
42. A Pilot Study Of An Opioid Reducing Pain Protocol After Selective Dorsal Rhizotomy
Manish N. Shah, MD, FAANS

10:51-10:57 am
43. Generating Patient Based Models of Neurodevelopmental Epileptic Disorders
Whitney Parker, MD

10:58-11:04 am
44. Differential expression of critical neuroinflammation and cell cell junction related proteins in the cerebrospinal fluid of preterm infants with Posthemorrhagic hydrocephalus
Albert Isaacs, MD (Canada)

11:05-11:11 am
Discussion Session—Abstract Group 11

Abstract Group 12: Technical Advances
11:12-11:18 am
Jacob Richard Lepard, MD

11:19-11:25 am
46. Endoscopic Internal Orbital Frontal Advancement: Experience with 100 Patients
David F. Jimenez, MD, FAANS, FACS

11:26-11:32 am
47. Validation Of Non Invasive, Bedside Measurements Of Intracranial Pressure In Neonatal Hydrocephalus
Tracy Ma Flanders, MD

11:33-11:39 am
48. Intraventricular Hemorrhage Induces Rapid Intracellular Signaling In The Choroid Plexus And Chronic Changes In CSF Reabsorption
Cameron Sadegh, MD

11:40-11:46 am
Discussion Session—Abstract Group 12

11:47 am-12:47 pm
Lunch in the Exhibit Hall
Location: Vaquero Ballroom

12:48-1:18 pm
Poster Viewing – Authors Stationed at their Posters for Q&A
Location: Arizona Ballroom

1:19-2:20 pm
SCIENTIFIC SESSION VII
Location: Arizona Ballroom
Moderators
James A. Botros, MD
Suresh N. Magge, MD, FAANS

1:19-1:20 pm
Poster Awards Announced
Mark D. Krieger, MD, FAANS
Abstract Group 13: Developmental Topics

1:21-1:27 pm
49. Definitive Human Brain Volume Growth Curves
Mallory Peterson

1:28-1:34 pm
50. Clinical Signs and Not Complex Craniocervical Radiological Measures Drive Occipital Cervical Fusion in Chiari I Malformation with Syringomyelia
Gabrielle Johnson

1:35-1:41 pm
51. Stereolithography and Virtual Modeling for Preoperative Planning in Craniopagus Deformity
Andrew J. Kobets, MD

1:42-1:48 pm
52. Use of Tranexamic Acid With Subcutaneous Injection Of Epinephrine and Triamcinolone Reduces Blood Loss, Transfusion
Laurie Lynn Ackerman, MD, FAANS

1:49-1:55 pm
Discussion Session—Abstract Group 13

1:56-1:57 pm
Introduction: 2018 Collaborative Research Proposal Updates
Chevis Shannon, MBA, MPH, DrPH

1:58-2:03 pm
Cerebral Revascularization in Sickle Cell Disease with Moyamoya Syndrome
Philipp R. Aldana, MD, FAANS

2:04-2:09 pm
Mild Traumatic Brain Injury and Intracranial Injury: a Platform for Collaborative Traumatic Brain Injury Research
David Delmar Limbrick Jr., MD, PhD, FAANS

2:10-2:15 pm
Neural Network Organization in Focal Cortical Dysplasia Epilepsy
Raheel Ahmed, MD, FAANS

2:16-2:20 pm
Question and Answer Session

2:21-2:51 pm
Beverage Break in the Exhibit Hall
Neuro Zone: Continue the Conversation with the Presenters of the Collaborative Research Proposals and Raffle Prize Drawing
Location: Vaquero Ballroom

2:52-4:37 pm
SCIENTIFIC SESSION VIII
Location: Arizona Ballroom
Moderators
Christopher Michael Bonfield, MD, FAANS
Toba N. Niazi, MD, FAANS

2:52-3:27 pm
International Pediatric Neurosurgery: Opportunities and Tips for Success
Moderator
William Harkness, MD (United Kingdom)
Panelists
James M. Johnston Jr., MD, FAANS
Sandi K. Lam, MD, FAANS
John Ragheb, MD, FAANS
### Abstract Group 14: Trauma

<table>
<thead>
<tr>
<th>Time</th>
<th>Abstract</th>
<th>Presenter/Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>3:28-3:34 pm</td>
<td>53. Admission Trends in Pediatric Isolated Linear Skull Fractures Across the United States</td>
<td>Rebecca Anne Reynolds, MD</td>
</tr>
<tr>
<td>3:35-3:41 pm</td>
<td>54. Evaluation Of Pediatric Concussion Is Improved By Fellowship Training Background</td>
<td>Weston Northam, MD</td>
</tr>
<tr>
<td>3:42-3:48 pm</td>
<td>55. Improving Discharge Readiness After A Concussion Diagnosis In The Pediatric Emergency Department</td>
<td>Aaron Michael Yengo Kahn, MD</td>
</tr>
<tr>
<td>3:49-3:55 pm</td>
<td>56. Comparison of Autografts vs. Allografts in the Surgical Repair of Pediatric Obstetrical Brachial Plexus Injuries</td>
<td>P. David Adelson, MD, FAANS</td>
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<tr>
<td>3:56-4:02 pm</td>
<td>Discussion Session—Abstract Group 14</td>
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### SUNDAY, DEC. 8

#### 7-11 am
- **Registration Desk**
  - Location: Vaquero Registration East

#### 7:15-8 am
- **Continental Breakfast**
  - Location: Arizona Ballroom Foyer

#### 7-11 am
- **Speaker Ready Room**
  - Location: Hyatt Boardroom

#### 8-9:34 am
- **SCIENTIFIC SESSION IX**
  - Location: Arizona Ballroom
  - **Moderators:**
    - Brandon G. Rocque, MD, MS, FAANS
    - Manish N. Shah, MD, FAANS
8-8:08 am
A Legacy’s Perspective: The Clinical Life
J. Gordon McComb, MD, FAANS(L)

Abstract Group 16: Neoplasm
8:09-8:15 am
61. Automatic Detection and Classification of Pediatric Posterior Fossa Tumors on Magnetic Resonance Imaging Using Deep Learning
Jennifer Lauren Quon, MD

8:16-8:22 am
62. Comparison of Multi Modal Surgical and Radiation Treatment Methods for Pediatric Craniopharyngioma: Long Term Analysis of Progression Free Survival and Morbidity
Vijay Mysore Ravindra, MD

8:23-8:29 am
63. Image Guided Convection Enhanced Delivery of a PET Imageable HDAC Inhibitor Leads to Improved Survival in DIPG Models
Umberto Tosi

8:30-8:36 am
64. Safety Of Immediate Use Of Non Steroidal Anti Inflammatory Drugs After Pediatric Craniotomy For Tumor
Cody Lee Nesvick, MD

8:37-8:43 am
Discussion Session—Abstract Group 16

Abstract Group 17: Vascular
8:44-8:50 am
65. Establishing A Neonatal Murine Germinal Matrix Hemorrhage Model to Investigate the Role of Complement During the Secondary Injury Phase and Post hemorrhagic Gliosis
Mohammed Alshareef, MD

8:51-8:57 am
66. A Role for Inflammation: TLR 4 mediated Cerebrospinal Fluid Hypersecretion in Post hemorrhagic and Post infectious Hydrocephalus
Jason Karimy

8:58-9:04 am
67. Evaluation and Treatment of Children with Radiation Induced Cerebral Vasculopathy
David S. Hersh, MD

9-9:11 am
68. Mutations in EphrinB2 EphB4 RASA1 Signaling Underlie Vein of Galen Malformation
Benjamin C Reeves

9:12-9:18 am
Discussion Session—Abstract Group 17

9:19-9:34 am
Products to Market: Lessons Learned
Samuel R. Browd, MD, PhD, FAANS

9:35-10:05 am
Beverage Break in Foyer
Location: Arizona Ballroom Foyer
Abstract Group 18: Spine

10:06-10:12 am
69. A Non Sedated Rapid Spine MRI Protocol In Pediatric Patients
Jordan I. Gewirtz

10:13-10:19 am
70. Indications And Prevalence For Pediatric Simple Tethered Spinal Cord Releases: Review Of A Large Single Pediatric Neurosurgical Institution
Emily Louise Day

10:20-10:26 am
71. Proximal Junctional Kyphosis after Neuromuscular Scoliosis Deformity Correction
Steven W. Hwang, MD, FAANS

10:27-10:33 am
72. Crossing the Cervicothoracic Junction in Complex Pediatric Deformity Using Anterior Cervical Discectomy and Fusion
Brandon J. Toll

10:34-10:40 am
Discussion Session—Abstract Group 18

Abstract Group 19: Hydrocephalus 3

10:41-10:47 am
73. Fetal Endoscopic Third Ventriculostomy for Induced Congenital Hydrocephalus in Sheep Model
Soner Duru, MD

10:48-10:54 am
74. Machine Learning Predicts Cerebrospinal Fluid Shunt Failure in Children: A Study From the Hydrocephalus Clinical Research Network
Andrew Hale

10:55-11:01 am
75. Glial Scar Formation And Concomitant Glymphatic Impairment In The Hydrocephalic Brain
Joseph Tyler Vasas

11:02-11:08 am
Discussion Session—Abstract Group 19

11:09-11:12 am
Announcement of the Hydrocephalus, Shulman and APP/SONS Award Recipients
Mark D. Krieger, MD, FAANS

11:13-11:14 am
Closing Remarks
CONTRIBUTING SUPPORT

The AANS/CNS Section on Pediatric Neurological Surgery gratefully acknowledges the following companies for generous support through educational grants.

Medtronic
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