

FINAL PROGRAM





JOIN US IN ORLANDO BALLROOM III

Evolving Perspectives in

ALZHEIMER'S DISEASE:

Reaching an Earlier Diagnosis, Understanding Neuroinflammation, and Exploring Therapeutic Advances

This Cases and Conversations™ program will provide an in-depth review of the state of the art in the early diagnosis of Alzheimer disease (AD) through case-based discussions. This engaging satellite symposium will also elucidate the role of neuroinflammation as a therapeutic target in AD and highlight safety and efficacy data for investigational agents targeting neuroinflammation. Ample time will be included for an audience Q&A session.

IN PERSON SATELLITE SYMPOSIUM

September 16, 2024

4:15–5:45 PM ET Hilton Orlando



To learn more, scan here or visit the link below

gotoper.com/alzheimers24

PROGRAM CHAIR



Alireza Atri, MD, PhD

Chief Medical Officer, Banner Research, Banner Alzheimer's and Research Institutes (Phoenix, Sun City, Tucson, AZ) Director Banner Sun Health Research Institute Sun City, AZ

LEARNING OBJECTIVES

- Apply strategies to facilitate early identification of patients who may be at risk of developing AD
- Identify the role of neuroinflammation in the pathophysiology of AD
- Evaluate clinical trial data for investigational agents targeting neuroinflammation in AD

This activity is supported by an educational grant from Novo Nordisk Inc.

The American Neurological Association (ANA) does not endorse the product(s) and/or service(s) advertised or for the company that advertises, manufactures, distributes, or promotes the products and services.



Enjoy scientific symposia highlighting cutting-edge research in neurology, poster sessions with the latest emerging science, and professional development workshops to help academic neurologists and neuroscientists at all career levels connect and excel at ANA2024.

TABLE OF CONTENTS

Welcome10
Schedule at a Glance
General Information25
Program By Event26
Saturday, September 14, 2024
Sunday, September 15, 2024
Monday, September 16, 2024 41
Tuesday, September 17, 2024 57
Satellite Symposia 66
ANA2024 Awardees
Sponsors
ANA2024 Abstract Reviewers
ANA2024 Committees
Save the Date 81

An Eisai Inc. Satellite Symposium

Optimizing Alzheimer's Disease Care: The Power of Early Diagnosis in an Evolving Treatment Landscape

Sunday, September 15, 2024 7:00–8:00 PM ET

Orlando III, The Hilton Orlando, Orlando, FL Light catering will be offered



Susan Steen, MD

Neurologist, Axiom Brain Health
Tampa, FL





Jeff Gelblum, MD, FAAN
Neurologist, First Choice Neurology, LLP
Assistant Clinical Professor of Neurology
Nova Southeast College of Medicine
Miami, FL, and Fort Lauderdale, FL

Experience a dynamic session with a focus on equipping neurologists with the latest knowledge to effectively implement emerging Alzheimer's disease (AD) therapies. Join two neurologists who specialize in AD as they share practical guidance on advances in AD and highlight the benefits of collaborative care teams for optimal patient care.

Be part of an engaging discussion on:

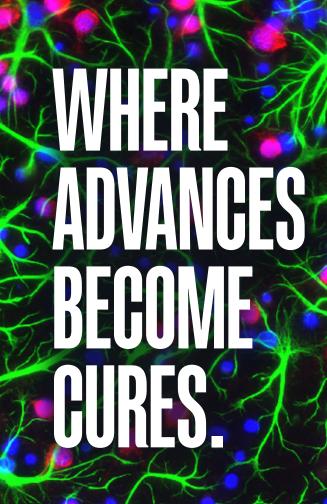
- · Why early diagnosis is essential and how it can impact patient outcomes.
- · The latest advancements in understanding and diagnosing AD.
- Best practices for treatment implementation and provider responsibilities to optimize the patient care paradigm.

We look forward to an informative session and hope to see you there!





This symposium is not sponsored or programmed by the American Neurological Association. These speakers are presenting on behalf of and are paid consultants for Eisai. There are no continuing education credits for this symposium.





The research, the science, the teaching, and the care happening in Dallas are shaping the future of brain treatment. Momentum is on our side. What once was confounding, slow work is now rich in breakthroughs. Every day, new insights into the mind turn into new targets for treatment. New collaborations lead to new findings. And the barriers to treating diseases long thought incurable are falling. The next few years, we're confident, will be nothing short of historic. To the scientists, educators, students, and clinicians who have joined us, and to the patients and families who have trusted us, we thank you. We are in this pursuit of understanding together.

Because understanding becomes healing.

Image of neurons and glia is from the laboratory of O'Donnell Brain Institute Investigator Dr. Lu Sun

UT SouthwesternO'Donnell Brain Institute

SAVE THE DATE

International Brain HealthS Y M P O S I U M 2 0 2 5

When: Thursday, January 30 and Friday, January 31, 2025

Where: AdventHealth Nicholson Center, Celebration, FL



Scan QR Code To Learn More



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Download the event app now to get the most from your experience!

GET THE ANA APP HERE









The American Neurological Association (ANA) is the champion of neurological research and the ally of all physicians and scientists who strive to make a difference through careers that combine discovery, education, and clinical care.

TOP 5 Reasons to Join the ANA

Mission

Advancing science, education, and careers to improve neurologic health for all.

Vision

A world without neurological disease.

Join Today!

Learn more at

myana.org/ membership



1 Connect

Form personal connections with academic neurologists and neuroscientists from all subspecialties, advancing your research and expanding your network

2 Jearn

Earn CME by participating in the ANA's educational programs including webinars, bite-size learning modules, and podcasts

3 Save

Save on registration for the ANA Annual Meeting, the top meeting in academic neurology and neuroscience

4 Discover

Enhance your knowledge with the cutting-edge research in the ANA's peer-reviewed journals

5 Grow-Leverage the ANA's Career

Center a specialized job market specifically for those working in academic neurology and neuroscience



September 14, 2024



As Mayor of the City of Orlando, I am happy to help welcome you to our community for the 149th Annual Meeting of the American Neurological Association. It's wonderful that this event is being held in Orlando, giving faculty and trainees from academic departments across the country the opportunity to share, learn and network.

Orlando is vibrant, inclusive and welcoming. During your time here for the conference, I invite you to explore our community, which has so much to offer visitors.

I am certain that you know about our world-class theme parks and attractions. They are places where imagination becomes reality. But you may not know that Orlando is also filled with authentic experiences. I am proud of our city's arts and cultural offerings, always growing and diverse food scene, recreational amenities, sports events and thriving small business districts that are located throughout our community.

There's something for everyone in Orlando, giving you endless possibilities to have fun and create unforgettable memories.

I hope that you find the conference rewarding and can also create opportunities to enjoy some of the many experiences that help make Orlando unbelievably real.

Sincerely,

Buddy Dyel

Mayor

Orlando City Hall · 400 South Orange Avenue · Third Floor PO Box 4990 · Orlando, FL 32802-4990 P 407.246.2221 · F 407.246.2842 · orlando.gov

STATISTICAL SNAPSHOTS SERIES

The ANA provides educational programming all year long to ensure our members have access to current information and discovery.

The <u>ANA Highlight's Statistical Snapshots</u> series provides a digestible way to learn next-level statistical concepts, critical Epidemiology terms, and best techniques to apply to research.

In this series of seven modules, ranging from 10-22 minutes, you will find a high-yield overview of critical statistical concepts that go beyond interpretation of p-values to provide a foundation by which to conduct rigorous medical or public health research, regardless of level or training.

- > 2.25 AMA PRA Category 1 Credit™
- > 2.25 Participation
- > 2.25 ABPN Self Assessment Credit

NEXT-LEVEL STATISTICAL CONCEPTS

2.25 AMA PRA CATEGORY I CREDIT™

MODULES
RANGE FROM
10—22 MINUTES

HOT TIP

Become a member of the
#AmericanNeurologicalAssociation and
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online learning platform for free!

WHAT'S OnDEC?

Did you know the ANA offers more than <u>25 online</u> <u>CME offerings</u> at any given time? Brought to you by the ANA Education Innovation Committee.

Navigate over to the ANA OnDEC catalog.









WELCOME

DEAR COLLEAGUES,

On behalf of the Annual Meeting Planning and Local Arrangements Committees, the Board of Directors, and ANA President Ross, I welcome you to the 149th Annual Meeting of the American Neurological Association. We are honored to convene academic neurologists and neuroscientists for an event that promises to be intellectually stimulating and professionally rewarding.

Our meeting will feature plenary sessions highlighting our growing understanding of the neurobiology of inherited, degenerative, and inflammatory disorders across the lifespan, and showcase the emerging and future applications of gene therapy, artificial intelligence, and neuromodulation. In addition to our plenary sessions, we have an array of interactive lunch workshops, special interest group sessions, satellite symposia, professional development, and the ANA's celebrated poster session, all designed to foster connection, discovery, learning, and growth.



ALLISON W. WILLIS MD, MS, FANA

This year's professional development courses offer guidance for academic neurologists of every type and at every career level. Additional sessions underscore the ANA's continued interest in global neurology and international team neuroscience. Throughout our meeting, we demonstrate a persistent dedication to inclusion, diversity, equity, anti-racism, and social justice (IDEAS) as the foundation principles for academic neurology and impactful neuroscience.

The members of the ANA Board of Directors and Executive Committee, the Annual Meeting Programming and Local Arrangements Committees, the Interactive Workshop, ANA-NINDS Symposium, Research Careers Reimagined, Professional Development, IDEAS, Global Engagement, Education Innovation, and Awards Committees invite you to take advantage of all this meeting and city have to offer.

OUR VISION IS AMBITIOUS:

A world without neurological disease.

OUR MISSION IS CLEAR:

Advancing science, education, and careers to improve neurologic health for all.

We look forward to the invaluable exchange of ideas, knowledge, and experiences that will occur during this meeting.

Let's connect, discover, learn, and grow. Welcome to Orlando!

Warmest regards,

ALLISON W. WILLIS, MD, MS, FANA

Professor, Neurology and Epidemiology

University of Pennsylvania

Chair, AMP, American Neurological Association

Annual Meeting Programming Committee

EDUCATIONAL PROGRAMMING AVAILABLE ALL YEAR!

Brought to you by the ANA Education Innovation Committee Michelle Johansen, MD, PhD, Chair





NA Highlight



- ANA Highlights: The Placebo Effect
- ANA Highlights: Neurogenetics
- ANA Highlights: Gene Therapy
- ANA Highlights: Statistical **Snapshots**



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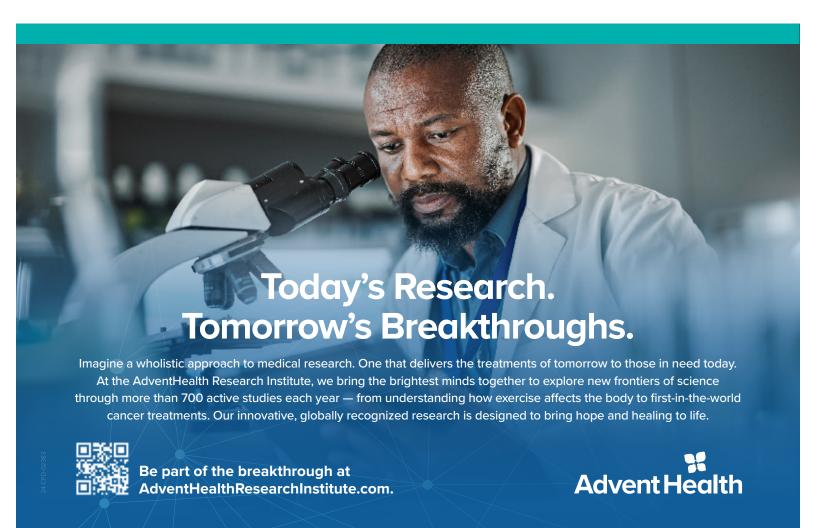


ANA 2024

149TH ANNUAL MEETING ORLANDO - FLORIDA









Please note all session times are listed in Eastern Daylight Time.

PROGRAM KEY

ANA-NINDS CAREER DEVELOPMENT SYMPOSIUM

LOCATION: Key West A-C

RESEARCH CAREERS REIMAGINED (RCR)

LOCATION: Lake Eola

SATELLITE SYMPOSIA

The ANA values the participation of our corporate partners and is supportive of the role that members of this community continue to play in our efforts to provide neurologists and neuroscientists with quality educational programs. These symposia are not part of the ANA official educational program, and the sessions and content are not endorsed by ANA.

- JEC Recommended for Junior and Early Career attendees.
- PR Recommended workshops for Program and Residency Directors
- * Sessions marked with an asterisk (*) award AMA PRA Category I Credit(s)™ through the ANA.

<u>Note:</u> The Annual Meeting offers CME to eligible participants. Complete CME information, including a breakdown of the credits offered for each session and the instructions for claiming credit, is available online at https://2024.myana.org/continuing-med-ical-education

The American Neurological Association is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians.

Schedule Subject to Change: The event's operating hours, schedules, and speakers are subject to change or cancellation without notice. Refunds will be not issued for failure to attend a live session.

Online scheudle at:

https://2024.myana.org/ program/schedule-at-a-glance

FRIDAY, SEPTEMBER 13, 2024

2024 ANA-NINDS Career Development Symposium (ANA-NINDS)

2:00 PM - 9:00 PM

(By Invitation Only) Key West A-C

LINK TO FULL AGENDA: https://2024.myana.org/ ana-ninds-career-development-symposium

SATURDAY, SEPTEMBER 14, 2024

7:00 AM - 5:45 PM	2024 ANA-NINDS Career Development Symposium (ANA-NINDS) (By Invitation Only) Key West A-C LINK TO FULL AGENDA: https://2024.myana.org/ ana-ninds-career-develop- ment-symposium
8:00 AM - 4:15 PM	Research Careers Reimagined (RCR) Course (Pre-Registration Required) Lake Eola LINK TO FULL AGENDA: https://2024.myana.org/ research-careers-reimag- ined-rcr-course
10:00 AM - 7:00 PM	ANA2024 REGISTRATION Lobby Level
11:00 AM - 4:05 PM	ANA Futures Program Meeting (By Invitation Only) Students: Lake Florence Residents: Lake Monroe B
4:00 PM - 5:00 PM	Program and Residency Directors Networking Reception PR Lake Hart



SATURDAY,	SEPTEMBER 14, 2024
5:45 PM - 7:15 PM	OPENING SYMPOSIUM The Dawn of Gene Therapy in ALS* JEC Orlando Ballrooms IV-VI A Successful RNA-Targeted Therapy for ALS Human Genetic Therapies for ALS: Current Status and Future Prospects C9orf72 ALS/FTD: Challenges and New Opportunities in Translational Research TDP43: A Focal Point for RNA Therapeutics in ALS/FTD
7:30 PM - 8:15 PM	Global Neurology Networking Reception (By Invitation Only) Lake Concord
7:30 PM - 9:00 PM	ANA Junior and Early Career Networking Reception JEC Orange Ballroom E
SUNDAY, S	SEPTEMBER 15, 2024
7:00 AM - 6:00 PM	ANA2024 REGISTRATION Lobby Level
7:00 AM - 9:00 AM	Grab-and-Go Breakfast Foyer 1 - Lower Level
7:00 AM - 7:30 AM	Student & Trainee Breakfast with ANA Board of Directors (By Invitation Only) Key West A-C
7:30 AM - 9:00 AM	PROFESSIONAL DEVELOPMENT WORKSHOPS Program and Residency Director Level Developing the Director* PR Lake Florence • Advocating for Yourself and Your Program • Challenges Facing Program Directors • Starting Out: Becoming an APD and Navigating Promotion AUPN Chair Level Fostering Diversity, Equity, and Inclusion in Today's Neurology Residency Selection* Lake Lucerne • Incorporating Holistic Review in Residency Recruitment • Integrating Diversity, Equity, and Inclusion in Neurology Residency Selection

7:30 AM - 9:00 AM	PROFESSIONAL DEVELOPMENT WORKSHOPS Early Career & Early to Mid-Career Level Optimizing Your ANA2024 Meeting Experience to Build Your Professional Network and Your CV*JEC Lake Nona B • Empowering Progress: Advancing Science, Education, and Careers to Enhance Neurologic Health for All
	Unlocking Opportunities: The Benefits of Junior and Early Career Membership in the American Neurological Association Panel Discussion
	View from the NINDS, NIA, DOD, and VA* Lake Nona A Career Development Opportunities at the VA View from NIA View from NINDS View from the DOD
9:00 AM - 9:15 AM	Break Foyer 1 - Lower Level
9:15 AM - 9:30 AM	ANA2024 Welcome and Opening Remarks Orlando IV - VI
9:30 AM - 11:30 AM	PLENARY SESSION Orlando Ballrooms IV - VI Role of Compartmentalized Inflammation in Health and CNS Diseases* JEC • Circadian Regulation of Glial Activation and Neuroinflammation in Alzheimer Disease • Compartmentalized Inflammation as a Target for Remyelination in MS • Targeting Microglia for Neurotherapies • Astrocytic Inflammation in the Post-Stroke Brain Emerging Scholar Presentions: • Clues for Pharmacological Approaches for Targeting ADAM10 in Dementias Guided by Novel Neuropathological Endophenotyping • Estrogen-induced NFκB activation Mediates IL-1Î production in Murine Optic Glioma
11:30 AM - 12:45 PM	Grab-and-Go Lunch Foyer 1 - Lower Level

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Please note all session times are listed in Eastern Daylight Time.

SUNDAY, SEPTEMBER 15, 2024

INTERACTIVE LUNCH WORKSHOPS Optimizing Neurologic Clinical Trial Design and Insuring Equitable Enrollment*

Lake Florence

- Diverse Population Considerations for ALS Trials
- Measuring Side Effect Burden in Neurology: Development and Application of the Adverse Event Unit (AEU)
- Reducing Trial Non-Compliance and Increasing Trial Safety

Game-Based Learning in Neurology*

JEC

Lake Lucerne

- Beyond Jeopardy: Game Design to Teach Neurology and Neuroscience
- Diversity and Inclusion in Serious Games
- This Lecture is Boring: An Intro to Game-Based Learning

Advances in Pediatric Neurology Research: Genetic and Pharmacologic Therapies for Refractory Pediatric Neurologic Disorders: State of the Art Treatments for Epileptic Encephalopathies, Neuromuscular, Mitochondrial Disorders* JEC

11:45 AM - 12:45 PM La

Lake Eola A

- Emerging Therapies for Pediatric Neuromuscular Disorders
- Potential for Treatment or Reversal of Mitochondrial Disorders
- Precision Therapy for Pediatric Epileptic Encephalopathies; Targeting mTOR

Neuro Ethics*

Lake Concord

- Disability and Neurotechnology
- The Neuro Ethics of Deep Brain Stimulation

Clinical Logic*JEC

Lake Mizell A

- A Flashy Case
- Alphabet Soup and Phenotype How Do We Understand This?
- What's Up with White Spots

Global Neurology Initiative: Action Plan Update*

Lake Nona A

- Extending the Reach and Making a Footprint for Specialist Neurological Care for Underserved Populations in Southern Province, Zambia
- ANA Global Neurology Initiative Update -Nigeria
- ANA Global Neurology Initiative Update Ghana
- ANA Global Neurology Initiative Update -Uganda

	ADDITIONAL LUNCH WORKSHOPS
11:45 AM - 12:45 PM	ABPN: Update & Continuing Certification Overview* Lake Nona B ABPN: Update & Continuing Certification Overview Neurology and Child Neurology Article-Based Continuing Certification Meet the Program & Residency Directors* JEC, PR Lake Eola B Women of the ANA: Charting New Horizons: Women Pioneering Leadership and Entrepreneurial Innovation in Academic Neurology* Lake Hart Administrative Leadership for Women in Academic Neurology Entrepreneurship/Innovation in Academic Neurology Pharmaceutical Research Grants/Funding and Pharmaceutical Consulting While in Academia
12:00 PM - 7:30 PM	Poster Viewing Orange Ballrooms A-D Poster Presenters will be in attendance 5:30 - 7:00 PM
12:45 PM - 1:00 PM	Break Foyer 1 - Lower Level
1:00 PM - 3:00 PM	PRESIDENTIAL SYMPOSIUM Present and Future Applications of AI in Neurological Care and Research* JEC Orlando Ballrooms IV - VI AI Applications for Implantable Devices in Neuropsychiatric Diseases The Power of Informatics and Machine Learning Applications to Personalized Healthcare Delivery AI for Discovery and Diagnosis of Neurological Diseases using Deep Learning and Large-Scale Neuroimaging AI-Aided Analyses of Seizure and Interictal Phenotypes and Drug Responses in Epilepsy Models: Possibilities for Clinical Applications
3:00 PM - 3:30 PM	Break Foyer 1 - Lower Level

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Please note all session times are listed in Eastern Daylight Time.

CROSS-CUTTING SPECIAL

SUNDAY, SEPTEMBER 15, 2024

CROSS-CUTTING SPECIAL INTEREST GROUPS

Health Services and Health Equity Research: How Do We Engage and **Recruit Diverse Populations** in Neurological Research*

Lake Lucerne

- · Health Equity and Representation Science in Neurocritical Care
- Promoting Best Practices in Diversity Enrollment in Clinical Studies: An NIH Perspective
- Representation in Clinical Trials: Strategies for Study Design and Recruitment

Selected Abstract Presentation

Influences on Health Preventive Behaviors After Minor Stroke: Understanding Patient Perceptions and Practices in an Urban **Underserved Population**

Neurodegeneration and Cell Death

Lake Concord

- Drug Development in Neurodegenerative Diseases: Challenges and Opportunities
- Elucidating Amyloid Fibril Formation using Correlative Cryo-CLEM in situ
- Integrating Skin Seeded-amplification Assays into a Personalized Stem-cell Paradigm for Synucleinopathy
- New Mechanisms of Neuron-Autonomous Neuroinflammation
- Understanding and Treating Enteric Nervous System Disease in a CNS Neurodegenerative Disorder

Selected Abstract Presentation

Rescuing Alpha-synuclein Toxicity through Neuron-specific Enhancement of Autophagy

Neurodevelopment: The Neurovascular Continuum*

Lake Nona B

- · The Neurovascular Continuum: Pediatric Stroke
- The Neurovascular Continuum: Vulnerabilities in Women and in Aging

- Loss of Function of EIF4A2 Leads to Neurodevelopmental Impairment in Zebrafish
- The Timing of Purkinje Cell Silencing Determines Severity of Neurodevelopmental Outcomes

	INTEREST GROUPS
	Neurogenetics and Gene Therapy: Forget the Mouse: The Future of Pre-Clinical Trials in Neurogenetic
	Disease* Lake Concord
	A Transgenic Rabbit Model of
	Pediatric Epilepsy and SUDEP Fibroblast Models MELAS/LHON Plus to Test Novel Pharmaco-Epigenomic Drugs
	Refining TDP-43 Dependent Disease Mechanisms and Therapeutic Approaches in ALS Using Human iPSC Models
	Selected Abstract Presentation • Parvalbumin-positive Interneuron
	Alterations in a Mouse Model of Pcdh19 Clustering Epilepsy
	Neuroinflammation and Neuroinfection: Genetic
	Underpinnings to
	Neuroinflammatory and
	Neuroinfectious Diseases* Lake Hart
3:30 PM - 5:00 PM	Defining the Path to Disease Modifying Therapy for Genetic Leukoencephalopathy
	Neurological Manifestations of Errors of Immunity
	The White Matter Rounds Experience: An International Network to Accelerate the Diagnosis of Adult Subjects with Atypical White Matter Diseases
	Selected Abstract Presentation Utilization of Cerebrospinal Fluid IgM and RT-PCR Testing for Neuro-invasive West Nile Virus
	Neurorecovery and Neuroplasti-
	city: Neurostimulation to Improve Recovery After Brain Injury*
	Modulating Neural Population Dynamics to Improve Motor Recovery
	Neurostimulation Tools for Post-Stroke Motor Recovery - Prime Time
	Understanding Mechanisms of Aphasia Recovery to Improve Brain Stimulation Treatments
	Selected Abstract Presentation Parvalbumin Interneurons Regulate Circuit Plasticity in the Healthy and Injured Somatosensory Cortex
3:30 PM - 4:00 PM	Restorative Music Session Orange Ballroom F
5:00 PM - 5:30 PM	Break Foyer 1 - Lower Level
5:00 PM - 5:30 PM	Education Innovation Committee Connection (By Invitation Only) Lake Lucerne

3:30 PM - 5:00 PM

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Please note all session times are listed in Eastern Daylight Time.

SUNDAY, SEPTEMBER 15, 2024	
5:30 PM - 7:00 PM	Poster Reception in Exhibit Hall JEC Orange Ballrooms A-D and Foyer 1 Poster presenters will be in attendance.
7:00 PM - 8:00 PM	SATELLITE SYMPOSIUM Optimizing Alzheimer's disease Care: The Power of Early Diagnosis in an Evolving Treatment Landscape SPONSORED BY EISAI, INC.
7:00 PM - 8:30 PM	New Member Meet and Greet with ANA Leaders Past, Present, and Future (By Invitation Only) Lake Monroe A
7:30 PM - 8:30 PM	Inclusion/Diversity/Equity/ Anti-Racism/Social Justice (IDEAS) Committee Reception (By Invitation Only) Lake Monroe B
MONDAY,	SEPTEMBER 16, 2024
6:30 AM - 7:30 PM	ANA2024 REGISTRATION
	Lobby Level
6:30 AM - 8:30 AM	Grab-and-Go Breakfast Foyer 1 - Lower Level
6:30 AM - 8:30 AM 7:00 AM - 8:30 AM	Grab-and-Go Breakfast

	PROFESSIONAL DEVELOPMENT WORKSHOPS
	Early Career & Early to Mid-Career Level
	Early Career Development for International Graduates:
	Challenges and Opportunities* JEC Lake Nona A
	Concerning Visas: An IMG Tale How Mentorship Matters When Choosing a Career Pathway
	Immigrant Neurologists in the Physician-Scientist Pipeline
	My Academic Journey as an Immigrant Neurologist
	AUPN Chair Level
7:00 AM - 8:30 AM	AUPN Session: Multitasking for the Neurology Chair: Balancing Multiple Priorities*
	A Personal Perspective on Prioritization, Procrastination, and Planning
	Keeping All the Balls in the Air: Lessons Learned
	How to Win Friends and Influence People as a Neurology Chair? Let Faculty Lead
	Program and Residency Director Level Workshop
	Realistic Research in Residency* JEC, PR
	Lake Florence
	Adequate Support And Infrastructure: What An R25 Added? Trainee
	Creating A Realistic Research Project- Do You Need An R25?
	Transitioning to Fellowship: Can You Actually Get Prelim Data for a K?
8:30 AM - 8:45 AM	Break Foyer 1 - Lower Level

Online scheudle at:

https://2024.myana.org/ program/schedule-at-a-glance **O**



Please note all session times are listed in Eastern Daylight Time.

MONDAY, SEPTEMBER 16, 2024	
8:45 AM - 10:45 AM	PLENARY SESSION Emerging Applications of Non-Invasive Neuromodulation in NeurologyJEC Orlando Ballroom IV - VI • Emerging Focused Ultrasound Techniques for Diagnosis and Treatment of Brain Disorders • Brain Circuit-Targeted Neuromodulation • Non-invasive Approaches to Treating Seizures • Causal Entrainment of Cortical Rhythms Improves Memory in Aging and Alzheimer's Disease Emerging Scholar Presentions • Highly Epileptiform EEG Trajectories and Functional Recovery Post-Cardiac Arrest • Insights from Centromedian Thalamic Stimulation Evoked Responses to Improve Brain Stimulation Therapies
10:45 AM - 11:45 AM	Executive Session of Membership JEC All ANA members are encouraged to attend Orlando IV-VI
11:45 AM - 12:45 PM	Grab-and-Go Lunch Foyer 1 - Lower Level
12:00 PM - 1:00 PM	INTERACTIVE LUNCH WORKSHOPS Autoimmune Epilepsy: Emerging Trends* Lake Eola B Identification of Autoimmune Epilepsy Syndromes Immunotherapy in Autoimmune Epilepsy: An Experience from Autoimmune Epilepsy Clinic Navigating the Expanding Spectrum of Neural Specific Antibodies Associated with Autoimmune Encephalitis Neurosarcoidosis: Evolving Diagnostic and Management Strategies* Lake Mizell A Diagnosis and Evolving Philosophies of Care for Patients with Neurosarcoidosis Updates in our Understanding of Biomarkers and Laboratory Findings in Neurosarcoidosis Mimics and Approaches in Neurosarcoidosis Myelitis

INTERACTIVE LUNCH WORKSHOPS

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Advances in Neurologic Devices*

Lake Nona A

- Focused Ultrasound For Movement Disorders
- Implantable Brain-Computer Interfaces For Restoring Communication and Mobility
- Responsive Neurostimulation to Restore Consciousness In Epilepsy

New Trends in Headache Management in Diverse Populations*

Lake Concord

- Headache Management In Rural Populations
- Headache Treatment and Management in Pediatric Populations
- Migraine Management During Pregnancy and in Older Adults

Diversity in the Neurology Workforce in the Post-Affirmative Action Era*

Lake Nona B

- Diversifying Neurology Residency and Fellowship Programs: Lessons Learned, Current Strategies, and Future Directions
- Fostering Diversity in Academic Neurology Departments
- Increasing Diversity in the Neurosciences: A Comprehensive Collaborative Approach
- Strategies to Increase Diversity in Medical Schools: How do we go from here?

ADDITIONAL LUNCH WORKSHOPS AUPN Meet the Chairs: Empowering Women Leaders:

Successes and Challenges in the Role of Department Chair*

Lake Lucerne

- AUPN Meet the Chairs: Empowering Women Leaders: Successes and Challenges in the Role of Department Chair
- Women Leaders in Neurology

12:00 PM - 1:00 PM

12:00 PM - 1:00 PM

Neurology in the ChatGPT Era: Artificial Intelligence Advances in Literature-Based Discovery*

Lake Eola A

- Cross-Domain Natural Language Processing to Redefine Disease and Drug Targets: A Case Study with Parkinson's
- Large Language Models Towards the Automation of Clinical Meta-Analysis: A Case Study with Glioblastoma

Meet the Editors*JEC

Key West A-C

Enhancing Biomedical Writing Skills



Please note all session times are listed in Eastern Daylight Time.

MONDAY, SEPTEMBER 16, 2024	
12:00 PM - 7:30 PM	Poster Viewing Orange Ballrooms A-D Poster presenters will be in attendance from 6:00 PM - 7:30 PM.
1:00 PM - 1:15 PM	Break Foyer 1 - Lower Level
1:15 PM - 4:00 PM	PLENARY SESSION* Orlando Ballrooms IV - VI 2024 Derek Denny-Brown Young Neurological Scholar Award Perinatal Neurodevelopment: Understanding the Dynamic Infant Brain Derek Denny-Brown Young Neurological Scholar Award: Physician-Scientist: Clinical Antithrombotic Treatment Decisions in Patients with Comorbid Hemorrhage-prone Cerebral Small Vessel and Ischemic Vascular Diseases 2024 Audrey S. Penn Lectureship Award Exploration of Race, Racism, Race-based Headache Disparities and Professional Ethics The Grass Foundation - ANA Award in Neuroscience Developing CRISPR Gene Therapy for Neurodegenerative Diseases ANA2024 Wolfe Research Prize Blood Neural Barrier Breakdown Drives Mutant TRPV4 Mediated Motor Nerve Degeneration ANA-Persyst IDEAS Professional Development Award ANA2024 Distinguished Neurology Teacher Award ANA2024 IDEAS Early Career Member Award ANA Award for Excellence: Clinical and Scientific Excellence Novel Scientific Career Based Contributions (>15 Years)
4:00 PM - 4:15 PM	Break Foyer 1 - Lower Level
4:15 PM - 4:45 PM	Restorative Music Session Orange Ballroom F

TRADITIONAL SPECIAL INTEREST GROUPS

Neurocritical Care and TBI: Beyond the ICU: Impacting Long-Term Outcomes Following Neurological Critical Illness and TBI*

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Lake Nona A

- Beyond the ICU: Impacting Long-Term Outcomes Following Neurological Critical Illness and TBI
- Long-Term Outcomes after TBI with Special Interest in Women and Marginalized Groups

Selected Abstract Presentations

- Can the Incorporation of Quantitative Markers and Death Improve the Prediction of Post-Ischemic Stroke Epilepsy?
- Relationship between Social Determinants of Health (SDOH), Clinical Phenotypes, and Disability in Subacute-Long Term TBI

Autoimmune Neurology & MS: Updates and Advances in the Immunobiology and Approaches in Autoimmune Encephalitis*

Lake Monroe A

4:15 PM - 5:45 PM

- CNS Autoimmunity with Immune Checkpoint Inhibitor Cancer Immunotherapy
- The Role of Infectious Triggers in Autoimmune Encephalitis
- Treatment Approaches in Pediatric Autoimmune Encephalitis

Selected Abstract Presentations

- Paramagnetic Rim Lesion Evolution is Related to Longitudinal Clinical Disease Progression in People with Multiple Sclerosis
- Kallikrein-10 Gene Mutations in Patients with Stiff-Person Syndrome (SPS): Extensive Immunogenetic Studies Triggered by a GAD-positive Family

Neuromuscular Disease*

Lake Nona B

- Advances in Inclusion Body Myositis
- Learnings from Gene Therapy in Pediatric Neuromuscular Disorders
- What's on the Horizon for ALS

Selected Abstract Presentation

 Preclinical Overview of CB03-154 (KCNQ2/3 Channel Opener) for Amyotrophic Lateral Sclerosis (ALS)

Online scheudle at:

https://2024.myana.org/ program/schedule-at-a-glance



Please note all session times are listed in Eastern Daylight Time.

MONDAY, SEPTEMBER 16, 2024

Behavioral Neurology and Dementia: Emerging Diagnostic and Therapeutic Biomarkers in Neurodegeneration*

Lake Monroe B

- Cholinergic System Changes and Cognition in Parkinson Disease
- Manipulation of Microglial Genes in Alzheimer's Disease: When and in Which Direction?
- Update on Performance of Blood-Based Biomarkers in AD

Selected Abstract Presentations

- Deep Learning-Enhanced PRS: A Pioneering Approach for Personalized Alzheimer's Risk Stratification
- Self-supervised Convolutional Neural Network Trained on Retinal Digital Color Images Can Identify Pre-symptomatic Alzheimer's Disease

4:15 PM - 5:45 PM

Epileptogenesis: From Basic Mechanisms to Clinical Practice*

Lake Hart

- Mechanisms of Epileptogenesis in Status Epilepticus
- Traumatic Brain Injury as a Human Model of Epileptogenesis
- Tuberous Sclerosis Complex as a Human Model of Epileptogenesis

Selected Abstract Presentation

 Clinical Characteristics and Seizure Outcomes of Temporal and Extratemporal Lobe Epilepsy Surgery at a Single Center in Cape Town, South Africa

Global Neurology: Hot Topics in Global Neurology*

Lake Eola B

- Cerebral Malaria Updates: Vaccines, Climate Change, and Beyond
- Neurologic Care in Conflict Zones
- Neuroscience Research Capacity Building in LMICs

Selected Abstract Presentation

 The Impact of Malaria on the Central Nervous System- Does Coma Really Matter?

Online scheudle at:

https://2024.myana.org/ program/schedule-at-a-glance

4.15 DM 5.45 DM	SATELLITE SYMPOSIUM Evolving Perspectives in Alzheimer's disease: Reaching an Earlier Diagnosis, Understanding Neuroinflammation, and Exploring Therapeutic Advances SPONSORED BY PHYSICIANS' EDUCATION	
4:15 PM - 5:45 PM	SKYCLARYS, the First and Only FDA-Approved Prescription Treatment for Friedreich Ataxia in Adults and Adolescents Aged 16 Years and Older SPONSORED BY BIOGEN	
6:00 PM - 7:30 PM	Poster Reception in Exhibit Hal JEC Orange Ballrooms A-D and Foyer 1 Poster presenters will be in attendance.	
7:30 PM - 10:30 PM	President's Reception Foyer 2 Lower Level & Orange Ballroom E	
TUESDAY, SEPTEMBER 17, 2024		
6:30 AM - 11:00 AM	ANA2024 REGISTRATION Lobby Level	
6:30 AM - 8:30 AM	Grab-and-Go Breakfast Foyer 1 - Lower Level	
	PROFESSIONAL DEVELOPMENT WORKSHOPS	
	Early to Mid-Early to Mid-Career Level	
	Building Your Career in Global Neurology*JEC Lake Nona B • Developing a Career in Global Health	

• Global Neurology: Nuts and Bolts

Landing the Career Track You Want and Career Transitions*

Strategies for Success

A Perspective

Lake Nona A

· In-Practice: Life of a Global Neurologist

Building a Career in Neurology EducationClinical Career Tracks: Challenges and

Impacting Neurology Through Research:

7:00 AM - 8:30 AM

◎



Please note all session times are listed in Eastern Daylight Time.

TUESDAY, SEPTEMBER 17, 2024	
7:00 AM - 8:30 AM	PROFESSIONAL DEVELOPMENT WORKSHOPS Program and Residency Director Level Workshop Navigating Fellowships* JEC, PR Lake Florence Basic Science: Should MD/PhDs do a Post-Doc Rather than Traditional Fellowship? Earlier Decisions Tax Programs Neurohospitalists: Need Even for Those Hospitalists? AUPN Chair Level Navigating Neurotherapeutic Horizons: Managing the Practical Aspects of the Novel Alzheimer's Therapeutics* Lake Lucerne Design and Implementation of a Disease Modifying Therapy Program at UAB Overview of Anti-Amyloid Therapies: Considerations for Prescribing and Monitoring
8:30 AM - 8:45 AM	Break Foyer 1 - Lower Level
8:45 AM - 10:45 AM	PLENARY SESSION Autoimmune vs. Infectious Encephalitis: Dilemmas and Solutions* JEC Orlando Ballrooms IV-VI • The Advantages and Pitfalls of Metagenomic Sequencing in Encephalitis • Corticosteroids in Herpes Simplex Encephalitis, and Other Therapeutics in Viral Encephalitis: Lessons Learned • Enhanced Diagnostic Precision in AE to Guide Prognosis and Treatment • Treatments and Trials in Autoimmune Encephalitis: The Urgent Need for Evidence Emerging Scholar Presentions • Characterizing Delayed Neurotoxicity Syndromes Following Treatment with Anti-BCMA CAR-T Cell Therapies • Proinflammatory Cytokines in the CSF Aneurysmal SAH Patients are Associated with Shunt Placement
10:45 AM - 11:00 AM	Break Foyer 1 - Lower Level

11:00 AM - 12:30 PM AU	A Medical Student Forum: A nversation with the Neurology airs*JEC e Florence Careers In Neurology PN Networking Lunch for Small ademic Departments mpions Gate
	ADITIONAL SPECIAL EREST GROUPS
Lake Sele P A C Sele P A C W B P T N a Hei Lake C C N E Sele A C C C C C C C C C C C C C C C C C C	rebrovascular Disease* e Eola A eleep Health Influences Disparities in etroke Risk and Health Outcomes advances in Pediatric Ischemic Stroke the Impact of Sex and Gender on Stroke elected Abstract Presentations revalence and In-Hospital Outcomes essociated with Ischemic Stroke and oncomitant Cardiomyopathy white Matter Lesion Burden, Blood-Brain arrier Disruption, and Worse Cognitive erformance in Patients with CADASIL racking Leukocytes to Understand eutrophil Extravasation and Persistence fiter Ischemic Stroke and Reperfusion adache & Pain* e Monroe A Elinical Presentation and Pathophysiologi- al Differences of Visual Symptoms functional Imaging exted Abstract Presentations a Systematic Review Comparing the trengths and Weaknesses of Neuromodu- ting Treatments for Pain Management in ibromyalgia: ECT, TMS, and Psychedelics omparison of the Region of Interest ROI) Selection Methods for Diffusion ensor Image Analysis Along Perivascular

Online scheudle at:

https://2024.myana.org/ program/schedule-at-a-glance **O**



Please note all session times are listed in Eastern Daylight Time.

TUESDAY, SEPTEMBER 17, 2024

Movement Disorders

Lake Nona A

- Cerebellar Deep Brain Stimulation in Cerebral Palsy
- Controversies of Spinal Cord Stimulation for Gait Disturbance in Parkinson's Disease
- Skin Synuclein Signature in Diverse Synucleinopathy

Selected Abstract Presentation

 Genome-sequencing in Multiple System Atrophy: Identification of Novel Susceptibility Loci and Generation of a Foundational Resource

11:00 AM - 12:30 PM

Neuro-oncology: Novel Devices for the Treatment of High-Grade Glioma: A Closer Look at Focused Ultrasound, Laser Interstitial Thermal Therapy (LITT), and Tumor Treating Fields*

Lake Eola B

- Focused US for BBB disruption
- Role of Laser Interstitial Thermal Therapy in Brain Tumors
- Tumor Treating Fields Treatment Device for Glioblastoma

Selected Abstract Presentation

• Medical Comorbidities Potentially Modify Survival of Glioblastoma Patients

	Neuro-ophthalmology and Neuro-vestibular Disease* Lake Nona B
	Choroidal Abnormalities and Visual Out- comes in Children with NF1-Associated Optic Pathway Gliomas
	Quantifying Induced Nystagmus Using a Smartphone Eye Tracking Application
	Updates on the Diagnostic Criteria for MOGAD
	Selected Abstract Presentation
	Gaps in Neuro-Vestibular Eye Movement Assessment by Clinical Neurologists in the AVERT Randomized Trial
11:00 AM - 12:30 PM	Sleep Disorders and Circadian
	Rhythms*
	Lake Monroe B
	OSA and Stroke Prevention
	Sleep Stage Specific Effects of Sleep Apnea on Cerebrovascular Pathology and Memory in Older Adults at Risk for Alzheimer's Disease
	Sleep and Multiple Sclerosis
	Selected Abstract Presentation
	Sleep Disturbances Induced by TDP-43 Proteinopathy are Rescued by ATXN2 Knockdown in Drosophila and Mouse Models of Sporadic ALS
12:30 PM	Meeting Adjourned

©

DUVYZAT: NOW AVAILABLE FOR YOUR PATIENTS WITH DMD

DUVYZAT is the first nonsteroidal treatment indicated for ALL patients with DMD 6 years of age or older regardless of genetic mutation or ambulatory status^{1,2,*}

DUVYZAT was studied in one of the largest DMD clinical trials to date and was shown to provide protection against disease progression^{1,2}

Visit ITF Therapeutics at booth #1 to discover what DUVYZAT can do for your patients

The American Neurological Association (ANA) does not endorse the product(s) and/or service(s) advertised or for the company that advertises, manufactures, distributes, or promotes the products and services.

DMD, Duchenne muscular dystrophy.

*The EPIDYS clinical trial did not include non-ambulatory patients.1



Scan the QR code to view the clinical trial publication and sign up for updates.



Indication

DUVYZAT is a histone deacetylase inhibitor indicated for the treatment of Duchenne muscular dystrophy (DMD) in patients 6 years of age and older.

Important Safety Information

Warnings and precautions

- Hematological Changes: DUVYZAT can cause dose-related thrombocytopenia and other signs of myelosuppression, including anemia and neutropenia. Monitor platelets: dosage adjustment or discontinuation may be needed.
- Increased Triglycerides: An increase in triglycerides can occur; dosage modification may be needed. Discontinuation may be needed.
- Gastrointestinal Disturbances: Adjust dosage if moderate or severe diarrhea occurs. Antiemetics or antidiarrheal medications may be considered during treatment with DUVYZAT. Discontinue DUVYZAT if the symptoms persist.
- OTc Prolongation: Avoid use of DUVYZAT in patients who are at an increased risk for ventricular arrhythmias.

Recommended Evaluation and Testing Before Initiation of DUVYZAT:

Obtain and evaluate baseline platelet counts and triglycerides prior to initiation of DUVYZAT. Do not initiate DUVYZAT in patients with a platelet count less than 150 x 109/L. Monitor platelet counts and triglycerides as recommended during treatment to determine if dosage modifications are needed.

In addition, in patients with underlying cardiac disease or taking concomitant medications that cause QT prolongation, obtain ECGs when initiating treatment with DUVYZAT, during concomitant use, and as clinically indicated.

Most Common Adverse Reactions:

Most common adverse reactions (≥10% in DUVYZAT-treated patients) are diarrhea, abdominal pain, thrombocytopenia, nausea/vomiting, hypertriglyceridemia, and pyrexia.

To report SUSPECTED ADVERSE REACTIONS, contact ITF Therapeutics LLC at 1-833-582-4312 or FDA at 1-800-FDA-1088 or www.fda.gov/medwatch.

Please visit DUVYZAT.com to view the full Prescribing Information and Medication Guide.

References: 1. Mercuri E, Vilchez JJ, Boespflug-Tanquy O, et al; EPIDYS Study Group. Safety and efficacy of givinostat in boys with Duchenne muscular dystrophy (EPIDYS): a multicentre, randomised, double-blind, placebo-controlled, phase 3 trial. Lancet Neurol. 2024;23(4):393-403. 2. DUVYZAT. Prescribing information. ITF Therapeutics; 2024.







GENERAL INFORMATION

ON-SITE REGISTRATION:

Registration Kiosk (Lobby Level)

Saturday, September 14	10:00 AM - 7:00 PM
Sunday, September 15	7:00 AM - 6:00 PM
Monday, September 16	6:30 AM - 7:30 PM
Tuesday, September 17	6:30 AM - 11:00 AM

POSTER SESSION:

Orange Ballrooms A-D and Foyer 1 (Lower Level)

Sunday, September 15	12:00 PM-7:30 PM Poster presenters and poster judges will be in attendance from 5:30 PM-7:00 PM
Monday, September 16	12:00 PM-7:30 PM Poster presenters and poster judges will be in attendance from 6:00 PM-7:30 PM

SPEAKER READY ROOM:

Room - Conway Lake (Main Level)

Friday, September 13	10:00 AM - 7:00 PM EDT
Saturday, September 14	7:00 AM - 7:00 PM EDT
Sunday, September 15	7:00 AM - 7:00 PM EDT
Monday, September 16	6:00 AM - 5:00 PM EDT
Tuesday, September 17	6:00 AM - 12:30 PM EDT

BREAKFAST:

Foyer 1 (Lower Level)

Sunday, September 15	7:00 AM - 9:00 AM
Monday, September 16	6:30 AM - 8:30 AM
Tuesday, September 17	6:30 AM - 8:30 AM

LUNCH:

Foyer 1 (Lower Level)

Boxed Lunches will be distributed in the foyer and attendees are encouraged to bring them to the Interactive Lunch Workshops.

Sunday, September 15	11:30 AM - 12:45 PM
Monday, September 16	11:45 AM - 12:45 PM
Tuesday, September 17	10:45 AM - 12:30 PM

EXHIBIT HALL:

Orange Ballrooms A-D and Foyer 1 (Lower Level)

Sunday, September 15	12:00 PM - 7:30 PM
Monday, September 16	12:00 PM - 7:30 PM

PRESS ROOM:

Room - Turkey Lake (Lobby Level)

Sunday, September 15	7:00 AM - 5:00 AM
Monday, September 16	7:00 AM - 5:00 AM
Tuesday, September 17	8:00 AM - 11:00 AM

WIRELESS CONNECTION

All meeting guests in the designated ANA meeting/conference rooms at the Hilton Orlando, will receive complimentary high-speed wireless internet access during the official meeting dates (Saturday to Tuesday). To connect, look for the network SSID: ANA2024. When prompted, enter the passcode orlando24 (Please note that the password is case sensitive). Opening Symposium and Closing Day WiFi sponsored by Eisai, Inc. Please note, this network is only in the meeting/convention space, not in the guest rooms/lobby/restaurants of the Hilton.

MOBILE APP

- Download the ANA Meeting app from the Apple Play Store or Google Play Store.
- Open the app, click the ANA 2024 event under 'Upcoming Meetings'
- Click 'Download'
- Log-in to access complete app features





GENERAL INFORMATION

DISCLAIMER

Please note that some session titles may have changed since this program was posted online. Please refer to the ANA Mobile App for the most current information.

CONTINUING MEDICAL EDUCATION: ACCREDITATION & DESIGNATION STATEMENT(S)

The American Neurological Association is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to provide continuing medical education for physicians. The Annual Meeting offers CME to eligible participants. Detailed information pertaining to CME can be found in your conference bag and at the following website: https://2024.myana.org/continuing-medical-education

ANNUAL MEETING EVALUATIONS

Please look for placards with the QR code at the membership booth and posted in different areas around the meeting to claim CME. If you don't see the code or prefer to wait, you will receive an email with instructions to claim CME credits on the final day of the meeting. People who complete the evaluation will be entered into a drawing for a \$100 Starbucks gift card. If you have any questions, please contact the Meetings and Program Coordinator, Ashley McCowan,

amccowan@myana.org

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Photography in the Annual Meeting Poster Area and Exhibit Area is restricted to the official conference photographer.

LANGUAGE

The official language of the Annual Meeting is English. No simultaneous translation is available.

ADA

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ALCOHOL CONSUMPTION

Any individual under 21 years old will be prohibited from consuming alcoholic beverages during ANA receptions.



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Saturday, September 14, 2024

SATURDAY, SEPTEMBER 14, 2024

ANA2024

Registration Opens

Saturday | 10:00 AM Registration Kiosk Main Level

Program Directors Networking Reception (By Invitation Only)

Saturday I 4:00 - 5:00 PM Lake Concord

Opening Reception (Joint with AUPN)

Opening Reception hosted by the Association of University Professors of Neurology (AUPN) and the ANA JEC

Saturday | 5:00 - 5:45 PM Orange Ballroom E

Opening Symposium

The Dawn of Gene Therapy in ALS* JEC

Saturday | 5:45 - 7:15 PM Orlando Ballrooms IV - VI

CHAIR: Clifton Gooch, MD, FANA, University of South Florida

CO-CHAIR: I-Hweii Chen, MD, PhD, FANA, University of South Florida

This program reviews the significant progress in our understanding of the mechanisms of action of the major mutations causing ALS in recent years, as well as the substantial progress in translational research and human therapeutic trials for these disorders, which produced the first FDA approved therapy for hereditary ALS (SOD1) in 2023.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe the genetic basis of hereditary ALS.
- Demonstrate how to use newly approved genetic therapies for hereditary ALS.
- Explain the current landscape and timeline for the implementation of genetic therapies to the practice of ALS Care

A Successful RNA-Targeted Therapy for ALS

SPEAKER: Timothy Miller, MD, PhD, FANA, Washington University in St. Louis

C9orf72 ALS/FTD: Challenges and New **Opportunities in Translational Research** SPEAKER: Laura Ranum, PhD, FANA, University of Florida

TDP43: A Focal Point for RNA Therapeutics in ALS/FTD

SPEAKER: Sami Barmada, MD, PhD, University of Michigan

Human Genetic Therapies for ALS: Current Status and Future Prospects

SPEAKER: Merit Cudkowicz; MD, MSc, FANA; Massachusetts General

ANA Junior and Early Career Networking Reception JEC

Saturday | 7:30 - 9:00 PM Orange E Ballroom

Hosted by the Junior and Early Career Membership Subcommittee

Global Neurology Networking Reception (By Invitation Only)

Saturday | 7:30 - 8:15 PM Lake Concord

Hosted by the Global Engagement Committee



Sunday, September 15, 2024

SUNDAY, SEPTEMBER 15, 2024

Student & Trainee Breakfast with ANA Board of Directors (By Invitation

Only) JEC Sunday | 7:00 - 7:30 AM Key West A-C

Grab-and-Go Breakfast

Sunday | 7:00 - 9:00 AM Foyer 1 (Lower Level)

Professional Development Workshop Early Career & Early to Mid Career Level

View from the NINDS, NIA, DOD, AND VA*

Sunday | 7:30 - 9:00 AM Lake Nona A

CHAIR: Claire Henchcliffe, MD, DPhil, FANA, University of California, Irvine

CO-CHAIR: Ali Ezzati, MD, University of California, Irvine

This is a panel session of the directors of the NINDS, NIA, DOD and the VA, providing information on resources available for research from the institutions, how to apply, and pearls to help new and experienced investigators navigate the funding systems.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe opportunities for neuroscience and neurology research at the NINDS, NIA, and the VA.
- Explain the infrastructure of the NIA, NINDS, and the VA as it pertains to neurology and neuroscience research.
- Discuss the training and career development opportunities available for academic neurologists and neuroscientists at the NINDS, NIA, and the VA.

Career Development Opportunities at the VA

SPEAKER: Amanda Hunt, PhD, Biomedical Laboratory Research and Development

View from the DOD

SPEAKER: Nicole Williams, PhD, Department of Defense

View from NINDS

SPEAKER: Walter Koroshetz, MD, FANA, National Institutes of Health

View of NIA

SPEAKER: Eliezer Masliah, MD, National Institute on Aging

Optimizing Your ANA2024 Meeting Experience to Build your Professional Network and your CV*

Sunday | 7:30 - 9:00 AM Lake Nona B

CHAIR: Katherine Carroll, MD, Northwestern University

CO-CHAIR: Lesli Skolarus, MD, MS, FANA, Northwestern University

This interactive session, which takes place near the start of the ANA2024 meeting, will serve as an essential launchpad for a successful ANA meeting, in particular for junior faculty members and newer members to the ANA. The session will provide an overview of the ANA including its executive committee and directors as well as the various opportunities to become more involved in the ANA including involvement in the wide variety of committees and subcommittees. The panel of speakers will include a diverse group of ANA members who will share their personal experiences on how their ANA membership and the ANA annual meeting has advanced their research, their professional network, and their careers. There will be ample time for questions and answers as well as sharing of ideas. Attendees will leave this workshop armed with the tools which are needed to enhance their annual meeting experience and feel better prepared to successfully utilize the benefits of the ANA to strengthen their career trajectory.



Sunday, September 15, 2024

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Develop a professional network to support career development.
- Utilize the benefits of their ANA membership and their attendance at the ANA annual meeting.
- Learners need to use the ANA Annual Meeting as a platform to enhance their professional network, improve their research potential and heighten their career trajectory.

Unlocking Opportunities: The Benefits of Junior and Early Career Membership in the American Neurological Association

SPEAKER: Wilfreda Lindsey, MD, MS, Kennedy Krieger Institute

Empowering Progress: Advancing Science, Education, and Careers to Enhance Neurologic Health for All

SPEAKER: Lesli Skolarus, MD, MS, FANA, Northwestern University

Panel Discussion

SPEAKER: Letitia Weigand, PhD, National Institute of Neurological Disorders and Stroke

Professional Development Workshop Program and Residency Directors

Developing the Director*PR

Sunday | 7:30 - 9:00 AM Lake Florence

CHAIR: Elisabeth Marsh, MD, FAHA, FANA, FAAN, Johns Hopkins University

CO-CHAIR: Raymond Price, MD, FANA, University of Pennsylvania

This workshop will focus on the challenges facing those dedicated to the medical education within an academic neurology program. How does one begin on the path and ultimately succeed. Speakers will discuss the strategies for becoming a program director and navigating promotion as well as the

most common challenges facing academic programs and resources available to the leadership team.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe several strategies in navigating a career as an academic medical educator interested in leading residency and fellowship programs.
- Discuss the basic challenges facing academic training programs as well as resources available to help promote success.

Starting Out: Becoming an APD and Navigating Promotion

SPEAKER: Laura Stein, MD, MSEd, University of Pennsylvania

Challenges Facing Program Directors

SPEAKER: Alfred T. Frontera, MD, FANA, University of South Florida

Advocating for Yourself and Your ProgramSPEAKER: Leticia Tornes, MD, University of Miami

Professional Development Workshop AUPN Chair Level

Fostering Diversity, Equity, and Inclusion in Today's Neurology Residency Selection*

Sunday | 7:30 - 9:00 AM Lake Lucerne

CHAIR: Michel Torbey, MD, MBA, MPH, FANA, University of New Mexico

This course is designed to empower residency directors with the knowledge and skills needed to foster a diverse, equitable, and inclusive environment within neurology residency programs.

Participants will delve into the principles and practices of DEI as they apply to the selection of neurology residents. We will explore strategies to ensure a fair and inclusive application process, examine bias in selection criteria, and discuss the



Sunday, September 15, 2024

significance of a diverse neurology workforce in providing equitable healthcare. Through case studies, discussions, and expert insights, participants will gain valuable insights into the challenges and opportunities related to DEI in neurology residency selection.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss the importance of Diversity, Equity, and Inclusion (DEI) in Neurology Residency.
- Identify and Mitigate Unconscious Bias in Residency Selection.
- Implement Inclusive Practices in Neurology Residency Selection.

Integrating Diversity, Equity, and Inclusion in Neurology Residency Selection

SPEAKER: Larry Goldstein, MD, FANA, FAHA, FAAN, University of Kentucky

Integrating Diversity, Equity, and Inclusion in Neurology Residency Selection

SPEAKER: Rana Said, MD, University of Texas Southwestern Medical Center

Incorporating Holistic Review in Residency Recruitment

SPEAKER: Annapoorna Bhat Ramachandra, MD, PhD, University of New Mexico

Break

Sunday | 9:00 - 9:15 AM

Welcome and Opening Remarks

Sunday | 9:15 - 9:30 AM Orlando Ballroom IV - VI

SPEAKER: M. Elizabeth Ross, MD, PhD, FANA, Weill Cornell Medicine

Plenary Session

Role of Compartmentalized Inflammation in Health and CNS Diseases*

Sunday | 9:30 - 11:30 AM Orlando IV-VI

CHAIR: Laura Balcer, MD, MSCE, FANA, NYU Grossman School of Medicine

CO-CHAIR: Jennifer Orthmann-Murphy, MD, PhD, University of Pennsylvania

This program will study the role and therapeutic targets of compartmentalized inflammation (including microglia, oligodendrocytes, and astrocytes) in different neurological diseases.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Explain the concept of compartmentalized inflammation in neurologic disease.
- Describe how microglia, astrocytes and oligodendrocytes contribute to compartmentalized inflammation and repair.
- Identify novel approaches under development that target these inflammatory processes.

Circadian Regulation of Glial Activation and Neuroinflammation in Alzheimer Disease

SPEAKER: Erik Musiek, MD, PhD, Washington University School of Medicine in St. Louis

Compartmentalized Inflammation as a Target for Remyelination in MS

SPEAKER: Jennifer Orthmann-Murphy, MD, PhD, University of Pennsylvania

Targeting Microglia for Neurotherapies

SPEAKER: Mariko Bennett, MD, PhD, Children's Hospital of Philadelphia and School of Medicine

Astrocytic Inflammation in the Post-Stroke Brain

SPEAKER: Amy Gleichman, PhD, University of California, Los Angeles

Estrogen-induced NFκB activation Mediates IL-1Î production in Murine Optic Glioma

EMERGING SCHOLAR PRESENTER: Yunshuo Tang, MD, PhD, Washington University in St. Louis



Sunday, September 15, 2024

Clues for Pharmacological Approaches for Targeting ADAM10 in Dementias Guided by Novel Neuropathological Endophenotyping

EMERGING SCHOLAR PRESENTER: Shadi Ghourchian, MD, Downstate Neurology at OBH

Lunch (Grab & Go)

Sunday | 11:30 AM - 12:45 PM Orange Foyer 1

Interactive Lunch Workshop

Optimizing Neurologic Clinical Trial Design and Ensuring Equitable Enrollment*

Sunday | 11:45 AM - 12:45 PM Lake Florence

CHAIR: Lauren Reoma, MD, National Institute of Neurological Disorders and Stroke

CO-CHAIR: Cassie Mitchell, PhD, Georgia Institute of Technology

Representation and selection of subjects in neurologic trials is of utmost important for successful trial recruitment and retention. Engagement with the target community to ensure trial design that accounts for lived experience, including novel metrics representative of participant burden and potential engagement in trials, considerations for trial design, including site visits and wearable devices, and a focus on equitable representation to more accurately reflect the affected population are all necessary components to the trial landscape. This session will explore these considerations and offer some novel considerations and metrics in this space.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Implement new techniques and metrics for disease community engagement and retention.
- Apply core concepts in participant representation to individual trials targeting the affected population of interest.

Utilize new metrics and frameworks in trial design.

Measuring Side Effect Burden in Neurology: Development and Application of the Adverse Event Unit (AEU)

SPEAKER: Michael Hehir, MD, University of Vermont College of Medicine

Diverse Population Considerations for ALS Trials SPEAKER: Justin Kwan, MD, FANA, National

Institute of Neurological Disorders and Stroke

Reducing Trial Non-Compliance and Increasing Trial Safety

SPEAKER: Aleksander Videnovic, MD, MSc, FANA, Massachusetts General Hospital

Interactive Lunch Workshop

Game-Based Learning in Neurology* JEC

Sunday | 11:45 AM - 12:45 PM Lake Lucerne

CHAIR: Zachary London, MD, FANA, University of Michigan

CO-CHAIR: Andrew Kayser, MD, PhD, FANA, University of California, San Francisco

Game-based learning is an educational technique that introduces concepts, enhances retention of knowledge, and builds community for learners, while also being enjoyable. Understanding how learner engagement, content format, and other factors promote learning in game-based education is critical for the ongoing development of learning paradigms and the incorporation of new technologies. In this hour-long workshop we will introduce the fundamentals of serious game development for neurologists and explore key principles of gamebased learning. We will also discuss issues related to the importance of gender, racial, and ability-based diversity in games and their development. In the second half of the hour, we will lead an interactive workshop for participants to take the first steps in developing their own educational games.



Sunday, September 15, 2024

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Define the concepts and techniques that underlie the development of effective game-based learning in neurology.
- Apply learning methodologies in didactic sessions and other educational settings.
- Implement game-based learning to enhance teaching.

This Lecture is Boring: An Intro to Game-Based Learning

SPEAKER: Michael Cosimini, MD, Oregon Health and Sciences University

Beyond Jeopardy: Game Design to Teach Neurology and Neuroscience

SPEAKER: Zachary London, MD, FANA, University of Michigan

Diversity and Inclusion in Serious Games

SPEAKER: Alison Christy, MD, PhD, Providence Health and Services

Interactive Lunch Workshop

Clinical Logic*JEC

Sunday | 11:45 AM - 12:45 PM Lake Mizell A

CHAIR: Eric Wong, MD, MA, FANA, FAAN, Rhode Island Hospital

CO-CHAIR: Raymond Price, MD, FANA, University of Pennsylvania

Clinical Logic is the most popular Interactive Lunch Workshop session in the annual meeting of the American Neurological Association where junior neurologists can learn from expert neurologists in the diagnosis of rare neurologic disorders or unusual presentation of common neurologic diseases. This year, we will have 4 senior neurologists from Harvard, Penn, Emory and Brown discussing the fine points of the neurologic diagnosis. Traditionally, the logic behind a neurologist's diagnosis begins

with history and the formulation of a number of differential diagnoses. The neurologic examination provides localization of the disease process, or a lack of it. This cognitive process helps to eliminate some of the differential diagnoses. Diagnostic tests will narrow down the differential diagnoses further so that the neurologist can arrive at the most likely diagnosis and prescribe the appropriate treatment. Advances in diagnostic tests and neuroimaging have enabled neurologists to do just that and future AI software may also help. Most importantly, clinical acumen is a learned skill that is cumulative in a neurologist's career.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Recognize the differentiation between logic and intuition.
- Identify the pitfalls of erroneous neurologic diagnoses.
- Demonstrate the logic of arriving at a neurologic diagnosis.

Alphabet Soup and Phenotype - How Do We Understand This?

SPEAKER: Patricia Greenstein, MBBCh, Beth Israel Deaconess Medical Center

What's Up with White Spots?

SPEAKER: Jonathan Cahill, MD, Brown University-Rhode Island Hospital

A Flashy Case

SPEAKER: Rebecca Matthews, MD, Emory University



Sunday, September 15, 2024

Interactive Lunch Workshop

Advances in Pediatric Neurology Research: Genetic and Pharmacologic Therapies for Refractory Pediatric Neurologic Disorders: State of the Art Treatments for Epileptic Encephalopathies, Neuromuscular, Mitochondrial Disorders*

Sunday | 11:45 AM - 12:45 PM Lake Eola A

CHAIR: Mark Wainwright, MD, PhD, FANA, Seattle Children's Hospital

CO-CHAIR: Ghayda Mirzaa, MD, Seattle Children's Hospital

There is an unmet need for pharmacologic or genetic therapies which target the molecular mechanisms of early onset progressive neurologic disorders. Such treatment might lead to attenuation in the progression of these disorders, a decrease in their severity, improved quality of life or greater responsiveness to medications currently used for treatment. Advances in in genetic testing have identified a diverse range of mechanisms leading to early onset epileptic encephalopathies, mitochondrial and pediatric neuromuscular disorders. These discoveries have led to new pharmacologic and gene-based therapies which have transformed the care of children with some of these disorders, such as spinal muscular atrophy. This session will focus on recent developments in therapies aimed at gene regulation, as well as the development of novel drugs or repurposed extant drugs for treatment of these conditions. This session will be of value to adult neurologists as children with chronic neurologic disorders survive to adulthood but many adult neurologists may have limited exposure to these complex disorders.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss the long-term outcomes and complications of pediatric epileptic encephalopathies, neuromuscular and mitochondrial disorders.
- Discuss the mechanisms of action and potential benefits of emerging therapies for these disorders.
- Assess the risks and benefits of new treatments for these disorders.

Emerging Therapies for Pediatric Neuromuscular Disorders

SPEAKER: Dimah Saade, MD, University of Iowa

Potential for Treatment or Reversal of Mitochondrial Disorders

SPEAKER: Melissa Walker, MD, PhD, Massachusetts General Hospital

Precision Therapy for Pediatric Epileptic Encephalopathies; Targeting mTOR

SPEAKER: Ghayda Mirzaa, MD, Seattle Children's Hospital

Interactive Lunch Workshop

Neuro Ethics*

Sunday | 11:45 AM - 12:45 PM Lake Concord

CHAIR: Albert (Gus) Davis, MD, PhD, Washington University School of Medicine in St. Louis

CO-CHAIR: Winston Chiong, MD, PhD, University of California, San Francisco

Advances in knowledge of basic and clinical neuroscience as well as breakthroughs in technology have enabled novel and increasingly sophisticated opportunities for both understanding and interacting with the human nervous system. Harnessing these emerging capabilities presents tremendous opportunity for treating disease and improving well-being, but it also raises serious ethical con-



Sunday, September 15, 2024

siderations that have real impact on individual and societal priorities. This session will describe some of the ethical challenges presented by advances in cellular and organoid models, neural networks, behavior surveillance, and neuromodulation.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss the opportunities presented by advances in technology as they relate to normal brain function and disease states.
- Apply technology to enhance our understanding of brain function, improve symptoms of brain illness, and protect confidentiality and autonomy.

Disability and Neurotechnology

SPEAKER: Winston Chiong, MD, PhD, University of California, San Francisco

The NeuroEthics of Deep Brain StimulationSPEAKER: Joshua Wong, MD, University of Florida

Additional Lunch Workshop

Women of the ANA: Charting New Horizons: Women Pioneering Leadership and Entrepreneurial Innovation in Academic Neurology*

Sunday | 11:45 AM - 12:45 PM Lake Hart

CHAIR: Shilpi Mittal, MD, Thomas Jefferson University Hospital

CO-CHAIR: Janhavi Modak, MBBS, MD, MPH, Baptist Health Medical Center

This theme emphasizes the evolving role of women as leaders and entrepreneurs in the academic neurology landscape. It highlights the dual aspects of leadership and business acumen within the academic context, focusing on how women are redefining what success looks like in this traditionally male-dominated field.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Identify systemic barriers to leadership and entrepreneurship in academic neurology.
- Explain the process of securing funding and grants, including identifying opportunities and writing successful proposals.
- Utilize leadership styles and strategies that are effective within academic neurology's unique hierarchies and challenges.
- Apply business acumen in translating neurology research into successful entrepreneurial ventures.
- Utilize networking strategies to build supportive professional relationships and collaborations across disciplines and institutions.
- Develop and implement strategies to ascend to leadership positions within their institutions and the wider academic neurology community.

Pharmaceutical Research Grants/Funding and Pharmaceutical Consulting While in Academia

SPEAKER: Pushpa Narayanaswami, MD, FAAN, Beth Israel Deaconess Medical Center

Entrepreneurship/Innovation in Academic Neurology

SPEAKER: Neha Dangayach, MD, MSCR, FAAN, FCCM, FCCP, FNCS, FANA, Icahn School of Medicine at Mount Sinai

Administrative Leadership for Women in Academic Neurology

SPEAKER: Uma Menon, MD, MBA, FANA, Ochsner Neuroscience Institute



Sunday, September 15, 2024

Interactive Lunch Workshop

Global Neurology Initiative: Action Plan Update*

Sunday | 11:45 AM - 12:45 PM Lake Nona A

CHAIR: Elizabeth Ross, MD, PhD, FANA, Weill Cornell Medical College

CO-CHAIR: Omar Siddiqi, MD, MPH, Beth Israel Deaconess Medical Center

This session will provide an update on the association's Global Neurology Initiative led by the Global Engagement Committee. Speakers will provide information on the progress made to advance academic neurology through education, mentorship, and research.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss the current state of neurology research Ghana, Nigeria, Uganda, and Zambia.
- Identify opportunities to conduct research in Low- and Middle-income Countries (LMICs).
- Discuss strategies to advance academic neurology in Low- and Middle-income Countries (LMICs).

Extending the Reach and Making a Footprint for Specialist Neurological Care for Undeserved Populations in Southern Province, Zambia

SPEAKER: Frighton Mutete, MBChB, Livingstone University Teaching Hospital

ANA Global Neurology Initiative Update - Nigeria SPEAKER: Oladotun Olalusi, MD, FWACP, University College Hospital Ibadan

ANA Global Neurology Initiative Update - Ghana SPEAKER: Priscilla Abrafi Opare-Addo, MD, Komfo Anokye Teaching Hospital

ANA Global Neurology Initiative Update - Uganda SPEAKER: Salvatore Ssemmanda, MBChB, MMED,FCNEUROOL(SA), C-Care International Hospital, Kampala, Uganda

Additional Lunch Workshop

ABPN: Update & Continuing Certification Overview*

Sunday | 11:45 AM - 12:45 PM Lake Nona B

CHAIR: Jeffrey Lyness, MD, American Board of Psychiatry & Neurology

CO-CHAIR: Nina Schor, MD, PhD, FANA, National Institutes of Health

Our patients expect that their physicians are demonstrating their expertise as determined by some kind of external judgment. That is the key function of specialty board certification and therefore the mission of the ABPN: to credibly reassure patients, families, and the public by giving neurologists and psychiatrists the chance to demonstrate our expertise via, in part, independent assessments. With this mission in mind, this session will provide an update from the American Board of Psychiatry & Neurology, including its Continuing Certification program. Dr. Lyness, the ABPN President and CEO, will provide an overview of the AB-PN's primary goals and activities, and the rationale for its Continuing Certification program. Dr. Schor, a neurology director who became ABPN Board Chair in July 2024, will describe the key elements of the ABPN Continuing Certification program, and offer perspectives on meeting its requirements in the course of a career in academic neurology. The session also will allow ample time for discussion with attendees.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe how the mission of the ABPN, as a certifying body, is distinct from yet complementary to the roles of academic institutions, professional societies, and the ACGME.
- Describe the rationale for and key elements of the ABPN's Continuing Certification program.
- Identify activities that one is already doing that help satisfy the ABPN's requirements for Continuing Certification.



Sunday, September 15, 2024

Neurology and Child Neurology Article-Based Continuing Certification

SPEAKER: Nina Schor, MD, PhD, FANA, National Institutes of Health

ABPN: Update & Continuing Certification Overview

SPEAKER: Jeffrey Lyness, MD, American Board of Psychiatry & Neurology

Additional Lunch Workshop

Meet the Program & Residency Directors* JEC PR

Sunday | 11:45 AM - 12:45 PM Lake Eola B

CHAIR: Elisabeth Marsh, MD, FAHA FANA FAAN, Johns Hopkins University

CO-CHAIR: Ray Price, MD, FANA, University of Pennsylvania

There are many challenges associated with training the physician-scientist ranging from navigating the integration of research and scholarship into a schedule filled with busy clinical service, to finding a path to promotion for educators inspiring the next generation of trainees. Both internal and external pressures can threaten to disrupt the delicate training balance and relationship between residents and program leadership. The goal of this course is to bring together program directors of academic neurology programs to discuss the challenges of training physician-scientists and to establish a network for support and future collaboration. Over the 3 days, we will begin by focusing on the infrastructure supporting those building a career on the medical educator track, and then focus specifically on two of the current challenges of running successful training programs: facilitating research during training; successfully navigating the ever changing fellowship landscape.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

 Network and establish new relationships for mentoring or collaboration.

Poster Viewing

Sunday | 12:00 - 7:30 PM Orange Ballrooms A-D, & Foyer 1 (Lower Level)

Break

Sunday | 12:45 - 1:00 PM

Presidential Symposium

Present and Future Applications of Al in Neurological Care and Research* JEC

Sunday | 1:00 - 3:00 PM Orlando Ballrooms IV-VI

CHAIR: M. Elizabeth Ross, MD, PhD, FANA, Weill Cornell Medical College

CO-CHAIR: Cassie Mitchell, PhD, Georgia Institute of Technology

Recent advances in artificial intelligence are challenging our concepts of applied predictive medicine in clinical and research settings. Computer science can enhance the speed and efficiency of human directed data processing. It raises the prospect of achieving what approximates human thought in order to expedite, prioritize, and better assist in neurological clinical care and research decisions. In order to make best use of this incredible power and avoid unintended negative consequences, it is critically important that the path to AI output is understood. Data utilized by AI systems are accurate and robust when properly validated and applied by clinical or research end users. Speakers will present perspectives on current capabilities



Sunday, September 15, 2024

and future promise of computational tools for the application of implantable devices and the integration of multi-omics, imaging, and clinical data toward understanding the causes, prognosis and treatment of neurological disease.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Assess current approaches to neurological treatment, diagnostics.
- Describe how to apply medical data access and organization in ways that safely connect multiple medical institutions while preserving data privacy and intellectual property.
- Discuss issues surrounding the use of AI in neurological care and research.

Al Applications for Implantable Devices in Neuropsychiatric Diseases

SPEAKER: Brian Litt, MD, PhD, FANA, University of Pennsylvania

The Power of Informatics and Machine Learning Applications to Personalized Healthcare Delivery

SPEAKER: Lucila Ohno-Machado, MD, MBA, PhD, FANA, Yale University School of Medicine

Al for Discovery and Diagnosis of Neurological Diseases using Deep Learning and Large-Scale Neuroimaging

SPEAKER: Paul Thompson, PhD, University of Southern California

Al-Aided Analyses of Seizure and Interictal Phenotypes and Drug Responses in Epilepsy Models: Possibilities for Clinical Applications

SPEAKER: Ivan Soltesz, PhD, Stanford University

Break

Sunday | 3:00 - 3:30 PM

Cross-Cutting Special Interest Group

Neurodevelopment: The Neurovascular Continuum*

Sunday | 3:30 - 5:00 PM Lake Nona B

CHAIR: Miya Asato, MD, Kennedy Krieger Institute CO-CHAIR: Eboni Lance, MD, PhD, Kennedy Krieger Institute

The neurovascular unit represents a complex and tightly controlled system of vascularization. Throughout the lifespan, diseases that compromise the neurovascular system impact development and other important functions. The critical balance of vascular and neuronal interactions can be compromised throughout development and are susceptible to environmental, infectious, inflammatory, genetic, traumatic, and other complex mechanisms. Alterations in the blood-brain barrier and changes in cerebral blood flow are increasingly recognized as systemic vulnerabilities that can lead to developmental disorders, impact cognition, and contribute to dementia. This session will focus on cerebral vascular disorders and will highlight mechanisms that can have ramifications throughout the lifespan including in childhood, women, and during aging.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Identify specific developmental or sex-based risk factors for vascular disease across the lifespan.
- Categorize potential candidate mechanisms that endanger neurovascular health at particular stages of development for different populations.
- Recognize important features that may advance understanding of neurovascular coupling that could inform potential preventative and therapeutic targets



Sunday, September 15, 2024

The Neurovascular Continuum: Pediatric Stroke

SPEAKER: Lori Jordan, MD, PhD, Vanderbilt University

The Neurovascular Continuum: Vulnerabilities in Women and in Aging

SPEAKER: Louise McCullough, MD, PhD, FANA, University of Texas Health Science Center at Houston

The Timing of Purkinje Cell Silencing Determines Severity of Neurodevelopmental Outcomes

SELECTED ABSTRACT PRESENTER: Jason Gill, MD, PhD, Baylor College of Medicine

Loss of Function of EIF4A2 Leads to Neurodevelopmental Impairment in Zebrafish

SELECTED ABSTRACT PRESENTER: Anna Duncan, MD, MHS, Massachusetts General Hospital

Cross-Cutting Special Interest Group

Neurodegeneration and Cell Death

Sunday | 3:30 - 5:00 PM Lake Eola A

CHAIR: Vikram Khurana, MD, PhD, Brigham & Women's Hospital

CO-CHAIR: Albert A. (Gus) Davis, MD, PhD, Washington University in St. Louis

This session will present basic and translational science regarding mechanisms in neurodegeneration.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss recent basic research findings related to the mechanisms of neurodegeneration.
- Describe translational research relevant to the neurodegeneration.
- Explain how communication between basic and translational scientists, academicians, and industry scientists could be improved.

Understanding and Treating Enteric Nervous System Disease in a CNS Neurodegenerative Disorder

SPEAKER: Ewa Ziolkowska, PhD, Washington University in St. Louis

Elucidating Amyloid Fibril Formation using Correlative Cryo-CLEM in situ

SPEAKER: Sarah Shahmoradian, PhD, University of Texas Southwestern Medical Center

Drug Development in Neurodegenerative Diseases: Challenges and Opportunities

SPEAKER: Azad Bonni, MD, PhD, La Roche University

Integrating Skin Seeded-amplification Assays into a Personalized Stem-cell Paradigm for Synucleinopathy

SPEAKER: Alain Ndayisaba, MD, Harvard Medical School

New Mechanisms of Neuron-Autonomous Neuroinflammation

SPEAKER: Brian Wainger, MD, PhD, Massachusetts General Hospital

Rescuing Alpha-synuclein Toxicity through Neuron-specific Enhancement of Autophagy

SELECTED ABSTRACT PRESENTER: Jason Chua, MD, PhD, Johns Hopkins University School of Medicine

Cross-Cutting Special Interest Group

Neuroinflammation and Neuroinfection: Genetic Underpinnings to Neuroinflammatory and Neuroinfectious Diseases*

Sunday | 3:30 - 5:00 PM Lake Hart

CHAIR: Kiran Thakur, MD, FAAN, Columbia University Irving Medical Center

CO-CHAIR: Felicia Chow, MD, MAS, University of California, San Francisco

While there is growing recognition of the genetic underpinnings to many neuroinfectious and neuroinflammatory conditions, the biological mechanisms and clinical presentations require knowledge sharing amongst academic neurologists. Here, we will learn from national and international leaders in the field of genetics as it relates to neuroinfectious and neuroinflammatory conditions to understand when, how and why to consider genetic testing



Sunday, September 15, 2024

in our patients and recent scientific advances in this rapidly evolving field. Here, we will highlight the latest basic science, translational and clinical research in genetic disorders and neuroinfectious and neuroinflammatory diseases.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Diagnose and consider a genetic cause of neuroinfectious and neuroinflammatory conditions.
- Apply genetic testing in the evaluation of patients with presumed and definitive neuroinfectious and neuroinflammatory conditions.
- Define how to target immune mediated genetic defects which may predispose individuals to these conditions.

Defining The Path to Disease Modifying Therapy for Genetic Leukoencephalopathy

SPEAKER: Jennifer Orthmann-Murphy, MD, PhD, University of Pennsylvania

The White Matter Rounds Experience: An International Network to Accelerate the Diagnosis of Adult Subjects with Atypical White Matter Diseases

SPEAKER: Roberta La Piana, MD, PhD, The Neuro Montreal Neurological Institute-Hospital

Neurological Manifestations of Errors of Immunity

SPEAKER: Farinaz Safavi, MD, PhD, National Institutes of Health

Utilization of Cerebrospinal Fluid IgM and RT-PCR Testing for Neuro-invasive West Nile Virus

SELECTED ABSTRACT PRESENTER: Carson M. Quinn, MD, Massachusetts General Hospital

Cross-Cutting Special Interest Group

Neurorecovery and Neuroplasticity: Neurostimulation to Improve Recovery After Brain Injury*

Sunday | 3:30 - 5:00 PM Lake Nona A

CHAIR: Steven Cramer, MD, MSc, FAAN, FAHA, FANA, University of California, Los Angeles

CO-CHAIR: Karunesh Ganguly, MD, PhD, FANA, University of California, San Francisco

Presentation and discussion of cutting-edge topics in neurorecovery and neuroplasticity from top experts, as well as oral presentation of three excellent scientific submissions to this meeting.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe the effects of neurological diseases on CNS function, and models of therapeutic interventions to improve outcomes in humans and in animal models.
- Utilize a wide range of tools employed to measure CNS structure and function in the setting of neuroplasticity research.

Neurostimulation Tools for Post-Stroke Motor Recovery - Prime Time

SPEAKER: Wayne Feng, MD, MS, FANA, Duke University

Modulating Neural Population Dynamics to Improve Motor Recovery

SPEAKER: Karunesh Ganguly, MD, PhD, FANA, University of California, San Francisco

Understanding Mechanisms of Aphasia Recovery to Improve Brain Stimulation Treatments

SPEAKER: Peter Turkeltaub, MD, PhD, Georgetown University Medical Center

Parvalbumin Interneurons Regulate Circuit Plasticity in the Healthy and Injured Somatosensory Cortex

SELECTED ABSTRACT PRESENTER: William Zeiger, MD, PhD, University of California Los Angeles



Sunday, September 15, 2024

Cross-Cutting Special Interest Group

Neurogenetics and Gene Therapy: Forget the Mouse: The Future of Pre-Clinical Trials in Neurogenetic Disease

Sunday | 3:30 - 5:00 PM Lake Nona A

CHAIR: Andrea Gropman, MD, FANA, Children's National Medical Center

CO-CHAIR: Gemma Carvill, PhD, Northwestern University

This program planned by the Neurogenetics special interest group focuses on advancing biomedical research beyond traditional mouse models. While mice have long been the cornerstone of preclinical studies, it's becoming increasingly evident that many mouse models fail to accurately recapitulate human phenotypes. This disparity poses significant challenges in drug development and biomedical research, especially considering the pivotal role mice play in FDA regulatory processes. This session aims to spearhead a paradigm shift towards embracing alternative model organisms and innovative approaches that better mimic human biology and pathophysiology. By fostering collaboration and advocating for the adoption of more diverse models, we aspire to revolutionize biomedical research, ultimately leading to more effective treatments and therapies for human diseases. Join us in reshaping the future of scientific inquiry and therapeutic development.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Critically assess various preclinical systems to determine their efficacy in replicating human biology accurately.
- Present data derived from alternative preclinical models as sufficient evidence for Investigational New Drug (IND) applications and eventual drug approval processes.

- Independently evaluate preclinical systems for their ability to accurately recapitulate human biology, demonstrating proficiency in selecting appropriate models and assessing their suitability for specific research objectives.
- Effectively communicate findings and present data derived from alternative preclinical models in a compelling manner, demonstrating competence in preparing documentation necessary for Investigational New Drug (IND) applications and contributing to successful drug approval processes.

Fibroblast Models MELAS/LHON Plus to Test Novel Pharmaco-Epigenomic Drugs

SPEAKER: Anne Chiaramello, PhD, George Washington University School of Medicine

A Transgenic Rabbit Model of Pediatric Epilepsy and SUDEP

SPEAKER: Lori Isom, PhD., FANA, University of Michigan Medical School

Refining TDP-43 Dependent Disease Mechanisms and Therapeutic Approaches in ALS Using Human iPSC Models

SPEAKER: Evangelos Kiskinis, PhD, Northwestern University

Parvalbumin-positive Interneuron Alterations in a Mouse Model of Pcdh19 Clustering Epilepsy

SELECTED ABSTRACT PRESENTER: Julie Ziobro, MD, PhD, University of Michigan



Sunday, September 15, 2024

Cross-Cutting Special Interest Group

Health Services and Health Equity Research: How do we Engage and Recruit Diverse Populations in Neurological Research*

Sunday | 3:30 - 5:00 PM Lake Lucerne

CHAIR: Neha Dangayach, MD, MSCR, FAAN, FCCM, FCCP, FNCS, Icahn School of Medicine at Mount Sinai

CO-CHAIR: Charlene Gamaldo, MD, FAAN, FAASM, FANA, Johns Hopkins University

The global burden of neurological diseases is increasing and these disease continue to disproportionately impact underserved and under-represented populations. It is exciting to see therapeutic breakthroughs for several previously untreatable neurological diseases. However, several clinical trials that have helped bring new therapeutic options to our clinical practice have been unsuccessful in engaging and recruiting diverse patient populations. Underserved and under-represented populations have been excluded from neurologic research for a variety of reasons. Diversity in clinical trial enrollment and retention; with representative groups from diverse racial, ethnic, gender, age, disability, socioeconomic, religious backgrounds is imperative to ensure that we fully understand the impact of our research and the clinical translation of research. that no groups of patients are systematically excluded from research or from clinical access to new therapies and innovations. Advances in digital health, artificial intelligence, machine learning can have several promising applications to bridge gaps in access to health for promoting neurological health. But if these innovations exclude specific populations, then the models and algorithms that they will be trained on will further worsen healthcare disparities. Funding agencies need to encourage researchers to think about effective strategies for recruiting and retaining diverse patient populations similar to other aspects of scientific rigor. Scientific journals should encourage authors to publish their work with specific attention to sharing their approaches for recruiting and retaining diverse patient populations.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Explain how HSR approaches can improve the recruitment and retention of diverse patient populations in neurologic research.
- Discuss the role of funding agencies and peer reviewed journals in bridging healthcare disparities for neurologic research.
- Discuss how digital health/AI can be leverage to bridge the digital divide for promoting neurologic health.

Health Equity and Representation Science in Neurocritical Care

SPEAKER: Nirupama Yechoor, MD, MSc, Mass General Brigham

Promoting Best Practices in Diversity Enrollment in Clinical Studies: An NIH Perspective

SPEAKER: Richard Benson, MD, PhD, FAAN, National Institute of Neurological Disorders and Stroke, National Institutes of Health

Representation in Clinical Trials: Strategies for Study Design and Recruitment

SPEAKER: Ellen Mowry, MD, MCR, FANA, Johns Hopkins University

Influences on Health Preventive Behaviors After Minor Stroke: Understanding Patient Perceptions and Practices in an Urban Underserved Population

SELECTED ABSTRACT PRESENTER: Imama Naqvi, MD MS, Columbia University



Monday, September 16, 2024

Restorative Music Session

Sunday | 3:30 - 4:00 PM Orange Ballroom F

Break

Sunday | 5:00 - 5:30 PM

Education Innovation Committee Connection

(By Invitation Only)

Sunday | 5:00 - 5:30 PM Lake Florence

Poster Presentation and Reception

JEC

Sunday | 5:30 - 7:00 PM Orange Ballrooms A-D, and Foyer 1 (Lower Level)

Satellite Symposium

Optimizing Alzheimer's Disease Care: The Power of Early Diagnosis in an Evolving Treatment Landscape

Sunday | 7:00 - 8:00 PM Orlando Ballroom III

SPONSORED BY EISAI

SPEAKER: Susan Steen, MD, First Choice Neurology, Tampa, FL

SPEAKER: Jeff Gelblum, MD, FAAN, First Choice Neurology, Miami, FL

New Member Meet and Greet

(By Invitation Only)

Sunday | 7:00 - 8:30 PM Lake Monroe A

IDEAS Committee Reception

(By Invitation Only)

Sunday | 7:30 - 8:30 PM Lake Monroe B

MONDAY, SEPTEMBER 16, 2024

Grab-and-Go Breakfast

Monday | 6:30 - 8:30 AM Foyer 1 (Lower Level)

Editorial Board Breakfast

(By Invitation Only)

Monday | 7:00 - 8:30 AM

Professional Development Workshop
Early Career Level

Early Career Development for International Graduates: Challenges and Opportunities* JEC

Monday | 7:00 - 8:30 AM Lake Nona A

CHAIR: Jayant Acharya, MD, DM, FANA, Southern Illinois University School of Medicine

CO-CHAIR: Erica Schuyler, MD, FANA, Hartford Healthcare/University of Connecticut

International medical graduates (IMGs) make up approximately a third of neurology trainees and active neurologists in the USA. They play a major role in providing greater access to health care for millions of patients, especially in underserved regions. With the current shortage of neurologists, which is projected to increase in the next



Monday, September 16, 2024

few decades, there is an even greater need for IMG neurologists. In order to remain in the US after training, IMGs face numerous visa-related and other challenges that can limit their scope of practice and range of opportunities in academic medicine. Advocacy and legislation efforts to address immigration complexities, increased recruitment of IMG neurologists in academic departments and a systematic approach to reducing bias and supporting diversity are necessary. During this session, speakers will present the landscape, challenges, and opportunities for in-training and early-career IMGs for a successful academic career in neurology. Greater knowledge and understanding of these issues will also benefit department chairs and other institutional leaders, and encourage them to recruit qualified IMG faculty and provide appropriate counseling to their IMG trainees.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Illustrate visa issues faced by IMG neurologists.
- Discuss challenges and opportunities for IMG neurologists pursuing academic careers.
- Describe recruitment and counseling strategies for IMG neurologists.

Concerning Visas: An IMG Tale

SPEAKER: Abhimanyu Mahajan, MD, MHS, University of Cincinnati

Immigrant Neurologists in the Physician-Scientist Pipeline

SPEAKER: Imama Naqvi, MD, MS, Columbia University

How Mentorship Matters when Choosing a Career Pathway

SPEAKER: Neha Dangayach, MD, MSCR, FAAN, FCCM, FCCP, FNCS, FANA, Icahn School of Medicine at Mount Sinai

My Academic Journey as an Immigrant Neurologist

SPEAKER: Romergryko (Romer) Geocadin, MD, FANA, Johns Hopkins University

Professional Development Workshop
Early Career & Early to Mid Career Level

Communicating Your Science: How to Promote Your Science to Scientists and Non-Scientists* JEC

Monday | 7:00 - 8:30 AM Lake Nona B

CHAIR: Kelly Sloane, MD, MS, University of Pennsylvania

CO-CHAIR: Romergryko (Romer) Geocadin, MD, FANA, Johns Hopkins University

This is an interactive workshop focused on tools for communicating your science to non-scientists. Being able to effectively and concisely describe your science to a non-scientist (e.g. philanthropists, journalists) is an essential part of advancing your career and your research. We will hear from speakers with expertise in public speaking to non-scientists and in social media communication.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Develop a summary to explain verbally their science to non-scientists/clinicians.
- Apply approaches to communicating about their research or clinical interests with non-scientific or clinical audiences in an oral presentation or their social media.
- Create and deliver an "elevator pitch" that can be modified to meet the backgrounds of various audience members.

Engaging the Media

SPEAKER: Bridget Stratton, MA, Public Communications Inc.

Communicating on Social Media

SPEAKER: Stephan Mayer, MD, FANA, Neurological Institute

Communicating with Philanthropists

SPEAKER: Andrew Josephson, MD, FANA, University of California, San Francisco



Monday, September 16, 2024

Professional Development Workshop

AUPN Chair Level

Multitasking for the Neurology Chair: Balancing Multiple Priorities*

Monday | 7:00 - 8:30 AM Lake Lucerne

CHAIR: Jun Li, MD, PhD, FANA, Houston Methodist

As leaders in academic Neurology, we are often responsible for multiple missions, including clinical care, education, scientific research, finance, and administration. This challenging situation is happening in all healthcare institutions. We are delighted to have three neurology chairs share their experience in accomplishing multitasking amidst many priorities.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Develop and implement time management strategies specific to the role of a Neurology Chair.
- Acquire the skills to effectively set priorities in achieving academic missions.
- Be equipped with the knowledge and passion necessary to inspire and motivate teams to accomplish diverse objectives within the academic Neurology setting.

Keeping all the Balls in the Air: Lessons Learned

SPEAKER: Jayant Acharya, MD, DM, FANA, Southern Illinois University School of Medicine

A Personal Perspective on Prioritization, Procrastination, and Planning

SPEAKER: Justin McArthur, MBBS, MPH, FANA, Johns Hopkins University

How to Win Friends and Influence People as a Neurology Chair? Let Faculty Lead

SPEAKER: Gwenn Garden, MD, PhD, FANA, University of North Carolina

Professional Development Workshop Program and Residency Director Level

Realistic Research in Residency* JEC PR

Monday | 7:00 - 8:30 AM Lake Florence

CHAIR: Elisabeth Marsh, MD, FAHA, FANA, FAAN, Johns Hopkins University

CO-CHAIR: Raymond Price, MD, FANA, University of Pennsylvania

This workshop will focus on the challenges of supporting a research presence for trainees during a busy clinical residency program. What kind of research questions can be answered during training and how do programs like the NIH R25 Award potentially alter these expectations. Speakers will discuss realistic research questions that may not require a formalized "research track" but still afford the benefits of exposure to clinical or basic science research during training and past trainees will provide examples of how research can be successfully completed both with and without an R25 Award that led to successful K award submissions following training.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe strategies for facilitating research over the course of residency.
- Discuss the basic program structures that allow a trainee to conduct research during residency while remaining compliant with ACGME requirements and a sense of reasonable expectations for scholarly productivity during training.

Creating a Realistic Research Project- Do you need an R25?

SPEAKER: Elisabeth Marsh, MD, FAHA, FANA, FAAN, Johns Hopkins University

Adequate Support and Infrastructure: What an R25 Added? Trainee

SPEAKER: Michael Guo, MD, PhD, University of Pennsylvania



Monday, September 16, 2024

Transitioning to Fellowship: Can You Actually Get Prelim Data for a K?

SPEAKER: Sachin Gadani, MD, PhD, Johns Hopkins University

Break

Monday | 8:30 - 8:45 AM

Plenary Session

Emerging Applications of Non-Invasive Neuromodulation in Neurology

Monday | 8:45 - 10:45 AM Orlando Ballrooms IV-VI

CHAIR: Roy Hamilton, MD, MS, FAAN, FANA, University of Pennsylvania

CO-CHAIR: Elisabeth Marsh, MD, FAHA, FANA, FAAN, Johns Hopkins University

Recent years have witnessed the conceptualization of many brain disease as circuit-level and/or network-level disorders. This view of brain diseases as network disorders coincides with and contributes to increased use of neuromodulation approaches which aim to treat certain neurological conditions by altering patterns of activity in dysfunctional neural circuits. Transcranial magnetic stimulation, while commonly employed in psychiatry, has begun to work their way into the armamentarium of therapeutics for neurologists. At the same time, other emerging noninvasive neuromodulation techniques such as focused ultrasound and transcranial electrical stimulation are showing considerable therapeutic promise across a wide range of neurologic disorders. This symposium will address novel approaches to stimulating brain circuits and networks using noninvasive neuromodulation techniques. It will bring together several globally renowned experts in brain networks and neuromodulation and will point toward the future use of brain stimulation for disorders in clinical neurology.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Differentiate between various noninvasive brain stimulation techniques such as transcranial magnetic stimulation (TMS), transcranial electrical stimulation (tES), and focused ultrasound (FUS) and understand their underlying principles and mechanisms of action.
- Explain how noninvasive brain stimulation techniques are being explored to enable the diagnosis and treatment of specific neurological disorders.
- Demonstrate a fundamental understanding of how patient-specific factors such as neuroanatomical targets, stimulation parameters, and individual brain response patterns influence the effects of noninvasive neuromodulation.

Emerging Focused Ultrasound Techniques for Diagnosis and Treatment of Brain Disorders

SPEAKER: Hong Chen, PhD, Washington University in St. Louis

Brain Circuit-Targeted Neuromodulation

SPEAKER: Michael Fox, MD, PhD, Brigham and Women's Hospital

Non-invasive Approaches to Treating Seizures

SPEAKER: Anli Liu, MD, MA, New York University Langone Health

Causal Entrainment of Cortical Rhythms Improves Memory in Aging and Alzheimer's Disease

SPEAKER: Robert Reinhart, PhD, Boston University

Insights from Centromedian Thalamic Stimulation Evoked Responses to Improve Brain Stimulation Therapies

EMERGING SCHOLAR PRESENTER: Thomas Foutz, MD, PhD, Washington University in St. Louis

Highly Epileptiform EEG Trajectories and Functional Recovery Post-Cardiac Arrest

EMERGING SCHOLAR PRESENTER: Edilberto Amorim, MD, University of California, San Francisco



Monday, September 16, 2024

Executive Session of Membership JEC

All ANA members are encouraged to attend

Monday | 10:45 - 11:45 AM Orlando Ballrooms IV-VI

Grab-and-Go Lunch

Monday | 11:45 - 12:45 PM

Additional Lunch Workshop

Neurology in the ChatGPT Era: Artificial Intelligence Advances in Literature-Based Discovery*

Monday | 12:00 - 1:00 PM Lake Eola A

CHAIR: Cassie Mitchell, PhD, Georgia Institute of Technology

CO-CHAIR: David Kartchner, PhD, Georgia Institute of Technology

Keeping up with the latest scientific literature in one's own niche specialty can be daunting - much less keeping up with the millions of other scientific articles that may be important to a cross-cutting field like neurology. Recent advances in natural language processing and large language models, including ChatGPT, have greatly increased the accessibility to large volumes of clinical and scientific research. The ability to integrate, aggregate, extract, and summarize data can greatly expedite the speed and efficiency of neurology research. In particular, natural language processing and the use of knowledge graphs has been exciting for the field of drug repurposing, including finding adjuvant therapies for neurological disease. Large language models like ChatGPT open the door to automating the tedious task of clinical meta-analysis and can potentially provide state-of-the-art, statistics-based guidelines in a fraction of the time. In addition to the two talks, there will be an interactive discussion on related relevant easy-to-access literature-based discovery tools for everyday use by neurologists and neuroscientists.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Provide overview and interactive demonstration of natural language processing (NLP) and large language models (LLM) for applications in neurology research.
- Provide overview and interactive case studies for the use literature based discovery and related text relationship mining tools for neurology research.
- Illustrate how NLP and LLM can be used to extract, organize, and mine large-scale, multifactorial literature from across domains.
- Use literature-based discovery to demonstrate specific case studies in glioblastoma, Parkinson's Disease, and other neu diseases will be used to show the utility of mining 34+ million PubMed articles for drug repurposing, adjuvant drug discovery, novel drug targets, and spectral disease mechanism identification.
- Provide detailed standard-of-care clinical practice example for automated meta-analysis to determine aggregate effect sizes across multiple cohorts.

Large Language Models Towards the Automation of Clinical Meta-Analysis: A Case Study with Glioblastoma

SPEAKER: David Kartchner, PhD, Georgia Institute of Technology

Cross-Domain Natural Language Processing to Redefine Disease and Drug Targets: A Case Study with Parkinson's

SPEAKER: Cassie Mitchell, PhD, Georgia Institute of Technology



Monday, September 16, 2024

Interactive Lunch Workshop

Autoimmune Epilepsy: Emerging Trends*

Monday | 12:00 - 1:00 PM Lake Eola B

CHAIR: James Gugger, MD, PharmD, University of Rochester

CO-CHAIR: Rajesh Gupta, MD, MS, FANA, University of Texas Houston

Epilepsy, characterized by recurrent seizures, can have a significant impact on quality of life. While the causes are diverse, recent research has shed light on the intriguing link between autoimmunity and certain types of epilepsy. This workshop aims to investigate the emerging trends in diagnosis and treatment of autoimmune seizures. To understand and manage autoimmune epilepsy effectively, we differentiate between syndromes caused by specific autoantibodies and those mediated by T-cells. We distinguish between acute, symptomatic seizures as a first event and a more chronic tendency towards autoimmune-associated epilepsy. We will delve into the mechanisms by which autoimmunity might trigger seizures, discuss the latest diagnostic tools for identifying these autoimmune epilepsies, and explore promising avenues for treatment strategies. This conference strives to improve diagnosis, treatment options, and ultimately, the lives of individuals living with autoimmune epilepsy.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe the seizure semiology and EEG patterns suggestive of autoimmune seizures and learn about common immune mediated encephalitides associated with seizures.
- Utilize appropriate diagnostic tools to detect autoimmune seizures and treat them appropriately with immunotherapy.
- Assess response of therapy and decide escalation if needed.

Immunotherapy in Autoimmune Epilepsy: An Experience from Autoimmune Epilepsy Clinic

SPEAKER: Rajesh Gupta, MD, MS, FANA, University of Texas Houston

Identification of Autoimmune Epilepsy Syndromes

SPEAKER: Shirin Jamal-Omidi, MD, Mayo Clinic

Navigating the Expanding Spectrum of Neural Specific Antibodies Associated with Autoimmune Encephalitis

SPEAKER: Divyanshu Dubey, MD, FANA, Mayo Clinic, Rochester

Interactive Lunch Workshop

Neurosarcoidosis: Evolving Diagnostic and Management Strategies*

Monday | 12:00 - 1:00 PM Lake Mizell A

CHAIR: Allen Aksamit, MD, FANA, Mayo Clinic, Rochester

CO-CHAIR: Amanda Jagolino-Cole, MD, FANA, The University of Texas Health Science Center at Houston

Improved methods have evolved for the diagnosis and treatment of neurosarcoidosis. Imaging characteristics help clinicians by pointing to the diagnosis of neurosarcoidosis based on more specific MRI findings in the brain and spinal cord. Spinal fluid analysis findings are nonspecific but research delving into biomarker panels in neurosarcoidosis are evolving. Biopsy proof remains important. Treatment options have expanded away from the use of corticosteroids alone avoiding the side effects of steroid excess. Ideas of projecting prognosis and identifying patients needing more aggressive therapy at diagnosis are evolving.



Monday, September 16, 2024

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Apply updated consensus statements and imaging and laboratory biomarkers in diagnosing neurosarcoidosis.
- Distinguish neurosarcoidosis and the many mimics that can hinder diagnosis.
- Apply new strategies for treatment to manage patients with neurosarcoidosis.

Diagnosis and Evolving Philosophies of Care for Patients with Neurosarcoidosis

SPEAKER: Barney Stern, MD, FANA, Johns Hopkins University

Updates in our Understanding of Biomarkers and Laboratory Findings in Neurosarcoidosis

SPEAKER: Carlos Pardo-Villamizar, MD, FANA, Johns Hopkins University

Mimics and Approaches in Neurosarcoidosis Myelitis

SPEAKER: Denis Balaban, MD, BS, Massachusetts General Hospital

Interactive Lunch Workshop

Advances in Neurologic Devices*

Monday | 12:00 - 1:00 PM Lake Nona A

CHAIR: Eric Wong, MD, MA, FANA, FAAN, Rhode Island Hospital

CO-CHAIR: Richa Tripathi, MD, MS, Emory University

Neurologic devices have played an increasingly important role for the management of a variety of neurological disorders. Some of them save lives, while others reverse neurological dysfunctions and make patients whole again. To most neurologists, devices are foreign to them because their training was primarily focused on administering drugs. They learned the fundamentals of organic chemistry in college, principles of pharmacology in

medical school, and concepts in drug pharmacodynamics and pharmacokinetics during residency and fellowship. But the basic principles of electromagnetism and physics of sound wave propagation were not in their educational curricula, and therefore the conceptual framework on the basic operation of neurologic devices is lacking, not to mention the biological effects elicited by these physical modalities of treatment. Advances in Neurologic Devices fills this knowledge gap. For example, the particular biological effect on neural tissues depends on the specific frequency band in the electromagnetic spectrum, with alterations in ion channel functions as basis for neuromodulation at low frequencies, disruption of protein-protein interaction resulting in mitosis interference and heating effect at intermediate microwave frequencies, and ionization from radiation at high frequencies. Each year, this session brings 3 important neurologic devices to the annual meeting of the American Neurological Association. The 2023 session brought spinal cord stimulation for pain modulation, deep brain stimulation for movement disorder, and tumor treating electric fields therapy for glioblastoma. This year in 2024, topics covered will include (i) implantable brain-computer Interfaces for restoration of communication and mobility, (ii) responsive neurostimulation to restore consciousness in epilepsy, and (iii) focused ultrasound for movement disorder, all of which are relevant to present or future treatment of neurological disorders.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Explain the basic scientific principles behind the operation of the neurologic devices.
- Identify neurologic disorders that can be treated with neurologic devices.
- Utilize various neurologic devices for specific neurological disorders.

Implantable Brain-Computer Interfaces for Restoring Communication and Mobility

SPEAKER: Leigh Hochberg, MD, PhD, FANA, Massachusetts General Hospital



Monday, September 16, 2024

Responsive Neurostimulation to Restore Consciousness in Epilepsy

SPEAKER: Hal Blumenfeld, MD, PhD, FANA, Yale University

Focused Ultrasound for Movement Disorders

SPEAKER: Wael Asaad, MD, PhD, Brown University

Interactive Lunch Workshop

New Trends in Headache Management in Diverse Populations*

Monday | 12:00 - 1:00 PM Lake Concord

CHAIR: Richa Tripathi, MD, Emory University CO-CHAIR: Kristina Lopez, MD, West Virginia University

Headache is a common neurological disorder affecting approximately 40% of the population (per 2021 census). This disorder affects individuals of all age ranges, ethnicities, socio-economic groups and geographical locations (1). This disease is not only painful but can be severely debilitating and affect the quality of life of patients including reduced productivity and economic loss to work-force. With arrival of several newer therapeutics the access to appropriate therapy for headache becomes important. Furthermore, therapy for headache management can change in diverse populations such as pregnant individuals, children as well as geriatric age group. Avoiding therapy associated side effects is of paramount importance. Correctly identifying when one such therapy is indicated can help achieve relief from headaches sooner and prevent loss of work days and economic as well as quality of life impact in such population. Approach and use of different therapies in such populations will be examined during this session which can help neurologist approach therapy in such individuals in a tailored fashion. This session aims to provide audience information regarding headache treatment in such patient groups.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe headache treatment modalities and options including pharmacotherapy and device use.
- Discuss when a treatment therapy is appropriate and applicable for an individual based on their clinical condition.
- Implement this knowledge in their patient population when treating headache.

Migraine Management During Pregnancy and in Older Adults

SPEAKER: NIna Riggins, MD, PhD, FANA, FAHS, University of California, San Francisco

Headache Treatment and Management in Pediatric Populations

SPEAKER: Debra O'Donnell, MD, Dayton Children's Hospital

Headache Management in Rural PopulationsSPEAKER: Kristina Lopez, MD, West Virginia University

Interactive Lunch Workshop

Diversity in the Neurology Workforce in the Post-Affirmative Action Era*

Monday | 12:00 - 1:00 PM Lake Nona B

CHAIR: Andrea Schneider, MD, PhD, University of Pennsylvania

CO-CHAIR: Nerissa Ko, MD, MAS, FANA, University of California, San Francisco

In June 2023, the US Supreme Court ended affirmative action in college admissions. In 1996, California voters overturned affirmative action. Since then, colleges and universities in this state have reported decreases in overall student body diversity and also the diversity of the faculty. It is not clear how this may impact the medical force in the US, including diversity in academic neurology. As a field, neurologists are not representative of



Monday, September 16, 2024

the patient diversity in the US. What are ways that institutions can work towards diversification of the field despite the end of affirmative action? This session will include presentations and discussions from neurology faculty directly involved in the recruitment and retention of individuals underrepresented in medicine across the neurology pipeline spectrum (medical school, residency, fellowship, and faculty).

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Identify strategies for increasing diversity across the neurology pipeline spectrum (medical school, residency, fellowship, and faculty).
- Develop strategies to increase diversity across the neurology pipeline spectrum (medical school, residency, fellowship, and faculty).
- Implement strategies for increasing diversity across the neurology pipeline spectrum (medical school, residency, fellowship, and faculty).

Increasing Diversity in the Neurosciences: A Comprehensive Collaborative Approach

SPEAKER: Amanda Brown, PhD, FANA, Johns Hopkins University

Strategies to Increase Diversity in Medical Schools: How Do We Go From Here?

SPEAKER: Sharon Lewis, MD, University of Pennsylvania

Diversifying Neurology Residency and Fellowship Programs: Lessons Learned, Current Strategies, and Future Directions

SPEAKER: Charles Flippen II, MD, FAAN, FANA, University of California, Los Angeles

Fostering Diversity in Academic Neurology Departments

SPEAKER: Jose Romano, MD, FAHA, FAAN, FANA, University of Miami

Additional Lunch Workshop

AUPN Meet the Chairs: Empowering Women Leaders: Successes and Challenges in the Role of Department Chair

Monday | 12:00 - 1:00 PM Lake Lucerne

CHAIR: John England, MD, FAAN, FANA, Louisiana State University Health Sciences School of Medicine

Prominent chairs of neurology will discuss how they handle their position, including what's involved with being a chair; what the process is for attaining their position, and how to interact with chairs.

This year's focus will be on "Empowering Women Leaders: Successes and Challenges in the Role of Department Chair". The panel of esteemed women Chairs will share their personal journeys and discuss the challenges they've encountered while assuming the role of chair. This interactive session aims to foster a supportive environment for candid conversations, offering valuable perspectives on overcoming obstacles, promoting diversity, and empowering women leaders in the field of neurology.

PANELIST: Laurie Gutmann, MD, FANA, Indiana University

PANELIST: Gwenn Garden, MD, PhD, FANA, University of North Carolina at Chapel Hill

AUPN Meet the Chairs: Empowering Women Leaders: Successes and Challenges in the Role of Department Chair

PANELIST: Alissa Willis, MD, University of Mississippi Medical Center

Women Leaders in Neurology

PANELIST: Page B. Pennell, MD, FANA, University of Pittsburgh School of Medicine



Monday, September 16, 2024

Additional Lunch Workshop

Meet the Editors* (By Invitation Only) JEC

Monday | 12:00 - 1:00 PM Key West A-C

CHAIR: Kenneth Tyler, MD, FANA, University of Colorado

CO-CHAIR: Ahmet Hoke, MD, PhD, FANA, Johns Hopkins University

In this session participants will get to meet the editors of Annals of Neurology, Annals of Clinical and Translational Neurology ("ACTN") and the Annals of the Child Neurology Society (ACNS). Participants will get to better understand the specific areas of interest of the three journals and the process for submitting manuscripts and how they are reviewed.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

• Describe the process for submitting manuscripts to academic journals.

Enhancing Biomedical Writing Skills

PANELIST: Ahmet Hoke, MD, PhD, FANA, Johns Hopkins University

PANELIST: Kenneth Tyler, MD, FANA, University of Colorado

PANELIST: E. Steve Roach, MD, FANA, The University of Texas at Austin Dell Medical School

Poster Hall Open

Monday | 12:00 - 7:30 PM Orange Ballrooms A-D, and Foyer 1 (Lower Level)

Break

Monday | 1:00 - 1:15 PM

Plenary Session

Derek Denny-Brown Young Neurological Scholars Symposium* JEC

Monday | 1:15 - 4:00 PM Orange Ballrooms IV-VI

CHAIR: Laurie Gutmann, MD, FANA, Indiana University CO-CHAIR: Vinita Acharya, MD, FAAN,FANA,FAES, Penn State College of Medicine

The Derek Denny-Brown Young Neurological Scholar Symposium is an opportunity for researchers to share groundbreaking research in the field of Neurology and Neuroscience. This symposium will feature presentations from the 2024 Derek Denny-Brown awardees, and the recipients of the Grass Foundation-ANA Award in Neuroscience, Audrey S. Penn Lectureship and Wolfe Research Prize awardees. Awardees receiving the Distinguished Neurology Teacher Award, the ANA-Persyst IDEAS Professional Development Award, ANA IDEAS Early Career Member Award, and the ANA Awards for Excellence will also be recognized during the symposium.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

 Recognize the significance of research contributions in the basic and clinical sciences by early and mid-career investigators in neurology and neuroscience.

2024 Derek Denny-Brown Young Neurological Scholar Award

Perinatal Neurodevelopment: Understanding the Dynamic Infant Brain

SPEAKER: Mercedes Paredes, MD, PhD, FANA, University of California San Francisco

Derek Denny-Brown Young Neurological Scholar Award: Physician-Scientist: Clinical

Antithrombotic Treatment Decisions in Patients with Comorbid Hemorrhage-prone Cerebral Small Vessel and Ischemic Vascular Diseases SPEAKER: Ashkan Shoamanesh, MD, FANA, McMaster University, Canada



Monday, September 16, 2024

2024 Audrey S. Penn Lectureship Award

Exploration of Race, Racism, Race-based Headache Disparities and Professional Ethics SPEAKER: Larry Charleston IV, MD, MSc, FAHS, Michigan State University

The Grass Foundation - ANA Award in Neuroscience

Developing CRISPR Gene Therapy for Neurodegenerative Diseases SPEAKER: Claire Clelland, PhD, MD, Mphil, University of California San Francisco

ANA2024 Wolfe Research Prize

Blood Neural Barrier Breakdown Drives Mutant TRPV4 Mediated Motor Nerve Degeneration SPEAKER: Charlotte Sumner, MD, FANA, Johns Hopkins University

ANA-Persyst IDEAS Professional Development Award

AWARD RECIPIENT: Shawniqua Williams Roberson, MEng, MD, MSCI, Vanderbilt University Medical Center

ANA2024 Distinguished Neurology Teacher Award

AWARD RECIPIENT: Stefano Sandrone, PhD, MEd, Imperial College London

ANA2024 IDEAS Early Career Member Award

AWARD RECIPIENT: Melody Asukile, MBChB, MMED, University of Zambia

AWARD RECIPIENT: Tshibambe Tshimbombu, MD, Barrow Neurological Institute at St. Joseph's Hospital and Medical Center

ANA Award for Excellence: Clinical and Scientific Excellence - Novel Scientific Career Based Contributions (>15 Years)

AWARD RECIPIENT: Clifford Saper, MD, PhD, FANA, Beth Israel Deaconess Medical Center

Break

Monday | 4:00 - 4:15 PM

Restorative Music Session

Monday | 4:15 - 4:45 PM Orange Ballroom F

Traditional Special Interest Group

Neurocritical Care and TBI: Beyond the ICU: Impacting Long-Term Outcomes Following Neurological Critical Illness and TBI*

Monday | 4:15 - 5:45 PM Lake Nona A

CHAIR: Danielle K. Sandsmark, MD, PhD, University of Pennsylvania

CO-CHAIR: Julio Furlan, MD, LLB, MBA, PhD, MSc, FRCPC, FAAN, Toronto Rehabilitation Institute and University of Toronto

The session will focus on current clinical and translational research aimed at understanding longterm neurocognitive, psychological, and physical sequelae following neurological critical illness and traumatic injuries of the brain and spinal cord. The long-term impact of critical illness on both survivors and their caregivers has been increasingly recognized in general critical care populations. While initial studies excluded those with neurological insults as the cause of their critical illness, efforts to better understand the effects of neurological critical illness and traumatic injuries of the nervous system have recently begun. While there are many parallels to the general critical care population, there are also distinct considerations in survivors of neurological critical illness, particularly TBI. The impacts on both survivors and caregivers, including emotional distress, psychological impacts, and cognitive functioning, will be discussed. The unique challenges to recovery encountered in marginalized populations will also be explored. The goal of the session is to improve learners' understanding of the long-term impacts of acute neurological injury to ultimately aid in addressing mechanisms of secondary insult and develop



Monday, September 16, 2024

systems of care that lead to improved neurological outcomes and quality of life for survivors and their caregivers.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Identify the risk of long-term neurocognitive, psychological, and physical effects of critical illness and traumatic brain injury.
- Describe the long-term risks of critical neurological illness and traumatic brain injury.
- Discuss the long-term sequelae of neurological critical illness/injury with patients and caregivers.

Long-Term Outcomes after TBI with Special Interest in Women and Marginalized Groups

SPEAKER: Angela Colantonio, PhD, FCAHS, FACRM, University of Toronto

Beyond the ICU: Impacting Long-Term Outcomes Following Neurological Critical Illness and TBI

SPEAKER: Jonathan Rosand, MD, MSc, FANA, Massachusetts General Hospital

Relationship between Social Determinants of Health (SDOH), Clinical Phenotypes, and Disability in Subacute-Long Term TBI

SELECTED ABSTRACT PRESENTER: Maral Sakayan, MD, University of California, Irvine

Can the Incorporation of Quantitative Markers and Death Improve the Prediction of Post-Ischemic Stroke Epilepsy?

SELECTED ABSTRACT PRESENTER: Jennifer Kim, MD, PhD, Yale School of Medicine

Cross-Cutting Special Interest Group

Autoimmune Neurology & MS: Updates and Advances in the Immunobiology and Approaches in Autoimmune Encephalitis*

Monday | 4:15 - 5:45 PM Lake Monroe A

CHAIR: Amanda Piquet, MD, FAAN, FANA, University of Colorado

CO-CHAIR: Eoin P. Flanagan, MBBCh, Mayo Clinic, Rochester

This session will focus on emerging updates on our understanding of the immunobiology of autoimmune encephalitis and updates in treatment approaches. Topics will highlight recent publications that help advance our understanding of triggers of autoimmune neurologic disorders including infectious triggers and complications from cancer immunotherapy. These topics will highlight recent publications in developing research in the underlying immunobiology of these triggers and recent treatment approaches. Additionally, we will feature topic on additional challenges in the treatment of the Pediatric population with autoimmune encephalitis specifically as this vulnerable group of patients has its own unique set of challenges, particularly in the setting newly available randomized-controlled clinical trials open for recruitment in NMDA receptor autoimmune encephalitis.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Identify common presentations and sequelae of autoimmune neurological diseases.
- Integrate currently available treatment trials into treatment approaches in patients with autoimmune neurological diseases.
- Assess outcomes in treatment approaches in patients with autoimmune neurological diseases to optimize long-term outcomes.



Monday, September 16, 2024

CNS Autoimmunity with Immune Checkpoint Inhibitor Cancer Immunotherapy

SPEAKER: Anastasia Zekeridou, MD, PhD, Mayo Clinic, Rochester

Treatment Approaches in Pediatric Autoimmune Encephalitis

SPEAKER: Grace Yoonheekim Gombolay, MD, MSc, Emory University /Children's Healthcare of Atlanta

The Role of Infectious Triggers in Autoimmune Encephalitis

SPEAKER: Jenny Linnoila, MD, PhD, University of Pittsburgh

Paramagnetic Rim Lesion Evolution is Related to Longitudinal Clinical Disease Progression in People with Multiple Sclerosis

SELECTED ABSTRACT PRESENTER: Jack Reeves, PhD, State University of New York at Buffalo

Kallikrein-10 Gene Mutations in Patients with Stiff-Person Syndrome (SPS): Extensive Immunogenetic Studies Triggered by a GADpositive Family

SELECTED ABSTRACT PRESENTER: Marinos Dalakas, MD, PhD, Thomas Jeffferson University

Traditional Special Interest Group

Neuromuscular Disease*

Monday | 4:15 - 5:45 PM Lake Nona B

CHAIR: Hani Kushlaf, MD, FAAN, FANA, FAANEM, University of Cincinnati

CO-CHAIR: Brett Morrison, MD, PhD, Johns Hopkins University

The speakers in this session will cover the following areas: Gene therapy in pediatric neuromuscular disorders, the future of ALS, and advances in inclusion body myositis. Gene therapy in neuromuscular disorders, especially the FDA-approval of gene therapy for Duchenne Muscular Dystrophy and other gene therapies in the pipeline, represents exciting developments in the field; however, practitioners must manage therapy risks and potential adverse

effects. There has been continued progress in ALS diagnosis, genetics, and therapeutic development. Inclusion body myositis is the most common myopathy in adults over the age of 50 years; a new IBM xenograft model has been developed and is a platform for testing new therapeutic targets.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss the basics of gene therapy and managing the risk of gene therapy in pediatric neuromuscular disorders.
- Outline the future of ALS diagnosis, biomarkers, and therapeutic development.
- Describe the new IBM xenograft model and other advances in IBM.

What's on the Horizon for ALS

SPEAKER: Jinsy A. Andrews, MD, MSc, FAAN, FANA, Columbia University Irving Medical Center

Advances in Inclusion Body Myositis

SPEAKER: Thomas Lloyd, MD, PhD, FANA, Baylor College of Medicine

Learnings from Gene Therapy in Pediatric Neuromuscular Disorders

SPEAKER: Carsten Bonnemann, MD, FANA, National Institutes of Health

Preclinical Overview of CB03-154 (KCNQ2/3 Channel Opener) for Amyotrophic Lateral Sclerosis (ALS)

SELECTED ABSTRACT PRESENTER: Xiuxiu Liu, PhD, Shanghai Zhimeng Biopharma Inc.



Monday, September 16, 2024

Traditional Special Interest Group

Behavioral Neurology and Dementia: Emerging Diagnostic and Therapeutic Biomarkers in Neurodegeneration*

Monday | 4:15 - 5:45 PM Lake Monroe B

CHAIR: Lenora Higginbotham, MD, Emory University

CO-CHAIR: Gregg S. Day, MD, MSc, MSCI, Mayo Clinic Florida

The pathophysiology of Alzheimer's disease (AD) and related dementias (ADRD) is extremely complex, extending beyond hallmark proteinopathies to encompass a variety of cellular and molecular systems. Thus, novel diagnostic and therapeutic biomarkers across a wide, heterogenous breadth of pathophysiology will be required to advance precision medicine in neurodegenerative dementia. This session will capture the heterogeneity of biomarker development in AD / ADRD by highlighting advancements across a variety of mechanisms, including amyloid / tau accumulation, neuroinflammation, and cholinergic dysfunction. Plasma biomarkers of phosphorylated tau (p-tau) have demonstrated particularly promising results as diagnostic and prognostic indicators of AD. However, how to best implement these markers in the clinical sphere remains unclear, with questions surrounding screening, access, and cost at the forefront of many debates within the field. Our first guest speaker of this session, Dr. Algeciras-Schimnich, will provide an update on the performance of emerging blood-based biomarkers of AD and the challenges surrounding their clinical implementation. Our next two speakers, Drs. Michelle Ehrlich and Roger Albin, will discuss promising inflammatory and cholinergic dementia targets, respectively. These talks will highlight the diversity of pathophysiology and biomarker development across the dementias.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe the sensitivity, specificity, and other performance measures of emerging blood-based biomarkers for AD/ADRD.
- Identify emerging inflammatory targets in AD/ ADRD.
- Apply the latest evidence to guide their biomarker assessments of AD/ADRD.
- Implement emerging blood-based biomarkers for AD/ADRD in clinical practice.

Cholinergic System Changes and Cognition in Parkinson Disease

SPEAKER: Roger Albin, MD, FANA, University of Michigan

Manipulation of Microglial Genes in Alzheimer's Disease: When and in Which Direction?

SPEAKER: Michelle Ehrlich, MD, Icahn School of Medicine at Mount Sinai

Update on Performance of Blood-Based Biomarkers in AD

SPEAKER: Alicia Algeciras-Schimnich, PhD, DABCC, FACB, Mayo Clinic, Rochester

Deep Learning-Enhanced PRS: A Pioneering Approach for Personalized Alzheimer's Risk Stratification

SELECTED ABSTRACT PRESENTER: Alokkumar Jha, PhD, Weill Cornell Medicine

Self-supervised Convolutional Neural Network Trained on Retinal Digital Color Images Can Identify Pre-symptomatic Alzheimer's Disease

SELECTED ABSTRACT PRESENTER: Oana Dumitrascu, MD, MSc, Mayo Clinic Arizona



Monday, September 16, 2024

Traditional Special Interest Group

Epileptogenesis: From Basic Mechanisms to Clinical Practice*

Monday | 4:15 - 5:45 PM Lake Hart

CHAIR: Scott Adney, MD, PhD, Northwestern University

CO-CHAIR: James Gugger, MD, PharmD, University of Rochester

Epileptogenesis is the process by which brain networks are functionally altered in a manner that predispose an individual to spontaneous seizures. This process may occur in individuals with acquired brain injury (e.g., traumatic brain injury, stroke) or a neurogenetic disorder (e.g., tuberous sclerosis complex, Sturge-Weber syndrome). Drivers of epileptogenesis include inflammation, neuron loss, plasticity, and circuit reorganization. Evidence from preclinical models suggests that epilepsy can be prevented by modulation of these targets, but translation to humans remains a challenge. Several large-scale international efforts are underway to uncover mechanisms of epileptogenesis and develop biomarkers to identify and monitor epileptogenesis and eventually carry out clinical trials of antiepileptogenic therapies. In this session we will discuss recent efforts to identify and prevent epileptogenesis in tuberous sclerosis complex as well as preclinical and clinical studies in post-traumatic epilepsy and status epilepticus.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss mechanisms of epileptogenesis relevant to tuberous sclerosis complex, traumatic brain injury, and status epilepticus.
- Identify barriers to identifying and validating biomarkers of epileptogenesis as well as barriers to carrying out feasible clinical trials of anti-epileptogenic therapies.

 Discuss recent efforts in identifying and monitoring the process of epileptogenesis in tuberous sclerosis complex.

Mechanisms of Epileptogenesis in Status Epilepticus

SPEAKER: Jaideep Kapur, MBBS, PhD, FANA, University of Virginia

Tuberous Sclerosis Complex as a Human Model of Epileptogenesis

SPEAKER: Martina Bebin, MD, MPA, FANA, University of Alabama at Birmingham

Traumatic Brain Injury as a Human Model of Epileptogenesis

SPEAKER: James Gugger, MD, PharmD, University of Rochester

Clinical Characteristics and Seizure Outcomes of Temporal and Extratemporal Lobe Epilepsy Surgery at a Single Center in Cape Town, South Africa

SELECTED ABSTRACT PRESENTER: Melody Asukile, MBChB, MMED, University of Zambia

Traditional Special Interest Group

Global Neurology: Hot Topics in Global Neurology*

Monday | 4:15 - 5:45 PM Lake Eola B

CHAIR: B. Jeanne Billioux, MD, National Institutes of Health

CO-CHAIR: Melody Asukile, MBChB, MMED, University of Cape Town/University of Zambia

Interest in global health in neurology is growing rapidly. The ANA Global Health SIG strives to unify members with common interests in global neurology to create collaborations and initiatives to improve neurology education, training, and research in low and middle-income countries (LMICs). The Global Health SIG focuses on neurology research and clinical care in sub-Saharan Africa, Asia, Latin America, and the Middle East. This year, we hope



Monday, September 16, 2024

to highlight some of the "hot topics" in Global Neurology, including new developments in malaria, aspects of climate change, the challenges faced by investigators and clinicians in conflict zones, and neuroscience research capacity building in LMICs. Specifically, we aim to 1) highlight various new updates regarding malaria, a disease affecting millions in LMICs. Some topics to be covered will include new preventive vaccines, new treatment trials, and the evolving face of malaria in light of climate change. We also hope to address 2) considerations and ethical dilemmas in neurologic care and research in conflict zones. Finally, we will address 3) neuroscience research capacity building in LMICs, a very germaine issue in the ever-expanding field of global neurology. We have invited three speakers who will share their expertise on these timely topics. By highlighting these three important and current issues in global neurology, we hope that our audience will be better informed regarding these current and sometimes controversial issues. and will be able to apply best practices to their own research and clinical care in global neurology.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Explain new advances for the treatment and prevention of malaria.
- Discuss ongoing issues related to neurologic care and research in conflict zones.
- Identify best practices to address gaps in neuroscience research capacity building in LMICs.

Neuroscience Research Capacity Building in LMICs

SPEAKER: Aristea Galanopoulou, MD, PhD, FANA, Albert Einstein College of Medicine

Cerebral Malaria Updates: Vaccines, Climate Change, and Beyond

SPEAKER: Douglas Postels, MD, MS, Children's National Hospital

Neurologic Care in Conflict Zones

SPEAKER: Agnieszka Kielian, MD, Boston Children's Hospital

The Impact of Malaria on the Central Nervous System- Does Coma Really Matter?

SELECTED ABSTRACT PRESENTER: Archana Patel, MD, MPH, MSc, Boston Children's Hospital, Harvard Medical School

Satellite Symposium

Evolving Perspectives in Alzheimer's disease: Reaching an Earlier Diagnosis, Understanding Neuroinflammation, and Exploring Therapeutic Advances

Monday | 4:15 - 5:45 PM Orlando Ballroom III

SPONSORED BY PHYSICIANS' EDUCATION RESOURCE

CHAIR: Alireza Atri, MD, PhD, Chief Medical Officer, Banner Research Banner Alzheimer's and Research Institutes (Phoenix, Sun City, Tucson, AZ) Director, Banner Sun Health Research Institute

FACULTY:

Erik Musiek, MD, PhD, Charlotte & Paul Hagemann Professor of Neurology Knight Alzheimer's Disease Research Center Memory Diagnostic Clinic Washington University School of Medicine in St. Louis, St. Louis, MO, USA

Malú Gámez Tansey, PhD, Norman and Susan Fixel Chair in Parkinson's Disease Professor of Neuroscience and Neurology Director, Parkinson's Foundation Research Center of Excellence, Editor-in-Chief, *Nature Partner Journal Parkinson's Disease* College of Medicine |University of Florida Gainsville, FL



Tuesday, September 17, 2024

SKYCLARYS, The First and Only FDA-Approved Prescription Treatment for Friedre-ich Ataxia in Adults and Adolescents Aged 16 Years and Older

Monday | 4:15 - 5:45 PM Lake Mizell A

SPONSORED BY BIOGEN SKYCLARYS

CHAIR: Omer A. Abdul Hamid, MD, Attending Physician, Neuromuscular & Electrodiagnostic Medicine/ General Child Neurology, Nemours Children's Hospital, Division of Neurology

Poster Presentation and Reception JEC

Monday | 6:00 - 7:30 PM Orange Ballrooms A-D, and Foyer 1 (Lower Level)

President's Reception JEC

Monday | 7:30 - 10:30 PM Foyer 2 (Lower Level) and Orange Ballroom E

TUESDAY, SEPTEMBER 17, 2024

Grab-and-Go Breakfast

Tuesday | 6:30 - 8:30 AM Orange Foyer 1 (Lower Level)

Professional Development Workshop Early Career & Early to Mid Career Level

Landing the Career Track you Want and Career Transitions*

Tuesday | 7:00 - 8:30 AM Lake Nona A

CHAIR: Midori Yenari, MD, FANA, University of California, San Francisco

CO-CHAIR: Claire Henchcliffe, MD, DPhi, FAAN FANA, University of California, Irvine

This workshop will explore the three major academic tracks of research, clinical and education in neurology. Speakers will share tips, challenges and strategies for each of these areas followed by a breakout question/answer session for each of these areas for more focused discussion.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Navigate the appointments and promotions process at their respective institutions.
- Find opportunities in respective tracks for optimal chances of advancement.
- Discuss criteria for different career tracks.

Impacting Neurology Through Research: A Perspective

SPEAKER: Rajiv Ratan, MD, PhD, FANA, Burke Neurological Institute

Building a Career in Neurology Education

SPEAKER: Joseph Safdieh, MD, FAAN, FANA, Weill Cornell Medical College

Clinical Career Tracks: Challenges and Strategies for Success

SPEAKER: Rimas Lukas, MD , FANA, Northwestern University

Professional Development Workshop Early Career & Early to Mid Career Level

Building Your Career in Global Neurology* JEC

Tuesday | 7:00 - 8:30 AM Lake Nona B

CHAIR: Christa O'Hana San Luis Nobleza, MD, MSCI, FNCS, Institution University of Tennessee Health Science Center/Baptist Memorial Hospital

CO-CHAIR: Omar Siddiqi, MD, MPH, Beth Israel Deaconess Medical Center



Tuesday, September 17, 2024

Global Neurology programs around the world support clinicians, researchers and educators in decreasing health care disparities in resource-limited settings and improve patient care for those with neurologic disorders. Their role in public health in Neurological diseases cannot be overstated. There is a need to increase awareness of the field of Global Neurology as well as how to develop budding neurologists and early- and mid-career neurologists on how to navigate a path towards this field if they become interested. The path towards a career in Global Neurology will be discussed in this session. A discussion on the basic terminologies and foundation of the subspecialty of Global Neurology. This discussion will then pave the way for the talk on how to build a Global Neurology career. This topic will cover a range of types of Global Neurology career such as research, education or clinical careers. Ultimately, a discussion on how it is to be a Global Neurologist, the challenges faced and how to mitigate these challenges are going to be presented. These three talks will overall establish a wholistic foundation for any attendee thinking of a career in Global Neurology.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Explain the Global Neurology career track.
- Develop a career in Global Neurology.
- Apply their knowledge of Global Neurology in their practice.

Developing a Career in Global Health

SPEAKER: Monica Maria Diaz, MD, MS, University of North Carolina at Chapel Hill

In-Practice: Life of a Global Neurologist

SPEAKER: Felicia Chow, MD, MAS, University of California San Francisco

Global Neurology: Nuts and Bolts

SPEAKER: Clio Rubinos, MD, MS, University of North Carolina

Professional Development Workshop Program and Residency Director Level

Navigating Fellowships* JEC PR

Tuesday | 7:00 - 8:30 AM Lake Florence

CHAIR: Raymond Price, MD, FANA, University of Pennsylvania

CO-CHAIR: Elisabeth Marsh, MD, FAHA, FANA, FAAN, Johns Hopkins University

This workshop will focus on recent changes in fellowship programming and the effect these changes have had on academic training programs. Speakers will discuss the challenges that arise from earlier match dates, along with a changing land-scape that may include additional programming such as neurohospitalist tracks and more traditional postdoc experiences for those interested in returning to the lab following training.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe the challenges that arise from earlier application deadlines and have increased knowledge of strategies that may help increase exposure to ambulatory subspecialties for undifferentiated trainees.
- Discuss potential future changes to fellowship programs that will better allow them to prepare and counsel their trainees.

Earlier Decisions Tax Programs

SPEAKER: Christina Wilson, MD, PhD, University of Florida

Basic Science: Should MD/PhDs do a Postdoc Rather than Traditional Fellowship?

SPEAKER: Michael Kornberg, MD, PhD, MS, Johns Hopkins University

Neurohospitalists: Need Even For Those Hospitalists?

SPEAKER: Brian Sauer, MD, PhD, University of Colorado



Tuesday, September 17, 2024

Professional Development Workshop AUPN Chair Level

Navigating Neurotherapeutic Horizons: Managing the Practical Aspects of the Novel Alzheimer's Therapeutics*

Tuesday | 7:00 - 8:30 AM Lake Lucerne

CHAIR: Richard O'Brien, MD, PhD, Duke University

This session will describe the process of setting up an outpatient infusion program for the two new Alzheimer's biologicals Lecanemab and Donanemab. Included in this will be the institution of processes to ensure the safety of patients and the challenges of working with insurers.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe appropriate indications for lecanemab.
- Explain common and serious adverse reactions and how to appropriately monitor.
- Discuss the process of working with insurance companies.

Managing the Practical Aspects of the Novel Alzheimer's Therapeutics

SPEAKER: Gwenn Garden, MD, PhD, FANA, University of North Carolina

Design and Implementation of a Disease Modifying Therapy Program at UAB

SPEAKER: David Geldmacher, MD, FACP, FANA, University of Alabama

Overview of Anti-Amyloid Therapies: Considerations for Prescribing and Monitoring

SPEAKER: Kim Johnson, MD, Duke University Medical Center

Break

Tuesday | 8:30 - 8:45 AM

Plenary Session

Autoimmune vs Infectious Encephalitis: Dilemmas and Solutions* JEC

Tuesday | 8:45 - 10:45 AM Orlando Ballrooms IV - VI

CHAIR: Allen Aksamit, MD, FANA, Mayo Clinic, Rochester

CO-CHAIR: Arun Venkatesan, MD, PhD, FANA, Johns Hopkins University

Encephalitis as a rare but devastating neurologic disease presents a challenge for both the clinician and researcher. Recent advances in molecular diagnostics and recent treatment consensus statements have made the approach to recognition and treatment more complex but more satisfying creating more prompt diagnosis and treatment options. However, pitfalls have also been revealed.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Distinguish infectious encephalitis from autoimmune encephalitis.
- Apply the treatments for autoimmune encephalitis and determine whether short-term versus long-term therapy is required.
- Utilize imaging and serological testing to successfully diagnosis the correct illness.

The Advantages and Pitfalls of Metagenomic Sequencing in Encephalitis

SPEAKER: Avindra Nath, MD, FANA, National Institutes of Health

Corticosteroids in Herpes Simplex Encephalitis, and Other Therapeutics in Viral Encephalitis: Lessons Learned

SPEAKER: Michel Toledano, MD, Mayo Clinic, Rochester

Enhanced Diagnostic Precision in AE to Guide Prognosis and Treatment

SPEAKER: Eoin Flanagan, MBBCh, Mayo Clinic, Rochester



Tuesday, September 17, 2024

Treatments and Trials in Autoimmune Encephalitis: The Urgent Need for Evidence

SPEAKER: Stacey Clardy, MD, PhD, FANA, University of Utah

Characterizing Delayed Neurotoxicity Syndromes Following Treatment with Anti-BCMA CAR-T Cell Therapies

EMERGING SCHOLAR PRESENTERS: Ahmed Abdelhak, MD, University of California, San Francisco

Proinflammatory Cytokines in the CSF Aneurysmal SAH Patients are Associated with Shunt Placement

EMERGING SCHOLAR PRESENTERS: Jessica Magid-Bernstein, MD, PhD, Yale School of Medicine

Grab-and-Go Lunch

Tuesday | 10:45 AM - 12:30 PM Foyer 1 (Lower Level)

Break

Tuesday | 10:45 - 11:00 AM

Traditional Special Interest Group

Cerebrovascular Disease*

Tuesday | 11:00 - 12:30 PM Lake Eola A

CHAIR: Peter Kang, MD, MSCI, Washington University in St. Louis

CO-CHAIR: Christoph Stretz, MD, FAAN, FANA, Brown University

The Cerebrovascular Disease Special Interest Group aims to bring important updates of interest to members of the American Neurological Association attending the Annual Meeting. We specifically will be including a cross section of contemporary and cutting-edge issues in Stroke and Brain Health. The areas represented include - Advances in Pediatric Acute Ischemic Stroke; The Impact of Sex and Gender on Stroke Outcomes; The Influence of Sleep Health in Disparities in Stroke Risk and Health Outcomes.

These three areas will represent the research interest of the majority of the academic stroke neurologists attending the ANA. As a result, we anticipate that this session will be well attended, and represent the most updated science from three leading experts in the field. We will also feature the best two abstracts submitted to the ANA in two podium presentations. We will dedicate a third spot for the opportunity for one early career (at the trainee, Instructor or Assistant Professor level) abstract submission author to present their research during the session. This will encourage future early career submissions, and hopefully continued involvement in the ANA across the academic course of the attendees.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe recent advances in Neuroimaging advances and stroke care protocols.
- Apply knowledge in the diagnostic evaluation and management of pediatric stroke patients.
- Implement strategies to improve sleep health through addressing disparities in stroke risk.

Sleep Health Influences Disparities in Stroke Risk and Health Outcomes

SPEAKER: Sandeep Khot, MD, MPH, University of Washington/Harborview Stroke Center

Advances in Pediatric Ischemic Stroke

SPEAKER: Kristin Guilliams, MD, MSCI, Washington University in St. Louis

The Impact of Sex and Gender on Stroke Outcomes

SPEAKER: Tracy Madsen, MD, PhD, FAHA, FACEP, Brown University

White Matter Lesion Burden, Blood-Brain Barrier Disruption, and Worse Cognitive Performance in Patients with CADASIL

SELECTED ABSTRACT PRESENTER: Richard Leigh, MD, Johns Hopkins University School of Medicine



Tuesday, September 17, 2024

Tracking Leukocytes to Understand Neutrophil Extravasation and Persistence after Ischemic Stroke and Reperfusion

SELECTED ABSTRACT PRESENTER: Erika Arias, BSc Northwestern University

Prevalence and In-Hospital Outcomes Associated with Ischemic Stroke and Concomitant Cardiomyopathy

SELECTED ABSTRACT PRESENTER: Katelyn McNamara, BS, Yale School of Medicine

Traditional Special Interest Group

Neuro-ophthalmology and Neuro-vestibular Disease*

Tuesday | 11:00 AM - 12:30 PM Lake Nona B

CHAIR: Scott Grossman, MD, New York University CO-CHAIR: Neena Cherayil, MD, Northwestern University

This will be a forum for discussion of recent updates in neuro-ophthalmology/neuro-vestibular disease, as well as an opportunity for selected abstracts to be presented.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Utilize the visual/neuro-ophthalmic system to diagnose neurologic disease, and articulate rationale for ocular motor evaluation of the acutely dizzy patient in the ER.
- Apply novel diagnostic techniques for diagnosis of dizziness in the ER.
- Describe the importance of relevant and comprehensive neuro-ophthalmic and vestibular exams.

Choroidal Abnormalities and Visual Outcomes in Children with NF1-Associated Optic Pathway Gliomas

SPEAKER: Gena Heidary, MD, PhD, Boston Children's Hospital

Quantifying Induced Nystagmus Using a Smartphone Eye Tracking Application

SPEAKER: Ali Tehrani, MD, Johns Hopkins University

Updates on the Diagnostic Criteria for MOGAD

SPEAKER: Eoin Flanagan, MBBCh, Mayo Clinic, Rochester

Gaps in Neuro-Vestibular Eye Movement Assessment by Clinical Neurologists in the AVERT Randomized Trial

SELECTED ABSTRACT PRESENTER: Pouya Bastani, MD, Johns Hopkins University

Traditional Special Interest Group

Headache & Pain*

Tuesday | 11:00 AM - 12:30 PM Lake Monroe A

CHAIR: Seniha Ozudogru, MD, University of Pennsylvania

This Headache and Pain Special Interest Group session will focus on visual symptoms of migraine and advances in the functional MRI studies in migraine pathophysiology.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Recognize visual symptoms of migraine.
- Describe the underlying pathophysiological mechanism of migraine.

Clinical Presentation and Pathophysiological Differences of Visual Symptoms

SPEAKER: Kathleen Digre, MD, FANA, University of Utah

Migraine Pathophysiology: Insights from Functional Imaging

SPEAKER: Catherine Chong, PhD, FAAN, FAHS, Mayo Clinic, Arizona



Tuesday, September 17, 2024

A Systematic Review Comparing the Strengths and Weaknesses of Neuromodulating Treatments for Pain Management in Fibromyalgia: ECT, TMS, and Psychedelics

SELECTED ABSTRACT PRESENTER: Sofia Flores, BS, University of Medicine & Health Sciences

Comparison of the Region of Interest (ROI) Selection Methods for Diffusion Tensor Image Analysis Along Perivascular Space (DTI-ALPS) Studies

SELECTED ABSTRACT PRESENTER: Enchao Qiu, MD, PhD, Thomas Jefferson University

Traditional Special Interest Group

Movement Disorders

Tuesday | 11:00 AM - 12:30 PM Lake Nona A

CHAIR: Sheng-Han Kuo, MD, FANA, Columbia University CO-CHAIR: Chi-Ying (Roy) Lin, MD, MPH, Baylor College of Medicine

In the Movement Disorders SIG, we will be covering important diagnostic tools and neurostimulation therapeutics in adults and pediatric neurological patients. Specifically, Dr. Roy Freeman from BIDMC will discuss the skin synuclein signature in diverse synucleinopathy, focusing on the values of skin biopsy in making differential diagnoses for multiple system atrophy, Parkinson's disease, dementia with Lewy bodies, and pure autonomic failure. In addition, given that the cerebellum has become posited as an attractive target for the deep brain stimulation, we invited Dr. Marta San Luciano from UCSF to discuss the safety and clinical benefit of using the cerebellar deep brain stimulation in persons with dyskinetic cerebral palsy. Dr. Nora Vanegas-Arroyave from Baylor College of Medicine will also discuss the controversies of spinal cord stimulation as well as its therapeutic potential for gait disturbance in Parkinson's disease.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Apply patient selection criteria for optimal outcomes in cerebellar deep brain stimulation and spinal cord stimulation.
- Apply electrode placement techniques for optimal outcomes in cerebellar deep brain stimulation and spinal cord stimulation.
- Apply post-operative management protocols for optimal outcomes in cerebellar deep brain stimulation and spinal cord stimulation.

Controversies of Spinal Cord Stimulation for Gait Disturbance in Parkinson's Disease

SPEAKER: Nora Arroyave Vanegas, MD, Baylor College of Medicine

Synuclein Deposition in the Skin - A Sensitive and Specific Diagnostic Biomarker in the Synucleinopathies

SPEAKER: Roy Freeman, MD, Beth Israel Deaconess Medical Center

Cerebellar Deep Brain Stimulation in Cerebral Palsy

SPEAKER: Marta San Luciano, MD, MS, FAAN, University of California, San Francisco

Genome-sequencing in Multiple System Atrophy: Identification of Novel Susceptibility Loci and Generation of a Foundational Resource

SELECTED ABSTRACT PRESENTER: Sonja Scholz, MD, PhD, National Institutes of Health



Tuesday, September 17, 2024

Traditional Special Interest Group

Neuro-oncology: Novel Devices For The Treatment of High-Grade Glioma: A Closer Look at Focused Ultrasound, Laser Interstitial Thermal Therapy (LITT), and Tumor Treating Fields*

Tuesday | 11:00 AM - 12:30 PM Lake Eola B

CHAIR: Douglas Ney, MD, FANA, University of Colorado

CO-CHAIR: Eric Wong, MD, MA, FANA, FAAN, Rhode Island Hospital

High-grade gliomas are notoriously difficult to treat and have poor outcomes. Novel therapies are desperately needed to improve outcomes and shift treatment paradigms. While the traditional research focus has been on pharmaceutical development, more recently novel devices have shown promise in treating gliomas and are being actively investigated in clinical trials. Focused ultrasound represents a promising new technique for glioblastoma allowing for penetration into brain tissue and transiently disrupting the blood-brain barrier thereby improving delivery of chemotherapeutic drugs into tumor tissue. The feasibility and safety of focused ultrasound has been shown in clinical trials and therapeutic trials are ongoing to demonstrate efficacy. Laser interstitial thermal therapy (LITT) is a novel technique allowing for tumor ablation in surgically inaccessible regions of the brain. The use of LITT may be associated with improved outcomes when used as a salvage therapy. Lastly, tumor treating fields (TTF) has been demonstrated in a large-scale clinical trial to improve survival in patients with newly diagnosed glioblastoma when used in the adjuvant setting. Ongoing clinical trials seek to capitalize on this improvement by using TTF in the concomitant setting with radiation therapy or in combination with novel therapeutics. Treatment of high-grade glioma with novel devices is at the forefront of therapeutics and results from ongoing clinical trials are eagerly awaited to determine the impact these devices may have on patient outcomes.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Describe the role of novel devices in the treatment of high-grade glioma.
- Discuss the available evidence and/or lack of evidence for novel devices.
- Apply novel techniques to patients with highgrade gliomas and understand when to refer for appropriate device therapies.

Tumor Treating Fields Treatment Device for Glioblastoma

SPEAKER: Eric Wong, MD, MA, FANA, FAAN, Rhode Island Hospital

Focused US for BBB Disruption

SPEAKER: Wael Asaad, MD, PhD, Brown University

Role of Laser Interstitial Thermal Therapy in Brain Tumors

SPEAKER: Sujit Prabhu, MD, FRCS(Ed), FAANS, University of Texas MD Anderson Cancer Center

Medical Comorbidities Potentially Modify Survival of Glioblastoma Patients

SELECTED ABSTRACT PRESENTER: Jonathan Arditi, ScB, The Warren Alpert Medical School of Brown University

Traditional Special Interest Group

Sleep Disorders and Circadian Rhythms*

Tuesday | 11:00 AM - 12:30 PM Lake Monroe B

CHAIR: Brendan Lucey, MD, FANA, Washington University in St. Louis

CO-CHAIR: Aleksander Videnovic, MD, MSc, FANA, Massachusetts General Hospital

The Sleep Disorders and Circadian Rhythms Special Interest Group will feature three speakers. Dr. Devin Brown will speak about sleep and obstructive sleep apnea. Dr. Tiffany Braley will



Tuesday, September 17, 2024

speak about sleep and multiple sclerosis. Dr. Bryce Mander will speak about sleep and cognitive reserve. These dynamic speakers will present innovative research in how sleep and sleep interventions impact neurological disorders such as stroke and multiple sclerosis. Dr. Mander's talk on sleep and cognitive reserve has potential impact on neurological disorders broadly that negatively impact cognitive function such as neurodegenerative diseases.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Identify how sleep disorders impact neurological diseases and symptoms related to those diseases such as cognitive dysfunction.
- Utilize new evidence in the evaluation of sleep disorders in neurological diseases.
- Apply new evidence in managing patients with neurological disorders who have sleep disturbances.

Sleep and Multiple Sclerosis

SPEAKER: Tiffany Braley, MD, MS, FANA, University of Michigan

OSA and Stroke Prevention

SPEAKER: Devin Brown, MD, MS, FANA, University of Michigan

Sleep Stage Specific Effects of Sleep Apnea on Cerebrovascular Pathology and Memory in Older Adults at Risk for Alzheimer's Disease

SPEAKER: Bryce Mander, PhD, University of California, Irvine

Sleep Disturbances Induced by TDP-43 Proteinopathy are Rescued by ATXN2 Knockdown in Drosophila and Mouse Models of Sporadic ALS

SELECTED ABSTRACT PRESENTER: Define Amado, MD, PhD, University of Pennsylvania

Additional Lunch Workshop

ANA Medical Student Forum: A Conversation with the Neurology Chairs* (By Invitation Only) JEC

Tuesday | 11:00 AM - 12:30 PM Lake Florence

CHAIR: Clifton Gooch, MD, FANA, University of South Florida

This session provides a rare opportunity for medical students attending the ANA meeting to hear from distinguished academic Chairs of Neurology, and to directly interact with them. The session will focus on future academic career paths in the field, how to make specialty and subspecialty choices, important considerations in applying to residency training, and more. Much of the forum will be dedicated to questions from the students, and conversations with the chairs.

LEARNING OBJECTIVES:

At the conclusion of this session, attendees should be able to:

- Discuss how to make specialty and subspecialty choices for their future careers.
- Identify and apply to quality training programs.
- Discuss strategies for rewarding and satisfying careers in neurology.

PANELIST: Ahmed Anwar, MD, Advent Health Neuroscience institute

PANELIST: Kevin Barrett, MD, MSc, FANA, Mayo Clinic, Jacksonville FL

PANELIST: Michael Jaffee, MD, FAAN, FANA, University of Florida

PANELIST: Jose Romano, MD, FAHA, FAAN, FANA, University of Miami



Tuesday, September 17, 2024

Additional Lunch Workshop

AUPN Networking Lunch for Small Academic Departments

Tuesday | 11:00 AM - 12:30 PM Champions Gate

CHAIR: Salvador Cruz-Flores, MD, Texas Tech University Health Sciences Center El Paso

While all Neurology departments share some common attributes, there are challenges and opportunities that are unique to smaller academic departments, including handling teaching and clinical service responsibilities, while protecting time for research and faculty development.

This session, sponsored by the AUPN and hosted by Salvador Cruz-Flores, MD, Texas Tech University Health Sciences Center El Paso, provides an opportunity for chairs of smaller departments to meet, discuss issues and share strategies. All Chairs are welcome to attend.

Meeting Adjourned

Tuesday | 12:30 PM



SATELLITE SYMPOSIA

The ANA values the participation of our corporate partners and is supportive of the role that members of this community continue to play in our efforts to provide neurologists and neuroscientists with quality educational programs. These symposia are not part of the ANA official educational program, and the sessions and content are not endorsed by ANA.

SUNDAY, SEPTEMBER 15, 2024

7:00 PM - 8:00 PM ORLANDO BALLROOM III

Optimizing Alzheimer's disease Care: The Power of Early Diagnosis in an Evolving Treatment Landscape

SPONSORED BY EISAI, INC.



MONDAY, SEPTEMBER 16, 2024

4:15 PM - 5:45 PM ORLANDO BALLROOM III

Evolving Perspectives in Alzheimer's disease: Reaching an Earlier Diagnosis, Understanding Neuroinflammation, and Exploring Therapeutic Advances

SPONSORED BY PHYSICIANS' EDUCATION RESOURCE



4:15 PM - 5:45 PM LAKE MIZELL A

SKYCLARYS, the First and Only FDA-Approved Prescription Treatment for Friedreich Ataxia in Adults and Adolescents Aged 16 Years and Older

SPONSORED BY BIOGEN





F.E. BENNETT MEMORIAL LECTURESHIP AWARD

The F.E. Bennett Memorial Lectureship was established in 1979 to recognize outstanding neuroscientists.

SUNDAY, SEPTEMBER 15, 2024 | 1:00 PM - 3:00 PM



Brian Litt, MD, PhD, FANA

University of Pennsylvania

Al Applications for Implantable Devices in Neuropsychiatric Diseases

This award will be presented during the Presidential Symposium - Present and Future Applications of AI in Neurological Care and Research.

Brian Litt, M.D., is the Perelman Professor of Neurology, Neurosurgery and Bioengineering at the University of Pennsylvania. He is an epileptologist, researcher, entrepreneur, and authority on Neuroengineering, implantable brain devices, AI, and Neurotechnology. He is the Director of Penn's Center for Neuroengineering and Therapeutics, Penn Health-Tech and past Director of the Penn Epilepsy Center. He has founded and advised several startup and established companies, trained over 85 PhD students and Postdoctoral Fellows, and won awards, including the NIH Director's Pioneer Award, the NINDS Landis Award for Mentoring, and the American Epilepsy Society's Clinical Research Award.

SORIANO LECTURESHIP AWARD

This award was established in 1987 by ANA member Dr. Victor Soriano and his wife to provide a "brilliant lecture delivered by an outstanding scientist" who is a member of the Association.

SATURDAY, SEPTEMBER 14, 2024 | 5:45 PM - 7:15 PM



Merit Cudkowicz, MD, MSc, FANA

Massachusetts General Hospital

Human Genetic Therapies for ALS: Current Status and Future Prospects

This award will be presented during the Opening Symposium: The Dawn of Gene Therapy in ALS.

Dr. Merit Cudkowicz is the Chair of Neurology and Director or the Sean M. Healey & AMG Center for ALS at Massachusetts General Hospital and the Julieanne Dorn Professor of Neurology at Harvard Medical School in Boston, Dr. Cudkowicz is one of the founders and former co-directors of the Northeast ALS Consortium (NEALS), a group of over 150 clinical sites in the United States, Canada, Europe and the Middle East dedicated to performing collaborative academic-led clinical trials and research studies in ALS. She helped bring forward two of the most recent new FDA approved treatments for people with ALS, Relyvrio and Qalsody. She is leading the first Platform Trial initiative in ALS and is also the Principal Investigator of the Clinical Coordination Center for the National Institute of Neurological Disorders and Stroke's Neurology Network of Excellence in Clinical Trials (NeuroNEXT). Dr. Cudkowicz also mentors neurologists in careers in experimental therapeutics.

RAYMOND D. ADAMS LECTURESHIP AWARD

This award honors Dr. Raymond D. Adams, emeritus Bullard Professor of Neuropathy at Harvard Medical School and emeritus Chief of Neurology Service at the Massachusetts General Hospital.

TUESDAY, SEPTEMBER 17, 2024 | 8:45 AM - 10:45 AM



Avindra Nath, MD, FANA

National Institutes of Health

The Advantages and Pitfalls of Metagenomic Sequencing in Infectious and Autoimmune Encephalitis

This award will be presented during the Plenary Session: Autoimmune vs Infectious Encephalitis: Dilemmas and Solutions.

Dr. Nath is the Clinical Director of the National Institute of Neurological Disorders and Stroke (NINDS) at NIH, where he is also Chief of the Section of Infections of the Nervous System, Director of the Translational Center for Neurological Sciences. He is a physician-scientist who specializes in neuro-immunology and neurovirology. His research is focused on clinical manifestations, pathophysiology and treatment of emerging neurological infections with a focus on HIV infection. In recent years, he has studied the neurological complications of endogenous retroviruses, Ebola, Zika virus and SARS-CoV-2 and conducts research on patients with undiagnosed neuroinflammatory disorders.



DEREK DENNY BROWN YOUNG NEUROLOGICAL SCHOLARS SYMPOSIUM

The Derek Denny-Brown Young Neurological Scholar Award, recognizes early- to mid-career neurologists and neuroscientists. This award honors those neurologists and neuroscientists in the first 12 years of their career at the assistant/associate faculty (equivalent) level who have made outstanding basic or clinical scientific advances toward the prevention, diagnosis, treatment, and cure of neurological diseases.

DEREK DENNY-BROWN YOUNG NEUROLOGICAL SCHOLAR AWARD: PHYSICIAN-SCIENTIST -BASIC

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Mercedes Paredes, MD, PhD, FANA

University of California, San Francisco

Perinatal Neurodevelopment: Understanding the Dynamic Infant Brain

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Mercedes Paredes is associate professor in the Department of Neurology and an associate director of the Medical Scientist Training Program at UCSF. Her lab focuses on identifying features of neuronal progenitor proliferation and migration that have evolved in the gyrated brain, such as in human. She is also a practicing neurologist, treating epilepsy patients with neurodevelopmental disorders, and holds a passion for mentoring UIM (or underrepresented in medicine) in careers in medicine, STEM, and neurology.



DEREK DENNY-BROWN YOUNG NEUROLOGICAL SCHOLAR AWARD: PHYSICIAN-SCIENTIST -CLINICAL

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Ashkan Shoamanesh, MD, FRCPC, FESO, FANA

McMaster University, Canada

Antithrombotic Treatment Decisions in Patients with Comorbid Hemorrhage-prone Cerebral Small Vessel and Ischemic Vascular Diseases

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Dr. Ashkan Shoamanesh is an Associate Professor of Medicine (Div. of Neurology) and a stroke neurologist at McMaster University, where he holds the Marta and Owen Boris Chair in Stroke Research and Care. He is the founding Director of the Hemorrhagic Stroke Research Program and a Senior Scientist at the affiliated Population Health Research Institute in Hamilton, Canada. His clinical trials program is working on establishing new treatment and standards of care that prevent stroke and reduce stroke-related disability. He leads several multicentre randomized trials as PI/Co-PI, including ENRICH-AF (NCT03950076; Lancet 2023), OCEANIC-STROKE (NCT05686070), SATURN-MRI (NCT03936361) and CoVasc-ICH (NCT05159219). and has held central leadership roles in the ANNEXa-I (NEJM 2024), PACIFIC-STROKE (Lancet 2022) and NAVIGATE-ESUS (NEJM 2018) trials.

Dr. Shoamanesh has published over 160 manuscripts in leading scientific journals and serves on the editorial boards of Stroke, International Journal of Stroke and Canadian Journal of Neurological Sciences.

THE GRASS FOUNDATION — ANA AWARD IN NEUROSCIENCE

In collaboration with the Grass Foundation this award was established in 2007 to honor outstanding young investigators conducting research in basic or clinical neuroscience.

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Claire Clelland, MD, PhD, Mphil

University of California, San Francsico

Developing CRISPR Gene Therapy for Neurodegenerative Diseases

This award will be presented during the Derek Denny-Brown Young Neurological Scholars Symposium.

Claire Clelland, PhD, MD, MPhil, is an Assistant Professor in the UCSF Department of Neurology. As a neurologist, she specializes in caring for patients with dementia and cognitive symptoms at the UCSF Memory & Aging Center. Her lab at the UCSF Weill Institute for Neurosciences develops novel therapies for neurodegenerative diseases. Her current work centers on creating novel CRISPR gene therapies for genetic forms of dementia and ALS, utilizing patient iPSCs to model disease, advanced sequencing technologies and cutting edge CRISPR technologies to develop first-in-class gene therapies for CNS diseases. In addition, the Clelland lab is committed to promoting equity and justice in science in medicine. One of the pillars of our lab is the mentoring and advancement of trainees from underrepresented backgrounds to become the next generation of scientific leaders.



AUDREY S. PENN LECTURESHIP AWARD

This award is provided to an ANA member who conducts outstanding research, program-building, or educational scholarship to promote health equity. The recipient's novel and significant work has had or may have a far-reaching impact on:

- 1) Improving equity in the prevention, detection, treatment, survivorship of neurological conditions
- 2) Building clinical programs to care for historically medically underserved populations, and/or:
- 3) Commitment to diversity and inclusion in the medical workforce

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM EDT



Larry Charleston IV, MD, Msc, FAHS

Michigan State University

Exploration of Race, Racism, Race-based Headache Disparities and Professional Ethics

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Dr. Larry Charleston IV is Director of the Headache & Facial Pain Division, Director of Faculty Development, Professor of Neurology in Michigan State University College of Human Medicine Department of Neurology and Ophthalmology, and Adjunct faculty at the Jefferson Headache Center. He is certified in Adult Neurology by the American Board of Psychiatry and Neurology and Headache Medicine by the United Council of Neurological Subspecialties. He is founder of Charleston Health Neurology & Head Pain Consultants, Co-founder of Charleston International, a National Institute of Minority Health and Health Disparities' Research Institute Scholar, and a fellow of the American Headache Society.

ANA AWARD FOR EXCELLENCE: CLINICAL AND SCIENTIFIC EX-CELLENCE - NOVEL SCIENTIFIC CAREER BASED CONTRIBU-TIONS (>15 YEARS)

The ANA strives to recognize the full scope of academic neurology and neuroscience represented by its members. The ANA Award for Excellence recognizes individuals who have had an exceptional impact on the field through their research, leadership, educational endeavors, or service to the ANA itself. The ANA Award for Excellence in the category of Clinical and Scientific Excellence – Novel Scientific Career Based Contributions Over 15 Years is bestowed to an individual who has made novel scientific contributions that reshape the field's conceptual understanding of neurological disorders, made sustained or breakthrough contributions to the development of therapeutics, or helped transform or expand diagnostic tools and technologies.

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Clifford B. Saper, MD, PhD, FANA

Beth Israel Deaconess Medical Center, Harvard Medical School

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Dr. Saper graduated with his MD and PhD degrees from Washington University and did his neurolgy residency at Cornell/New York Hospital under Drs. Fred Plum and Jerry Posner. After time on the faculty at Washington University and the University of Chicago, he became the James Jackson Putnam Professor of Neurology at Harvard Medical School and chaired the Department of Neurology at Beth Israel Deaconess Medical Center from 1992-2021. Dr. Saper was the Editor-in-Chief of Annals of Neurology from 2013-2021. He studies the brain circuitry for wake-sleep and circadian rhythms and how this is affected by neurodegenerative disorders.



DISTINGUISHED NEUROL-OGY TEACHER AWARD

The award recognizes and rewards contributions by gifted and talented teachers of neurology.

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Stefano Sandorne, PhD, SFHEA

Imperial College London

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Stefano Sandrone is an Italian neuroscientist and educationalist working at Imperial College London. He is the youngest Distinguished Neurology Teacher Award winner and the first European to win this award. He has also won the Science Educator Award presented by the Society for Neuroscience, the Miriam Friedman Ben-David Award from the Association for Medical Education in Europe and the B. Baker Teacher Recognition Award (twice) from the American Academy of Neurology. He wrote three books, including Nobel Life, in which he interviewed 24 Nobel Laureates about their life stories, advice for future generations, and what remains to be discovered.

ANA-PERSYST IDEAS PROFESSIONAL DEVELOPMENT AWARD

Made possible through the generosity of the Persyst Development Corporation, the ANA-Persyst IDEAS Professional Development Award supports career development opportunities for individuals from communities that are underrepresented in academic neurology and neuroscience. The award recognizes an early-career academic neurologist or neuroscientist who is an ANA member working in the field of epilepsy.

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Shawniqua Williams Roberson, M.Eng., MD

Vanderbilt University Medical Center

This award will be presented during the Derek Denny-Brown Young Neurological Scholars Symposium.

Dr. Williams Roberson is an Assistant Professor in the departments of Neurology and Biomedical Engineering at Vanderbilt University. She currently serves as the medical director of ICU EEG services at Vanderbilt University Medical Center and an investigator in the Critical Illness, Brain Dysfunction and Survivorship (CIBS) Center. Her clinical interests include the evaluation and management of refractory epilepsy, critical illness encephalopathy (ICU delirium) and related neurological disorders, with an emphasis on their cognitive and neuropsychiatric comorbidities. Her research interests center on the use of neurophysiologic signal processing and neuromodulation to study and ameliorate disorders of consciousness and cognition among people with epilepsy, ICU delirium, and post-ICU cognitive impairment.



ANA IDEAS EARLY CAREER MEMBER AWARD

This award was established in 2021 to support the professional development of early career physician-scientists and researchers underrepresented in medicine (URiM).

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Melody Asukile, MBChB, MMED

University of Zambia, University Teaching Hospital

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Dr Asukile is one of Zambia's first Zambian neurologists. She completed neurology residency in 2020 at the University of Cape Town, South Africa. She further specialized in Clinical Epileptology there, funded by an education award from the International Federation of Clinical Neurophysiology. Currently, she serves as a lecturer and attending neurologist at the University Teaching Hospitals Adult Hospital in Lusaka. She also directs the national electroencephalography laboratory and is treasurer of the Neurological Association of Zambia. Her research interests include epilepsy diagnosis and management in resource-limited settings and the use of telemedicine for neurology education and service provision.

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Tshibambe Nathanael Tshimbombu, MD

Barrow Neurological Institute

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Tshibambe Nathanael Tshimbombu (TNT) grew up in the Democratic Republic of Congo and moved to the U.S. amid political unrest. Academically gifted, he graduated as valedictorian from College La Fontaine High School and later earned an Associate of Science in Chemistry from Georgia Perimeter College. He furthered his education at Dartmouth, obtaining a bachelor's in psychology, a business certification from the Tuck School of Business at Dartmouth, and a medical degree from Dartmouth Geisel School of Medicine. Currently, he is a resident at Barrow Neurological Institute. A certified human rights consultant, TNT founded Bonsomi, an organization that has provided medical care to over 50,000 underserved Africans. His tireless advocacy for health equity has earned him numerous accolades, including the 2024 C. Everett Koop Courage Award, the 2023 Health Innovator to Watch Award, the 2023 40 Under 40 Public Health Catalyst Award, and nominations for Forbes 30 Under 30. TNT's leadership and dedication have made a profound impact on countless lives. showcasing his unwavering commitment to reducing global health disparities.



WOLFE RESEARCH PRIZE FOR IDENTIFYING NEW CAUSES OR NOVEL TREATMENT OF NEUROPATHY AND RELATED DISORDERS

The award honors an outstanding investigator in the field of neuropathy or related disorders who has made significant contributions to the understanding of pathogenesis or treatment of these conditions..

MONDAY, SEPTEMBER 16, 2024 | 1:15 PM - 4:00 PM



Charlotte Sumner, MD, FANA

Johns Hopkins University

Blood Neural Barrier Breakdown Drives Mutant TRPV4 Mediated Motor Nerve Degeneration

This award will be presented during the Derek Denny-Brown Young Neurological Scholar Symposium.

Dr. Sumner is a Professor of Neurology, Neuroscience and Genetic Medicine at Johns Hopkins University School of Medicine, Vice Chair for Clinical Research, and President of the Peripheral Nerve Society. She cares for patients with genetically-mediated neuro-muscular diseases and co-directs the Johns Hopkins MDA Care Center and the Spinal Muscular Atrophy (SMA), and the Charcot-Marie-Tooth (CMT) clinics. Her laboratory focuses on understanding the genetic and cellular pathogenesis of motor neuron and peripheral nerve disorders with particular attention to identifying novel disease genes, characterizing molecular and cellular disease mechanisms, and developing therapeutics. She particularly enjoys teaching at all levels.



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We want to thank the experts who reviewed the almost 500 abstracts submitted in 18 categories for inclusion in this year's poster hall. They performed outstanding service for the ANA. Based on these ratings and comments, authors of 30 impressive studies were selected to give short oral presentations of their abstracts during both Plenary and the SIG Series sessions

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