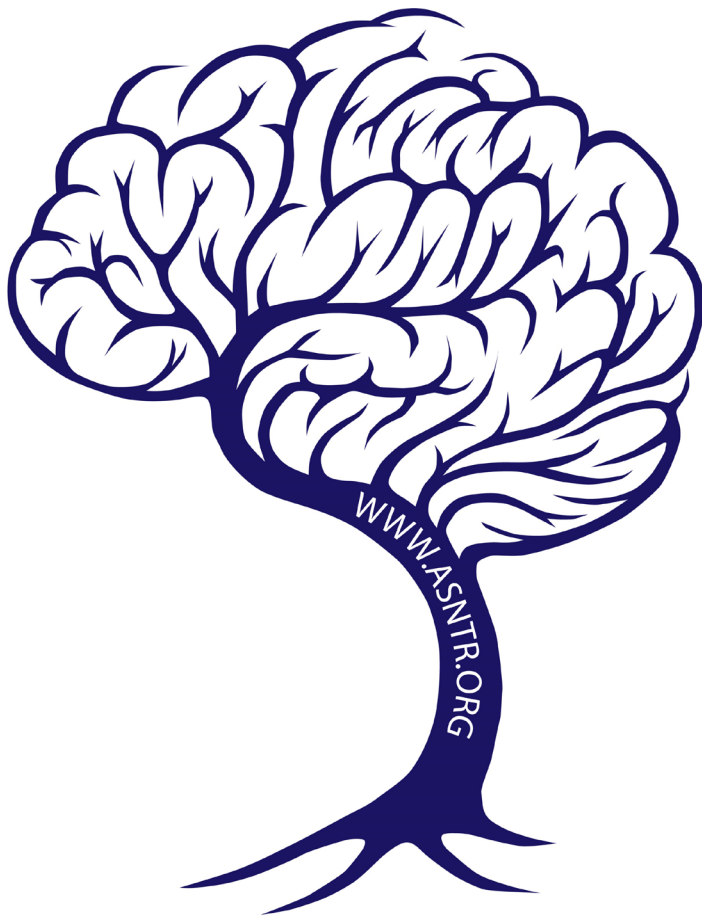


ASNTR

2024

*Integrating Advanced Technologies  
with Neural Cell and Gene Therapy*



31<sup>st</sup> Annual Conference

American Society for  
Neural Therapy and  
Repair

Sheraton Sand Key Resort  
Clearwater Beach, Florida, USA

# ASNTR 2024 Officers, Council and Committee Members

## Officers

Michael Lane – President  
John Stanford – President-Elect  
Li-Ru Zhao – Immediate Past-President  
Irene Llorente – Secretary  
Ivette Sandoval – Treasurer  
Julien Rossignol – Communications/Social Media Specialist

## Scientific Program Committee

Michael Lane, *Chair*  
John Stanford, *Co-Chair*  
Corinna Burger  
Lotta Granholm  
Koji Hosaka  
Jeffrey Kordower  
Aurélie Ledreux  
Inger Mills  
Donna Morrison  
Kevin Nash  
Julien Rossignol  
Lana Zholudeva

## Councilors

Gary Dunbar  
Koji Hosaka  
Aurélie Ledreux  
Irene Llorente  
Walter Low  
Kevin Nash

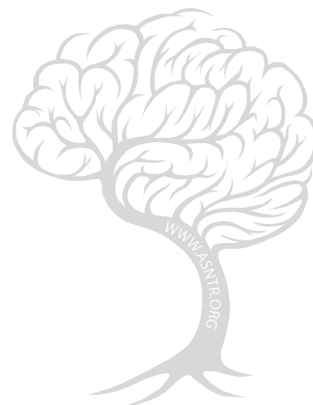
## Education Program Committee

Agnes Luo, *Chair*  
Corinna Burger, *Co-Chair*  
Koji Hosaka  
Lotta Granholm  
Michael Lane  
Aurélie Ledreux  
Kevin Nash  
Julien Rossignol  
John Stanford  
Lana Zholudeva

## Local Organizing Committee

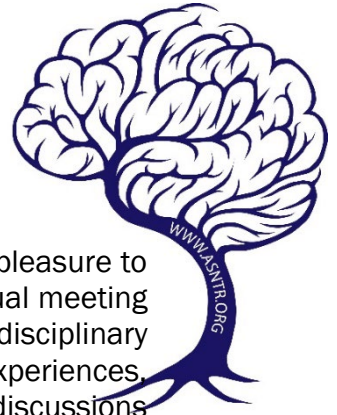
Cesar Borlongan, *Chair*  
Koji Hosaka  
Doug Shytle  
Alison Willing

2024 Conference Survey



2025 ASNTR Symposium Proposal





Dear Friends and Colleagues,

On behalf of the American Society for Neural Therapy and Repair (ASNTR), it is a pleasure to extend a warm welcome to every one of you to the 31<sup>st</sup> Annual Meeting. Our annual meeting serves as a vital platform for collaboration, knowledge exchange, and interdisciplinary dialogue. It is a time to celebrate our achievements, learn from one another's experiences, and chart the course for future breakthroughs. I am confident that the insightful discussions and collaborations that will unfold over the coming days will propel us closer to our shared goal of improving patient outcomes and enhancing quality of life. As we enter this fourth decade of successful scientific meetings, I am filled with gratitude for your dedication to our society and to advancing the field of neural therapy and repair.

This year's theme, "Integrating Advanced Technologies with Neural Cell and Gene Therapy," encapsulates our collective commitment to harnessing cutting-edge innovations in pursuit of transformative treatments for neurological disorders. It is a testament to the remarkable progress we have made and the exciting potential for what lies ahead. Both at the annual meeting now, and in future months and years to come, I encourage you to embrace the spirit of collaboration, curiosity, and innovation that defines our community. Let us seize this opportunity to forge new connections, exchange ideas, and inspire one another to reach new heights of excellence.

To our sponsors, whose generous support makes this gathering possible, I extend my deepest appreciation. Our annual meeting would not be as successful as it is without your commitment to the ASNTR, our attendees and especially to the support and training of future generations of scientists in this field.

Reflecting on the past two years serving as President, I am grateful for the long-standing commitment of the Societies founders, fellows and long-term members, and the support and innovative ideas brought to us by new society members and attendees. It has been a privilege to serve alongside such a dedicated and visionary community, and I am profoundly grateful for your unwavering support and camaraderie. As my term comes to a close, I am delighted to welcome John Stanford as the incoming president of ASNTR for the next two years. The meeting will benefit greatly from John's leadership and expertise, and I am eager to contribute to the Societies continued growth and success under his guidance.

Once again, welcome to the 31<sup>st</sup> Annual Meeting of the ASNTR. May this gathering be filled with insightful discussions, fruitful collaborations, and memorable moments that will resonate long after the meeting ends.

Warm regards,

Michael Aron Lane  
President, ASNTR (2022-2024)

**American Society for Neural Therapy and Repair • President: Michael Lane, PhD**

Central Office: PO Box 272316, Tampa, FL 33688

[asntr.office@gmail.com](mailto:asntr.office@gmail.com)

[www.asntr.com](http://www.asntr.com)



# 2024 Conference Sponsors



USF RESEARCH & INNOVATION



CEREHEALTH





# Conference Agenda

**Thursday, April 25, 2024**

Platform Presentations – Beach/Gulf

Poster Session – Palm/Bay

<b>01:00 – 06:00 pm</b>	Conference Registration – Lobby II
<b>01:00 – 03:00 pm</b>	Session 1: Trainee Workshop and Mentor Meet & Greet – Beach/Gulf
<b>03:30 – 04:30 pm</b>	Session 2: Mentor – Mentee Networking Opportunity
<b>05:00 – 06:15 pm</b>	Session 3: Early Career Investigators & Rising Stars – Beach/Gulf
<b>06:15 – 06:45 pm</b>	Travel Award Presentations – Beach/Gulf
<b>07:00 – 09:00 pm</b>	Session 4: Poster Session & Reception – Palm/Bay

# 31<sup>st</sup> Annual Conference

## American Society for Neural Therapy and Repair

### **Session 1: Intellectual Property, Patents & Considerations for the Translational Path**

*Trainee Workshop*

**1:00 pm – 3:00 pm**  
**Moderator: Lana Zholudeva**

<b>1-1</b>	NINDS, NIH	Adele Doperalski, PhD
<b>1-1</b>	National Academy of Inventors	Paul R. Sanberg, PhD, DSc
<b>1-2</b>	Arizona State University	Jeffrey H. Kordower, PhD

### **Session 2: 3 Minute Mentor – Mentee Networking**

*Beach/Gulf*

**3:30 pm – 4:30 pm**  
**Moderators: Corinna Burger & Bhairavi Srinageshwar**



## **Session 3: Early Career Investigators & Rising Stars in Neural Therapy and Repair**

**5:00 pm – 6:15 pm**

**Session Chair: Michael Lane**

- |            |                  |  |
|------------|------------------|--|
| <b>3-1</b> | 05:00 – 05:15 pm | The APOE4 allele is involved in extracellular vesicle-dependent neurodegeneration in Alzheimer's disease and Down syndrome<br><i>A. Vielle – University of Colorado, School of Medicine</i>  |
| <b>3-2</b> | 05:15 – 05:30 pm | Novel Nano-gene therapeutic approach for treating SARS-CoV-2 induced tauopathy<br><i>K. Mayilsamy – University of South Florida, Travel Award Winner<br/>Advisor – Subhra Mohapatra</i>  |
| <b>3-3</b> | 05:30 – 05:45 pm | Combining neural progenitor cell transplantation with respiratory training after cervical spinal cord injury<br><i>L. Zholudeva – Gladstone Institute</i>  |
| <b>3-4</b> | 05:45 – 06:00 pm | Repopulation of microglia following partial ablation improves cognitive performance and diminishes neuroinflammation in a mouse model of chronic gulf war illness<br><i>C. Jordan – Texas A&amp;M University, Travel Award Winner<br/>Advisor – Ashok Shetty</i> |
| <b>3-5</b> | 06:00 – 06:15 pm | Neuroprotective impact of human neural stem cell-derived exosomes following cranial irradiation and chemotherapy for brain cancer<br><i>C. Hudson – University of California, Irvine, Travel Award Winner<br/>Advisor – Munjal Acharya</i>                       |

# Travel Award Presentations

6:15 pm – 6:45 pm

*Beach/Gulf*

Corinna Burger & Michael Lane

## 2024 ASNTR TRAVEL AWARD RECIPIENTS

Afua Addo

Niat Gebru

Zahra Hasanpour-Segherlou

Kenneth Hawkins

Calista Holt

Casey Hudson

Anne Huntemer-Silveira

Patrick Hurley

Chase Jordan

Elizabeth Klaas

Sanya Kotian

Ava Lee

Nitzan Letko Khait

Chardane Logan

Margaret Lovier

Erika Marks

Melanie Martinez

Karthick Mayilsamy

Kimberly Meyers

Negin Mojarad

Zachary Nevin

Tiffany Pettigrew

Leah Phan

Dipesh Pokharel

Haley Powell

Alex Roman

Goutham Shankar

Bhairavi Srinageshwar

Nurul Sulimai

Caroline Swain

Paige Ung



USF RESEARCH & INNOVATION



## **Session 4: ASNTR Reception & Poster Presentations**

*Session Sponsor – Novo Nordisk*

**Moderators:**  
**Aurélie Ledreux & Kevin Nash**  
**Palm/Bay**

**7:00 pm – 9:00 pm**

1. TRANSCRIPTIONAL ANALYSIS REVEALS NEW MECHANISMS OF SCF+G-CSF-REDUCED NEUROPATHOLOGY IN APP/PS1 MICE  
*A. Addo – SUNY Upstate Medical University, Travel Award Winner*
2. MODIFYING BEHAVIOR WITH CORTICAL LAYER SPECIFIC NEUROMODULATION  
*C. Bermúdez – Central Michigan University*
3. MOLECULAR INSIGHTS INTO FKBP5 GENE DELETION: CIRCADIAN MODULATION AND BRAIN PROTEOMICS IN AGED MICE  
*N. Gebru – University of South Florida, Travel Award Winner*
4. ADROPIN PROTECTS DELAYED CEREBRAL ISCHEMIA IN SUBARACHNOID HEMORRHAGE PATIENTS  
*Z. Hasanpour-Segherlou – University of Florida, Travel Award Winner*
5. ERGOGENIC EFFECTS OF INVASIVE AND NON-INVASIVE SPINAL CORD STIMULATION STRATEGIES FOLLOWING SPINAL CORD INJURY: A CASE SERIES  
*D. Hodgkiss – University of Birmingham*
6. EXPRESSION OF ALPHA SYNUCLEIN IN THE AMYGDALA AND MIDBRAIN NUCLEI OF HEMIPARKINSONIAN RHESUS MONKEYS  
*C. Holt – University of Wisconsin-Madison, Travel Award Winner*
7. GENERATION OF 3D PRINTED DORSAL SPINAL NEURAL PROGENITOR CELL SCAFFOLDS FOR SPINAL CORD INJURY  
*A. Huntmer-Silveira – University of Minnesota, Travel Award Winner*

8. OPTOGENETIC ENHANCEMENT OF NEURONAL NETWORKS FOR SPINAL CORD INJURY REPAIR  
*P. Hurley – Gladstone Institute, Travel Award Winner*
9. IRON CHELATOR MITIGATES NEURODEGENERATIVE EFFECTS OF EXCESS IRON AFTER SUBARACHNOID HEMORRHAGE  
*E. Klaas – University of Florida, Travel Award Winner*
10. IMPROVED BRAIN FUNCTION MEDIATED BY EXTRACELLULAR VESICLES FROM hiPSC-NSCS IN 5xFAD MICE IS LINKED WITH ENHANCED HIPPOCAMPAL NEUROGENESIS AND REDUCED mTOR SIGNALING  
*S. Kotian – Texas A&M University, Travel Award Winner*
11. SMALL NEURON-DERIVED EXTRACELLULAR VESICLES FROM INDIVIDUALS WITH DOWN SYNDROME PROPAGATE AD PATHOLOGY AND AFFECT BEHAVIOR OF TRISOMIC Ts65Dn MICE  
*A. Ledreux – University of Colorado, Anschutz Medical Campus*
12. A RAT-BASED PROGRESSIVE OVERLOAD RESISTANCE EXERCISE TASK FOR RESEARCH IN AGING AND AGE-RELATED NEURODEGENERATIVE DISEASE  
*A. Lee – University of Kansas, Travel Award Winner*
13. INVESTIGATING THE MOLECULAR MECHANISMS OF ADIPOSE STEM CELL DERIVED EXOSOMES FOR PREVENTION OF NEURODEGENERATION IN A-SYNUCLEIN MODEL OF PARKINSON'S DISEASE  
*C. Logan – University of South Florida, Travel Award Winner*
14. THE EFFECTS OF A SUPPORTIVE ENRICHED ENVIRONMENT ON NEUROLOGICAL FUNCTION RECOVERY OF CHRONIC SEVERE TBI IN A MURINE MODEL  
*M. Lovier – SUNY Upstate Medical University, Travel Award Winner*
15. HIGH-RESOLUTION SPATIAL MAPPING OF NEUROIMMUNE INTERACTIONS AFTER MOUSE SPINAL CORD INJURY  
*I. Maldonado-Lasuncion – Imperial College London*
16. THE IMPACT OF AGE ON STEM CELL TRANSPLANTATION AND GENE THERAPY  
*E. Marks – Texas A&M University, Travel Award Winner*

17. THE IMPACT OF NEUTROPHIL DEPLETION ON ANEURYSM HEALING  
*M. Martinez – University of Florida, Travel Award Winner*
18. INVESTIGATING THE NEUROPROTECTIVE EFFECTS OF ACMSD IN A SYNERGISTIC MODEL OF A-SYN/LPS  
*K. Meyers – Barrow Neurological Institute, Travel Award Winner*
19. STRAIN-SPECIFIC VARIATIONS IN MOTOR RECOVERY FOLLOWING SPINAL CORD INJURY: A COMPARATIVE STUDY IN SPRAGUE-DAWLEY AND WISTAR RATS  
*N. Mojarad – Central Michigan University, Travel Award Winner*
20. UBE3A AND TAUOPATHY  
*K. Nash – University of South Florida*
21. CRISPR INACTIVATION STRATEGIES FOR ALS/FTD AND OTHER DOMINANT NEUROGENETIC DISEASES  
*Z. Nevin – Gladstone Institute, Travel Award Winner*
22. CHARACTERIZING WHITE MATTER STROKE BEHAVIORAL PHENOTYPE THROUGH MACHINE LEARNING  
*A. Panditrao – Stanford University*
23. ELECTRICAL STIMULATION AFFECTS THE DIFFERENTIATION OF TRANSPLANTED REGIONALLY SPECIFIC HUMAN SPINAL NEURAL PROGENITOR CELLS (sNPCs) AFTER CHRONIC SPINAL CORD INJURY  
*N. Patil – University of Minnesota*
24. ELEVATED EXPRESSION OF CHITINASE-3-LIKE PROTEIN 1 IN PARKINSON'S DISEASE  
*T. Pettigrew – Arizona State University, Travel Award Winner*
25. COMPARATIVE ANALYSIS OF DOPAMINE NEURON ACTIVITY IN PAVLOVIAN VERSUS NON-CONTINGENT METHAMPHETAMINE EXPOSURE  
*L. Phan – University of Florida, Travel Award Winner*
26. EXPLORING HEMISPHERIC LATERALIZATION: IMPLICATIONS FOR PARKINSON'S DISEASE AND CELL TRANSPLANTATION THERAPIES  
*D. Pokharel – The University of Toledo, Travel Award Winner*

27. INVESTIGATION OF ALZHEIMER'S DISEASE-RELATED NEUROMUSCULAR DYSFUNCTION USING hiPSC-DERIVED CELLS IN A COMPARTMENTALIZED BioMEMS PLATFORM  
*H. Powell – University of Central Florida, Travel Award Winner*
28. NEUROD1-MEDIATED EFFECTS ON MOTOR FUNCTION FOR SUBACUTE SPINAL CORD INJURY  
*A. Roman – University of Minnesota Twin Cities, Travel Award Winner*
29. INTRANASAL ADMINISTRATION OF EXTRACELLULAR VESICLES FROM hiPSC-DERIVED NEURAL STEM CELLS AS AN ANTI-AGING TREATMENT TO PREVENT AGE-RELATED COGNITIVE AND MOOD DYSFUNCTION  
*G. Shankar – Texas A&M University, Travel Award Winner*
30. DOWNREGULATION OF THE EXPRESSIONS OF BRAIN NORADRENERGIC RECEPTORS DURING TRAUMATIC BRAIN INJURY IS ALLEVIATED IN MICE WITH A REDUCED BLOOD LEVEL OF FIBRINOGEN  
*N. Sulimai – University of South Florida, Travel Award Winner*
31. CHARACTERIZATION OF NONMOTOR ASPECTS OF THE PARAQUAT AND LECTIN RAT MODEL OF PARKINSONISM  
*C. Swain – University of Toledo, Travel Award Winner*
32. EFFECTS OF MITOCHONDRIAL RCC1-LIKE GENE ON HIPPOCAMPAL LEARNING AND MEMORY  
*P. Ung – University of Wisconsin-Madison, Travel Award Winner*
33. THE DEVELOPMENT OF A NOVEL BILATERAL RODENT MODEL OF PARKINSONIAN ALPHA-SYNUCLEIN PATHOLOGY  
*A. Velázquez – Barrow Neurological Institute*
34. NEUROPROTECTIVE EFFICACY OF HUMAN NEURAL STEM CELL-DERIVED EXOSOMES FOR BREAST CANCER CHEMOBRAIN  
*C. Hudson – University of California Irvine*











# Conference Agenda

**Friday, April 26, 2024**

## Platform Presentations – Beach/Gulf

<b>07:30 – 08:30 am</b>	Continental Breakfast – Coastal Room
<b>07:30 – 12:15 pm</b>	Conference Registration – Lobby II
<b>08:30 – 10:00 am</b>	Session 5: Harnessing the Immune System for Neural Repair
<b>10:00 – 10:30 am</b>	Morning Break – Coastal Room
<b>10:30 – 12:00 pm</b>	Session 6: Large Animal Models for Neural Therapy & Repair
<b>12:00 – 03:00 pm</b>	Free Time
<b>03:00 – 03:45 pm</b>	Session 7: Roy A.E. Bakay Memorial Presentation
<b>03:45 – 04:15 pm</b>	Afternoon Break – Coastal Room
<b>04:15 – 05:00 pm</b>	Session 8: Keynote Lecture
<b>05:00 – 06:00 pm</b>	Session 9: Diversity, Equity, Inclusion & Accessibility in Neuroscience

## **Session 5: Harnessing the Immune System for Neural Repair**

**8:30 am – 10:00 am**

**Session Chair:**

**Pablo Avalos**

- |            |                  |   |
|------------|------------------|---|
| <b>5-1</b> | 08:30 – 09:00 am | Targeting aging- and neurodegeneration-associated cognitive decline using a novel iPSC-derived immune cell therapy<br><i>A. Moser – Cedars-Sinai Medical Center</i> |
| <b>5-2</b> | 09:00 – 09:30 am | Harnessing iPSC-derived microglia for CNS-wide delivery of therapeutic proteins<br><i>M. Blurton-Jones – University of California, Irvine</i>                       |
| <b>5-3</b> | 09:30 – 10:00 am | Treg-modulating immunotherapy in ALS<br><i>J. Thonhoff – Houston Methodist Hospital</i>   |

## **Session 6: Advanced Animal Models for Neural Therapy and Repair**

**10:30 am – 12:00 pm**

**Session Chairs:**

**Frederic Manfredsson & Jeffrey Kordower**

- |            |                  |   |
|------------|------------------|---|
| <b>6-1</b> | 10:30 – 11:00 am | Nonhuman primate and canine models: The road to clinical translation<br><i>G. Gerhardt – University of Kentucky</i>   |
| <b>6-2</b> | 11:00 – 11:30 am | Preclinical evaluation of transaxial intraputaminaal trajectory for enhanced distribution of grafted cells in Parkinson's disease<br><i>M. Emborg – University of Wisconsin</i> |
| <b>6-3</b> | 11:30 – 12:00 pm | Resistance exercise and neuromuscular function in rats: Advances and caveats<br><i>J. Stanford – University of Kansas</i>   |

## Session 7: Roy A.E. Bakay Memorial Presentation

3:00 pm – 3:45 pm

Introduction:  
Jeffrey Kordower

7-1 | 03:00 – 03:45 pm | Gene and cell-based therapies in neurodegenerative disorders  
*Paul Sloan Larson, MD – University of Arizona – via Zoom*



### Paul S. Larson, MD

Dr. Paul Larson is Professor of Neurosurgery at the University of Arizona and Chief of Neurosurgery at the Southern Arizona VA Health Care System. He specializes in functional neurosurgery, specifically deep brain stimulation for a variety of neurological disorders. Dr. Larson completed medical school at the University of Arizona in 1995, and did his residency training at the University of Louisville. He was a professor in neurological surgery at the University of California, San Francisco from 2001 to 2021.

Dr. Larson is a pioneer in the field of interventional MRI-guided stereotaxy for DBS, laser ablation and drug delivery, and has performed well over 1,000 iMRI procedures. His clinical research team has been the solo or lead group in 10 gene therapy clinical research trials since 2004, and has the world's largest experience in intracranial delivery of novel therapeutics for neurodegenerative disorders. Dr. Larson also has a significant interest in the neurobiology of tinnitus. His NIH-funded research in this area has led to the discovery of a new brain region involved in auditory perception.

## Session 8: Keynote Lecture

4:15 pm – 5:00 pm

**Introduction:  
Michael Lane**

- 8-1** | 04:15 – 05:00 pm    Regeneration in the Central Nervous System:  
Cell & Therapeutic Delivery  
*Molly Shoichet, PhD – University of Toronto, Canada*



### **Molly Shoichet, PhD**

Dr. Shoichet is an expert in the study of polymers for drug delivery and tissue regeneration. She is the Michael E Charles Professor in Chemical Engineering and held the Tier 1 Canada Research Chair in Tissue Engineering (2001-2020). Professor Shoichet was recruited to the faculty at the University of Toronto in 1995 with a NSERC University Faculty Award, after completing her S.B. from the Massachusetts Institute of Technology (Chemistry, 1987), her Ph.D. from the University of Massachusetts, Amherst (Polymer Science & Engineering, 1992), and 3 years at CytoTherapeutics Inc.

Professor Shoichet aims to advance the basic science and enabling technologies of tissue engineering and drug delivery. She is a world leader in the areas of polymer synthesis, biomaterials design and drug delivery in the nervous system (brain, spinal cord, retina) and 3D hydrogel culture systems to model cancer. Her research program is unique in its breadth, focusing on strategies to promote tissue repair after traumatic spinal cord injury, stroke and blindness and enhance both tumour targeting through innovative strategies and drug screening via 3D cell culture with new hydrogel design strategies. The impact of her brain research was recognized with the prestigious Margolese Brain Disorders Prize in 2020.

## **Session 9: Diversity, Equity, Inclusion & Accessibility in Neuroscience**

### **Panel Discussion**

**5:00 pm – 6:00 pm**

**Moderator:**

**Todd White**

**9-1**

05:00 – 06:00 pm *T. White – NIH/NINDS*

*C. Burger – University of Wisconsin*

*K. Nash – University of South Florida*









# Conference Agenda

**Saturday, April 27, 2024**

## Platform Presentations – Beach/Gulf

<b>07:30 – 08:30 am</b>	Continental Breakfast – Coastal Room
<b>08:30 – 09:30 am</b>	Session 10: Cell Therapies for Neural Repair
<b>09:30 – 10:30 am</b>	Session 11: CNS Trauma & Ischemia
<b>10:30 – 11:00 am</b>	Morning Break – Coastal Room
<b>11:00 – 12:15 pm</b>	Session 12: Advanced Technologies: Multi-omics, AI & Emerging Tools
<b>12:15 – 03:00 pm</b>	Free Time
<b>03:00 – 04:00 pm</b>	Session 13: Regenerative Practices with Gene Therapy
<b>04:00 – 04:30 pm</b>	Afternoon Break – Coastal Room
<b>04:30 – 05:15 pm</b>	Session 14: Presidential Lecture
<b>05:15 – 06:00 pm</b>	Award Presentations & ASNTR Business Meeting
<b>07:00 – 10:00 pm</b>	ASNTR Beach Party – Dinner & Dancing (Cash Bar) – Mid-Beach

## **Session 10: Cell Therapies for Neural Repair**

**8:30 am – 9:30 am**

**Session Chairs:**

**Lana Zholudeva & Nitzan Letko Khait**

- |             |                  |  |
|-------------|------------------|--|
| <b>10-1</b> | 08:30 – 08:50 am | ipSCs-based regenerative therapy for spinal cord injury<br><i>H. Okano – Keio University</i>             |
| <b>10-2</b> | 08:50 – 09:10 am | Cell based therapy options for spinal cord injury<br><i>F. Farhadi – University of Kentucky</i>          |
| <b>10-3</b> | 09:10 – 09:30 am | Neural progenitors transplantation for cervical spinal cord repair<br><i>M. Lane – Drexel University</i> |

## **Session 11: CNS Trauma and Ischemia**

**9:30 am – 10:30 am**

**Session Chairs:**

**John Stanford & Koji Hosaka**

- |             |                  |  |
|-------------|------------------|--|
| <b>11-1</b> | 09:30 – 09:50 am | Atypical neurogenesis, astrogliosis, and excessive hilar interneuron loss are associated with the development of post-traumatic epilepsy<br><i>E.K. Gudenschwager – University of Florida</i>  |
| <b>11-2</b> | 09:50 – 10:10 am | Synergistic delivery of thermostabilized enzyme and human neural progenitor cells via tailored hydrogels enhances recovery after stroke<br><i>N. Letko Khait – University of Toronto, Travel Award Winner</i><br><i>Advisor – Molly Shoichet</i> |
| <b>11-3</b> | 10:10 – 10:30 am | Developing ECM bioscaffolds to regenerate brain tissue after a stroke<br><i>M. Modo – University of Pittsburgh</i>   |

## **Session 12: Advanced Technologies: Multi-omics, AI & Emerging Tools**

*Session Sponsors – CereHealth*

**11:00 am – 12:15 pm**

**Session Chairs:**

**Lotta Granholm & Kenneth Hawkins**

- |             |                  |  |
|-------------|------------------|--|
| <b>12-1</b> | 11:00 – 11:30 am | New technology for neurodegenerative disorders using machine learning, AI, and spatial transcriptomics<br><i>L. Granholm – University of Colorado, Anschutz Medical Campus</i>   |
| <b>12-2</b> | 11:30 – 12:00 pm | Long-term clinical outcome of a participant with Parkinson’s disease who received autologous cell-based investigational therapy at the time of deep brain stimulation surgery<br><i>J. Quintero – University of Kentucky</i> |
| <b>12-3</b> | 12:00 – 12:15 pm | Characterization of CMT2s iPSC-human motoneurons for drug application<br><i>K. Hawkins – University of Central Florida, Travel Award Winner<br/>Advisor – James Hickman</i>  |

## **Session 13: Regenerative Practices with Gene Therapy**

**3:00 pm – 4:00 pm**

**Session Chairs:**

**Julien Rossignol & Bhairavi Srinageshwar**

- |             |                  |   |
|-------------|------------------|---|
| <b>13-1</b> | 03:00 – 03:20 pm | Role of Protein-R in cognition and pathology in a mouse model of amyloidosis<br><i>A. Joly-Amado – University of South Florida</i>  |
| <b>13-2</b> | 03:20 – 03:40 pm | Orally administered inhibitor of perineuronal nets leads to functional recovery, structural changes and modulation of the immune response after chronic spinal cord injury.<br><i>P. Jendelova – Institute of Experimental Medicine CAS</i> |
| <b>13-3</b> | 03:40 – 04:00 pm | Delivery of PAMAM dendrimers across natural barriers (blood-brain barrier and placental barriers) in healthy pregnant mice<br><i>B. Srinageshwar – Central Michigan University, Travel Award Winner<br/>Advisor – Julien Rossignol</i>      |

## Session 14: Presidential Lecture

Session Sponsors –  
*BlueRock Therapeutics*  
*Florida High Tech Corridor*

**4:30 pm – 5:15 pm**

**Introduction:  
Michael Lane**

- 14-1** | 04:30 – 05:15 pm | Clinical translation of two programs: Growth factor gene therapy for Alzheimer's disease and stem cell therapy for spinal cord injury  
*M. Tuszynski, MD, PhD – University of California, San Diego*



**Mark H. Tuszynski, MD, PhD**

Dr. Tuszynski received his undergraduate and M.D. degrees from the University of Minnesota in Minneapolis. He received clinical training in neurology at Cornell University Medical Center in New York, NY from 1984-1987, and became board-certified in neurology in 1989. He attended graduate school at the University of California-San Diego from 1988-1991, earning a Ph.D. in neuroscience. Dr. Tuszynski joined the faculty of the Department of Neurosciences at the University of California-San Diego in 1991. He is currently Professor and Director of the UCSD Center for Neural Repair, and Founding Director of the UCSD Translational Neuroscience Institute.

Dr. Tuszynski's research focuses on the role of growth factors and stem cells in influencing cell survival, plasticity and regeneration in the adult central nervous system. He actively researches the topics of Alzheimer's disease, spinal cord injury, cellular mechanisms of normal memory, and bioengineering. In 2001 he conducted the first human clinical trial of gene therapy to treat an adult neurological disorder, testing the effects of nerve growth factor gene delivery in patients with early Alzheimer's disease. He has won over 20 national research awards and is the author of over 300 scientific and medical publications.





# ASNTR Award Presentations

&

## Business Meeting

5:15 pm – 6:00 pm

Bernard Sanberg Memorial Award

Paul J. Reier Award for Excellence in Neurotrauma Research

2024 Poster Award Recognition

*All members and nonmembers are encouraged to attend this meeting to welcome new ASNTR officers and to become actively involved in the future direction of society.*



# ASNTR BEACH BBQ

JOIN US FOR DINNER & DANCING

(MID - BEACH, CASH BAR AVAILABLE)

7:00 pm - 10:00 pm

\*WRIST BAND REQUIRED FOR ADMISSION



Looking forward to seeing you again in 2025!

*Open to all Members and Non-Members*

## 2025 ASNTR Symposium Proposal

Submit a scientific symposium proposal for the 2025 ASNTR Annual Meeting.

**Proposals are due July 1, 2024**

**MEETING DATES: April 24 – 26, 2025**

Please visit our website [www.asntr.org](http://www.asntr.org) to complete the proposal form.

The following information is required at time of submission:

- Your Email Address
- Topic Area
- Proposed Session Title
- **Description** - Provide a brief synopsis of your proposed session.
- **Proposed Session Chair** - Provide full name of proposed chair/moderator of symposium.
- **Proposed Chair Institution/Company** - Provide Institution/Company of proposed chair/moderator of symposium.
- **Proposed Speaker** - Provide full name of proposed faculty along with Institution/Company of proposed faculty for session (limit 2, other presenters will be selected from submitted abstracts).





Gulf of Mexico

10 Acres of Beach

Volleyball Nets

Outdoor Function Space

Outdoor Function Space

Children's Playground

Tennis Courts

Outdoor Function Space



Bluewater Provisions

Telephone ATM Info Stand

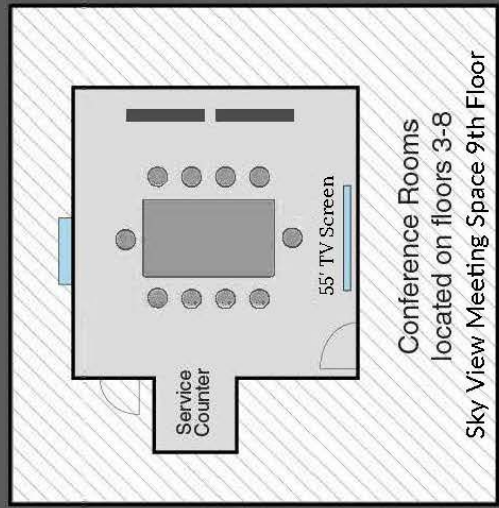
Sales Office

SeaGrapes Apparel

The Mainstay Tavern

Reception Lobby

Intracoastal Waterway



Coastal Patio

Coastal Room

Lobby II

Reception Lobby

Rusty's Bistro

Beach Room

Gulf Room

Palm Room

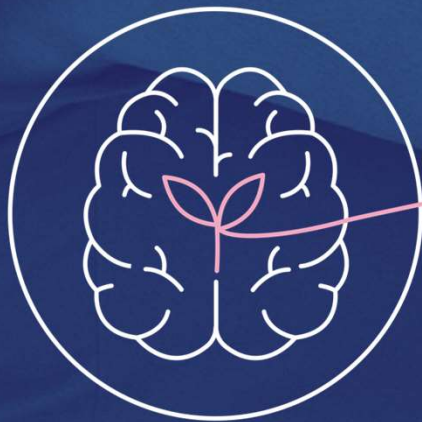
Bay Room

Island Room II

Island Room I

Banquet Kitchen Service

Sand Key Park



# Brain health matters

Driving change together