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ASNTR Annual Meeting Code of Conduct
ASNTR is committed to making the Annual Meeting an inclusive space for sharing ideas and knowledge. The policies of the ASNTR apply to all attendees, speakers, exhibitors, staff, contractors, volunteers, and guests at the Annual Meeting and related events.

ASNTR prohibits any form of harassment, sexual or otherwise. Harassment should be reported immediately to ASNTR on-site Meeting staff: asntr.office@gmail.com. For more information on ASNTR’s policy, please visit our website: www.asntr.org/home.

Diversity, Equity & Inclusion
The ASNTR is committed to ensuring that everyone has the opportunity to contribute to and benefit from science by encouraging the recruitment, development, and retention of scientists.
April 28, 2022

Dear ASNTR Members, Colleagues, and Friends:

I am delighted to welcome you to the 29th annual ASNTR conference!

As we have all been affected by the COVID-19 pandemic, the ASNTR Committees have faced big challenges in organizing the 29th annual ASNTR conference due to insufficient financial support for the meeting program in addition, insufficient time to prepare for the 29th ASNTR conference that will be held in April 2022 as the 28th annual ASNTR conference was postponed to August 2021. Here I would like to share with you that I am so proud of our strong and incredible team working together to overcome these challenges that have never before happened in ASNTR. I would like to express my heartfelt gratitude to all the members of the Scientific Program Committee, each of the Session Chairs, Education Program Committee members, ASNTR Officers, Councilors, Donna Morrison and Inger Mills for their dedication and hard work in planning and operating the meeting program for 2022. Without your great efforts and contributions, the ASNTR 2022 conference would not be possible. With this experience, I have recognized why and how ASNTR remains resilient and strong. Please take a moment to appreciate them for all their hard work in organizing this special conference.

As you might notice from the ASNTR website, the theme of this year’s conference is Omic, Dynamic and Systemic Research in Neural Repair, which highlights innovative approaches and recognizes novel directions to advance neural repair research that will resonate with ASNTR members and attendees. The Scientific Program Committee has created a comprehensive and stimulating program with broad appeal. There are a variety of topics and presentations incorporated in the sessions revealing new mechanisms and potential treatments for neurodegenerative diseases, neurological disorders, and CNS injuries. A renowned neuroscientist, Professor Roger Barker, has been invited to give a Presidential Lecture in which he will share his expertise in studying cell-based therapies for Parkinson’s disease.

Training the next generation of neuroscientists is one of the missions of ASNTR. Supporting students, postdocs, and clinical fellows to attend the annual conference through Student Travel Awards is a long-established program of ASNTR. In the difficult circumstance when we are facing the challenge of a lack of funding to support this traditional program, the generosity of all ASNTR members, friends, and sponsors who have contributed monetarily to help this important program is critical and greatly appreciated. I would like to give special thanks to Michael Lane and Donna Morrison for their extraordinary fundraising efforts to support Student Travel Awards. With secured funds, 24 students have received Travel Awards.
enabling them to attend this conference. The Education Program Committee, led by Kyle Fink and Corinna Burger, has created a Trainee Workshop for emerging technologies in big data analysis and a Trainee-Mentor Meet program that provides great opportunities for trainees to obtain specific advice and experience from senior members to help them in their career development.

I would like to take this opportunity to acknowledge and thank all the sponsors for supporting the ASNTR 2022 conference. These sponsors include Aiforia Inc., The Florida High Tech Corridor, Novo Nordisk, Wings for Life Spinal Cord Research Foundation, Zeiss Microscopy Solutions, 10X Genomics, Miltenyi Biotec Inc., Christopher & Dana Reeve Foundation, Field Neuroscience Institute, Integra Foundation, Marion Murray Spinal Cord Research Center, Dementia Society of America and International Spinal Research Trust (Direct funding to students).

I thank you for attending the 29th annual ASNTR conference. I hope you will enjoy the conference.

Warmest Regards,

Li-Ru Zhao
ASNTR President 2020-2022
Special Thanks to our 2022 Sponsors

- aiforia
- novo nordisk
- ZEISS
- 10x Genomics
- Christopher & Dana Reeve Foundation
- Miltenyi Biotec
- FNI
- INTEGRA Foundation
- Dementia Society of America
- Marion Murray Spinal Cord Research Center
Session: 4-2

**Keqiang Ye, Emory University**

Dr. Ye's lab at Emory University studied neurotrophin signalings in neuronal cell survival and drug discovery in neuroprotection to dissect the physiological roles of PIKE in tumorigenesis and anti-cancer drug development. His lab wanted to determine the neuronal cell death molecular mechanisms of neuroexcitotoxicity and stroke in central nervous system and drug discovery. Dr. Ye's Sontag project wanted to define the role of PIKE-A in Akt activation in order to lead to a better understanding of the cellular functions of PIKE-A in tumorigenesis and tumor progression, and provide the basis for identification of novel drug targets for the treatment of brain tumor patients.

Session: 4-3

**Zhongcong Xie, Harvard Medical School**

Dr. Xie has been a physician-scientist at Massachusetts General Hospital (MGH) and Harvard Medical School since 2000, and has made significant impact to the anesthesia and anesthesi neurotoxicity research. Dr. Xie graduated from Xuzhou Medical University in China and received a Ph.D. degree from Wayne State University, Detroit, Michigan in 1994. He was a postdoctoral fellow in Harvard Medical School before joining the anesthesia residency program at MGH in 1997. Research in Dr. Xie’s laboratory focuses on determining the neuropathogenesis of AD, as well as POCD and POD, a deficit of learning, memory and attention following anesthesia and surgery.

Session: 4-4

**Shaohua Yang, University of North Texas**

Dr. Yang is a Regents Professor and Brain Bank director of the Center for Healthy Aging at the Department of Pharmacology and Neuroscience. He is a trained neurosurgeon and has extensive clinical expertise with neurovascular disease from his neurosurgery residency training and neurovascular fellowship training. Dr. Yang’s PhD training at pharmacology and neuroscience was focused on neurosteroids, neuroprotection, and neurodegeneration. He has over 20-years of experience in translational research using both in vitro and in vivo approaches with focuses on brain metabolism, neuroprotection, ischemic stroke, post-stroke cognitive impairment, and neurodegenerative diseases.
Session: 6-1

**Roger Barker**, University of Cambridge

Dr. Barker trained in medicine at Oxford University and then St Thomas' Medical School in London. Having completed general medical training he moved to Cambridge in 1991 to undertake a PhD on neural grafting with James Fawcett and Steve Dunnett. He then trained in Neurology at Cambridge and the National Hospital Queen Square in London before returning to Cambridge and the Brain Repair Centre with an MRC Clinician scientist fellowship to work on neural xenografts. He became the Lecturer in Neurology in 2000 and subsequently a Reader and now Professor of Clinical Neuroscience.

His research group work on clinical aspects of Parkinson’s and Huntington’s Disease as well as new therapeutic strategies to treat these disorders. He is an active neurologist and runs the regional HD clinic and also sees patients with a range of neurological disorders including PD. He is Co-Editor in Chief of the ACNR and the Journal of Neurology. He currently sits on the Editorial board of several other journals and is chair of the ERC Advanced grants committee in Neural sciences and a member of the RAP of Cure-PD. He has published several books and over 250 papers.

Session: 8-1

**Robert Gross**, Emory University

MBNA Bowman Chair & Professor Emory University Dept of Neurosurgery Director and Co-Founder Emory Neuromodulation & Technology Innovation Center (ENTiCe) Director Translational Neuro-Engineering Laboratory Director Stereotactic, Functional Neurosurgery & Epilepsy Surgery

Interests of the Translational Neuroengineering Research Lab: Neuromodulation using multielectrode arrays, closed loop control theory, and optogenetics for epilepsy and movement disorders. Computational modeling of epilepsy networks for model-based and non-model based feedback control of optogenetic and electrical neuromodulation. Neurorestoration using gene and cell-therapy based approaches for degenerative and injury conditions. In addition, the laboratory has developed novel gene therapy vectors for neurorestoration targeting key pivotal proteins regulating axon outgrowth in regenerative situations, including for Parkinson’s disease, spinal cord injury and retinal degeneration.
Session: 9-1

**Habibeh Khoshbouei**, University of Florida

Dr. Khoshbouei is a full Professor in the Department of Neuroscience at the University of Florida at Gainesville in the United States. Projects in her laboratory are focused on the identification of novel mechanisms involved in regulation of dopamine neurotransmission in the brain. In particular, to understanding the details of the regulation of dopamine transporter (DAT) in the context of normal dopamine signaling and the pathogenesis of addiction, neurological and neuropsychiatric disorders. Dr. Khoshbouei has advised several graduate students and postdoctoral scientists.

Session: 9-2

**Bryan Killinger**, Rush University Medical Center

Dr. Killinger is an assistant professor and co-director of the Movement Disorders Brain Bank at Rush University Medical Center in Chicago IL. His past works have explored the role of epigenetics and the vermiform appendix in Parkinson’s disease. His current research interests revolve around understanding the core molecular features of synucleinopathy pathogenesis.

Session: 9-3

**Lucas Stetzik**, Van Andel Research Institute

Dr. Lucas Stetzik graduated from the College of Wooster with a bachelor’s degree in biochemistry and molecular biology. He completed his Ph.D. in integrated biosciences with a focus on behavioral neuroendocrinology at the University of Akron. He went on to complete a postdoctoral fellowship at the University of Florida studying olfaction using in vivo calcium imaging. Currently, he is working to develop an engrailed1 synucleinopathy mouse model.

Session: 9-4

**Han Seok Ko**, Johns Hopkins University School of Medicine

Dr. Hanseok Ko is currently an Associate Professor of Neurology and the Institute for Cell Engineering at The Johns Hopkins University School of Medicine (JHSOM). Dr. Ko received his Ph.D. in Pharmacology in 2003 from the University of Hokkaido, Japan. He then completed post-doctoral training at JHSOM. Dr. Ko joined the faculty of Johns Hopkins as an Assistant Professor in 2020 and was promoted to Associate Professor in 2017. Dr. Ko has dedicated his career to the elucidation of the molecular mechanisms of neurodegeneration and to other discoveries that have led to innovative approaches and enhanced the development of new agents to treat Parkinson’s disease and Dementia with Lewy bodies.
Session: 10-1

Jean Yuan, National Institutes of Health

Dr. Yuan is the Project Director for Translational Bioinformatics at National Institute on Aging (NIA). Dr. Yuan had training in clinical medicine and pathology (M.D.), computer science (M.S.) and computational biology (Ph.D.). Before joining NIA, she was a Scientific Review Officer managing the review of grants in Data Science, Biomedical Computing, Health Informatics, Mobile Health Technology and Sensors, and SBIR/STTR Health Informatics. Dr. Yuan has broad expertise in data science, pre-clinical and clinical drug development, has led efforts in the development of portfolio analysis tools when working at the Office of Director at NIH, and played a key role as Senior Investigator in leading genomics and precision medicine clinical trial programs at GlaxoSmithKline R&D.

Session: 10-2

Sonia Villapol, Houston Methodist Research Institute

Dr. Villapol graduated from the University of Santiago of Compostela (Spain) with a bachelor’s degree in Molecular Biology and Biotechnology in 2003. She received her master’s degree and Ph.D. in Neuroscience from the Autonomous University of Barcelona (Spain) in 2007. She worked as a postdoctoral fellow at CNRS in the University Pierre and Marie Curie VI and at INSERM in Paris, France (2007-2010) and at the National Institutes of Health, Center for Neuroscience and Regenerative Medicine, and Uniformed Services University (USUHS) in Bethesda, Maryland from 2010 to 2014. Following her postdoctoral research work, Villapol joined the Department of Neuroscience at Georgetown University in Washington, D.C., as a Research Assistant Professor in May 2014. In July 2018, she started as a faculty member at the Center for Neuroregeneration at Houston Methodist Research Institute as Assistant Professor of Neurosurgery.
Session: 11-2

**Karen Krukowski**, University of Denver

As a neuroimmunologist, Dr. Krukowski’s scientific career has focused on understanding complex, dynamic and bidirectional interactions between the immune and nervous systems. She investigates how disruptions in these interactions can underscore various pathological states including stress, neuropathy, traumatic brain injury and aging. Her research vision is to understand how the adaptive immune system regulates neuronal function in normal aging and following traumatic brain injury. She will explore how altered immune responses can regulate age-and trauma-related cognitive and sensorimotor deficits in a sex-dependent manner.

Session: 11-4

**Risa Nakase-Richardson**, James A. Haley Veterans Hospital, Tampa

Dr. Richardson is a Clinical Neuropsychologist at the James A. Haley Veterans’ Hospital and Associate Professor in the Department of Medicine, Pulmonary and Sleep Medicine Section, at the University of South Florida. She has worked in neurorehabilitation in both clinical and research capacities since 1998. She is a Fellow of the American Congress of Rehabilitation Medicine and National Academy of Neuropsychology. She has over 70 publications in peer-reviewed journals and over 200 presentations at scientific meetings. She has served as PI or Investigator on 13 grants funded by various federal agencies and private organizations including VA, DOD, PCORI, NIDILRR, and NAN. She has worked at the Polytrauma Rehabilitation Center in Tampa Florida since 2008. Her interests include rehabilitation outcomes for persons with brain injury with a more recent emphasis on the role of sleep in management of brain injury. She has established an objective sleep monitoring program using actigraphy and polysomnography in the management of sleep in acute rehabilitation and recently edited a special issue in the *Journal of Head Trauma and Rehabilitation* on the topic. She supervises trainees in rehabilitation medicine, sleep medicine, and psychology in both clinical and research topics related to post-traumatic sleep disturbances and severe brain injury.

Session: 11-5

**Elliot Mufson**, Barrow Neurological Institute

Dr. Mufson is a professor of neurobiology and the director of the Alzheimer’s disease research laboratory at Barrow Neurological Institute. His expertise includes Alzheimer’s disease and neurodegenerative disease. He is a member of the Society of Neuroscience, American Association of Anatomists, International Brain Research Organization and the International Alzheimer’s Association. Dr. Mufson received his doctorate from Downstate Medical Center, New York, in biological psychology and he was a research fellow in neurology at Beth Israel Hospital, Harvard Medical School in Boston. Dr. Mufson’s research includes trophic factors in aging and Alzheimer’s disease, central cholinergic systems in Alzheimer’s disease, and neuroanatomy of cortical and limbic areas in primate brain.
Session: 12-1

**Gong Chen**, Penn State University

Dr. Chen graduated from Fudan University and obtained his PhD degree in Shanghai Institute of Physiology. Dr. Chen did postdoctoral work at Yale University and Stanford University before joining the faculty of Penn State University, where he was a Professor and Verne M. Willaman Chair in Life Sciences till 2019. Since January 2020, Dr. Chen joined Jinan University in Guangzhou, China to lead a Brain Repair Center focusing on translational research by developing neuroregenerative gene therapy to treat neurodegenerative disorders. Dr. Chen pioneered an innovative *in vivo* reprogramming technology, converting reactive glial cells directly into functional neurons *in situ*. Dr. Chen and his team published a series of articles on NeuroD1-based gene therapy, laying solid foundation for a potential disruptive therapy using internal glial cells to regenerate functional new neurons for neural repair. Dr. Chen also developed a chemical reprogramming technology, using a cocktail of small molecules to convert human glial cells into functional neurons, paving the way for a potential drug therapy for neural regeneration and repair.

Session: 13-1

**Lina Nih**, David Geffen School of Medicine at UCLA

Assistant Professor at the Neurology Department, David Geffen School of Medicine at UCLA, and an investigator at the Lundquist Institute. She earned a B.S. in Cell and Developmental Biology and an M.S in Vascular Biology from the University Paris VII, France. After her obtaining a doctorate in Neuroscience in 2012, she joined UCLA for a joined postdoctoral training between the Departments of Neurology and Chemical and Biomolecular Engineering. She started her faculty position in November 2020. Dr. Nih takes a unique and innovative approach to stroke research by investigating the mechanism by which the vasculature communicates with the nervous system to initiate repair. The Nih lab uses a unique combination of interdisciplinary expertise at the interface of neuroscience, vascular biology, and biomedical engineering to develop innovative engineered materials to precisely control post-stroke angiogenesis, activate the endogenous repair machinery of the brain, and promote tissue regeneration and functional recovery after stroke.
Session: 14-1

Ariel Levine, National Institute of Neurological Disorders and Stroke

Dr. Levine received an undergraduate degree in biology from Brandeis University in 2000, a Ph.D. from The Rockefeller University in 2008, and an M.D. from Cornell University in 2009. During her graduate research with Dr. Ali Brivanlou, she studied the role of TGF-β signaling during embryonic development. Dr. Levine did postdoctoral research with Dr. Samuel Pfaff at The Salk Institute, where she identified a novel population of spinal neurons that encode “motor synergies” – modular neural programs for simple movements that are thought to underlie a wide variety of common behaviors. She was an Associate Member of the Reeve Foundation Consortium and a Fellow of the George Hewitt Foundation. Dr. Levine joined NINDS as an Earl Stadtman Tenure-Track Investigator in 2015. Her lab, the Spinal Circuits and Plasticity Unit, studies how the molecules, neurons, and circuits of the spinal cord mediate normal behavior and learn.

Session: 14-2

Phillip Horner, Houston Methodist Research Institute

Dr. Horner, Ph.D., received a Ph.D. in physiology from Ohio State University in 1995. He did post-doctoral training with Dr. Fred H. Gage and became a staff scientist in the Lab of Genetics at the Salk Institute in 1998. In 2001, Dr. Horner joined the faculty of the Department of Neurological Surgery at the University of Washington in Seattle. He directed a laboratory at the UW South Lake Union Campus and was a member of the Institute for Stem Cell and Regenerative Medicine. In 2015, Dr. Horner became the Scientific Director of the Center for Neuroregenerative Medicine and the Co-Director, Center for Regenerative and Restorative Neurosurgery at the Houston Methodist Research Institute in Houston Texas. Dr. Horner’s research focuses on the role of glial and neural progenitor cells in the regeneration of the injured and aging nervous system.

Session: 14-3

Katya Piltti, UC Irvine

Dr. Piltti received her Ph.D. in Physiology from the University of Helsinki, Finland. After graduation, she has done her post-doctoral work at the Institute for Memory Impairments and Neurological Disorders, University of California Irvine (UCI). Dr. Piltti is currently an Assistant Researcher at the Sue and Bill Gross Stem Cell Research Center, UCI. She has over 15 years research experience focusing on stem cell biology and neural therapy. Her pre-clinical work has contributed to an IND submission for an FDA approved phase I/II clinical trial for human neural stem cell transplantation in thoracic level spinal cord injury. Her current research focuses on human neural stem cell line development and scale-up manufacturing, variability in cell line therapeutic activity, and signaling mechanisms between neuroinflammation and stem cell repair responses.
Session: 15-1

**Ute Hochgeschwender**, Central Michigan University

Dr. Hochgeschwender graduated from the Free University in Berlin, Germany, with degrees in medicine (MD) and philosophy (MA). She received postdoctoral training in molecular and cellular immunology and molecular neuroscience at the Max Planck Institute for Immunobiology in Freiburg, Germany, and The Scripps Research Institute in La Jolla, California, respectively. Dr. Hochgeschwender moved to CMU in 2014 and is currently a Professor at the College of Medicine and a member of the Graduate Programs in Neuroscience and in Biochemistry, Cell and Molecular Biology. Her group uses biological light, bioluminescence, delivered by a luciferase to activate light-sensing photoreceptors, optogenetic elements, and applies the developed tools to investigate the underlying mechanisms and potential for non-invasive treatment of neurological and psychiatric diseases.

Session: 15-3

**Martin Marsala**, University of California, San Diego

Dr. Marsala is Professor in the Department of Anesthesiology at UC San Diego. During the past 20 years, Martin Marsala has been involved in the development and characterization of several spinal and brain ischemia and trauma models using rodents and mini-pigs. In the course of these studies, his laboratory has characterized the behavioral, electrophysiological and histopathological changes in the spinal cord and brain of animals after transient ischemia or trauma and developed a well-defined scientific base for the initiation of cell replacement-based therapies to modulate spinal-injury-induced motor dysfunction and muscle spasticity.
Session: 5-1

Nicholas Elder, University of California San Francisco

Mr. Elder completed his BS in Biology at Davidson College before beginning graduate school at the University of California San Francisco in the Developmental and Stem Cell Biology Program. At UCSF, he joined Todd McDevitt’s lab where he helped to develop an organoid model of human axial elongation and began studying rostro-caudal diversification of V2a interneurons. Nick is continuing his graduate work in Faranak Fattahi’s lab, with a focus on generating and characterization axially diverse populations of V2a interneurons to understand their transcriptional and epigenetic regulation during development and improve in vitro generation of spinal neurons for disease modeling and cellular therapies.

Session: 5-2

Ashley Tucker, Texas A&M University

Ms. Tucker is a 4th year Neuroscience PhD candidate in the laboratory of Dr. Jennifer Dulin at Texas A&M University. Her current research focuses on understanding which embryonic-derived neural progenitor cells are most important in restoring host locomotor circuitry and improving recovery of function following spinal cord injury. Her previous training as a biomedical engineer continually drives her to develop more effective therapeutics and participate in collaborations that bridge engineering and neuroscience. As she wraps up her PhD at Texas A&M University, she is currently looking for a postdoctoral position with the goal of continuing research aimed at identifying therapeutic interventions for neurodegenerative diseases.

Session: 5-3

George Gibbons, John van Geest Centre for Brain Repair, Cambridge

Mr. Gibbons is currently a final year doctoral student in Andras Lakatos’ lab, at the John van Geest Centre for Brain Repair, Cambridge. During a short period in industry, George developed new platforms and differentiation protocols, utilising induced Pluripotent Stem Cells. Following this, George sought to translate his scientific endeavours to an academic setting, developing models of neural injury and disease. Throughout his graduate studies, George’s primary focus has been to model the human Cortical-Spinal Neuraxis ‘in a dish’, working with stem cell derived organoids.

Session: 5-4

Nicholas (Nick) White, University of Texas at Austin

Mr. White is a graduate student in Dr. Shelly Sakiyama-Elbert’s laboratory at the University of Texas at Austin. His work has focused on generating cellular engineered tools to evaluate the functional roles and activity that various stem cell derived interneurons develop as they mature. Furthermore, with computational methods he has gone on to evaluate how different biological neuronal networks develop as they mature. This work has developed passions for cellular tools and computational techniques that can evaluate the efficacy and potential of specific cell populations.
# Conference Agenda

**Thursday, April 28, 2022**

**Platform Presentations – Beach/Gulf**

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>11:30 – 01:00 pm</td>
<td>ASNTR Council Meeting – Current ASNTR Officers, Coquina-3rd Floor</td>
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<tr>
<td>01:30 – 04:30 pm</td>
<td>Trainee Workshop and Mentor Meet &amp; Greet – Beach/Gulf</td>
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<tr>
<td>04:00 – 06:00 pm</td>
<td>Conference Registration – Lobby II</td>
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<tr>
<td>05:00 – 05:15 pm</td>
<td>Welcome – Paul Sanberg &amp; Li-Ru Zhao – Beach/Gulf</td>
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<tr>
<td>05:15 – 05:30 pm</td>
<td>Travel Award Presentations – Corinna Burger &amp; Li-Ru Zhao – Beach/Gulf</td>
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<tr>
<td>05:30 – 06:30 pm</td>
<td>Session 1: CNS Disease Modeling &amp; Gene Therapy for Neural Repair</td>
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<tr>
<td>06:30 – 07:15 pm</td>
<td>Session 2: Reception Seminar - ZEISS Research Microscopy Solutions</td>
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<tr>
<td>07:30 – 09:00 pm</td>
<td>Session 3: Poster Session – Reception – Grand Ballroom</td>
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<td></td>
<td>Reception -Sponsored by Zeiss (Cash Bar Available)</td>
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<td></td>
<td>Poster Boards Sponsored by Novo Nordisk</td>
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Trainee Workshop
Emerging Technologies in Big Data Analysis

Mentor Meet & Greet
1:30 pm – 4:30 pm
Beach/Gulf
Moderator: Corinna Burger

Travel Award Certificate Presentations
5:15 pm – 5:30 pm
Beach/Gulf
Corinna Burger & Li-Ru Zhao

TRAVEL AWARD RECIPIENTS:

Ahmed Atwa            Ebenezer Ikefuama      Sidharth Mishra
Kaveena Autar         Sumit Jamwal          Nicole Morrill
Solji Choi            Sindhuja Koneru       Alessia Niceforo
Ian Cox               Nitzan Letko Khait    Diego Ojeda
Tara Fortino          Nadine Mansour        Maëlig Patrigeon
Graham Gabrielson     Karthick Mayilsamy    Haley Powell
Robert Gardner        Kimberly Meyers        Bhairavi Srinageshwar
Adithya Gopinath      Felicia Michael       Nurul Sulimai
### Session 1: CNS Disease Modeling & Gene Therapy for Neural Repair
5:30 pm – 6:30 pm
Session Chair: John Stanford

<table>
<thead>
<tr>
<th>1-1</th>
<th>5:30 – 5:45 pm</th>
<th>ADENO-ASSOCIATED VIRAL GENE DELIVERY OF WILD-TYPE HUMAN TAU INDUCES PROGRESSIVE NEURODEGENERATION AND FORMATION OF INSOLUBLE TAU SPECIES IN THE HIPPOCAMPI OF MIDDLE-AGED RATS</th>
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<tr>
<td></td>
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<td>G. Gabrielson – University of Wisconsin Madison, Travel Award Winner</td>
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<tr>
<td>1-2</td>
<td>5:45 – 6:00 pm</td>
<td>COUNTERING FRAGILE X SYNDROME WITH REELIN</td>
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<td>N. Morrill – University of South Florida, Travel Award Winner</td>
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<tr>
<td>1-3</td>
<td>6:00 – 6:15 pm</td>
<td>IDURONIDASE GENE THERAPY IMPROVES THE FUNCTIONAL BRAIN CONNECTOME IN MICE WITH MUCOPOLYSACCHARIDOSIS TYPE I AS DETERMINED BY RESTING-STATE fMRI.</td>
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<td>W. Low – University of Minnesota</td>
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<tr>
<td>1-4</td>
<td>6:15 – 6:30 pm</td>
<td>NON-INVASIVE OPTOGENETIC STIMULATION IN A RAT MODEL OF SPINAL CORD INJURY</td>
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<td>E. Ikefuama – University of Central Michigan, Travel Award Winner</td>
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### Session 2: Reception Seminar - ZEISS Research Microscopy Solutions
6:30 pm – 7:15 pm
Introduction: Michael Lane

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<thead>
<tr>
<th>2-1</th>
<th>6:30 – 7:15 pm</th>
<th>Expand Your Spectral Palette – Multiplex Imaging Solutions from ZEISS</th>
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<tbody>
<tr>
<td></td>
<td></td>
<td>S. Fore – Product Marketing Manager for Life Sciences Laser Scanning Microscopy (LSM) Zeiss Research Microscopy Solutions</td>
</tr>
</tbody>
</table>
Session 3: Poster Session & Reception

Grand Ballroom

7:30 pm – 9:00 pm

1. CHARACTERIZATION OF IP3R AS A POTENTIAL NEW TARGET FOR P70 RIBOSOMAL S6 KINASE FOLLOWING EXPOSURE TO ENVIRONMENTAL ENRICHMENT IN AGED RATS
   H. Aljawad – University of Wisconsin-Madison

2. DEVELOPING A METHOD TO IDENTIFY THE PROTEIN INTERACTOME OF TAU USING THE BioID2 APPROACH
   A. Atwa – Michigan State University, Travel Award Winner

3. DEVELOPMENT OF A FUNCTIONAL LONG TERM POTENTIAL MODEL UTILIZING HUMAN iPSC-CORTICAL NEURONS FOR ALZHEIMER’S DRUG TESTING
   K. Autar – University of Central Florida, Travel Award Winner

4. OLFACTORY BULB MITRAL CELLS IN SYNucleinOPATHY PATHOGENESIS
   S. Choi – Rush University Medical Center, Travel Award Winner

5. CHARACTERIZATION OF RAT iPSC-CORTICAL NEURONS AND ITS COMPARISON WITH HUMAN iPSC-CORTICAL NEURONS
   I. Cox – University of Central Florida, Travel Award Winner

6. SURFACE EMG OF THE BICEPS-TRICEPS PAIR IN TETRAPLEGIC PATIENTS
   N. Datta – University of Miami

7. ENGINEERING SPINAL INTERNEURONS FOR REPAIR OF THE INJURED CERVICAL SPINAL CORD
   T. Fortino – Drexel University, Travel Award Winner

8. EFFICACY OF INTRA-ARTERIAL MESENCHYMAL STEM CELL-DERIVED EXOSOME TREATMENT FOLLOWING ACUTE ISCHEMIC STROKE
   S. Hataoka – University of Miami
9. DEVELOPMENT OF DORSAL SPINAL NEURAL PROGENITOR CELLS FOR APPLICATION IN SPINAL CORD INJURY THERAPEUTICS
   A. Huntemer-Silveira – University of Minnesota

10. PARAOXONASE-2: A DRUGGABLE MITOCHONDRIAL ENZYME WITH DIFFERENTIAL AGE, SEX AND BRAIN REGION EXPRESSION THAT DEMONSTRATES NEUROPROTECTIVE POTENTIAL FOR PARKINSON’S DISEASE
    S. Jamwal – Yale University School of Medicine, Travel Award Winner

11. PLASTICITY AND FUNCTIONAL RECOVERY CAN BE PROMOTED BY ORAL ADMINISTRATION OF 4-METHYLUMBELLIFERONE IN CHRONIC MODEL OF SPINAL CORD INJURY IN RATS.
    P. Jendelova – Czech Academy of Sciences

12. OVINE-SOURCED GM1 GANGLIOSIDE REDUCES MOTOR DEFICITS AND ELEVATES BDNF LEVELS IN THE R6/2 MOUSE MODEL OF HUNTINGTON’S DISEASE
    S. Koneru – University of Central Michigan, Travel Award Winner

13. ADVANCES IN EPIDURAL SPINAL CORD STIMULATION TO RESTORE FUNCTION AFTER SPINAL CORD INJURY: HISTORY AND SYSTEMATIC REVIEW
    N. Mansour – University of Minnesota, Travel Award Winner

14. PROTEIN ANALYSIS OF AN AUTOLOGOUS CELL INVESTIGATIONAL CELL THERAPY USED IN PATIENTS WITH PARKINSON’S DISEASE
    M. Mapua – The Lundquist Institute - UCLA Medical Center

15. OVEREXPRESSION OF ACMSD PREVENTS NEUROINFLAMMATION IN THE P301S TAUOPATHY ALZHEIMER’S MOUSE MODEL AND IMPROVES LEARNING AND MEMORY IN HIPPOCAMPAL-DEPENDENT SPATIAL NAVIGATION
    K. Meyers – Barrow Neurological Institute, Travel Award Winner

16. ERODIBLE THERMOGELLING HYDROGELS FOR SUBDURAL TRANSPLANTATION OF EXOGENOUS MITOCHONDRIA FOLLOWING SPINAL CORD INJURY
    F. Michael – University of Kentucky, Travel Award Winner

17. UNIQUE GUT MICROBIOME SIGNATURE CHANGES IN STROKE PATHOLOGY AND TREATMENT
    S. Mishra – University of South Florida, Travel Award Winner
18. ASTROCYTE-TO-NEURON REPROGRAMMING FOR SPINAL CORD REPAIR
   A. Niceforo – Drexel University, Travel Award Winner

19. NEUROINFLAMMATORY CHANGES IN THE BRAIN FOLLOWING INTRA-ARTERIAL MESENCHYMAL STEM CELL THERAPY IN A CANINE ENDOVASCULAR MODEL OF ISCHEMIC STROKE
   D. Ojeda – University of Miami, Travel Award Winner

20. HOST TO GRAFT PROPAGATION OF ALPHA-SYNUCLEIN IN PARKINSON’S DISEASE: INTRANIGRAL VERSUS INTRA-STRIATAL TRANSPLANTATION
   M. Patrigeon – Université de Poitiers, Travel Award Winner

21. HYDROGEL-ASSISTED CANNABIDIOL BRAIN DELIVERY FOR THE TREATMENT OF ISCHEMIC STROKE
   H. Perez – The Lundquist Institute - UCLA Medical Center

22. ENGINEERED PRO-ANGIOGENIC AND IMMUNOMODULATING HYDROGEL FOR NEURAL STEM CELL TRANSPLANTATION AFTER STROKE
   I. Pham – The Lundquist Institute - UCLA Medical Center

23. INVESTIGATION OF AD PATHOLOGY IN iPSC-CORTICAL NEURONS CARRYING PSEN1 AND APP MUTATIONS
   H. Powell – University of Central Florida, Travel Award Winner

24. SAFETY AND FEASIBILITY OF REGENERATIVE PERIPHERAL NERVE TISSUE DELIVERY TO THE NUCLEUS BASALIS OF MEYNERT FOR COGNITIVE DECLINE IN PATIENTS WITH PARKINSON’S DISEASE
   J. Quintero – University of Kentucky College of Medicine

25. FIBRINOGEN MODULATES NF-kB SIGNALING IN NEURONS
   N. Sulimai – University of South Florida, Travel Award Winner

26. NICOTINIC RECEPTOR ANTAGONIST AND PIOGLITAZONE COMBINATION THERAPY DECREASES NEUROINFLAMMATION AND SARS-COV-2 REPLICATION
   S. Mohapatra – University of South Florida
Conference Agenda

Friday, April 29, 2022

<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>07:00 – 08:00 am</td>
<td>Continental Breakfast – Palm Room</td>
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<tr>
<td>08:00 – 12:30 pm</td>
<td>Conference Registration – Lobby II</td>
</tr>
<tr>
<td>08:00 – 09:20 am</td>
<td>Session 4: The New Mechanisms of Alzheimer’s Disease</td>
</tr>
<tr>
<td>09:20 – 10:35 am</td>
<td>Session 5: Rising Stars in Cellular Engineering and Transplantation</td>
</tr>
<tr>
<td>10:35 – 11:00 am</td>
<td>Morning Break – Palm Room</td>
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<tr>
<td>11:00 – 11:45 am</td>
<td>Session 6: Presidential Lecture – Roger Barker, PhD</td>
</tr>
<tr>
<td>11:45 – 12:30 pm</td>
<td>Session 7: Lunch &amp; Learn – Emerging Technologies in Neuroscience</td>
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<td></td>
<td>Sponsored by 10X Genomics and Miltenyi Biotec, Inc.</td>
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<tr>
<td>12:30 – 02:30 pm</td>
<td>Free Time</td>
</tr>
<tr>
<td>02:30 – 03:15 pm</td>
<td>Session 8: Roy Bakay Memorial Lecture – Robert Gross, MD PhD</td>
</tr>
<tr>
<td>03:15 – 03:45 pm</td>
<td>Afternoon Break – Palm Room</td>
</tr>
<tr>
<td>03:45 – 05:30 pm</td>
<td>Session 9: Molecular Mechanisms of Parkinson’s Disease Pathology &amp; Therapies</td>
</tr>
<tr>
<td>06:15 – 08:00 pm</td>
<td>Beach Volleyball Competition – Faculty vs. Post Docs/Students (Mid-Beach)</td>
</tr>
</tbody>
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Conference Audio Visual Support Provided by Novo Nordisk
# Session 4: The New Mechanisms of Alzheimer’s Disease

8:00 am – 9:20 am  
Session Chair: Shan Ping Yu

<table>
<thead>
<tr>
<th>#</th>
<th>Time</th>
<th>Title</th>
<th>Speaker(s)</th>
<th>Institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-1</td>
<td>8:00 – 8:05 am</td>
<td>INTRODUCTION: DEMENTIA SOCIETY OF AMERICA</td>
<td>Kevin Jameson, President – Dementia Society of America – via Zoom</td>
<td></td>
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<tr>
<td>4-2</td>
<td>8:05 – 8:25 am</td>
<td>C/EBPB/AEP SIGNALING DRIVES ALZHEIMER’S DISEASE PATHOGENESIS</td>
<td>K. Ye, Emory University – via Zoom</td>
<td></td>
</tr>
<tr>
<td>4-3</td>
<td>8:25 – 8:45 am</td>
<td>ANESTHESIA AND ALZHEIMER’S DISEASE PATHOGENESIS</td>
<td>Z. Xie, Mass General Hospital, Harvard University – via Zoom</td>
<td></td>
</tr>
<tr>
<td>4-4</td>
<td>8:45 – 9:05 am</td>
<td>CONTRIBUTION OF STROKE TO ALZHEIMER’S DISEASE AND RELATED DEMENTIAS</td>
<td>S. Yang, University of North Texas Health Science Center</td>
<td></td>
</tr>
<tr>
<td>4-5</td>
<td>9:05 – 9:20 am</td>
<td>SINGLE CELL RNA SEQUENCING REVEALS IMMUNOMODULATORY EFFECTS OF STEM CELL FACTOR AND GRANULOCYTE COLONY-STIMULATING FACTOR IN AGED APP/PS1 MICE</td>
<td>R. Gardner - SUNY Upstate Medical University, Travel Award Winner</td>
<td></td>
</tr>
</tbody>
</table>
### Session 5: Rising Stars in Cellular Engineering and Transplantation

**9:20 am – 10:35 am**

**Session Chair: Lana Zholudeva**

| 5-1  | 9:20 – 9:40 am | ENGINEERING SPINAL V2A POPULATIONS FOR DEVELOPMENTAL MODELING AND TARGETED CELLULAR THERAPIES  
N. Elder – Gladstone Institutes |
|------|----------------|-----------------------------------------------------------------------------------------------|
| 5-2  | 9:40 – 9:58 am | CONNECTIVITY MAPPING OF NEURAL PROGENITOR CELLS FOR RESTORING LOCOMOTOR CIRCUITS AFTER SPINAL CORD INJURY  
A. Tucker – Texas A&M University |
| 5-3  | 9:58 – 10:16 am | MODELLING OF THE HUMAN CORTICAL-SPINAL NEURAXIS USING ORGANOIDs  
G. Gibbons – University of Cambridge, Travel Supported by - International Spinal Research Trust (ISRT) |
| 5-4  | 10:16 – 10:35 am | HIGHLY ENRICHED POPULATIONS OF V1 INTERNEURONS FROM MOUSE EMBRYONIC STEM CELLS  
N. White – University of Texas at Austin |
Session 6: Presidential Lecture
11:00 am – 11:45 am
Introduction: Michael Lane

6-1  11:00 – 11:45 am  DOPAMINE CELL GRAFTING FOR PARKINSON’S DISEASE- WHY BOTHER?
Roger Barker, PhD – University of Cambridge, via Zoom

Session 7: Emerging Technologies in Neuroscience
Lunch & Learn
Session Sponsors – 10X Genomics & Miltenyi Biotec, Inc.

11:45 am – 12:30 pm
Introduction: Li-Ru Zhao

7-1  11:45 – 12:05 pm  CONSIDERATIONS FOR PREPARATION OF TISSUE AND CELL SUBSETS PRIOR TO SINGLE CELL RNA SEQUENCING
Elle James, Technical Sales Consultant, Miltenyi Biotec, Inc.

7-2  12:05 – 12:30 pm  USING SINGLE CELL AND SPATIAL TECHNOLOGIES TO ADVANCE DISCOVERY IN NEUROSCIENCE
Nirav Patel, 10x Manager, Science & Technology Advisor
Session 8: Roy Bakay Memorial Lecture

2:30 pm – 3:15 pm
Introduction: Li-Ru Zhao

8-1 2:30 – 3:15 pm  We Stand on the Shoulders of Giants: Roy A. E. Bakay’s Legacy at Emory and Beyond Or: “Why would you want to reverse a pallidotomy?”

*Robert Gross, MD PhD – Emory University*

Roy A.E. Bakay, M.D., 1949-2013
# Session 9: Molecular Mechanisms of Parkinson’s Disease
## Pathology & Therapies
Sponsored by Aiforia Inc.

### 3:45 pm – 5:30 pm
**Session Chair:** Fredric Manfredsson - Co-Chair, Ivette Sandoval

| 9-1 | 3:45 – 4:05 pm | IN PARKINSON’S PATIENT-DERIVED DOPAMINE NEURONS, A-SYNUCLEIN TRIPLICATION ALTERS NEURONAL ACTIVITY  
*H. Khoshbouei – University of Florida* |
|-----|----------------|-----------------------------------------------------------------------------------|
| 9-2 | 4:05 – 4:25 pm | MAPPING LEWY PATHOLOGY INTERACTIONS IN THE HUMAN BRAIN  
*B. Killinger – Rush University Medical Center* |
| 9-3 | 4:25 – 4:55 pm | AIFORIA PLATFORM PRESENTATION AND APPLICATION: A FULLY AUTOMATED CHARACTERIZATION OF A-SYNUCLEIN AGGREGATION AND LOSS OF NIGRAL TH+ CELLS IN A MOUSE MODEL OF PARKINSON’S’ DISEASE  
*L. Stetzik – Van Andel Institute*  
*T. Westerling – Aiforia Inc.* |
| 9-4 | 4:55 – 5:15 pm | PROMISING DISEASE-MODIFYING THERAPIES IN PARKINSON’S DISEASE  
*H-S Ko – Johns Hopkins University* |
| 9-5 | 5:15 – 5:30 pm | IN DRUG NAÏVE PARKINSON’S DISEASE PATIENTS, DOPAMINE TRANSPORTER AND TYROSINE HYDROXYLASE EXPRESSION ARE INCREASED IN PERIPHERAL IMMUNE CELLS  
*A. Gopinath – University of Florida, Travel Award Winner* |
Conference Agenda

Saturday, April 30, 2022

Platform Presentations – Beach/Gulf

07:00 – 08:00 am  Continental Breakfast – Palm Room
08:00 – 09:00 am  Session 10: Gut-Brain Axis
09:00 – 10:20 am  Session 11: Biological Mechanisms for Long-Term Brain Health – Effects of Mild Traumatic Brain Injuries
10:20 – 10:45 am  Morning Break – Palm Room
10:45 – 12:00 pm  Session 12: Cell Reprogramming and Human-Animal Chimeras for Regenerative Medicine
12:00 – 02:00 pm  Free Time
02:00 – 03:10 pm  Session 13: Biomaterials & Therapies for Brain Repair in Stroke
03:10 – 03:30 pm  Afternoon Break – Palm Room
03:30 – 04:45 pm  Session 14: Spinal Cord Injuries and Strategies for Repair
04:45 – 05:55 pm  Session 15: Advances in Delivery of Neurotherapeutics into the CNS
06:00 – 06:30 pm  Memorial Award Presentations & ASNTR Business Meeting
07:00 – 10:00 pm  ASNTR Beach Party – Dinner & Dancing (Cash Bar) – Mid-Beach

Conference Audio Visual Support Provided by Novo Nordisk

Conference Audio Visual Support Provided by Novo Nordisk
### Session 10: Gut-Brain Axis

8:00 am – 9:00 am  
Session Chair: Hariom Yadav

| 10-1 | 8:00 – 8:20 am | MICROBIOME RESEARCH IN ALZHEIMER’S DISEASE - NIA FUNDING PERSPECTIVE  
|      |               | *J. Yuan – National Institutes of Health* |

| 10-2 | 8:20 – 8:40 am | THE EMERGING ROLE OF THE GUT MICROBIOME IN DIAGNOSING AND TREATING HEAD INJURIES.  
|      |               | *S. Villapol – Houston Methodist Research Institute, via Zoom* |

| 10-3 | 8:40 – 9:00 am | MICROBIOME IN AGING GUT AND BRAIN (MiaGB) CONSORTIUM IN FLORIDA  
|      |               | *H. Yadav – University of South Florida* |
### Session 11: Biological Mechanisms for Long Term Brain Health – Effects of Mild Traumatic Brain Injuries

9:00 am – 10:20 am  
Session Chair: Aurélie Ledreux - Co-Chair, Lotta Granholm

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<tbody>
<tr>
<td>11-1</td>
<td>9:00 – 9:20 am</td>
<td>INTRODUCTION: Interview with Chad Prusmack, MD, Neurosurgical Consultant to the Denver Broncos and Christian McCaffrey, running back for the Carolina Panthers of the National Football League</td>
<td>K. Gorgens</td>
<td>University of Denver, via Zoom</td>
</tr>
<tr>
<td>11-2</td>
<td>9:20 – 9:35 am</td>
<td>INTEGRATED STRESS RESPONSE INHIBITOR REVERSES SEX DEPENDENT BEHAVIORAL AND CELL-SPECIFIC DEFICITS AFTER MILD REPETITIVE HEAD TRAUMA</td>
<td>K. Krukowski</td>
<td>University of Denver, via Zoom</td>
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<tr>
<td>11-3</td>
<td>9:35 – 9:50 am</td>
<td>BIOMARKERS IN NEURON-DERIVED EXOSOMES FROM HIGH IMPACT SPORT COLLEGIATE ATHLETES</td>
<td>A. Ledreux</td>
<td>Colorado University, Anschutz Medical Campus</td>
</tr>
<tr>
<td>11-4</td>
<td>9:50 – 10:05 am</td>
<td>THE NIDILRR AND VA TBI MODEL SYSTEM PROGRAM OF RESEARCH</td>
<td>R. Nakase-Richardson</td>
<td>James A. Haley Veterans Hospital, Tampa</td>
</tr>
<tr>
<td>11-5</td>
<td>10:05 – 10:20 am</td>
<td>TAU PATHOLOGY AND GENE EXPRESSION PROFILING IN CHOLINERGIC NUCLEUS BASALIS NEURONS IN CHRONIC TRAUMATIC ENCEPHALOPATHY</td>
<td>E. Mufson</td>
<td>Barrow Neurological Institute</td>
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</table>
Session 12: Cell Reprogramming and Human-Animal Chimeras for Regenerative Medicine

10:45 am – 12:00 pm
Session Chair: Andrew Grande - Co-Chair, Walter Low

12-1  10:45 – 11:15 am  CONVERTING LINEAGE-TRACED ASTROCYTES INTO NEURONS BY OVERCOMING HIGH BARRIER
G. Chen – Penn State University – via Zoom

12-2  11:15 – 11:30 am  POTENTIAL BENEFITS OF REPROGRAMMING ASTROCYTES INTO NEURONS IN CANINE STROKE MODEL
I. Clark – University of Minnesota

12-3  11:30 – 11:45 am  REPROGRAMMING BY SEQUENTIAL GENE EXPRESSION FOR SURVIVAL AND SPECIFICATION OF INDUCED NEURONS FROM OLIGODENDROCYTE PROGENITOR CELLS
D. Peterson – Rosalind Franklin University

12-4  11:45 – 12:00 pm  RECOMMENDATIONS FOR RESEARCH GUIDELINES THAT INVOLVE STEM/PROGENITOR CELLS AND HUMAN-ANIMAL CHIMERAS
A. Shetty – University of Minnesota
Session 13: Biomaterials & Therapies for Brain Repair in Stroke

2:00 pm – 3:10 pm
Session Chair: Irene Llorente

13-1 2:00 – 2:20 pm  TRANSPLANTATION OF NEUROVASCULAR CO-CULTURE FOR BRAIN REPAIR AFTER STROKE
L. Nih – Lundquist Institute

13-2 2:20 – 2:35 pm  ENABLING NEUROREGENERATION AFTER STROKE WITH AN ENGINEERED THERMOSTABILIZED CHONDROITINASE ABC
N. Letko-Khait – University of Toronto, Travel Award Winner

13-3 2:35 – 2:55 pm  EXTRACELLULAR MATRIX-BASED HYDROGEL FOR THE TREATMENT OF STROKE
M. Modo – University of Pittsburgh

13-4 2:55 – 3:10 pm  STEM CELLS DERIVED FROM HUMAN UMBILICAL CORD BLOOD FOR TREATING ISCHEMIC BRAIN INJURY
S. Var – University of Minnesota
# Session 14: Spinal Cord Injuries and Strategies for Repair

**3:30 pm – 4:45 pm**  
Session Chair: Michael Lane

| 14-1  | 3:30 – 3:50 pm | A SINGLE CELL VIEW OF DEGENERATION AND REGENERATION IN THE MAMMALIAN SPINAL CORD  
A. Levine – National Institute of Neurological Disorders and Stroke |
|-------|----------------|----------------------------------------------------------------------------------|
| 14-2  | 3:50 – 4:10 pm | GLIAL REACTIONS TO CORTICAL AND SPINAL ELECTRICAL STIMULATION IN A RAT MODEL OF CERVICAL SPINAL CORD INJURY  
P. Horner – Houston Methodist |
| 14-3  | 4:10 – 4:30 pm | THERAPEUTIC NEURAL STEM CELL CANDIDATE LINE FOR CHRONIC CERVICAL SPINAL CORD INJURY  
K. Piltti – UC Irvine |
| 14-4  | 4:30 – 4:45 pm | NON-INVASIVE REMOVAL OF CHONDROITIN SULFATES FOR FUNCTIONAL RECOVERY AFTER SPINAL CORD INJURY  
J. Ng – University of Leeds, via Zoom |
### Session 15: Advances in Delivery of Neurotherapeutics into the CNS

**4:45 pm – 5:55 pm**  
**Session Chair: Gary Dunbar - Co-Chair, Julien Rossignol**

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<tr>
<td>15-1</td>
<td>4:45 – 5:05 pm</td>
<td>SPINAL SUBPIAL GENE AND CELL DELIVERY IN TREATMENT OF NEURODEGENERATIVE DISORDERS</td>
<td>M. Marsala – University of California, San Diego, via Zoom</td>
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<tr>
<td>15-2</td>
<td>5:05 – 5:25 pm</td>
<td>USING LIGHT TO IMAGE, MODULATE, AND INTEGRATE INSIDE THE BRAIN</td>
<td>U. Hochgeschwender – University of Central Michigan, via Zoom</td>
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<tr>
<td>15-3</td>
<td>5:25 – 5:40 pm</td>
<td>NEUROLOGICAL CONSEQUENCES ASSOCIATED WITH SARS COV2 INFECTION IN REPEATED TRAUMATIC BRAIN INJURED MICE</td>
<td>K. Mayilsamy – University of South Florida, Travel Award Winner</td>
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<tr>
<td>15-4</td>
<td>5:40 – 5:55 pm</td>
<td>REDUCTION OF BEHAVIOR DEFICITS FOLLOWING DELIVERY OF HS0X2 GENE TO STROKE BRAIN USING PAMAM DENDRIMER NANOMOLECULES</td>
<td>B. Srinageshwar – University of Central Michigan, Travel Award Winner</td>
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ASNTR Memorial Award Presentations

6:00 pm – 6:15 pm

Bernard Sanberg Memorial Award - Paul Sanberg

Paul J. Reier Award - Michael Lane

ASNTR Business Meeting

6:15 pm – 6:30 pm

Li-Ru Zhao

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

JOIN US FOR DINNER & DANCING
(MID-BEACH, CASH BAR AVAILABLE)

7:00 pm - 10:00 pm
NAME BADGE REQUIRED FOR ADMISSION

Thank you for another great year!
Open to all Members and Non-Members

2023 ASNTR Annual Meeting
Symposium Proposal

Submit a scientific symposium proposal for the 2023 ASNTR Annual Meeting.

**DEADLINE:** Proposals are due October 15, 2022

**MEETING DATES:** April 27 – 29, 2023

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
- Proposed Session Title
- Description - Provide a clear synopsis of your proposed session. Include the title of the session. DO NOT list the presenters or other participants.
- Topic Area
- Proposed Chair Name - Provide full name of proposed chair/moderator of symposium.
- Proposed Chair Institution/Company - Provide Institution/Company of proposed chair/moderator of symposium.
- Proposed Faculty - Provide full name of proposed faculty along with Institution/Company of proposed Faculty of symposium.
Make plans now to join us next year!

April 27 – 30

2023

30th annual meeting of the American Society for Neural Therapy and Repair

Abstract Submissions Open

01/03/2023 – 01/31/2023

Abstracts and Applications for Travel Award consideration due no later than

01/20/2023

Sheraton Sand Key Resort
Clearwater Beach, FL, USA

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