



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Welcome to the 21st Annual World Congress of SBMT 2024

The Annual World Congress is supported by the US Government as well as many prominent US and International Universities and Institutions. The program will represent state-of-the-art science and technology in the field of neuroscience, engineering, neurosurgery, psychiatry, psychology, molecular biology, neurology, radiology and oncology.

This world-class scientific event will bring together physicians, scientists, policy makers, funding agencies and industry to further advance the applications in brain and spinal cord mapping and image guided therapies (operative and non-operative). The meeting is designed to facilitate integration of nanotechnology, cellular therapy with medical devices and imaging. The theme of the meeting is Breaking Boundaries of Science, Technology, Medicine, Art, and Healthcare Policy.

The SBMT Board of Directors appreciates your support! We look forward to partnering with you to ensure an exceptional Congress in Los Angeles, California. Together, we push the boundaries of science and technology.

Location:

**Concourse Hall and Meeting Rooms Series 400
Los Angeles Convention Center
Los Angeles, California, United States of America**

Dates:

March 14 – March 17, 2024



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

INDEX OF PROGRAM

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2	Military Medicine, Neurotrauma and Veterans Health	406B
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9	Alzheimer's Disease and Dementia	409B
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Scientific Program Schedule

**14 March,
2024**

KEYNOTE ADDRESS

**Room
151**

Track Chairs

Dr. Babak Kateb

Morning
Keynote – A

Dr. Babak Kateb, MD, PhD

Welcome Remarks

Morning
Keynote – B

Dr. Deborah Zelinsky, OD
21st President of SBMT

Presidential Address

Lunch
Keynote – A

Dr. Thomas G. Schulze, MD
President-Elect of World Psychiatric Association

Global Perspectives on Psychiatry and Neuroscience: Patient-Centered Medicine and Trust-Based Research Collaborations

Lunch
Keynote – B

Dr. J. Patrick Johnson, MD
Director of the Institute for Spinal Disorders at Cedars Sinai Medical Center

Future of Spine Innovation and Therapeutics

Afternoon
Keynote – A

Dr. Kimberly S. Budil, PhD
Director, Lawrence Livermore National Laboratory

National Security, Bio Resilience and Disruptive Technology—A View from Lawrence Livermore National Laboratory

Afternoon
Keynote Panel – B

- Dr. Kimberly S. Budil, PhD
- Dr. Jonathan Thomas, PhD, JD
- Dr. Robert Hariri, MD, PhD
- Mr. Cameron Piron, MS
- Hon. Ben Allen, *California State Senator*
- Hon. Drew Boyles, *Mayor of El Segundo*
- Dr. Babak Kateb, MD, PhD
- Dr. Abba Creasey, PhD

Future of Neurotech from Cell Therapy and Medical Devices to Policy



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Scientific Program Schedule

15 March, 2024

KEYNOTE ADDRESS

**Room
151**

Track Chairs **Dr. Babak Kateb**

Lunch **Hon. Nataliia Kalmykova, MBA** Perspectives in Military Medicine
Keynote – A *Deputy Minister of Defence of Ukraine*

Lunch • Dr. Babak Kateb, MD, PhD Military Medicine Panel on
Keynote Panel – B • Dr. Nataliia Kalmykova MBA Neurotrauma and Traumatic Brain
• Dr. Michael Roy, MD, MPH Injury: From the Football Field to
• Dr. Kateryna Potapova, MD the Battlefield
• Dr. David Keyser, PhD
• Dr. Maheen Adamson, PhD

16 March, 2024

KEYNOTE ADDRESS

**Room
151**

Track Chairs **Dr. Babak Kateb**

Lunch **Dr. Robert Hariri, MD, PhD** Future of Cell & Immunotherapy -
Keynote – A *Chairperson, Founder, and CEO of* Cancer to Neurodegenerative Disorders
Celularity, Inc

Lunch • Dr. Robert Hariri, MD, PhD Cancer Neurodegenerative Disorders
Keynote Panel – B • Dr. Abba Creasey, PhD and Cell Therapy
• Dr. Sujuan Ba, PhD
• Dr. Vicky Yamamoto, PhD
• Dr. Lawrence Steinman, MD
• Ms. Melissa King, MBA
• Dr. Azra Raza, MD



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**17 March,
2024**

KEYNOTE ADDRESS

**Room
151**

Track Chairs Dr. Babak Kateb

Lunch Keynote – A	Dr. Cyrus Raji, MD, PhD <i>Director, Neuromagnetic Resonance Imaging, Mallinckrodt Institute of Radiology, Washington University School of Medicine</i>	New Horizons in Brain Health Imaging and Dementia Prevention
Lunch Keynote – B	Dr. Jeanne F. Loring, PhD <i>Director, Center for Regenerative Medicine and Emeritus Professor, Scripps Research Institute</i>	Neurons from Stem Cells to Heal the Brain



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Scientific Program Schedule

14 March, 2024 **MILITARY MEDICINE, NEUROTRAUMA, VETERANS HEALTH**

**Room
406B**

Track Chairs **Dr. Michael Roy, MD, MPH**
 Dr. David Keyser, PhD
 Dr. Kenneth Green, DMD

Session 1

Key Topics in Military Medicine: TBI, PTSD and Suicide

8:00 AM – 9:30 AM

Session Chairs

Dr. Michael Roy & Paula Bellini

Session Speakers

- | | | |
|---|----------------------|--|
| 1 | Rick Gray, PhD | The Nature of Reconsolidation and Target Memory Activation in PTSD |
| 2 | Michael Roy, MD, MPH | RECONsolidation of Traumatic Memories Therapy for PTSD in Military Service Members (The RECON Study) |
| 3 | Paula Bellini | CAREN vs Augmented Reality for the treatment of PTSD, the CARE4PTSD Study |
| 4 | Thomas DeGraba, MD | MEG Patterns in Service Members with TBI and PTSD |
| 5 | Jenn Carson, DSW | Turning Lived Experience Expertise into Evidence-Based Suicide Prevention |
| 6 | Q&A | |

Session 2

Clinical Applications of Virtual and Augmented Reality to Improve the Care of Service Members and Veterans

10:00 AM – 11:30 AM

Session Chairs

Dr. Michael Roy and Dr. Pedro Gamito

Session Speakers

- | | | |
|---|---------------------------|--|
| 1 | Pedro Gamito, PhD | Post-Traumatic Stress symptoms impair the decision-making among first responders |
| 2 | Albert "Skip" Rizzo, PhD | The Role of Virtual Reality and the Metaverse For Addressing the Impact of Trauma in Ukrainian Civilians and Warfighters |
| 3 | Jacob Vandehey | Hardware, Software, and Design Best Practices for VR/AR Clinical Applications for the Care of Service Members |
| 4 | Suzette Bremault-Phillips | 3MDR research in real world settings: Findings from a multi-site clinical research trial and implementation |
| 5 | Arash Javanbakht, MD | Advanced Augmented Reality Technology for Addressing Social and Occupational Disability in First Responders and Veterans with PTSD |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

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Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

1 W. Geoffrey Wright, PhD

2 Russell Cohen Hoffing, PhD

3 Olga Pinn / Josh Kvale

4 Pedram Hovareshti, PhD

5 Jeffery I. Gold, PhD

6 Q&A

Recent Technological Innovations in Virtual Reality and
Augmented Reality

Dr. Pinata Sessoms and Jacob Vandehy

A Novel Virtual Reality Application to Measure Postural, Vestibular, and Oculomotor Function in Individuals with a History of Physiogenic and/or Psychogenic Brain Injury

Using Eye Tracking to Enable Novel AR/VR Capabilities

AI meets VR for Mental Fitness

Praxis: A Portable Mixed Reality Platform for Multisensory Rehabilitation to Inform Return-to-Duty (RTD) Decision Making After Mild Traumatic Brain Injury (mTBI)

Procedural Pain Management to Sedation Sparing In Pediatrics: VR for Pain and Anxiety Management

Session 4

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

1 Farzad Ehsani, PhD

2 Martin Cota, MPH

3 Emmanuel Espejo, PhD

4 Hunter Hoffman, PhD

5 Q&A

Digital Therapeutics to Enhance the Care of Military
Service Members and Veterans

Martin Cota and Dr. Maheen Adamson

Real Time Monitoring of Stress in TBI and PTSD

A Single-Blind, Randomized, Controlled Trial of a Cognitive-Behavioral Therapy Digital Therapeutic to Combat Symptoms of Depression in Adults with a History of Mild Traumatic Brain Injury

Providing Behavioral Therapy for Insomnia to Service Members during the COVID Pandemic Using a Digital Health Platform

The Analgesic Effects of Opioids and Immersive Virtual Reality Distraction: Evidence from Subjective and Functional Brain Imaging Assessments



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15 March, 2024 **MILITARY MEDICINE, NEUROTRAUMA, VETERANS HEALTH**

**Room
406B**

Track Chairs **Dr. Michael Roy, MD, MPH**
 Dr. David Keyser, PhD
 Dr. Kenneth Green, DMD

Session 1

Advances in Battlefield Healthcare /

8:00 AM – 9:30 AM

Lessons Learned from Ukraine

Session Chairs

Dr. Kateryna Potapova and Dr. Kenneth Green

Session Speakers

- | | | |
|---|---|--|
| 1 | Kseniia Vosnitsyna, MD | Understanding and Implementing a Multimodal Approach to Healing War-Related Trauma: Insights from the Ukrainian Experience |
| 2 | Yuriy Cherednichenko, MD, PhD | Experience of Interventional Treatment of Gunshot and Mine Blast Injuries of the Head and Neck with Vascular Damage |
| 3 | Larysa Sokolova, MD, PhD & Yaroslav Saminin, MD | - Traumatic Brain Injury |
| 4 | Iaroslav Tymbaliuk, MD, PhD | Alternative Surgical Approaches for Restoring Motor Function in Proximal Nerve Injuries Caused by Gunshot Wounds |
| 5 | Nelya Melnitchouk, MD, MSc, FACS | HealUA App for Ukrainian Doctors |
| 6 | Q&A | |

Session 2

Traumatic Brain Injury

10:00 AM – 11:30 AM

Session Chairs

Dr. Brad Dangler and Alexander Ring

Session Speakers

- | | | |
|---|----------------------|---|
| 1 | Alex Ring, BS | Prophylactic Application of α -rTMS in Active-Duty Special Operators with a History of TBI |
| 2 | Brad Dengler, MD | Biomarkers for mTBI: Diagnosis and Return to Duty |
| 3 | Emily Dennis, PhD | Resting State fMRI in Military-relevant TBI: State of the Field and Potential |
| 4 | John P. Coetzee, PhD | Brain Age in Military TBI |
| 5 | Ansgar Furst, MD | TBI and Interventions for Insomnia |
| 6 | Q&A | |



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Scientific Program Schedule

Session 3

Subconcussive Blast Exposure in Military Training

01:30 PM – 03:30 PM

Session Chairs

Dr. David Keyser and Dr. Suthee Wiri

Session Speakers

- 1 Leslie Prichep, PhD
- 2 David Keyser, PhD
- 3 Suthee Wiri, PhD
- 4 Mark Tommerdahl, PhD
- 5 Steve Ahlers, PhD
- 6 Q&A

Complexity of the EEG Signal Impacted by Blast Exposure
Overview of Sub-concussive Blast Exposure in Special Operations: The INVICTA Study
Analysis of Blast Exposure Data During Heavy Weapons Training
Brain Gauge Assessment of Blast-overpressure Impact on Special Operators During Heavy Weapons Training
Insights and Lessons Learned from the Assessment of Blast Exposure in Military Populations

Session 4

Evaluation and Treatment of Subconcussive Head Injuries in Athletes and Service Members

03:30 PM – 05:00 PM

Session Chairs

Dr. Elsa Ermer and Dr. Chris Rhea

Session Speakers

- 1 Adam Bartsch, PhD
- 2 Elsa Ermer, PhD
- 3 Chris Rhea, PhD
- 4 Q&A

Using a Combo Sensor to Monitor TBI Blast and Blunt Forces in the Training Environment
The NCAA-DoD CARE-SALTOS Integrated (CSI) Study: An Update on the Explosive Ordnance Disposal (EOD) Cohort
Association Between Subconcussive Blast Exposure Characteristics and Neuromotor Function



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16 March, 2024 **MILITARY MEDICINE, NEUROTRAUMA, VETERANS HEALTH**

**Room
406B**

Track Chairs **Dr. Michael Roy, MD, MPH**
 Dr. David Keyser, PhD
 Dr. Kenneth Green, DMD

Session 1

8:00 AM – 9:30 AM

Session Chairs

Session Speakers

- 1 Maheen Adamson, PhD, MHL
- 2 Erin Dursa, PhD, MD
- 3 Mehret Assefa, PhD, MPH
- 4 Maheen Adamson, PhD, MHL
- 5 Q&A

Clinical Health Concerns of Women Service

Members and Veterans, Session 1

Dr. Maheen Adamson, PhD, MHL

- Introduction to Health Outcomes Military Exposures in WOMEN Veterans
Women Veteran's Longitudinal Health Research I have Done in 1990-1991 GW vets
Environmental Exposures and Breast Cancer Risk Among Military Service Members: A Scoping Review Cancer Epidemiology, Biomarkers & Prevention
Sex Differences in Veteran Women with TBI and Other Toxic Exposures

Session 2

10:00 AM – 11:30 AM

Session Chairs

Session Speakers

- 1 Katherine Snedaker, LCSW
- 2 Eve Valera, PhD
- 3 Ashton Kroner, MBA
- 4 Ami Raval, PhD, MSPH
- 5 Q&A

Clinical Health Concerns of Women Service

Members and Veterans, Session 2

Dr. Maheen Adamson, PhD, MHL

- Sex and Gender Differences in Brain Injury
Long-term Correlates of Partner-Related Brain Injuries in a Community Sample of Women
Lived experiences of the invisible wounds of war and life
Impact of Oral Contraceptives and Smoking on Females after Traumatic Brain Injury



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Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- 1 Dan Perl, MD
- 2 Vince Ho, MD
- 3 Maureen Hood, PhD
- 4 Doug Morris, PhD
- 5 Q&A

Neuroimaging and Neuropathology Aspects of Blast and TBI

Dr. Michael Roy and Dr. Vince Ho

Ex Vivo Neuroimaging- Pathology Correlation Studies of Traumatic Brain Injury - From Bench to Bedside
Bioengineering Opportunities for Blast and TBI Translational Research
The Role of Pre-clinical Imaging in Blast and TBI Related Research
Advances in Neuroimaging: High performance head-only MRI increases discovery of imaging biomarkers in mild TBI

Session 4

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

- 1 Kateryna Potapova, MD
- 2 Kuchyn Yurii, MD
- 3 Ken Green, DMD
- 4 Q&A

(GPS) Report on The Humanitarian Mission: Special Session on Ukraine

Dr. Kateryna Potapova and Dr. Kenneth Green

Ukrainian Humanitarian Mission: Results Achieved
Bridging Borders: Ukrainian Medical Institutions Embrace International Humanitarian Initiatives for Future Generations
Personal Account of a Humanitarian Mission to Ukraine



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**17 March, 2024 MILITARY MEDICINE, NEUROTRAUMA, VETERANS
HEALTH**

**Room
406B**

**Track Chairs Dr. Michael Roy, MD, MPH
Dr. David Keyser, PhD
Dr. Kenneth Green, DMD**

Session 1 From Exposures to Exposure Therapy

8:00 AM – 9:30 AM

Session Chairs Dr. Matthew Reinhard

Session Speakers

- | | | |
|---|----------------------------|---|
| 1 | Matthew Reinhard, PsyD | The DC VAMC Complex Exposure Threats Center |
| 2 | Eric Vermetten, MD, PhD | Breaking Barriers: RCT of 3MDR as first-line treatment to Dutch Uniformed Professionals |
| 3 | <i>Subcommittee Chairs</i> | <i>Subcommittee meeting</i> |
| 4 | Q&A | |

Session 2 AI and Cutting-Edge Technologies to Improve 10:00 AM – 11:30 AM Diagnosis and Treatment in Service Members and Veterans

**Session Chairs Dr. Chris Rhea and Dr. Chris Smalt
Session Speakers**

- | | | |
|---|------------------------|--|
| 1 | Chris Smalt, PhD | The challenges and Opportunities of Artificial Intelligence for Neurophysiological Diagnosis and Treatment |
| 2 | Adam Kiefer, PhD | Exploring New Frontiers in Neurohealth: The Advancement of AI and Phenomics for Digital Twins |
| 3 | Derek Monroe, PhD | Deep Learning Reveals Neural Features that Distinguish the Late Effects of TBI and PTSD |
| 4 | Kevin Bickart, MD, PhD | Personalized Frontoamygdala Neuromodulation to Improve Fear Avoidance and Post-Concussion Symptoms |
| 5 | Jing Wang, PhD | A Machine-Learning Approach to Automate Screening for PTSD via Vocal Biomarkers |
| 6 | Q&A | |



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Session 3

01:30 PM – 03:30 PM

Sleep Disorders in Military Service Members and Veterans

Session Chairs

Session Speakers

Dr. Cameron Good

1 Cameron Good, PhD

Use of Focused Ultrasound to Modulate the Thalamus and Sleep/Wake States

2 Alexandria Pabst, PhD

Using Army STARRS Data to Evaluate Predeployment and Deployment-Related Risk and Resilience for Insomnia in Military Personnel

3 Brian Robertson, MD

The Nightware study

4 Q&A

Session 4

03:30 PM – 05:00 PM

Biomarkers in TBI, RSCBE and PTSD

Session Chairs

Session Speakers

Dr. Miranda Lim and Dr. Jonathan Elliott

1 Gina Poe, PhD

Keeping it fresh: sleep features in PTSD that fail to resolve emotional memory during trauma consolidation

2 Miranda Lim, MD, PhD

GLIMPSE studies: Glymphatics Imaging to Probe Sleep and CSF Exchange

3 Shalini Prasad, PhD

Tracking human response dynamics non-invasively using a skin sensor

4 **Jonathan Elliott, PhD**

Light vs ION Therapy for Insomnia (LION Study)

5 Q&A



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**14 March,
2024**

NEURO-ONCOLOGY

**Room
407**

Track Chairs Dr. Vicky Yamamoto, PhD
Dr. Reinhard Schulte, MD, MS, DABR
Dr. Chirag Patel, MD

Session 1

GBM – Metabolic Perspective

8:00 AM – 9:30 AM

Session Chairs

Dr. Reinhard Schulte

Session Speakers

1 Lawrence Recht, MD

Applying the Goldilocks Principle to Metabolic Anti-glioma Treatment: Fine Tuning Rather than Eradication

2 Q&A

Session 2

10:00 AM – 11:30 AM

Session Chairs

Overview of Cancer Moonshot and Global and National Collaboration on Cancer Research and Innovation
Dr. Vicky Yamamoto and Dr. Sujuan Ba

Session Speakers

1 Sujuan Ba, PhD

Bridging Research from Academia to Cancer Entrepreneurship Through Impact Investment

2 Brian Mehling, MD

Case Series: Dendritic Cell- Cytokine Induced Killer Cell Therapy in Subjects with Chronic Lymphocytic Leukemia and Peritoneal Cancer

3 Robert Hariri, MD, PhD

Panel Discussion

6 Q&A

Session 3

Biomarkers for Diagnosis and Monitoring

01:30 PM – 03:30 PM

Session Chairs

Pierluigi Mauri, PhD

Session Speakers

1 Pierluigi Mauri, PhD

Biomarkers by Proteomics of Cyst Fluids for Characterizing the Brain Tumors



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|---|-----------------------|--|
| 2 | Jian-Hua Mao, PhD | AI-Discovered Cellular Morphometric Biomarkers for Prognosis and Treatment Responses in Brain Cancer |
| 3 | Antonio Frigeri, PhD | AQP4ex as Potential Biomarker for Gliomas |
| 4 | Houtan Noushmehr, PhD | Revolutionizing Diagnosis and Monitoring through Exploring the Epigenetics of Glioma |
| 6 | Q&A | |

Session 4

Metabolic Therapy

03:30 PM – 05:00 PM

Session Chairs

Dr. Jethro L. Hu and Dr. Lisa Rogers

Session Speakers

- | | | |
|---|------------------------|---|
| 1 | Corinne Beinat, PhD | Novel Radiopharmaceuticals for Molecular Imaging of Brain Tumor Metabolism |
| 2 | Paul Mischel, MD | Extrachromosomal DNA – Cancers's Dynamic Circular Genome, and its Impact on Brain Cancer |
| 3 | Donna Edwards, MD, PhD | Identification of Excellent Prognosis IDH Wild Type Glioblastomas Using Genomic and Metabolomic Profiling |
| 4 | Lisa Rogers, DO | Switch in Energy Phenotype and Response to Ketone Bodies in Recurrent Glioblastoma Cancer Stem Cells |
| 5 | Jethro Hu, MD | DIET2TREAT - A Phase 2 Randomized Study of a Ketogenic Diet Vs Standard Diet for Patients With Newly Diagnosed Glioblastoma Receiving Standard-of-Care Chemoradiation |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

15 March, 2024

NEURO-ONCOLOGY

Room 407

Track Chairs Dr. Vicky Yamamoto, PhD
Dr. Reinhard Schulte, MD, MS, DABR
Dr. Chirag Patel, MD, PhD

Session 1

Tumor Treating Fields

10:00 AM – 11:30 AM

Session Chairs

Dr. Chirag Patel and Dr. Edwin Chang

Session Speakers

- | | | |
|---|---|---|
| 1 | Chirag Patel, MD, PhD | Welcome and Introduction |
| 2 | Ha Nguyen, PhD | Alternating Electric Fields in Realistic 3D Rat Head Models |
| 3 | Christopher Alvarez-Breckenridge, MD, PhD | Tumor Treating Fields for Spine Metastases |
| 4 | Leomar Ballester, MD, PhD | Genetic Alterations May Predict Benefit from TTFields Therapy in Patients with Glioblastoma |
| 5 | Chirag Patel, MD, PhD | Novel Perfusion MRI-Based Biomarkers of TTFields Mechanisms of Action |
| 6 | Q&A | |

Session 2

Stem Cell and Molecular Targeting Therapy

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- | | | |
|---|---------------------------|--|
| 1 | Leomar Ballester, MD, PhD | The Role of Molecular Diagnostics in the Treatment of Patients with CNS Tumors |
| 2 | Aparna Bhaduri, PhD | Understanding Heterogeneous Cell Types in Glioblastoma |
| 3 | Frank Pajonk, MD, PhD | Exploiting Radiation-Induced Multipotency: A New Therapeutic Approach for Glioblastoma |
| 4 | Azra Raza, MD | The First Cell: Find Cancer Before It Finds Us |
| 5 | Q&A | |



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Session 3

Clinical Trials

03:30 PM – 05:00 PM

Session Chairs

Dr. Reinhard Schulte

Session Speakers

- | | | |
|---|-------------------|--|
| 1 | Hao Peng, PhD | Delta Multiomics Based Outcome Prediction for the Treatment of Brain Metastases with Personalized Ultra-fractionated Stereotactic Adaptive Radiotherapy (PULSAR) |
| 2 | Maninder Kaur, MD | The Use of Transcranial Doppler in Immunotherapy Induced Neurotoxicity |
| 3 | Seema Nagpal, MD | CoEnzyme Q10 and Glioblastoma: Will High Concentration CoQ10 Turn the Antioxidant Story on its Head? |
| 4 | Subha Perni, MD | Clinical Trials in Radiation Oncology |
| 5 | Martin Tom, MD | Advancing the Management of Brain Metastases with 18F-Fluciclovine PET/CT |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**16 March,
2024**

NEURO-ONCOLOGY

**Room
407**

Track Chairs Dr. Vicky Yamamoto, PhD
Dr. Reinhard Schulte, MD, MS, DABR
Dr. Chirag Patel, MD

Session 1

8:00 AM – 9:30 AM

GBM – Neuro-Surgical Perspective

Session Chairs

Dr. Reinhard Schulte

Session Speakers

1 **John S. Yu, MD**

Immunotherapy for Glioblastoma

2 Q&A

Session 2

10:00 AM – 11:30 AM

Technology and Innovation in Neuro-Oncology

Session Chairs

Dr. Azra Raza and Dr. Sujuan Ba

Session Speakers

1 Azra Raza

First Cell Coalition for Cancer Survivors

2 Anthony C. Chang, MD, MS,
MBA, MPH

Health Learning Systems and Digital Twins: The Future of Precision
Cancer Prevention and Treatment

3 Perry Marshall, BS

How to Detect Cancer at Stage Negative One

4 Vasileios K. Katsaros MD, PhD

Advanced Imaging (MRI-PET) of Brain Tumors

5 Panel Discussion on Cancer - Future of Cancer Prevention, Detection and Therapy



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Ablative Therapy and Immunotherapy

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- | | | |
|---|--------------------------------|--|
| 1 | Christina Jackson, MD | Advancements in Immunotherapy for Glioblastoma: Novel Strategies and Clinical Insights |
| 2 | Dwain Irvin, PhD, MPH | TLR-Ad1 Improves the Efficacy of A Dendritic Cell Based Immunotherapy Against Gliomas |
| 3 | Christa Seligman, MSN, AGNP-C | Clinical Updates in Laser Interstitial Thermal Therapy |
| 4 | Adam Robin, MD | Laser-Based Treatment of Insular Glioma |
| 5 | Christopher Cifarelli, MD, PhD | Adjuvant Management of Surgically Resected Brain Tumors: Optimizing Local Control with Ablative Techniques |
| 6 | Q&A | |

Session 4

Precision Medicine

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

Dr. Shulin Li and Dr. Chirag Patel

- | | | |
|---|----------------------------|---|
| 1 | Chirag Patel, MD, PhD | Welcome and Introduction |
| 2 | Shulin Li, PhD | Is Induction of Tumor Relapse Free Brains an Illusion? |
| 3 | Caroline Chung, MD, MSc | Computational Modeling for Predictive Adaptive Radiotherapy |
| 4 | Carlos Kamiya-Matsuoka, MD | Precision Medicine in Neuro-Oncology for the Management of Glioblastoma |
| 5 | Ji Young Yoo, PhD | Harnessing Viro-Immunotherapy for Brain Tumors |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

17 March, 2024

NEURO-ONCOLOGY

Room 407

Track Chairs

Dr. Vicky Yamamoto, PhD
Dr. Reinhard Schulte, MD, MS, DABR
Dr. Chirag Patel, MD

Session 1

GBM – Radiation Oncology Perspective

8:00 AM – 9:30 AM

Session Chairs

Dr. Reinhard Schulte

Session Speakers

- 1 Christina Tsien, MD, FRCP
- 2 Q&A

Challenges with Current Brain Tumor Management- RO Perspective

Session 2

Radiation Technologies

10:00 AM – 11:30 AM

Session Chairs

Dr. Reinhard Schulte and Dr. Michael Garcia

Session Speakers

- 1 William Kennedy, MD
- 2 Tugce Kutuk, MD, MS
- 3 Ricky Savjani, MD, PhD
- 4 Charles Limoli, PhD
- 5 Peter Maxim, PhD
- 6 Q&A

A Combined Phase 0/2 'Trigger' Trial of PARP Inhibitors in Combination with Radiation in Patients with Newly-Diagnosed or Recurrent Glioblastoma

Surgically Targeted Radiation Therapy (STaRT) for Brain Metastases

Oncologic Brain Metastases Mapping

Improving treatment outcomes for CNS malignancies through FLASH radiotherapy

PHASER: A Platform for Clinical Translation of FLASH



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

BNCT and Theranostics

01:30 PM – 03:30 PM

Session Chairs

Dr. G.P. Yeh and Dr. Rameshwar Patil

Session Speakers

- 1 G.P. Yeh, MS, PhD
- 2 Narayan Hosmane, PhD
- 3 Fuyuhiko Tamanoi, PhD
- 4 Kendall Morrison, PhD
- 5 Rameshwar Patil, PhD
- 6 Q&A

Linear Accelerator Boron Neutron Therapy BNCT for Cancer Moonshot
BNCT Agents of Next Generation for Cancer Treatment
Nanotechnology and BNCT
Development of a Modern Hospital Based Neutron Source and High
Powered Boron Delivery Drugs for BNCT
Boron-10 Delivery Across the Blood Brain Barrier for Targeted GBM
Therapy Using BNCT

Session 4

Advances in Imaging for Early Diagnosis,

03:30 PM – 05:00 PM

Molecular Characterization and Prognosis

Session Chairs

Dr. Uschi Graham

Session Speakers

- 1 Rick Rogers, PhD
- 2 Uschi Graham, PhD
- 3 Andreas Korzowski, PhD
- 5 Q&A

3D Analytical Imaging Comparing Micron and Nanoscale Metal Mapping
of GBM
What can we learn from Advanced Imaging about Heavy Metal Particle
Translocation to the Brain and its Impact on GBM?
Molecular Characterization of Gliomas using Advanced MR Techniques:
X-Nuclei & CEST Imaging



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

14 March, 2024

Visual Processing & Retinal Neuromodulation

**Room
406A**

Track Chairs Dr. Deborah Zelinsky, OD
Dr. Amy Pruzensky, OD
Dr. Delia DeBuc, PhD

Session 1

Insights into Visual Pathways and Brain Restoration

8:00 AM – 9:30 AM

Session Chairs

Dr. Delia DeBuc

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Howard R. Krauss, MD | Multimodality Visual Pathway Evaluation in Neuro-Oncologic valuation and Management |
| 2 | Kimberly Gokoffski, MD, PhD | Towards Visual Neuro-Restoration: Generating Electric Fields Along The Human Optic Nerve |
| 3 | William Padula, OD | Evaluating Concussion through Visual Evoked Potential (VEP) to Rule out Post Trauma Vision Syndrome (PTVS) |
| 4 | Jorge Riera-Diaz, PhD | EEG-fMRI Imaging Modality in the Diagnosis of Pediatric Epilepsy |
| 5 | Aria Fallah, MD, MSc | Exploiting Brain Tissue Biomechanical Properties to Guide Pediatric Epilepsy Surgery |
| 6 | Q&A | |

Session 2

Insights into Trauma and Neurodegenerative Disease

10:00 AM – 11:30 AM

Session Chairs

Dr. Delia DeBuc

Session Speakers

- | | | |
|---|--------------------------------|---|
| 1 | Zhihong (Jewel) Hu, PhD | Retinal Imaging Biomarkers |
| 2 | Heather Heitkotter, PhD | Multimodal Assessment of Photoreceptor Structure and Function in Retinal Trauma |
| 3 | Rui Bernardes, PhD | Retinal Biomarkers of Neurodegenerative Diseases |
| 4 | William Padula, OD | Consequences of a Neurological Event Causing Increased Risk of Fall (RoF) due to Visual Midline Shift Syndrome (VMSS) |
| 5 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Pain Pathways

01:30 PM – 03:30 PM

Session Chairs

Dr. Delia DeBuc

Session Speakers

- | | | |
|---|------------------------|--|
| 1 | Alex Helfand, MD | Diagnosis of Pain Pathways |
| 2 | Pauline Buck, OD | Brain Response to Syntonics with fNIRS |
| 3 | Nicholas Reyes, MD, MS | Clinical Neuroimaging of Chronic Ocular Pain Using fMRI – Decreased Activity of Pain Processing Regions With Precision Based Therapies |
| 4 | Christina Hankins, PT | Lymph Flow |
| 5 | Claude Zanetti, MD | Hyperbaric Oxygen the Jackknife Adjunct in Chemo Radiation Oncology, Wound Healing, and Acute and Chronic Disorders of the Central Nervous Systems |
| 6 | Q&A | |

Session 4

TBI and PTSD

03:30 PM – 05:00 PM

Session Chairs

Dr. Delia DeBuc

Session Speakers

- | | | |
|---|------------------------|--|
| 1 | Carl Garbus, OD | TBI and Visual Processing |
| 2 | Leighton Reynolds, PhD | Listening to the Brain/Recovering the Brain |
| 3 | Adel Shadi | The Healing Journey |
| 4 | Robert Wilson, OD | TBI Induced PTSD, Neuro-Optometric Treatment |
| 5 | Doug Major, OD | Traumatic Brain Injury in the Corrections, New Tools for the Criminal Justice System |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

15 March, 2024

Visual Processing & Retinal Neuromodulation

**Room
406A**

Track Chairs Dr. Deborah Zelinsky, OD
Dr. Amy Pruzensky, OD
Dr. Delia DeBuc, PhD

Session 1

Multisensory Mismatches

8:00 AM – 9:30 AM

Session Chairs

Dr. Jonathan Hall

Session Speakers

- | | | |
|---|---------------------------------------|---|
| 1 | Joseph Kleman, LMBT | Decoding Sight: How Predictive Processing Shapes Our Visual Experience |
| 2 | Rolf Biernath and George Stetten, PhD | FingerSight: Fingertip Haptic Sensing of the Visual Environment |
| 3 | Lillian Chen-Byerley, MS, OTR/L | Understanding How to Optimize Neurodevelopmental Strategies for Effective Outcomes on the CNS |
| 4 | Chula Lerdvoratavee, OD | Multisensory Inputs and the Autonomic Nervous System |
| 5 | DeAnn Fitzgerald, OD | Exploring Multi-Sensory Therapies Anatomically |
| 6 | Q&A | |

Session 2

Functional Motor Circuitry

10:00 AM – 11:30 AM

Session Chairs

Dr. Jonathan Hall

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Adam Wolf, PT | Underappreciated Importance of the Cervico-Ocular Reflex |
| 2 | Michael Drewzewicki, DC, MS | Eye Movements as Biomarkers for Concussion Baseline Testing: A Push for Video-Oculography |
| 3 | Adam Wolf, PT | Chronic Pain Management via Visuo-Vestibular Interaction |
| 4 | Matthew Antonucci, DC | Clinical Applications of the Superior Colliculus in Visual, Cognitive, Motor, and Spatial Rehabilitation |
| 5 | Wyontek Hwang, DC | The Kink in the Neck: How the Atlas Vertebra Misalignment Influences Neurological Health |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Effects of Structural Changes on Visual Processing

01:30 PM – 03:30 PM

Session Chairs

Dr. Jonathan Hall

Session Speakers

- | | | |
|---|------------------------|--|
| 1 | William Boro, DC | Practical Assessment Tools for Visual Dysfunction Analysis |
| 2 | Charles Shidlofsky, OD | Suspected Neural Pathways in Visual Snow Syndrome |
| 3 | Marianna Newsom, OTR/L | The Influence of Perceptual Tasks on Reading Speed and Fluency |
| 4 | Mark Dean, OD | How Spatial Transformation Properties of Prisms Affect Neuroplasticity |
| 5 | Carrie Sypherd, OD | Functional Near Infrared Spectroscopy and the Vision System |
| 6 | Q&A | |

Session 4

Brain Biochemistry

03:30 PM – 05:00 PM

Session Chairs

Dr. Jonathan Hall

Session Speakers

- | | | |
|---|--------------------------|--|
| 1 | Kenneth Blum, PhD | Dopamine Lifespan Neuromodulation Wanted Across Brain Reward Circuitry: GWAS Meta And Pharmacogenomic Analyses |
| 2 | Claude Zanetti, MD | Changes in Brain Biochemistry after Oxygen Exposure |
| 3 | DeAnn Fitzgerald, OD | Quantum Crossroads: Exploring Multi-Sensory Therapies Anatomically and Physiologically |
| 4 | Peter Guhl, OD | We Are But Dust, An Einsteinian Quantum View of the Human Experience |
| 5 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

16 March, 2024 **VISUAL PROCESSING & RETINAL NEUROMODULATION**

**Room
406A**

Track Chairs **Dr. Deborah Zelinsky, OD**
Dr. Amy Pruzensky, OD
Dr. Delia DeBuc, PhD

Session 1

Hands-on Laboratory of Visual Devices

8:00 AM – 9:30 AM

Session Chairs

Dr. Deborah Zelinsky

Session Speakers

- 1 Joseph Kleman, LMBT
- 2 Doug Major, OD
- 3 Deborah Zelinsky, OD
- 4 Matthew Southern
- 5 Christy Sheehy, PhD
- 6 Q&A

The OmniCube Demonstration
EYE-SYNC Platform Demonstration
Right Eye Demonstration
Quantitative Pupillometry for ANS Assessments and Brain Mapping
C.light Technologies: Demonstration

Session 2

Devices for Assessing Oculomotor Metrics

10:00 AM – 11:30 AM

Session Chairs

Dr. Deborah Zelinsky

Session Speakers

- 1 Sasha Seeman, BS
- 2 Christy Sheehy, PhD
- 3 Pauline Buck, OD
- 4 Delia DeBuc, PhD
- 5 Ryan Field, PhD
- 6 Q&A

Overview of Eye Tracking Technologies
Fixational Eye Motion as Prognostic Biomarker of Concussion Recovery
Retrospective Study on Correlation Between NPC and Pupil Size using Reflex App
Oculomics and Oculometrics: In The Quest for Objective Biomarkers
Non-Invasive Brain Mapping for Improving Clinical Outcomes



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Macular Degeneration and Neuromodulation

01:30 PM – 03:30 PM

Session Chairs

Dr. Deborah Zelinsky

Session Speakers

- | | |
|---|--|
| <p>1 Alauddin Bhuiyan, PhD</p> <p>2 Isabelle Renard-Fontaine, MSPT</p> <p>3 Q&A</p> | <p>Late Age-Related Macular Degeneration Prediction Using Color Fundus Image and AI</p> <p>The Therapeutic Effect of MNRI® Reflex Neuromodulation on Children with Neurodevelopmental Deficits: Based on the Study of Reflex Assessments and QEEG Analysis</p> |
|---|--|



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

17 March, 2024 **VISUAL PROCESSING & RETINAL NEUROMODULATION**

**Room
406A**

Track Chairs Dr. Deborah Zelinsky, OD
Dr. Amy Pruzensky, OD
Dr. Delia DeBuc, PhD

Session 1

Patient Experiences on Visual Processing

8:00 AM – 9:30 AM

Session Chairs

Dr. Amy Pruzensky

Session Speakers

- | | |
|---|--|
| <ol style="list-style-type: none">1 Nancy Major, MS2 Peter Guhl, OD3 Cordell Miller, DC, MS4 Q&A | <p>How Visual Processing Deficits Influences Patient Behavior</p> <p>Vagus and Trigeminal Nerve Rehabilitation</p> <p>The Anatomical and Physiological Quantum Connections</p> <p>The importance of Visual Processing in Edwards Syndrome</p> <p>Photoneuromodulation to Optimize Brain Health</p> |
|---|--|

Session 2

Sleep, Lymphatic and Glymphatic Flow

10:00 AM – 11:30 AM

Session Chairs

Dr. Amy Pruzensky

Session Speakers

- | | |
|---|---|
| <ol style="list-style-type: none">1 Robert Wilson, OD2 Allyson McKenney, MD3 Natasha Johnson, PT, MSPT4 J. Kent Werner, Jr, MD, PhD5 Q&A | <p>Beyond Neurologic Imaging: Neuro Optometric Rehabilitation Therapy Combined with Neurocognitive Training for Treatment of TBI</p> <p>An Integrated Approach of Therapeutic Lenses, Physical Therapy and Manual Lymph Drainage to Address Sensorimotor and Lymphatic Dysfunctions Following an Acquired Brain Injury and Their Effect on Cerebellar Function and Motor Performance – Part 1</p> <p>An Integrated Approach of Therapeutic Lenses, Physical Therapy and Manual Lymph Drainage to Address Sensorimotor and Lymphatic Dysfunctions Following an Acquired Brain Injury and their effect on Cerebellar Function and Motor Performance – Part 2</p> <p>Sleep, Glymphatic Function and Traumatic Brain Injury</p> |
|---|---|



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Advances in Visual Assessments

01:30 PM – 03:30 PM

Session Chairs

Dr. Amy Pruzensky

Session Speakers

- | | | |
|---|-----------------------|---|
| 1 | Eric Moulton, OD, PhD | Consensus Paper: The Role of the Cerebellum in Perceptual Processes |
| 2 | Deborah Zelinsky, OD | Brain Nuclei Influencing Visual Processing |
| 3 | | Developed and Validation of Stroke Prediction Model Using Retinal Color |
| | Alauddin Bhuiyan, PhD | Images and Health Data |
| 4 | Amy Pruszenki, OD | Retinal Evaluation for Identifying Problematic Brain Pathways |
| 5 | Jonathan Hall, OD | Optina Retinal camera /Optina/ Promise of Retinal Deep |
| | | Phenotyping(TM) in Supporting Diagnosis of Patients with Mild Cognitive |
| | | Impairment Related to Alzheimer's Disease |
| 6 | Q&A | |

Session 4

Brainstorming for SBMT 2025

03:30 PM – 05:00 PM

Session Chairs

Dr. Amy Pruzensky

Session Speakers

- | | |
|---|---|
| 1 | All Session Speakers and Chairs are Welcome |
| 2 | Q&A |
-



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**14 March,
2024**

NeuroPsychiatry and Innovation

**Room
409A**

Track Chairs Dr. Keerthy Sunder, MD
Dr. David Baron, DO, MEd,
Mr. Brian Norling, MBA
Dr. Conor Murray, PhD

Session 1

Psychedelic Assisted Psychotherapy

8:00 AM – 9:30 AM

Session Chairs

Dr. Conor Murray

Session Speakers

- | | | |
|---|-----------------------|--|
| 1 | John Hartberg, MD | Psychedelic Group Therapy: A Surprisingly Sparse Field of Research |
| 2 | Collin Price, MD | Malleable Minds: Determinants of Success and Risks in Psychedelic Therapy |
| 3 | Marc Weintraub, PhD | Psilocybin-Assisted Cognitive Behavioral Therapy for Depression: Combining the Classic Model with Evidence-Based Psychotherapy |
| 4 | Charles Grob, MD | Psilocybin at the End-of-Life |
| 5 | Keith Heinzerling, MD | Optimizing Set and Setting for Psilocybin-Assisted Therapy in Alcohol Use Disorder |
| 6 | Q&A | |

Session 2

Neurobiological Mechanisms of Psychedelic Action

10:00 AM – 11:30 AM

Session Chairs

Dr. Conor Murray

Session Speakers

- | | | |
|---|---------------------------------|---|
| 1 | Conor Murray, PhD | Introduction to Psychedelic Neuroscience |
| 2 | Michael Angyus | The Entropic Brain |
| 3 | Stephen Mahler, PhD | Why Psychedelic Neuroscience Needs (good) Animal Models |
| 4 | Kenneth Shinozuka | Synergistic Multi-level Understanding of Psychedelics: Phenomenology
Neuroimaging and Pharmacology |
| 5 | Leonardo Christov-Moore.
PhD | E4: Emulating Entheogens to Enhance Empathy |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Psychedelic Societal Impact: Challenges and Opportunities

Session Chairs

Dr. Conor Murray

Session Speakers

- 1 Rael Cahn, MD, PhD Mindfulness and Awakening in Relation to the Current Psychedelic Renaissance
- 2 Natalie Lyla Ginsberg Multidisciplinary Association for Psychedelic Studies (MAPS): Global Impact
- 3 Sam and Steven Mandel Ketamine Infusion Therapy: A Modern Solution for Depression, PTSD, and Suicide
- 4 Sarah Abedi, MD Therapeutic Implications for Psychedelic Medicine
- 5 Jodi Green, JD The Psychedelic State of the Union – Navigating Divergent Pathways to Access
- 6 Q&A

Session 4

03:30 PM – 05:00 PM

Microdosing Safety & Efficacy

Session Chairs

Dr. Conor Murray

Session Speakers

- 1 Conor Murray, PhD Neuroscience of Microdosing
- 2 Adam Bramlage Ancient Use of Microdosing Among Humans and Animals
- 3 Anya Bershad, MD, PhD Mood Effects of Microdosing
- 4 Tracey Tee Mission Critical: Prioritizing the Mental and Physical Health Crisis of Mothers from Prenatal to Menopause, and How Intentional Microdosing Can Offer Profound Support
- 5 Tiffany Hurd Accelerate Your Healing and Personal Growth by Creating a Framework That Will Optimize Your Microdosing practice
- 6 Q&A



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

15 March, 2024

NeuroPsychiatry and Innovation

**Room
409A**

Track Chairs
Dr. Keerthy Sunder, MD
Dr. David Baron, DO, MEd
Mr. Brian Norling, MBA
Dr. Conor Murray, PhD

Session 1

Neuroscience of Consciousness

8:00 AM – 9:30 AM

Session Chairs

Mr. Brian Norling

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Jack Tuszynski, PhD | The Present State of Quantum Theories of Consciousness |
| 2 | Sergio Ponce de Leon | Consciousness Science: Progress and Problems |
| 3 | Menas C. Kafatos, PhD | Quantum, Mind and the Observer: Implications for Psychology and Psychiatry |
| 4 | Dov Baron, MD | The Emotional Source Code, The Matrix of Personal Reality. |
| 5 | Rajendra Badgaiyan, MD, MBA | Discussion on the Neuroscience of Consciousness |
| 6 | Q&A | |

Session 2

Advances in Neuroimaging Techniques

10:00 AM – 11:30 AM

Session Chairs

Dr. Rajendra Badgaiyan and Dr. Turker Ergüzel

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Rajendra Badgaiyan, MD, MBA | Real Time Imaging of Neurotransmission |
| 2 | Daniel Carnese | Role of AI in Psychiatry and Therapeutics |
| 3 | Turker Erguzel, PhD | Explainable AI and its Applications to Neuroimaging Data |
| 4 | Harry Kloor, PhD | Using Avatar Robotics and AI for Psychiatric Care |
| 5 | Tarcan Kiper | An Unmet Need: A Brain Health Measure System |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Advances in Neuromodulation

01:30 PM – 03:30 PM

Session Chairs

Dr. Keerthy Sunder and Mr. Brian Norling

Session Speakers

1 **Deborah Zelisnky, OD**

The Influence of the Mind-Eye Connection on Mental Health

2 Joshua Cain, PhD

Focused Ultrasound

3 Dan Miulli, DO

EMF Recordings and Stimulation in TBI (confirmed title)

4

Personalized Repetitive TMS (PrTMS) with Brain Mapping in PTSD: A Case Series.

Keerthy Sunder, MD

5 Q&A

Session 4

Application of Brain Mapping in Neuropsychiatric Disorders

03:30 PM – 05:00 PM

Session Chairs

Dr. Keerthy Sunder and Mr. Brian Norling

Session Speakers

1 Rajendra Badgaiyan, MD, MBA

Novel Neuroimaging Technique (Dynamic Neurotransmitter Imaging Technique)

2 Nicholas Dogris, PhD

Using Blended Stimulation Methods in Clinical Populations

3 Tiffany Thompson, PhD

Targeting Neurostimulation Using Advanced Computational Neuroanalysis

4 Aaron Filler, MD, PhD, JD

Diffusion Tensor Imaging (DTI)-Based White Matter Mapping

5 Kevin Murphy, MD

Spectral EEG in Psychiatric Disorders

6 Q&A



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

16 March, 2024

NeuroPsychiatry and Innovation

**Room
409A**

Track Chairs Dr. Keerthy Sunder, MD
Dr. David Baron, DO, MSED
Mr. Brian Norling, MBA
Dr. Conor Murray, PhD

Session 1

Bipolar and Mood Disorders: Lithium Treatment Advances

8:00 AM – 9:30 AM

Session Chairs

Dr. Thomas G. Schulze and Dr. Keerthy Sunder

Session Speakers

- 1 Michael McCarthy, MD, PhD
- 2 Thomas G. Schulze, MD
- 3 Elizabeth A. Thomas, PhD
- 4 Marcella Rietschel, PhD
- 5 Keerthy Sunder, MD
- 6 Q&A

Circadian & Other Neurobiological Mechanisms in Lithium Treatment of Bipolar disorder
Genomics of Lithium Response in Bipolar Disorder – the Consortium on Lithium Genetics (ConLiGen)
Novel Approaches to Monitoring Lithium Levels: From Idea to Clinical Practice
Ethical Issues in Global Psychiatric Genetic Research
Neuromodulation Advances in Bipolar Disorders

Session 2

Addiction Medicine

10:00 AM – 11:30 AM

Session Chairs

Dr. Nevzat Tarhan and Dr. Keerthy Sunder

Session Speakers

- 1 Nesrin Dilbaz, MD
- 2 Nevzat Tarhan, MD
- 3 Baris Metin, MD
- 4 Onur Noyan, MD
- 5 Cihan Taştan, PhD
- 6 Q&A

ECT Treatment in Methamphetamine Addiction Co-Morbid in Psychosis
Use of Pharmacogenomic Biomarkers as Pharmacokinetics and Pharmacodynamics
Structural and Functional Brain Alterations in Addiction
Clinical Implications of Addiction Genetics: The Synthetic Cannabinoid Example
Next-Generation Molecular Approaches to Understand the Genetic Mechanism of Addiction



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Neuroscience, Policy, International Affairs

01:30 PM – 03:30 PM

Session Chairs

Dr. Thomas Schulze and Dr. Kenneth Busch

Session Speakers

1 Thomas Schulze, MD

Human Rights in International Collaborations in Neuroscience and Psychiatry: Going Beyond Lip Service

2 Kenneth Blum, PhD

Is There Enough Evidence to Endorse Genetic Based Screening to Identify the Pre-Addiction Phenotype: a Preventive Public Policy Intervention?

3 Esteban Salatino, MD, MPH

Behavioral Addiction Relating to Social Media in Medical Students

4 Bhavana Chawda, MD

Stigma and Global Public Policy- Past, Present and Future

5 Q&A

Session 4

Access and Safety: Recreational and Therapeutic

03:30 PM – 05:00 PM

Drug Use

Session Chairs

Dr. Conor Murray and Dr. David Baron

Session Speakers

1 Kenneth Busch, MD

Interface of Medical Professionals and Public Policy Makers

2 Elisa Pabon, PhD

Regulatory Considerations of Cannabis

3 Timothy Fong, MD

Physician Perspectives: Regulatory Issues

4 Beth Weiss, PhD

Global Insights; Decriminalization of Drug Use and Societal Impact

5 Kevin Morris, MD

Opioid Use Disorder Crisis: Current State & Tenets to Recovery

6 Q&A



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

17 March, 2024

NeuroPsychiatry and Innovation

**Room
409A**

Track Chairs
Dr. Keerthy Sunder, MD
Dr. David Baron, DO, MEd
Mr. Brian Norling, MBA
Dr. Conor Murray, PhD

Session 1

Brain Health/Traumatic Brain Injury

8:00 AM – 9:30 AM

Session Chairs

Dr. David Baron and Dr. Keerthy Sunder

Session Speakers

1 Aaron Filler, MD, PhD, JD

Traumatic Brain Injury

2 Jonathan Hall, OD

Habilitating Individuals with Autism and Traumatic Brain Injury Using
Multisensory Processing

3 David Baron, DO

Sports & Concussion

4 Douglas Noordsy, MD

Lifestyle Psychiatry

5 SCAT-6: Panel Discussion on New Treatment Guidelines in Sport

Session Panelists

Concussion

6 Q&A

Session 2

International Perspectives in Mental Health

10:00 AM – 11:30 AM

Session Chairs

Dr. David Baron

Session Speakers

1 David M Ndeti, MD

Kenya Psychosis Risk Outcomes Study (KePROS)

2 Dion Bassan, MD

Update on Mental Health in Africa

3 Antony Thomas, MD

Key Issues in Africa Psychiatry

4 Abraham Castillo, MD

Depression and Deafness in a Central American Population

5 Fabiola García, MD

Depression and Anxiety in Central American Deported Immigrants

6 Q&A



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Psychiatry, Neuroscience, Industry,
and Government

Session Chairs

Dr. Kenneth Blum

Session Speakers

- 1 JT Vannah, MS
Neurocircuit Therapeutics: Revolutionizing Neuropsychiatry for Enhanced Futures
- 2 Kenneth Blum, PhD
Road-Blocks for the Widespread Enablement of Novel Solutions in Addiction Psychiatry and Translational Industrial Commercialization: Betwixt and Between a Cry for Answers
- 3 Ellyn Ito
Non-invasive Bimodal Vagus Nerve and Acupoint Stimulation - an Accessible Approach to Restoring Mental Fitness and Wellness in Individuals, Workgroups and Communities
- 4 Q&A

Session 4

03:30 PM – 05:00 PM

NeuroPsychiatry & Innovation Subcommittee

Meeting - Consortium Meeting

Session Chairs

Dr. Kedarnath Challakere and Dr. Conor Murray

Session Speakers

- 1 Kedarnath Challakere, NMD
Translational Education in Psychiatry Residency Training
 - 2 Conor Murray, PhD
Becoming a Neuroscientist: From Preclinical to Citizen Science
 - 3 David Seigler, MD
Creating a Psychiatry Department That Embraces Emerging Technologies
 - 4 Subcommittee members
Subcommittee Meeting
 - 5 Q&A
-



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**14 March,
2024**

NEUROSURGERY AND SKULLBASE

**Room
150B**

Track Chairs Dr. Abilash Haridas, MD
Dr. Marcos Wagner De Sousa Porto, MD
Dr. Amin Kassam, MD
Dr. Akitsugu Kawashima, MD, PhD

Session 1

Updates in Neurovascular Anatomy Procedures

8:00 AM – 9:30 AM

Session Chairs

Dr. Abhidha Shah

Session Speakers

- | | | |
|---|------------------------------|---|
| 1 | Abhidha Shah, MS, MCh | How Does White Matter Matter? Surgical Implications |
| 2 | Sebastian F. Koga, MCh | The Microanatomy of Peritumoral Brain Tissue: Novel Imaging and Implications for Surgical Resection |
| 3 | Behnam Rezai Jahromi, MD | Manipulation of CSF is Possible Clinically via CSF Exchange- Ongoing Trials |
| 4 | Q&A | |

Session 2

Anatomy applied to Brain Aneurysm and AVMs

10:00 AM – 11:30 AM

Session Chairs

Dr. Abhidha Shah

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Ali Alaraj, MD | AVM Flows and the Role of Inflammation |
| 2 | Gabriel Zada, MD | Carotid Artery Injury Simulation: Prospective Training and Outcomes and Ability of Computer-Vision vs. Expert Surgeons in Outcome Prediction |
| 3 | Abhidha Shah, MS, MCh | Surgery for Pial AV Fistulas |
| 4 | Behnam Rezai Jahromi, MD | Nanoparticles for Mapping Brains Vasculature in Disease and Health |
| 5 | Viktor Szeder, MD, PhD, MSc | Transvenous endovascular Approach to Brain AVMs and Dural AV Fistulas |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Surgical Complication Avoidance

01:30 PM – 03:30 PM

Session Chairs

Dr. Sabareesh Natarajan

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Ali Alaraj, MD | Role of Flow Quantification in Steno-Occlusive Disease |
| 2 | Sabareesh Natarajan, MD, MS | Decision Making in Brain Aneurysms |
| 3 | Sabareesh Natarajan, MD, MS | Acute Ischemic Stroke Revascularization |
| 4 | Abilash Haridas, MD | Updates in Complication Avoidance |
| 5 | Q&A | |

**15 March,
2024**

NEUROSURGERY AND SKULLBASE

**Room
150B**

Track Chairs **Dr. Abilash Haridas, MD**
Dr. Marcos Wagner De Sousa Porto, MD
Dr. Amin Kassam, MD
Dr. Akitsugu Kawashima, MD, PhD

Session 1

Intraxial and Subcortical Tumors – New

8:00 AM – 9:30 AM

Technologies and Nuances

Session Chairs

Dr. Marcos Wagner De Sousa Porto

Session Speakers

- | | | |
|---|--------------------------------------|---|
| 1 | Aria Tzika, PhD | Predictors of Stroke Patient Brain Recovery: A Novel Approach Combining Magnetic Resonance-Compatible Robotic Devices with Magnetic Resonance Imaging |
| 2 | Matteo de Notaris, MD, PhD | Transorbital Surgery: Anatomic-Clinical Journey Through the Paramedian Skull Base |
| 3 | Dr. Marcos Wagner De Sousa Porto, MD | Brain Tumors in the Elderly: Up to Date |
| 4 | Ramsis Ghaly, MD | Brain Surgery in Elders: Case Presentations |
| 5 | Brian Mehling, MD | Novel Technologies in treating Subcortical Tumors |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 2

10:00 AM – 11:30 AM

Session Chairs

Session Speakers

- 1 Aria Tzika, PhD
- 2 Ashkan Mowla, MD
- 3 Promod Pillai, MBBS, MCh
- 4 Amin Kassam, MD
- 5 Q&A

Endovascular Procedures for Vascular and Oncology Lesions

Dr. Amin Kassam

- Advancing Pediatric Brain Tumor Diagnosis and Prognosis through Innovative Multidimensional Characterization
- Endovascular Treatment of Large Vessel Occlusion in Strokes with Large Core
- Role of Venous sinus angioplasty in management of Idiopathic Intracranial Hypertension
- White Matter Driven Parafascicular Approaches to Cavernomas of the CNS Axis

Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- 1 Sebastian F. Koga, MD
- 2 Behnam Rezai Jahromi, MD
- 3 Mark Sedrak, MD
- 4 Roger Rotta Medeiros, MD
- 5 Q&A

Planning in Neuro-Oncology Surgery

Dr. Mark Sedrak

- Quantification of White Matter Recovery after Tumor Surgery
- Manipulation of CSF is Possible Clinically via CSF Exchange- Ongoing Trials-
- Featured Speaker**
- Precision in Frame-Based Stereotactic Neurosurgery
- The Importance of the New Technologies for Brain Mapping Before During Brain Tumors Resection (nTMS, DCS, 5-ALA)



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 4

Role of Stereotactic Radiosurgery in the Modern Era

03:30 PM – 05:00 PM

Session Chairs

Dr. Akitsugu Kawashima

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Mark Sedrak, MD | Surgical Treatments for Spontaneous Intracranial Hypotension (SIH) |
| 2 | Akitsugu Kawashima, MD, PhD | Basic Technique and Training for STA-MCA Bypass |
| 3 | Akitsugu Kawashima, MD, PhD | EC-IC Bypass for Vertebrobasilar Insufficiency |
| 4 | Rashmi Vandse, MD | Anesthesia for Endovascular Treatment of Acute Ischemic Stroke |
| 5 | | Modern Stereotactic Neurosurgery for Psychiatric Disorders: The Anatomical Basis |
| | Ioannis Mavridis, MD, PhD | |
| 6 | Q&A | |

**16 March,
2024**

NEUROSURGERY AND SKULLBASE

**Room
External Campus**

Track Chairs Dr. Abilash Haridas, MD
 Dr. Marcos Wagner De Sousa Porto, MD
 Dr. Amin Kassam, MD
 Dr. Akitsugu Kawashima, MD, PhD

Session

08:30 AM – 11:30 AM

HANDS ON CADAVERIC BIOSKILLS LABS



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

17 March, 2024

NEUROSURGERY AND SKULLBASE

Room
150B

Track Chairs

Dr. Abilash Haridas, MD
Dr. Marcos Wagner De Sousa Porto, MD
Dr. Amin Kassam, MD
Dr. Akitsugu Kawashima, MD, PhD

Session 3

01:30 PM – 03:30 PM

Complication Avoidance Workshop I
Cerebrovascular and Skullbase – Case
Presentations

Session Chairs

Dr. Abilash Haridas

Session Speakers

- 1 Case 1
- 2 Case 2
- 3 Case 3
- 4 Case 4
- 5 Case 5

Session 4

03:30 PM – 05:00 PM

Complication Avoidance Workshop I
Cerebrovascular and Skullbase – Case
Discussions

Session Chairs

Dr. Abilash Haridas

Session Speakers

- 1 Case 1
- 2 Case 2
- 3 Case 3
- 4 Case 4
- 5 Case 5



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

16 March, 2024

REGENERATIVE MEDICINE

**Room
150B**

Track Chairs **Dr. Nilay Patel, PhD**
Ms. Melissa King

Session 1

Updates in Regenerative Medicine – I

8:00 AM – 9:30 AM

Session Chairs

Dr. Nicole Bournais and Dr. Nilay V. Patel

Session Speakers

- | | | |
|---|--|---|
| 1 | Nilay V. Patel, PhD co speaking with Dr. Alison Miyamoto | Development of a Rigorous Training Program in Stem Cell Biology |
| 2 | Aileen Nava, PhD | Decoding Arboleda-Tham Syndrome: Identifying pathogenic mechanisms in patient-derived in vitro models of neurodevelopment |
| 3 | Ashley Rae Neil PhD | Using pharmacology to probe human iPSC neuronal networks on multi-electrode arrays |
| 4 | Nicole Bournais, PhD | |
| 5 | Jennifer Tran | The Development of MAGMAS Inhibition as a Potential Therapeutic Target in Temozolomide-Resistant Glioma |
| 6 | Cameron Fraser | Impact of glioblastoma stem cell dose on tumor microenvironment in xenograft |
| 7 | Casy Hudson | Neuroprotective efficacy of human neural stem cell derived exosomes for breast cancer chemo brain |

Session 2

Updates in Regenerative Medicine – II

10:00 AM – 11:30 AM

Session Chairs

Dr. Nikita Parmar

Session Speakers

- | | | |
|---|-----------------------|--|
| 1 | Nitika Parmar, PhD | The CIRM Bridges Stem Cell Program at CSU Channel Islands |
| 2 | Shreejha Chandrasekar | Optimizing LV Transduction of HSPCs: Navigating IFITM2/3 Proteins and Transduction Enhancers. |
| 3 | Jemima Moses | Investigating the Cardiovascular Toxicity of Tyrosine Kinase Inhibitor Lenvatinib on Human Induced Pluripotent Stem Cells. |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

- 4 Shruti Saxena Screening extracellular vesicle derived miRNAs from the regenerating zebrafish hearts for their pro- regenerative roles.

5 Q&A

Session 3

Updates in Regenerative Medicine – III

01:30 PM – 03:30 PM

Session Chairs

Ms. Melissa King

Session Speakers

- 1 Munjal Acharya, MS, PhD Regenerative Strategy To Ameliorate Cranial Irradiation And Temozolomide-Induced Cognitive Decline
- 2 Improving The Efficacy And Tolerability Of Clinically Validated Remyelination-Inducing Molecules Using Developable Combinations Of Approved Drugs
- Luke Lairson PhD
- 3 **Merlin Rajesh Lal Lawrence** Biomechanical Forces In Tissue Engineering
- Panchali, PhD**
- 5 Q&A
-



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**14 March,
2024**

ADVANCES IN SPINE RESEARCH

**Room
150C**

Track Chairs Dr. Abilash Haridas, MD
Dr. Namath Hussain, MD

Session 1

Cervical Spine: Anterior Approaches

8:00 AM – 9:30 AM

Session Chairs

Dr. Oscar Alves

Session Speakers

- 1 Namath Hussain, MD, MBA
- 2 Terrence Kim, MD
- 3 Óscar L Alves, MD
- 4 Ramsis Ghaly, MD
- 5 George Hanna, MD
- 6 Q&A

Roundtable Introductions

Updates in Cervical Spine

Motion-Preservation Anterior Cervical Spine Surgery

Spine Surgery in Elders: Case presentations

Thoracoscopic Spine Surgery

Session 2

Modern Medical Necessary Criteria for Intervention for Surgery in Spine

10:00 AM – 11:30 AM

Session Chairs

Dr. Marcos Wagner

Session Speakers

- 1 Namath Hussain, MD, MBA
- 2 Christopher Mikhail, MD
- 3 Óscar L Alves, MD
- 4 George Hanna, MD
- 5 Marcos Wagner, MD
- 6 Q&A

Roundtable Introductions

Contemporary Techniques in Management of Cervical Deformity

Control and Mobilization of Vertebral Artery in Complex Cervical Spine Surgery

Epidural Hematoma Associated with Ankylosing Spondylitis Fractures

Osteoporosis - a Challenging Condition for Neurosurgeons



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Spinal and Peripheral Nerve Surgery

01:30 PM – 03:30 PM

Session Chairs

Dr. Navid Sadoughi

Session Speakers

- 1 **Aaron Filler, MD, PhD, JD** Update in Peripheral Nerve Surgery
- 2 Navid Sadoughi, DPM Charcot Neuroarthropathy
- 3 Marcos Wagner De Sousa
Porto, MD Surgical treatment of adult traumatic brachial plexus injuries: an overview
- 4 Navid Sadoughi, DPM Tarsal Tunnel and Peripheral Neuropathy
- 6 Q&A

Session 4

How to Manage Multiple Operated Spine Patients

03:30 PM – 05:00 PM

Session Chairs

Dr. Namath Hussain

Session Speakers

- 1 Namath Hussain, MD,
MBA Basics of Endoscopic Spine Surgery
- 2 Namath Hussain, MD,
MBA How Do I Start an Endoscopic Spine Practice?
- 3 John LaPoint, MD Spinal Cord Stimulation Therapies
- 4 Kofi Agyeman, PhD Functional Ultrasound Imaging of the Human Spinal Cord
- 5 Q&A



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**15 March,
2024**

ADVANCES IN SPINE RESEARCH

**Room
150C**

Track Chairs **Dr. Abilash Haridas, MD**
 Dr. Namath Hussain, MD

Session 1

Controversies in Interdisciplinary Pain Management and Spine

8:00 AM – 9:30 AM

Session Chairs

Dr. Namath Hussain

Session Speakers

- | | | |
|---|-----------------------|--|
| 1 | Alessandro Ducati, MD | Monitoring of Lumbar Plexus, during surgery with either Transpsoas or Anterior to Psoas Approach. Analysis of 300 cases. |
| 2 | Arunark Kolipaka, PhD | Magnetic Resonance Elastography: Its Applications in Brain and Spine |
| 3 | Lindsey Ross, MD | Medical Extended Reality and Low Back Pain |
| 4 | Q&A | |

Session 2

Spine Oncology Symposium

10:00 AM – 11:30 AM

Session Chairs

Dr. Vikram Chakravarthy

Session Speakers

- | | | |
|---|--------------------------|---|
| 1 | Maziyar Kalani, MD | Emerging Surgical Trends in Spine Oncology |
| 2 | Joshua Palmer, MD | Impact of CarbonFiber/Peek Instrumentation in Spine Oncology-Radiation Oncology perspective |
| 3 | Matthew Skinner, MD DABR | Physics: Impact of Materials on Oncologic Care |
| 4 | Noah Earland, BS | Role of ctDNA in the decision making of Oncology (Spine) Patients |
| 5 | Albert J. Chang, MD, PhD | The Role of Brachytherapy in Spine Oncology |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Updates In Spine Research – I

01:30 PM – 03:30 PM

Session Chairs

Dr. Abilash Haridas

Session Speakers

- 1 Abilash Haridas, MD Practical considerations in spine surgery
- 2 Hoon Choi, MD, PhD Current guidelines and updates in spine surgery
- 3 Robert G Watkins, IV, MD Artificial Disc Replacements in Elite Athletes
- 4 Non-invasive vagus nerve and acupuncture points stimulation - minimal current, closed loop and bimodal: a gentle and effective approach to restoring mental wellness.
- Ellyn M. Ito, BA
- 5 Q&A

Session 4

Updates In Spine Research – II

03:30 PM – 05:00 PM

Session Chairs

Dr. Luan Messias Magalhaes

Session Speakers

- 1 Understanding Connections: Spinal Fractures in a World of Growing Deforestation
Luan Messias Magalhaes, MD
- 2 Marcos Wagner De Sousa
Porto, Md Effects of Motorcycle Accidents in Spinal Trauma
- 3 Namath Hussain, MD, MBA Updates in Spine Surgery
- 4 Decoding Micturition from the Spinal Cord using Functional Ultrasound Imaging
Sofia Sakellaridi, PhD
- 5 Vasileios Christopoulos, PhD Spinal Cord Hemodynamics Predicts the Bladder State in Humans
- 6 Q&A

**16 March,
2024**

ADVANCES IN SPINE RESEARCH

**Room
External Campus**

**Track Chairs Dr. Abilash Haridas, MD
Dr. Namath Hussain, MD**

01:00 PM – 4:30 PM

HANDS ON CADAVERIC BIOSKILLS LABS



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

17 March, 2024

ADVANCES IN SPINE RESEARCH

Room
150C

Track Chairs Dr. Abilash Haridas, MD
 Dr. Namath Hussain, MD

Session 1

8:00 AM – 9:30 AM

Session Chairs

Session Speakers

- 1 Case 1
- 2 Case 2
- 3 Case 3
- 4 Case 4

Complication Avoidance Workshop | Spinal

Surgery – Case Presentations

Dr. Namath Hussain

Session 2

10:00 AM – 11:30 AM

Session Chairs

Session Speakers

- 1 Case 1
- 2 Case 2
- 3 Case 3
- 4 Case 4

Complication Avoidance Workshop | Spinal

Surgery – Case Discussion

Dr. Namath Hussain



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**14 March,
2024**

ALZHEIMER'S DISEASE AND DEMENTIA

**Room
409B**

Track Chairs Dr. Christopher Wheeler, PhD
Dr. J Wesson Ashford, MD, PhD
Dr. George Perry, PhD
Dr. Giulio Maria Pasinetti, MD, PhD

Session 1

8:00 AM – 9:30 AM

Session Chairs

Session Speakers

- 1 James Clifford, PhD
- 2 Margaret Fahnestock, PhD
- 3 Christopher Wheeler, PhD
- 4 **Giulio Maria Pasinetti, MD, PhD**
- 5 Q&A

**Sex And Gender Differences And The Immune
System**

Dr. Giulio Maria Pasinetti, MD, PhD

Behavioral metrics and subjective cognitive concerns over the lifespan for males, females
Sex Differences in Pathology, Autoimmunity, and Behavior in the 3xTg-AD Mouse
Sex-disparate neurodevelopmental pathology and decreased cognitive decline in mice lacking a resident-memory T cell gene
Role of Immune T regulatory Cells in Alzheimer's Disease

Session 2

10:00 AM – 11:30 AM

Session Chairs

Session Speakers

- 1 **Robert Friedland, MD**
- 2 Russell Swerdlow, MD
- 3 Winnie Pak, PhD
- 4 Constanza Cortes, MD, PhD
- 5 Q&A

**Lifestyles I: Brain Health Assessment And Apoe
Genotyping**

Dr. J Wesson Ashford

Un Aging and the Theory of Multiple Reserves
Mitochondria and Mitochondrial Cascades in Alzheimer's Disease
104-Week Effects of ALZ-801 on Plasma and MRI Biomarkers and Cognition
Support Disease Modification in APOE4 Carrier Early Alzheimer's Patients
Forgot to Exercise? The Muscle-to-Brain Axis in Brain Aging and Alzheimer's Disease



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Alzheimer's Prevention I: Cognitive Engagement And Screening

Session Chairs

Dr. James Clifford

Session Speakers

- 1 James Clifford, PhD Effects of Age and Subjective Concerns about Cognitive Decline on Behaviors during continuous recognition task
- 2 Aaron Seitz, PhD App Based Assessment and Training of Cognition in Older Adults
- 3 **Mary Sano, PhD** Alzheimer's Disease Biomarkers: Diagnosis and assessment for disease progression
- 4 Q&A

Session 4

03:30 PM – 05:00 PM

Cognitive Screening, Assessment, and Diagnosis: Medicare Annual Wellness Visit – Development for Software Modules and FDA Regulation

Session Chairs

Dr. J Wesson Ashford

Session Speakers

- 1 Peter Bayley, PhD Panel Discussion
- 2 J. Wesson Ashford, MD, PhD Panel Discussion
- 3 George Perry, PhD Panel Discussion
- 4 Ruby Dehkarghani, MS Panel Discussion
- 5 Edward Johansen, MS, JD Panel Discussion



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**15 March,
2024**

ALZHEIMER'S DISEASE AND DEMENTIA

**Room
409B**

Track Chairs Dr. Christopher Wheeler, PhD
Dr. J Wesson Ashford, MD, PhD
Dr. George Perry, PhD
Dr. Giulio Maria Pasinetti, MD, PhD

Session 1

Alzheimer's Disease Mechanisms

8:00 AM – 9:30 AM

Session Chairs

Dr. Margaret Fahnstock

Session Speakers

- | | | |
|---|-------------------------|---|
| 1 | Chengbiao Wu, PhD | Defining the role of RIN3-BIN1-CD2AP in Alzheimer's Disease Pathogenesis |
| 2 | Margaret Fahnstock, PhD | Receptor-specific Mechanisms of Age-Induced Neurodegeneration |
| 3 | Scott E Counts, PhD | Pre-tangle Tau Pathology in Postmortem default mode network hubs during the progression of AD |
| 4 | Aida Adlimoghaddam, PhD | Mitochondria: A Central Target for Sex Differences in Alzheimer's Disease |
| 5 | Q&A | |

Session 2

Alzheimer's Disease Mechanisms I:

10:00 AM – 11:30 AM

Beyond A β and Tau

Session Chairs

Dr. Margaret Fahnstock

Session Speakers

- | | | |
|---|----------------------------|--|
| 1 | Lisa Münter, Dr. rer. nat. | Glucose metabolism in the mouse brain |
| 2 | Donna Korol, PhD | Dueling roles of hippocampus and striatum in cognitive aging |
| 3 | Scott E Counts, PhD | Forebrain cerebrovascular profiling in locus coeruleus-lesioned rats |
| 4 | Paul Gold, PhD | Sweet memories: a role for glucose in brain and cognitive aging |
| 5 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- 1 Carr Smith, PhD
- 2 Dale E Bredesen, PhD
- 3 Julie K Andersen, PhD
- 4 Gregory M Cole PhD
- 5 Joseph Rogers, PhD
- 6 Q&A

Alzheimer's Disease Mechanisms II:

Genetics, Inflammation & Immune Interactions

Dr. Carr Smith

- Apolipoprotein E4 and Fertility
- Precision Medicine for Alzheimer's: Sustained Improvement
- Development of novel mitophagy inducers as therapeutics for Alzheimer's disease
- The Role of Complement activation in Cognitive Decline and Dementia
- A β , Microglia, and Complement in 15 Minutes

Session 4

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

- 1 Amy Dee Pruszenski, OD
- 2 David Ndeti, PhD, DSc
- 3 Bhakta Prasad Gaire, PhD
- 4 Sally A Frautschy, PhD
- 5 Caleb Ellicott Finch, PhD
- 6 Q&A

Alzheimer Disease From Preventative Initiative To Treatment

Dr. Margaret Fahnestock

- Early Diagnosis for Alzheimer's Disease using Retinal Thinning/Biomarkers: Future Partners in Care
- Reaching Populations at risk of Alzheimer's Dementia Related Diseases: Delivery and Implementation
- Chlamydia pneumoniae Infection and Associated NLRP3 Inflammasome Activation in Alzheimer's Disease Retina
- "Long-Covid, Neurovascular and Cardiovascular Inflammation, Cognitive Deficits and Alzheimer Risk"
- Poverty Brings Earlier Dementia from Unknown GxE Interactions in the Socio-economic strata



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

16 March, 2024

ALZHEIMER'S DISEASE AND DEMENTIA

**Room
409B**

Track Chairs
Dr. Christopher Wheeler, PhD
Dr. J Wesson Ashford, MD, PhD
Dr. George Perry, PhD
Dr. Giulio Maria Pasinetti, MD, PhD

Session 1

Alzheimer Disease Diagnosis I:

8:00 AM – 9:30 AM

Non-Imaging Biomarkers

Session Chairs

Dr. Christopher Wheeler

Session Speakers

- | | | |
|---|-----------------------------|--|
| 1 | Christopher J. Wheeler, PhD | Age-related CD8 T cells as initiators, biomarkers, and potential therapeutic targets in sporadic Alzheimer's |
| 2 | Ka Chan | The Impact of Methionine Oxidation on Amyloid Beta 1-42 Aggregation |
| 3 | William Rodman Shankle, MD | Testing the CAMPS Hypothesis: Improved Treatment for Neurodegenerative Diseases [CAMPS: Cytotoxic Aggregated Misfolded Polymorphic Structures] |
| 4 | Ali Yanik, PhD | A Step Closer to Early Alzheimer's Diagnosis: The Power of an Ultrasensitive Blood Test |
| 5 | Edward Zamrini, MD | CAA and ARIA in the Era of Anti-Amyloid Therapy |
| 6 | Q&A | |

Session 2

Alzheimer's Disease Diagnosis II:

10:00 AM – 11:30 AM

Imaging Biomarkers

Session Chairs

Dr. J Wesson Ashford

Session Speakers

- | | | |
|---|-------------------------|---|
| 1 | Sid O'Bryant, PhD | Alzheimer's biomarkers among diverse populations: The HABS-HD study |
| 2 | Mojtaba Barzegar, MS | The role of PET-MRI in differential diagnostic of Dementia |
| 3 | Wesson Ashford, MD, PhD | The Issues of Genetic Testing and Alzheimer's Risk |
| 4 | Jamie Tyrone, RN | The Impact of Disclosing Genetic Testing to the Patient |
| 5 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- 1 Fernanda Guarino De Felice, PhD
- 2 Fernando Gomez-Pinilla, PhD
- 3 Ashley Keiser, PhD
- 4 Iva Zovkic, PhD
- 5 Q&A

Lifestyles II:

Effects On Disease Risks And Comorbidities

Dr. Margaret Fahnestock

Unveiling the role of hormones and exercise in Alzheimer's disease.
Diet and metabolism: Peripheral influence on brain pathology.
Exercise opens an epigenetic molecular memory window for cognitive enhancement: mechanistic insights for aging and Alzheimer's Disease.
Sex-specific role of H2A.Z in Alzheimer's disease

Session 4

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

- 1 George Perry, PhD
- 2 Jorge R Barrio, PhD
- 3 Michel Baudry, PhD
- 4 Subhojit Roy, Md, PhD
- 5 Q&A

Alzheimer's Disease Diagnosis III:

Biomarkers Beyond Diagnosis

Dr. George Perry

Is it Synapse Loss of Abnormality in Alzheimer's Disease?
Alzheimer's Disease and Chronic Traumatic Encephalopathy (CTE): Is their Etiology Related?
Can Calpain-2 Activation participate in Alzheimer's Disease pathology?
A gene-editing based therapeutic for Alzheimer's Disease



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

17 March, 2024

ALZHEIMER'S DISEASE AND DEMENTIA

**Room
409B**

Track Chairs

Dr. Christopher Wheeler, PhD
Dr. J Wesson Ashford, MD, PhD
Dr. George Perry, PhD
Dr. Giulio Maria Pasinetti, MD, PhD

Session 1

8:00 AM – 9:30 AM

Session Chairs

Session Speakers

- 1 Claude Zanetti, MD
- 2 Louise Mahoney, MS
- 3 Peter Bayley, PhD
- 4 Q&A

Alzheimer's Disease Treatment:

Alternative Treatment

Dr. Christopher Wheeler

- Top ten recommendations for preventing Alzheimer's Disease
- Yoga as Treatment for Chronic Pain in Alzheimer's Disease: A Feasibility Study
- The effects of yoga for patients with Alzheimer's Disease and their caregivers

Session 2

10:00 AM – 11:30 AM

Session Chairs

Session Speakers

- 1 Dieter Willbod, PhD
- 2 Paul Edison, MD, PhD
- 3 Wesson Ashford, MD, PhD
- 4 Q&A

Alzheimer's Disease Treatment I:

Mechanistic & Alternative Targets

Dr. Greg Cole and Dr. Swati More

- The Purely Thermodynamic Anti-prionic Mode of Action for the Treatment of Neurodegenerative Diseases
- GLP-1 Receptor Analogues - Past and Future
- Top ten recommendations for preventing Alzheimer's Disease



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- 1 Pamela Maher, PhD
- 2 **Giulio Maria Pasinetti, MD, PhD**
- 3 Cyrus Raji, MD, PhD
- 4 Q&A

Lifestyles III:

Lifestyle And Genomics In Alzheimer's Treatment

Dr. Giulio Maria Pasinetti

CMS121, a small molecule to target neuroinflammation
Dietary | The role of microbiome and phenolic acid metabolites in the gut-brain axis mediated inflammatory cascade in AD
AI Tools in Diagnosis and Treatment of Alzheimer's Disease

Session 4

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

- 1 Cyrus Raji M.D., Ph.D.
- 2 Giulio Maria Pasinetti M.D., Ph.D.
- 3 Dale Bredesen M.D.
- 4 Wesson Ashford M.D., Ph.D.
- 5 Subcommittee Meeting

What Have We Learned, And What's Next?

Summary & Guided And Panel Discussion

Dr. Christopher Wheeler and Dr. J Wesson Ashford

Panel
Panel
Panel
Panel
All Subcommittee Members



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

14 March, 2024 Neurotechnology, Neuromodulation, Neurophotonics, Epilepsy, Multiple Sclerosis, Nanoneuroscience **Room 410**

Track Chairs Dr. Roger Werne, PhD; Dr. Thomas Williams, PhD; Dr. Lei Li, PhD
Dr. Pegah Khosravi, PhD; Dr. Allan Mckenzie-Graham, PhD
Dr. Babak Kateb, MD, PhD; Dr. Kevin Morris, MD

Session 1

Multiple Sclerosis – I

8:00 AM – 9:30 AM

Session Chairs

Dr. Allan Mckenzie-Graham

Session Speakers

- | | | |
|---|-----------------------------------|---|
| 1 | Jennifer Graves, MD, PhD | Aging and Sex-Related Risk Factors in MS |
| 2 | Lilyana Amezcua, MD | Patients Outcome in Different Socio-Economic Groups |
| 3 | Seema K. Tiwari-Woodruff, PhD | Cognition and Seizures in MS- What We Can Learn from Animal Models? |
| 4 | Xiaoming (Sherman) Jia, MD | Leveraging Biomarkers in Multiple Sclerosis to Drive Drug Development |
| 5 | Q&A | |

Session 2

Poster Presentation Rounds

10:00 AM – 11:30 AM

Session Chairs

Dr. Kevin Morris and Dr. Joe Bolanos

Session Speakers

- | | | |
|---|---|--|
| 1 | Aysha Noor | Advancing Cancer Treatment: Boron Neutron Capture Therapy |
| 2 | Irene Maria Guadalupe Arevalo Soto, MD, MSc | High fructose corn syrup consumption induced Syndrome X: The ongoing cognitive dysfunction |
| 3 | Mariia Bilosoriuk, MD | Application of Gadolinium Nanoparticles: Current Advances and Future Perspectives |
| 4 | Kateryna Potapova MD, MHA | Assessing the Implementation of HealUA Mobile Application for Peer-to-Peer Neurology Consultations in Ukraine During Wartime |
| 5 | Ria Chawla | Navigating FDA Regulations in Nanomedicine: Challenges and Opportunities in This Evolving Space |
| 6 | Walencia Olympia Pereira, BSN, RN | Opioid Use Disorder Crisis: Current State & Tenets to Recovery |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

01:30 PM – 03:30 PM

Session Chairs

Session Speakers

- 1 Rajeev I. Desai, PhD
- 2 Rich Britten, PhD
- 3 Xiao W. Mao, MD
- 4 Andrew Wyrobek, PhD
- 5 Gregory A. Nelson, PhD
- 6 Q&A

Interdisciplinary Neuromodulation Involved in Space

Medicine Approaches to Risk Reduction

Dr. Thomas Williams

- Impact of Spaceflight Stressors on Brain Neurotransmitter Networks and Neurocognitive Function
- Persistent Changes in Neural Network Cohesion Following Exposure to Space Flight Stressors
- Impacts of Space Radiation and Spaceflight on Neurovascular Remodeling and Blood-Brain Barrier Integrity
- Proteomic profiling of cerebral spinal fluid and brain subregions from male rats exposed to space-relevant radiation predicts late-onset risks for CNS vascular and amyloid neuro-pathologies.
- Space Radiation Effects on the Brain: What We've Learned and What we Need to Know

Session 4

03:30 PM – 05:00 PM

Session Chairs

Session Speakers

- 1 Alexandra M. Whitmire
- 2 Ajit Mulavara, PhD
- 3 Hui Ho Vanessa Chang,
Gye Tae Kim,
Richard A. Britten,
Kyu Sung Kim,
- 4 Andrew Wyrobek,
- 5 Vonetta A. Dotson

Brain and Nervous System: Neuromodulation of
Spaceflight Relevant Performance Risk Reduction

Dr. Thomas Williams

- Overview of NASA's Integrated Research Program: Implications for Neuromodulation and Brain-Behavior Relationships
- Understanding the Neurovestibular and Brain Behavior Relationships to Identify Potential Neuromodulation Risk Reduction Strategies
- Monitoring the Impact of Combined Space Flight Stress on Vestibular Function
- Molecular Modeling of Susceptibilities for Anxiety, Memory, and Cleverness Behaviors Among Outbred Male Rats Exposed to Space-relevant Radiation.
- Behavioral Risk Reduction: Clinical Applications of Neuromodulation



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**15 March,
2024**

**Neurotechnology, Neuromodulation, Neurophotonics,
Epilepsy, Multiple Sclerosis, Nanoneuroscience**

**Room
410**

Track Chairs Dr. Roger Werne, PhD; Dr. Thomas Williams, PhD; Dr. Lei Li, PhD
Dr. Pegah Khosravi, PhD; Dr. Allan Mckenzie-Graham, PhD
Dr. Babak Kateb, MD, PhD; Dr. Kevin Morris, MD

Session 1

Multiple Sclerosis – II

8:00 AM – 9:30 AM

Session Chairs

Dr. Allan Mckenzie-Graham

Session Speakers

- | | | |
|---|--------------------------------------|---|
| 1 | Seema K. Tiwari-Woodruff, PhD | Use of Estrogen Receptor β ligands to Stimulate Functional Axon Remyelination |
| 2 | Peter Clark, PhD | Targeting Deoxyribonucleoside Salvage with a Clinical Inhibitor Blocks Lymphocyte Proliferation and Disease in Models of Multiple Sclerosis |
| 3 | James Waschek, PhD | The Role of PACAP in Neuroprotection in EAE |
| 4 | Ye Zhang, PhD | Probing Oligodendrocyte Lineage Cell Autocrine Signals to Treat Multiple Sclerosis |
| 5 | Q&A | |

Session 2

Neurophotonics / Neuroimaging

10:00 AM – 11:30 AM

Session Chairs

Dr. Liang Gao

Session Speakers

- | | | |
|---|-------------------|---|
| 1 | Hongyi Richard Li | Engineering Viral Vectors for Acoustically Targeted Gene Delivery in the Brain |
| 2 | Daniel Aharoni | Recent advances in Neurophotonics |
| 3 | Tianyu Wang | Three-Photon Calcium Imaging: the Prospect of Mesoscopic Imaging in the Deep Tissue |
| 4 | Liang Gao | Recent updates in Neuroimaging |
| 5 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Brain Computer Interfaces

01:30 PM – 03:30 PM

Session Chairs

Dr. Pegah Khosravi

Session Speakers

- | | | |
|---|----------------------------|---|
| 1 | Pegah Khosravi, PhD | Artificial Intelligence in Neuroradiology: A Scoping Review of Some Ethical Challenges |
| 2 | Antonio Lima Júnior, MD | Innovations in ASD Diagnosis: A Deep Learning Perspective on Neuroimaging and Facial Recognition |
| 3 | Shahriar Faghani, PhD | Radiogenomic: The Role of AI In Genetic Markers From Brain Imaging |
| 4 | Thomas Williams, PhD | Future Brain-computer Interfaces (BCI) in Space Exploration: Foundational Research and Potential Applications |
| 5 | Q&A | |

Session 4

Wearable Sensing for Mental Health

03:30 PM – 05:00 PM

Session Chairs

Dr. Lei Li and Dr. Wei Gao

Session Speakers

- | | | |
|---|---------------|--|
| 1 | Wei Gao | AI-powered Electronic Skin for Stress Response Monitoring |
| 2 | Woon-Hong Yeo | Printed Skin-Conformal Bioelectronics For Wireless Continuous Stress Monitoring And Management |
| 3 | Yasser Khan | Innovations in Hardware Technologies for Mental Health |
| 4 | Tianyu Wang | Machine Vision in the Optical Domain: Computing and Sensing with Optical Neural Networks |
| 5 | Lew Lim | How Photobiomodulation is Enhancing Brain Health & Treatment |
| 6 | Q&A | |



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

**16 March,
2024**

**Neurotechnology, Neuromodulation, Neurophotronics,
Epilepsy, Multiple Sclerosis, Nanoneuroscience**

**Room
410**

Track Chairs Dr. Roger Werne, PhD; Dr. Thomas Williams, PhD; Dr. Lei Li, PhD
Dr. Pegah Khosravi, PhD; Dr. Allan Mckenzie-Graham, PhD
Dr. Babak Kateb, MD, PhD; Dr. Kevin Morris, MD

Session 1

8:00 AM – 9:30 AM

Session Chairs

Session Speakers

1 Roger Werne, PhD

2

Audrey Fan

3

Oliver Rubel

4 Prasanna Date, PhD

5 Ashish Gautam

Neurotechnology – Attempting to Understand How
The Brain Works

Dr. Roger Werne

Introduction

Advanced Dynamic MRI of Cerebral Physiology to Map Brain Function
and Vascular Health

The Neurodata Without Borders Ecosystem for FAIR Neurophysiology
Data

The Superno Simulator for Neuromorphic Computing

Silicon Neuronal Networks for Brain-morphic Computation

Session 2

10:00 AM – 11:30 AM

Session Chairs

Session Speakers

1

Arash Kamali

2

Christos Papadelis, PhD

3

Abbas Babajani-Feremi, PhD

4 Ludovica Corona, PhD

5 Dawn Eliashiv, MD

6 Daniel J. DiLorenzo, MD, PhD,
MBA

Epilepsy

Dr. Christos Papadelis

Pediatric Temporal Thumb Sign". Association with Seizures and
Intracranial Hypertension. | Epilepsy |

Electric and Magnetic Source Imaging in the Presurgical Evaluation of
Children with Drug Resistant Epilepsy

Multi-Modal Approach Using MEG, fMRI, and Intracranial-EEG for
Presurgical Language Mapping

Non-invasive Mapping of Epileptogenic Networks in Pediatric Epilepsy

Recent advances in Epilepsy

Neuroengineering and NeuroVentures: Neurosensing Innovations and
a War Story on the Launching of a Venture to Treat Epilepsy



21st Annual World Congress of SBMT 2024

Scientific Program Schedule

Session 3

Blood Brain Barrier (BBB) and Brain Drug Delivery

01:30 PM – 03:30 PM

Session Chairs

Dr. Zhenpeng Qin and Dr. Qi Cai

Session Speakers

1 Zhenpeng Qin

Cell-Type Specific Delivery to the Brain: Endothelial Cells and Neurons

2

Optical Blood-Brain-Tumor Barrier Modulation Enhances Drug Penetration and Therapeutic Outcome in Clinically Relevant Glioblastoma Models

Qi Cai

3

Seeing The Sound: An Ultrasound-Mediated Intravascular Light Source for Noninvasive Brain Modulation

Guosong Hong

4 Yao Yao

Laminin, A Key Regulator of The Blood-Brain Barrier

5 Lingyan Shi

Recent Advances in drug delivery

Session 4

Multiple Sclerosis – III

03:30 PM – 05:00 PM

Session Chairs

Dr. Allan Mckenzie-Graham

Session Speakers

1 Lawrence Steinman, MD

Epstein-Barr virus and Multiple Sclerosis

2 Rajiv Khanna, PhD

Designing Epstein-Barr virus vaccine to Prevent Multiple Sclerosis

3

Michael Demetriou, MD, PhD

N-acetylglucosamine Inhibits Inflammation and neurodegeneration markers in multiple sclerosis

4 Kevin R. Patel, MD

Effects of metformin on MS

5 Sharmila Koppiseti, MD

Placenta-derived stem cells in MS treatment

6

Brian Mehling, MD

Cultured Wharton's Jelly Derived Mesenchymal Stem Cells in the Treatment of Multiple Sclerosis



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Scientific Program Schedule

17 March, 2024 **Neurotechnology, Neuromodulation, Neurophotronics, Epilepsy, Multiple Sclerosis, Nanoneuroscience** **Room 410**

Track Chairs **Dr. Roger Werne, PhD; Dr. Thomas Williams, PhD; Dr. Lei Li, PhD**
Dr. Pegah Khosravi, PhD; Dr. Allan Mckenzie-Graham, PhD
Dr. Babak Kateb, MD, PhD; Dr. Kevin Morris, MD

Session 1

Nanoneuroscience and Nanoneurosurgery

8:00 AM – 9:30 AM

Session Chairs

Dr. Kevin Morris and Dr. Babak Kateb

Session Speakers

- | | | |
|---|-----------------------|--|
| 1 | Kevin Morris, MD | Applications and Recent Advances of Nanotechnology and Nanomedicine in the Diagnosis and Therapy of Stroke |
| 2 | Joe Bolanos, MD | Applications of Nanotechnology in Epilepsy |
| 3 | Taha Tsouli Kamal | Application of Nanotechnology for Cerebrovascular and Skull Base Disorders |
| 4 | Mariia Bilorosiuk, MD | Nanomedicine in Demyelinating Disease Application to Diagnosis and Therapy in Multiple Sclerosis |
| 5 | Alia Torres | Applications of Nanotechnology to Diseases of the Spine |
| 6 | Q&A | |



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Scientific Program Schedule

Session 2

Rising Stars in Neurotechnology

01:30 PM – 03:30 PM

Session Chairs

Dr. Lei Li and Dr. Joshua C. Chen

Session Speakers

- | | | |
|---|--------------------------|--|
| 1 | | Battery-free Wireless Bioelectronics for Noninvasive Neural Interfaces |
| | Joshua C. Chen, PhD | |
| 2 | Christina Tringides, PhD | Viscoelastic Materials for Neural Interfaces |
| 3 | | Imaging Neurochemical Signaling With Non Genetically-Encoded Near Infrared Nanosensors |
| | Natsumi Komatsu, PhD | |
| 4 | | Revealing Brain Functions and Dysfunctions with Ultrasound Neuroimaging |
| | Claire Rabut, PhD | |
| 5 | | Seeing the Sound: Materials-Enabled Deep Tissue Light Delivery and Neuromodulation |
| | Xiang Wu, PhD | |

----- **END of PROGRAM** -----