

# NEUROTRAUMA 2015

The 33rd  
Annual Symposium  
of the

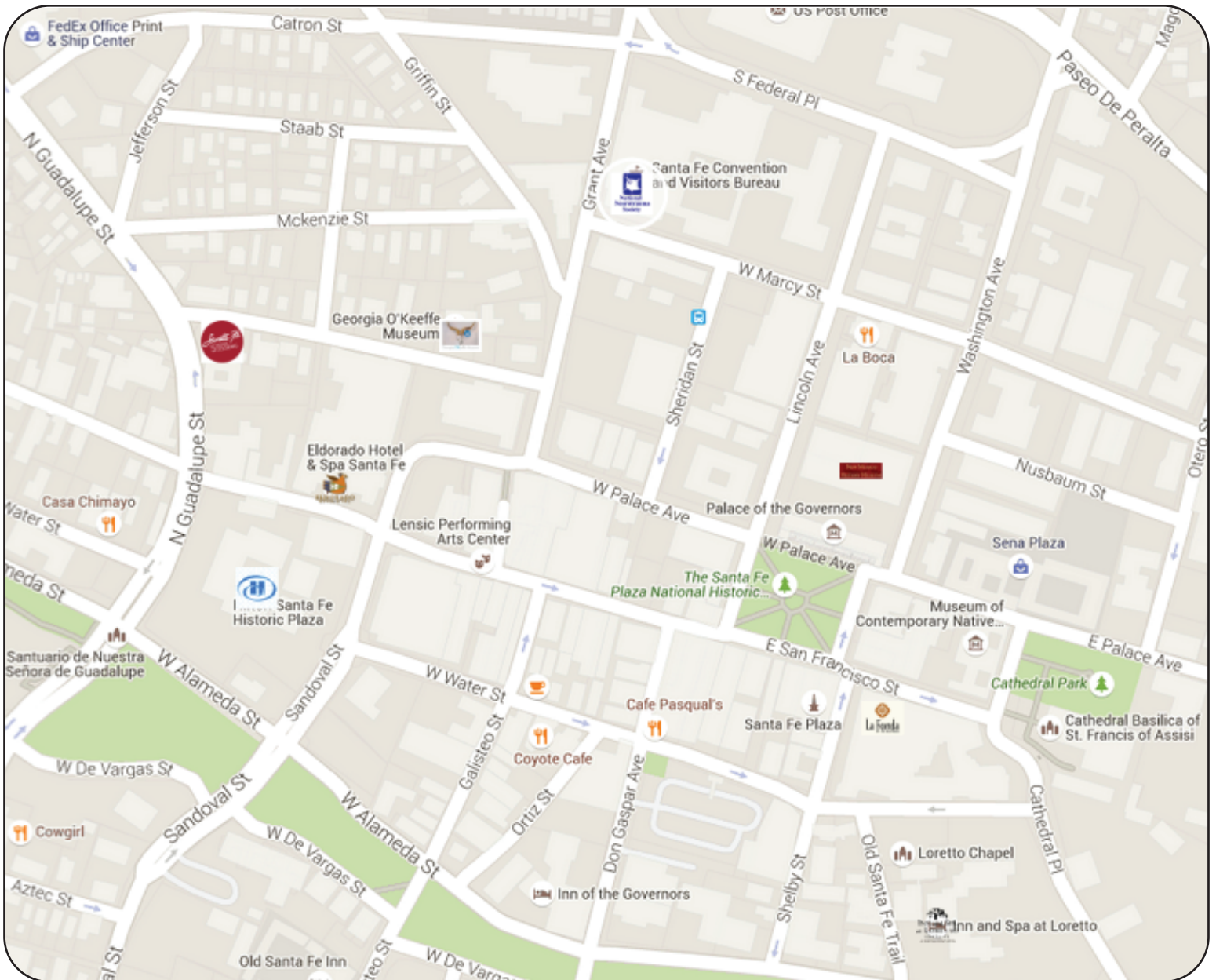


## SCIENTIFIC PROGRAM

**June 28 - July 1**  
Santa Fe, New Mexico

[WWW.NEUROTRAUMA.ORG](http://WWW.NEUROTRAUMA.ORG)

# DOWNTOWN SANTA FE MAP



**12<sup>th</sup> Symposium**  
**INTS** International Neurotrauma Society  
Cape Town • 1-4 February 2016

The banner features a stylized graphic of a neuron on the left, with glowing blue lines representing axons and dendrites. On the right, there is an aerial photograph of Cape Town, South Africa, showing the city built on a hillside overlooking the ocean, with the Table Mountain and Lion's Head mountains in the background.

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**EXECUTIVE DIRECTOR**

**Sheilah Jewart**  
 sheilahjewart@neurotrauma.org  
 www.neurotrauma.org

**OFFICERS**



**Helen Bramlett, PhD**  
*President 2015 & Program Chair*  
 University of Miami



**Michelle LaPlaca, PhD**  
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 University of Kentucky

# Letter from the President

Dear Neurotrauma Colleagues:


On behalf of the National Neurotrauma Society, I would like to welcome you to Santa Fe, New Mexico for the 33rd Annual Symposium of the National Neurotrauma Society. This symposium has been the primary forum for exchanging information in the fields of both traumatic brain and spinal cord injury for many years. The meeting focuses on integrating clinical, translational and basic science information on issues in neurotrauma.

This year's meeting, co-hosted by the National Neurotrauma Society and the AANS/CNS Joint Section on Neurotrauma and Critical Care, will present an exciting integration of state-of-the-art clinical, translational and basic science information on the consequences of damage to the nervous system. This year's meeting, whose theme is "Understanding CNS Injury—Are We Still in the Wild West?", will have informative discovery, translational, and clinical sessions and a workshop, as well as programs for students and early career investigators. These focus on topics of current research and practice issues. Patient perspective talks and networking opportunities will round out the program. CME credits will be provided for each day of the meeting.

The four host hotels are in the heart of old town, close to museums, short walks to many and varied restaurants, shops, and Canyon Road. Our two social events include an opening welcome reception and an evening at the New Mexico History Museum. There will also be time for you to enjoy the city as well whether it is at lunch or in the evening.

No other conference combines basic science, preclinical modeling and clinical approaches to studying brain and spinal cord injury to the extent that is done at this meeting. We look forward to an exciting and productive few days. On behalf of the members of the Program Committee, along with the officers, councilors and members of the National Neurotrauma Society, we welcome you to Santa Fe, and hope that you have an enjoyable and educational meeting!

Sincerely,



Helen Bramlett, Ph.D.  
President, National Neurotrauma Society  
NNS 2015 Scientific Program Chair



# Neurotrauma 2015 Supporters

The National Neurotrauma Society gratefully acknowledges receiving generous support from the following sponsors:

## PLATINUM (\$10,000+)



## GOLD (\$5,000-\$9,999)



## BRONZE & SILVER (\$2,500-\$4,999)



# Exhibitors

## **AANS/CNS Section on Neurotrauma & Critical Care [17]**

[www.neurotraumasection.org](http://www.neurotraumasection.org)

The purpose of the AANS/CNS Section is to provide a forum for education and research on trauma and critical care of the nervous system, to coordinate activities and programs relating to trauma, critical care and sports medicine for the parent organizations and other societies, committees and agencies, to represent the parent organizations, at their discretion, at any organization or group on matters relating to trauma, critical care and sports medicine, to advise the parent organizations of activities which relate to nervous system trauma and critical care by other individuals, group and/or agencies.

## **Baylor Scott & White Health [19]**

[www.sw.org](http://www.sw.org)

The largest not-for-profit health care system in Texas, Baylor Scott & White Health was born from the 2013 combination of Baylor Health Care System and Scott & White Health. Known for exceptional patient care for more than a century, Baylor Scott & White Health includes 49 hospitals, more than 500 patient care sites, 5,800 affiliated physicians and 35,000 employees as well as the Scott & White health plan.

## **Centre for Neuro Skills [10]**

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

Since 1980, Centre for Neuro Skills (CNS) has delivered postacute medical treatment, therapeutic rehabilitation and disease management services with specially-trained staff for individuals recovering from acquired brain injury. Our cost-effective, patient-centered programs maximize treatment effect, learning generalization and stability of recovery in real-world settings. The goal: to facilitate skill acquisition and help each patient resume a normal rhythm of living.

## **Codman Neuro [6] and Depuy Synthes [7]**

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

At the DePuy Synthes Companies, we listen to the moving stories of patients experiencing orthopaedic and neurological conditions and to the healthcare professionals who treat them. Then we deliver total solutions to help people live full lives.

## **Defense & Veterans Brain Injury Center [22]**

<http://dvbic.dcoe.mil>

DVBIC, the traumatic brain injury operational component of the Defense Centers of Excellence for Psychological Health and Traumatic Brain Injury, serves active duty military, their beneficiaries, and veterans with traumatic brain injuries through innovative clinical research initiatives, state-of-the-art clinical care, and educational programs.

## **Ethicon [4]**

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

At Ethicon, we are committed to advancing surgical care worldwide to enhance patients' lives. By working together, we can find solutions to expand access to quality care globally. Our solutions must provide every customer not only the best product offerings, but the best value and service.

## **Federal Interagency Traumatic Brain Injury Research (FITBIR) [14]**

[fitbir.nih.gov](http://fitbir.nih.gov)

The Federal Interagency Traumatic Brain Injury Research (FITBIR) informatics system was developed to share data across the entire TBI research field and to facilitate collaboration between laboratories, as well as interconnectivity with other informatics platforms.

## **Hemedex [2]**

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

Hemedex's technology provides early warning of tissue ischemia, helps target therapy, monitors real-time response to intervention, and provides prognostic information. Hemedex provides a complete solution for continuous, real-time measurement of cerebral perfusion in absolute units by offering the Bowman Perfusion Monitor, perfusion probe, titanium bolts and cranial drill bits.

## **Hocoma [9]**

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

Hocoma is the global market leader for the development, manufacturing and marketing of robotic and sensorbased devices for functional movement therapy. We are a globally active medical technology company based near Zurich, Switzerland. We develop innovative therapy solutions working closely with leading clinics and research centers.

## **Integra LifeSciences [1]**

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

Integra LifeSciences, a world leader in medical technology, is dedicated to limiting uncertainty for surgeons, so they can concentrate on providing the best patient care. Integra offers innovative solutions in orthopedic extremity surgery, neurosurgery, spine surgery, and reconstructive and general surgery.

## **Journal of Neurotrauma [29]**

[www.liebertpub.com/neu](http://www.liebertpub.com/neu)

The Journal of Neurotrauma is the official journal for NNS and the flagship, peer-reviewed publication for reporting on the latest advances in both the clinical and laboratory investigation of traumatic brain and spinal cord injury. Membership in NNS provides you with an online subscription with immediate access to the Journal's fully searchable archival content of over 31 years.

## **K2M Group Holdings, Inc. [15]**

[www.k2m.com](http://www.k2m.com)

K2M Group Holdings, Inc. is a global medical device company focused on designing, developing and commercializing innovative complex spine and minimally invasive spine technologies and techniques used by spine surgeons to treat some of the most difficult and challenging spinal pathologies. K2M has leveraged these core competencies to bring to market an increasing number of products for patients suffering from degenerative spinal conditions. These technologies and techniques, in combination with a robust product pipeline, enables the company to favorably compete in the global spinal surgery market.

## **Leica Biosystems [8]**

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

Leica Biosystems, a global leader in workflow solutions and automation, provides anatomical pathology laboratories and researchers a comprehensive product range for each step in the pathology process, from sample preparation and staining to imaging and reporting. Our easy-to-use and consistently reliable offerings help improve workflow efficiency and diagnostic confidence.

## **Moberg Research [24]**

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

The mission of Moberg Research is to develop an integrated, patient-centric, information environment to improve patient safety and optimize care. Our focus application area is in the urgent, acute, and surgical care of neurological patients such as head trauma, stroke, aneurysms, and related disorders.

## **National Neurotrauma Society [30a]**

[www.neurotrauma.org](http://www.neurotrauma.org)

The National Neurotrauma Society is committed to the promotion of neurotrauma research by enhancing communications, providing a forum, and increasing support on the national and international level. The National Neurotrauma Society seeks to accelerate research that will provide answers for clinicians and ultimately improve the treatments available to patients.

## **Neuroscience Associates Inc. [3]**

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

Proprietary MultiBrain® and MultiCord® technologies enable simultaneous sectioning and staining of up to 40 neuronal tissues, achieving uniform processing across treatment groups. Coupling mass production neurohistology with staining expertise including standard stains, immunohistochemistry and specialty stains for disintegrative degeneration and Alzheimer's pathology, Neuroscience Associates significantly reduces client's R&D cycle times.

## **One Mind [29]**

[www.onemind.org](http://www.onemind.org)

One Mind is a non-profit organization dedicated to benefiting all affected by brain illness and injury through fostering fundamental changes that will radically accelerate the development and implementation of improved diagnostics, treatments and cures — while eliminating the stigma that comes with mental illness. Our mission is fueled by our belief in open science principles and creating global public-private partnerships among governmental, corporate, scientific and philanthropic communities.

## **Oxyhealth LLC [20/21]**

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

At OxyHealth, our mission is to ethically deliver chambers to doctors, who know the science they are prescribing to patients, who actually need this product. Quite simply, OxyHealth wants to provide hyperbaric chambers to those who have been examined, diagnosed, and deemed to need our chambers—to those patients who will gain from a physician's hands-on protocol and expertise.

## **Penn Center for Brain Injury & Repair [13]**

[www.med.upenn.edu/cbir](http://www.med.upenn.edu/cbir)

Over 25 principal investigators and their research personnel form the Penn Center for Brain Injury and Repair. Working in a highly collaborative environment, these researchers are studying ways to significantly improve the quality of life for people suffering from traumatic brain injury (TBI) and to prevent the "secondary" or delayed injuries that are initiated by brain trauma.

## **QuesGen Systems, Inc. [26]**

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

QuesGen Systems is a web-based CTMS (Clinical Trial Management System) developed for academic and commercial research studies and clinical trials with a particular focus and expertise in the area of data management for TBI Research. The QuesGen platform is not only HIPAA compliant but is also CFR 21 Part 11 certified. QuesGen offers application management of all information from recruiting and screening of prospective participants, tracking and collecting all data during the execution of the study and provides tools that allow easy extract into leading statistical packages.

## **Raumedic [23]**

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

Raumedic supplies precision neuromonitoring products for rapid, safe and accurate ICP, temperature and oxygen partial pressure measurements. NEUROVENT-PTO integrates ICP, temperature and oxygen partial pressure into 1 catheter, with no catheter calibration or refrigeration necessary. NEUROVENT ventricular ICP catheters can simultaneously drain CSF and monitor ICP and temperature.

## **SC Medical Books / Elsevier [27]**

<http://www.us.elsevierhealth.com/>

Finest quality medical publications.

## **Siemens Healthcare [18]**

[www.usa.healthcare.siemens.com](http://www.usa.healthcare.siemens.com)

Siemens Healthcare, Imaging and Therapy Divisions provide advanced imaging in the core neuro specialties of Computed Tomography, Neuro Interventional/Neuro Surgery and Magnetic Resonance.

## **University of California BIRC [25]**

<http://neurosurgery.ucla.edu>

The faculty members of UCLA Neurosurgery are committed to providing the finest and most comprehensive patient care through innovative clinical programs in minimally invasive brain and spinal surgery, neuroendoscopy, neuro-oncology for both adult and pediatric brain tumors, cerebrovascular surgery, stereotactic radiosurgery for brain and spinal disorders, surgery for movement disorders such as Parkinson's disease, and epilepsy surgery.

## **University of Kentucky [11]**

[www.mc.uky.edu/scobirc](http://www.mc.uky.edu/scobirc)

The Spinal Cord and Brain Injury Research Center (SCoBIRC) at the University of Kentucky College of Medicine was established in 1999 to promote both individual and collaborative studies on injuries to the spinal cord and brain that result in paralysis or other loss of neurological function.

## **VisitLEX / Lexington CVB [12]**

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

Lexington, Kentucky showcases all Kentucky's charm, natural beauty and Southern hospitality with elegance and sophistication. We've distilled all the best Kentucky has to offer in one charming but cosmopolitan city. Visit our booth to learn more about the site of Neurotrauma 2016!

## **Women in Neurotrauma Research [30b]**

[www.nationalneurotraumasociety.org/wintr](http://www.nationalneurotraumasociety.org/wintr)

WINTR is an organization established to promote international gender equality in neurotrauma research. WINTR is an organization for all individuals interested in these aims, regardless of gender. We appreciate a wide diversity of ideas and opinions to help the organization successfully meet its goals. The mission of WINTR is to promote gender equality through mentoring and networking activities.

## **ZOLL Medical Corporation [7]**

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

ZOLL Medical Corporation, a leader in medical products and software solutions, offers Intravascular Temperature Management (IVTM™) solutions, which provide healthcare professionals with the power and control needed to rapidly, safely, and more effectively manage the core body temperature of critically ill or surgical patients with warming and cooling applications.

# Invited Faculty Speakers & Chairs

NAME	UNIVERSITY	SESSION	DAY	ROLE
Denes Agoston, MD, PhD	Uniformed Services University	PL07	WED	Speaker & Session Chair
Kim Anderson-Erisman, PhD	University of Miami	S02	MON	Session Chair
		PL04	TUES	Session Chair
Esperanza Arias Perez, PharmD, PhD	Einstein University	PL06	WED	Speaker
Vishal Bansal, MD	University of California, San Diego	S13	TUES	Speaker
William Barr, PhD	New York University	PL03	TUES	Speaker
D. Michele Basso, EdD	Ohio State University	S09	TUES	Speaker & Session Chair
Larry Benowitz, PhD	Boston Children's Hospital, Harvard University	PL06	WED	Speaker
Detlev Boison, PhD	Legacy Research Institute, Dow Neurobio Labs	S14	TUES	Speaker
Corina Bondi, PhD	University of Pittsburgh	PL03	TUES	Speaker & Session Chair
Cesar Borlongan, PhD	University of South Florida	S01	MON	Speaker
Helen Bramlett, PhD	University of Miami	PRES	ALL	Program Chair
Robert Brownstone, MD, PhD	Dalhousie University	S06	MON	Speaker
Mark Burns, PhD	Georgetown University	S05	WED	Speaker & Session Chair
Susan Charlifue, PhD	Craig Hospital	S02	MON	Speaker
Dawn Comstock, PhD	University of Colorado, Denver	S07	TUES	Speaker
Rachel Cowan, PhD	University of Miami	S02	MON	Speaker
Charles Cox, Jr., MD	University of Texas	S04	MON	Speaker & Session Chair
Fiona Crawford, PhD	Roskamp Institute	S05	MON	Speaker
Pramod Dash, PhD	University of Texas	S04	MON	Speaker
Sanjay Dhall, MD	University of California, San Francisco	AANS 1	SUN	Speaker
Ramon Diaz-Arrastia, MD, PhD	Uniformed Services University	S03	MON	Speaker
Dara Dickstein, PhD	Mt. Sinai Hospital	PL05	TUES	Speaker
W. Dalton Dietrich, PhD	University of Miami	PL02	MON	Speaker & Session Chair
Ann-Christine Duhaime, MD	Harvard University	AANS 4	SUN	Speaker
Timothy Duong, PhD	University of Texas San Antonio	S03	MON	Speaker & Session Chair
Linda Ewing-Cobbs, PhD	University of Texas Health Science Center	S04	MON	Speaker & Session Chair
Sam Gandy, MD, PhD	Mt. Sinai Hospital	PL05	WED	Session Chair
Aruna Ganju, MD	Northwestern University	AANS 3	SUN	Speaker
Gerard Gioia, PhD	Children's National Medical Center	S07	TUES	Speaker
Christopher Giza, MD	University of California Los Angeles	S07	TUES	Session Chair
Jonathan Godbout, PhD	Ohio State University	S09	TUES	Speaker
Grace Griesbach, PhD	Centre for NeuroSkills	S09	TUES	Speaker
Kevin Guskiewicz, PhD	University of North Carolina	S07	TUES	Speaker
Jennifer Hay	University of Glasgow	WLW	MON	Speaker
Michal Hetman, MD, PhD	University of Louisville	PL06	WED	Session Chair
Ramona Hicks, PhD	One Mind	S10	TUES	Session Chair
Gregory Holmes, PhD	Penn State University	PL01	MON	Session Chair
Jason Huang, MD	Baylor Scott & White Health	AANS 1	SUN	Speaker
Edwin Jackson, PhD	University of Pittsburgh	S14	TUES	Speaker
Travis Jackson, PhD	University of Pittsburgh	PL01	MON	Speaker
Victoria E. Johnson, PhD	University of Pennsylvania	WLW	MON	Speaker
Barry Jordan, MD	Burke Rehabilitation Hospital	S05	MON	Session Chair
		PL05	TUES	Speaker
Jenifer Juranek, PhD	University of Texas	S04	MON	Speaker
Sujatha Kannan, MD	Johns Hopkins University	S01	MON	Speaker
Gregory Kapinos, MD	Hofstra University	AANS 2	SUN	Speaker
Anthony Kline, PhD	University of Pittsburgh	PL03	TUES	Session Chair
Patrick Kochanek, MD	University of Pittsburgh	S08	TUES	Speaker
		S14	WED	Session Chair
Shekar Kurpad, MD	Medical College of Wisconsin	AANS 3	SUN	Session Chair
Michael Lane, PhD	Drexel University	PL01	MON	Speaker



# Invited Faculty Speakers & Chairs

NAME	UNIVERSITY	SESSION	DAY	ROLE
Michelle LaPlaca, PhD	Georgia Institute of Technology/Emory University	S07	TUES	Session Chair
Vance Lemmon, PhD	University of Miami	PL07	WED	Speaker
Allan Levi, MD, PhD	University of Miami	AANS 3	SUN	Speaker
		PL02	MON	Speaker
Jonathan Lifshitz, PhD	University of Arizona	S13	WED	Session Chair
Cathy Liu, MD	University of California, Davis	PL04	TUES	Speaker
Bruce Lyeth, PhD	University of California, Davis	S12	TUES	Session Chair
David Magnuson, PhD	University of Louisville	S06	MON	Speaker
Christina Master, MD	CHOP/University of Pennsylvania	AANS 4	SUN	Speaker
Andrew Mayer, PhD	The Mind Research Network	S03	MON	Speaker
Mary Ellen Michel, PhD	National Institutes of Health	WNR	MON	Speaker
Stefania Mondello, MD, PhD	University of Messina	S08	TUES	Speaker
Andre Obenaus, PhD	Loma Linda University	S03	MON	Session Chair
David Okonkwo, MD, PhD	University of Pittsburgh	PL02	MON	Speaker
Monica Perez, PT, PhD	University of Miami	PL01	MON	Speaker
Daniel Perl, MD	Uniformed Services University	AANS 4	SUN	Speaker
Phillip Popovich, PhD	Ohio State University	S11	TUES	Session Chair
		S13	WED	Speaker
Enrico Rejc, PhD	University of Louisville	AANS 3	SUN	Speaker
Courtney Robertson, MD	Johns Hopkins University	S01	MON	Session Chair
Richard Rodgers, MD	Goodman Campbell	AANS 1	SUN	Session Chair
Susanna Rosi, PhD	University of California, San Francisco	S01	MON	Session Chair
Uzma Samadani, MD, PhD	New York University	AANS 4	SUN	Session Chair
Sujata Saraswat, PhD	University of Louisville	PL06	WED	Speaker
Michael Schwarzschild, MD, PhD	Harvard University	S14	WED	Speaker
Bridgette Semple, PhD	University of Melbourne	S15	WED	Speaker & Session Chair
Kiarash Shahlaie, MD, PhD	University of California, Davis	PL04	TUES	Speaker
Lee Shapiro, MD	Texas A&M University	S13	WED	Speaker
Deborah Shear, PhD	Walter Reed Army Institute of Research	S08	TUES	Speaker
Thomas Sick, PhD	University of Miami	S15	WED	Speaker
Soren Singel, MD	Baylor Scott & White Health	AANS 2	SUN	Speaker
William Smith, MD, PhD	University Medical Center	AANS 1	SUN	Speaker
Douglas H. Smith, MD	University of Pennsylvania	PL07	WED	Speaker
Diane Snow, PhD	University of Kentucky	PL01	MON	Session Chair
William Stewart, PhD	University of Glasgow	WLW	MON	Speaker & Session Chair
Martina Stippler, MD	Harvard University	AANS 2	SUN	Speaker
James Stone, MD, PhD	University of Virginia	PL05	WED	Speaker
Emily Swartz-Besecker, PhD	Gettysburg College	S13	WED	Session Chair
Aya Takeoka, PhD	University of Basel	S06	MON	Speaker
Wolfram Tetzlaff, MD, PhD	University of British Columbia, ICORD	PL07	WED	Speaker
Christine Thomas, PhD	University of Miami	S02	MON	Speaker
Frank Tortella, PhD	Walter Reed Army Institute of Research	S08	TUES	Session Chair
Jamie Ullman, MD	North Shore University Hospital	AANS 2	SUN	Session Chair
Mike Vitek, PhD	Duke University	S05	MON	Speaker
Cole Vonder Haar, PhD	University of British Columbia	PL03	TUES	Speaker
Amy Wagner, MD	University of Pittsburgh	S15	WED	Speaker
Briana Walker-Tavano	Briana Walker International, Inc.	PL04	TUES	Speaker
Patricia Washington, PhD	Georgetown University	WLW	MON	Session Chair
Scott Whittemore, PhD	University of Louisville	S06	MON	Session Chair
		PL06	WED	Session Chair
Catharine Winstanley, PhD	University of British Columbia	S01	MON	Speaker

# GENERAL INFORMATION

## Registration Desk

The NNS 2015 Registration & Information Desk is located in the Main Lobby of the Santa Fe Convention Center. Visit during these hours to pick up your name badge, reprint a lost badge, ask general questions or add a ticketed event (on a space available basis).

SUNDAY, JUNE 28	7:00am-6:00pm
MONDAY, JUNE 29	7:00am-6:00pm
TUESDAY, JUNE 30	7:00am-6:00pm
WEDNESDAY, JULY 1	7:00am-4:00pm

## Included Meals & Lunch Tickets

Registration for Neurotrauma includes the Welcome Reception on Sunday, daily breakfasts, coffee breaks and wine & cheese poster receptions.

With the exception of the the WiNTR Lunch Session on Monday and the Student/Post Doc lunch on Wednesday, all lunches are on your own. Tickets for these lunches were sold in advance when you registered for the conference. Onsite requests to add lunch tickets are on a space available basis only and cannot be guaranteed. *If you pre-ordered a lunch ticket and can no longer attend, please visit the Registration Desk.*

**All pre-purchased event tickets are included in your name badge envelope.**

## Networking & Social Events

### SUNDAY

Welcome Reception *Included for all attendees*

### MONDAY

WiNTR Lunch Session *Lunch ticket \$20, pre-order*  
 Wine & Cheese Poster Reception *Included for all attendees*  
 WiNTR Mentoring Reception *Tickets \$25/\$15 students*

### TUESDAY

Wine & Cheese Poster Reception *Included for all attendees*  
 Land of Enchantment Evening *Tickets \$25/\$15 students*

### WEDNESDAY

Awards Ceremony *Included for all attendees*  
 Student/Post Doc Lunch *FREE, advance RSVP only*

Tickets for these events were sold in advance when you registered for the conference. Onsite requests to add networking or social event tickets are on a space available basis only and cannot be guaranteed. *If you would like to purchase a ticket or if you pre-ordered a ticket and can no longer attend, please visit the Registration Desk.*

## Exhibit Hours

All exhibits are located in Sweeney A-D Ballroom at the Santa Fe Convention Center.

SUNDAY, JUNE 28	10:00am-1:00pm
MONDAY, JUNE 30	7:00am-10:30am; 3:00pm-6:00pm
TUESDAY, JULY 1	7:00am-10:30am; 3:00pm-6:00pm

## iWatch Drawing

Have your Exhibitor card signed at 10 or more exhibit booths and return it to the Registration Desk by 11:00 am on Wednesday to be eligible to win an iWatch. The drawing will be held during the Awards Ceremony on Wednesday morning. You must be present to win.

## Educational Learning Objectives

At the conclusion of this three day symposium, attendees will be able to:

- I. Describe injury models and novel approaches to study traumatic brain and spinal cord injury.
- II. Identify advances in therapeutic targeting to enhance outcome after central nervous system injury.
- III. Discuss controversial issues in the translation of therapeutic treatments from the laboratory to the clinic.

## Post-Conference Evaluation Survey

**All attendees will receive an overall survey via email on July 2.**

Your feedback helps us evaluate and improve the program for future years. Please be sure to complete this brief 5 minute survey. No code needed.

## Future Meetings

**Call for Proposals for Neurotrauma 2016**

On August 1, 2015, all NNS members will receive an email invitation to submit proposals for scientific sessions for Neurotrauma 2016. Proposals will be reviewed by the 2016 Program Committee and combined with suggestions taken from the overall evaluation survey results to determine the program for next years' meeting.

**NNS 2016 Proposal Deadline: September 15, 2015**

**Abstract Deadline: April 1, 2016**

## Download the NNS 2015 Mobile App

**The Neurotrauma 2015 mobile app is available for download from iTunes and the Google Play store.** The mobile app features include basic event information, venue maps, the ability to build a personalized agenda. You will be able to search all abstracts and speakers, take notes and receive push messages from the conference organizer so you remain up-to-date on all of the latest information.

# SCHEDULE-AT-A-GLANCE

## SUNDAY, JUNE 28

7:00 am - 6:00 pm <b>REGISTRATION DESK OPEN</b> Santa Fe Convention Center Main Lobby							
7:45 - 8:45 <b>CNTA Breakfast</b> La Fonda	8:00 - 12:00 <b>Chinese Neurotrauma Association Meeting</b> New Mexico Room @ La Fonda	Starting at 1:00 pm Poster Mounting (Groups A & B) Sweeney A-D @ SFCC	1:30 - 3:00 <b>JNT Editorial Board Meeting</b> New Mexico Room @ La Fonda	03:00 - 4:30 <b>WINTR Business Meeting</b> Santa Fe Room @ La Fonda	4:30 - 6:00 <b>NNS Officers &amp; Councilors Meeting</b> Stiha Room @ LaFonda		7:00 - 8:30 <b>Welcome Reception</b> La Terazza Rooftop Patio @ La Fonda
7:30 - 8:30 <b>AANS Breakfast</b> SFCC	8:30 - 12:00 <b>AANS/CNS Sessions I &amp; II</b> O'Keefe Room @ SFCC	<b>BREAK</b>	1:00 - 4:00 <b>AANS/CNS Sessions III &amp; IV</b> O'Keefe Room @ SFCC				

## MONDAY, JUNE 29 - All sessions at SFCC

7:00 am - 6:00 pm <b>REGISTRATION DESK OPEN</b> Santa Fe Convention Center Main Lobby											
7:00 - 7:45 <b>Poster Session I:</b> Groups A1-A4 Sweeney A-D	PRESIDENT'S WELCOME	8:00 - 9:15 <b>PL01</b> New Investigators & New Visions for CNS Injury Research Sweeney E-F	9:15 - 10:30 <b>S01</b> Clinically Relevant Models of Neuro-inflammation After TBI Sweeney E-F	COFFEE BREAK	11:00 - 12:15 <b>S04</b> Progenitor Cell Therapy for Adult TBI Sweeney E-F	12:15 - 1:45 <b>WINTR Lunch Session</b> Human TBI Neuropathology Peralta Room *ticket required*	1:45 - 3:00 <b>PL02</b> Therapeutic Hypothermia & Targeted Temperature Management After SCI & TBI: Is the Verdict Still Out? Sweeney E-F	3:00 - 4:00 <b>Poster Session II:</b> Groups A5-A8 Sweeney A-D	4:00 - 5:00 <b>Poster Session III:</b> Groups B1-B4 Sweeney A-D	5:00 - 6:00 <b>Poster Session IV:</b> Groups B5-B7 Sweeney A-D	6:00 - 8:00 <b>WINTR Mentoring &amp; Networking Reception</b> Georgia O'Keefe Museum  *ticket required*
<b>Breakfast &amp; Exhibits</b> Sweeney A-D		9:15 - 10:30 <b>S02</b> Age & SCI O'Keefe	11:00 - 12:15 <b>S05</b> The Role of apoE & APOE Genotype in Outcome after TBI Coronado		12:15 - 1:45 <b>S03</b> Novel & Emerging Imaging for Detection & Diagnosis of TBI Coronado	11:00 - 12:15 <b>S06</b> Genetic Dissection of Locomotor Circuitry O'Keefe	FREE TIME LUNCH ON YOUR OWN  All other attendees	3:00 - 4:00 <b>"Sweet Treat" Coffee Break &amp; Exhibits</b>	4:00 - 5:00 <b>Poster Session III:</b> Groups B1-B4 Sweeney A-D	5:00 - 6:00 <b>Poster Session IV:</b> Groups B5-B7 Sweeney A-D	6:00 - 8:00 <b>Wine &amp; Cheese &amp; Exhibits</b>  After 6:00 Poster Removal (Groups A & B) Poster Mounting (Groups C&D)

## TUESDAY, JUNE 30 - All sessions at SFCC

7:00 am - 6:00 pm <b>REGISTRATION DESK OPEN</b> Santa Fe Convention Center Main Lobby											
7:00 - 7:45 <b>Poster Session V:</b> Groups C1-C5 Sweeney A-D	ANNOUNCEMENTS	8:00 - 9:15 <b>PL03</b> Executive Function After Experimental & Clinical TBI Sweeney E-F	9:15 - 10:30 <b>S07</b> Clinical Science of Sports Concussion Coronado	COFFEE BREAK	11:00 - 12:15 <b>PL04</b> The Patient's Perspective Sweeney E-F	12:15 - 1:45 <b>NNS Officers &amp; Councilors Lunch</b> Santa Fe School of Cooking	1:45 - 3:00 <b>S10</b> Open Communications: TBI Sweeney E-F	3:00 - 4:00 <b>Poster Session VI:</b> Groups C6-C9 Sweeney A-D	4:00 - 5:00 <b>Poster Session VII:</b> Groups D1-D6 Sweeney A-D	5:00 - 6:00 <b>Poster Session VIII:</b> Groups D7-D9 Sweeney A-D	7:00 - 10:00 <b>Social Event: "An Evening in the Land of Enchantment"</b> Palace of the Governors & New Mexico History Museum  *ticket required*
<b>Breakfast &amp; Exhibits</b> Sweeney A-D		8:00 - 9:15 <b>PL03</b> Executive Function After Experimental & Clinical TBI Sweeney E-F	9:15 - 10:30 <b>S08</b> Operation Brain Trauma Therapy Sweeney E-F		11:00 - 12:15 <b>PL04</b> The Patient's Perspective Sweeney E-F	12:15 - 1:45 <b>NNS Officers &amp; Councilors Lunch</b> Santa Fe School of Cooking	1:45 - 3:00 <b>S11</b> Open Communications: SCI O'Keefe	3:00 - 4:00 <b>Poster Session VI:</b> Groups C6-C9 Sweeney A-D	4:00 - 5:00 <b>Poster Session VII:</b> Groups D1-D6 Sweeney A-D	5:00 - 6:00 <b>Poster Session VIII:</b> Groups D7-D9 Sweeney A-D	7:00 - 10:00 <b>Social Event: "An Evening in the Land of Enchantment"</b> Palace of the Governors & New Mexico History Museum  *ticket required*
7:00 - 7:45 <b>NNS Business Meeting</b> Coronado		8:00 - 9:15 <b>PL03</b> Executive Function After Experimental & Clinical TBI Sweeney E-F	9:15 - 10:30 <b>S09</b> Influence of Lesion, Stress & Exercise on Blood Brain Barrier Permeability in CNS O'Keefe		11:00 - 12:15 <b>PL04</b> The Patient's Perspective Sweeney E-F	12:15 - 1:45 <b>NNS Officers &amp; Councilors Lunch</b> Santa Fe School of Cooking	1:45 - 3:00 <b>S12</b> Open Communications: Clinical Coronado	3:00 - 4:00 <b>Poster Session VI:</b> Groups C6-C9 Sweeney A-D	4:00 - 5:00 <b>Poster Session VII:</b> Groups D1-D6 Sweeney A-D	5:00 - 6:00 <b>Poster Session VIII:</b> Groups D7-D9 Sweeney A-D	7:00 - 10:00 <b>Social Event: "An Evening in the Land of Enchantment"</b> Palace of the Governors & New Mexico History Museum  *ticket required*

## WEDNESDAY, JULY 1 - All sessions at SFCC

7:00 am - 4:00 pm <b>REGISTRATION DESK OPEN</b> Santa Fe Convention Center Main Lobby									
7:00 - 7:45 <b>Breakfast</b> Sweeney A-D	ANNOUNCEMENTS	8:00 - 9:15 <b>PL05</b> Neuroimaging of Chronic Traumatic Encephalopathy Sweeney E-F	9:15 - 10:30 <b>S13</b> Brain Injury: Effects on Physiology & Function Coronado	COFFEE BREAK	11:00 - 11:45 <b>Awards Ceremony</b> Sweeney E-F	11:45 - 1:00 <b>Student / Post-Doc Lunch</b> Hosted by NNS Officers & Councilors Sweeney A-B *ticket required*	1:00 - 2:15 <b>PL06</b> Cell Death is Still Alive Sweeney E-F	2:15 - 3:45 <b>PL07</b> Facilitating Transparency in Data Analysis for TBI & SCI Research Sweeney E-F	3:45 - 4:00 <b>Closing Remarks</b> Introduction of 2016 President Sweeney E-F
7:00 - 7:45 <b>NNS 2016 Planning Committee Meeting</b> Teseque		8:00 - 9:15 <b>PL05</b> Neuroimaging of Chronic Traumatic Encephalopathy Sweeney E-F	9:15 - 10:30 <b>S14</b> Purines-Forgotten Mediators in CNS Injury Sweeney E-F		11:00 - 11:45 <b>Awards Ceremony</b> Sweeney E-F	11:45 - 1:00 <b>Student / Post-Doc Lunch</b> Hosted by NNS Officers & Councilors Sweeney A-B *ticket required*	1:00 - 2:15 <b>PL06</b> Cell Death is Still Alive Sweeney E-F	2:15 - 3:45 <b>PL07</b> Facilitating Transparency in Data Analysis for TBI & SCI Research Sweeney E-F	3:45 - 4:00 <b>Closing Remarks</b> Introduction of 2016 President Sweeney E-F
		8:00 - 9:15 <b>PL05</b> Neuroimaging of Chronic Traumatic Encephalopathy Sweeney E-F	9:15 - 10:30 <b>S15</b> Post-Traumatic Epilepsy O'Keefe		11:00 - 11:45 <b>Awards Ceremony</b> Sweeney E-F	11:45 - 1:00 <b>Student / Post-Doc Lunch</b> Hosted by NNS Officers & Councilors Sweeney A-B *ticket required*	1:00 - 2:15 <b>PL06</b> Cell Death is Still Alive Sweeney E-F	2:15 - 3:45 <b>PL07</b> Facilitating Transparency in Data Analysis for TBI & SCI Research Sweeney E-F	3:45 - 4:00 <b>Closing Remarks</b> Introduction of 2016 President Sweeney E-F

# AGENDA

## Sunday, June 28

Sunday

7:00 am - 6:00 pm	Registration Open	Santa Fe Convention Center
7:30 am - 8:30 am	AANS/CNS Continental Breakfast	O'Keefe Room @ SFCC
8:00 am - 12:00 pm	Chinese Neurotrauma Association Meeting	New Mexico Room @ La Fonda Hotel
8:30 am - 10:00 am	<b>AANS01 ACUTE CHALLENGES IN THE UNSTABLE SPINE</b> [1.5 CME] Chair: Richard Rodgers, MD, Goodman Campbell	O'Keefe Room @ SFCC
8:30-9:00	<b>AANS01-01</b> CERVICAL TRACTION FOR THE TREATMENT OF UNSTABLE SUBAXIAL INJURIES Jason Huang, MD, Baylor Scott & White	
9:00-9:30	<b>AANS01-02</b> LATERAL APPROACH TO SPINE TRAUMA William Smith, MD, PhD, University Medical Center	
9:30-10:00	<b>AANS01-03</b> TRAUMATIC THORACOLUMBAR SPINAL INJURY: AN ALGORITHM FOR MINIMALLY INVASIVE SURGICAL MANAGEMENT Sanjay Dhall, MD, University of California San Francisco	
10:00 am - 10:30 am	AANS/CNS Coffee Break & Visit Exhibits	Sweeney A-D Ballroom
10:30 am - 12:00 pm	<b>AANS02 ACUTE SURGICAL CRANIAL TRAUMA - TO DRILL OR NOT TO DRILL: THAT IS THE QUESTION</b> [1.5 CME] Chair: Jamie Ullman, MD, North Shore University Hospital	O'Keefe Room @ SFCC
10:30-11:00	<b>AANS02-01</b> CONTROVERSIES IN INTRACRANIAL MONITORING Martina Stippler, MD, Harvard Medical School	
11:00-11:30	<b>AANS02-02</b> PRECISION MEDICINE FOR ICP TREATMENT: TCD INDIVIDUALIZES TARGETING COMPLIANCE AND/OR PERFUSION AMELIORATION Gregory Kapinos, MD, Hofstra University	
11:30-12:00	<b>AANS02-03</b> MANAGEMENT OF ACUTE NEUROVASCULAR INJURY Soren Singel, MD, Baylor Scott & White Health	
12:00 pm - 1:00 pm	FREE TIME / LUNCH ON YOUR OWN	
1:00 pm - 2:30 pm	<b>AANS03 OUTCOMES AFTER SPINE TRAUMA</b> [1.5 CME] Chair: Shekar Kurpad, MD, Medical College of Wisconsin	O'Keefe Room @ SFCC
1:00-1:30	<b>AANS03-01</b> DOES TIMING MATTER? Aruna Ganju, MD, Northwestern University	
1:30-2:00	<b>AANS03-02</b> LUMBOSACRAL SPINAL CORD EPIDURAL STIMULATION FOR STANDING AFTER CHRONIC COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville	
2:00-2:30	<b>AANS03-03</b> ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami	
1:30 pm - 3:00 pm	Journal of Neurotrauma Editorial Board Meeting	New Mexico Room @ La Fonda Hotel
2:30 pm - 4:00 pm	<b>AANS04 OUTCOMES AFTER CRANIAL TRAUMA</b> [1.5 CME] Chair: Uzma Samadani, MD, PhD, New York University	O'Keefe Room @ SFCC
2:30-3:00	<b>AANS04-01</b> LONG TERM FUNCTIONAL OUTCOMES AFTER HEMICRANIECTOMY FOR TRAUMA Ann-Christine Duhaime, MD, Massachusetts General Hospital	
3:00-3:30	<b>AANS04-02</b> HOW STRONG IS THE EVIDENCE LINKING TRAUMA AND/OR TAU TO DEMENTIA? Daniel Perl, MD, Uniformed Services University of the Health Sciences	
3:30-4:00	<b>AANS04-03</b> PREVALENCE OF VISION PROBLEMS AFTER CONCUSSION IN CHILDREN 11-17 YEARS OLD Christina Master, MD, CHOP/University of Pennsylvania	
3:00 pm - 4:30 pm	WiNTR Business Meeting - <i>Open to all WiNTR members</i>	Santa Fe Room @ La Fonda Hotel
4:30 pm - 6:00 pm	NNS Officers & Councilors Meeting	Stiha Room @ La Fonda Hotel
7:00 pm - 8:30 pm	<b>WELCOME RECEPTION</b>	La Terazza Rooftop @ La Fonda Hotel

# AGENDA

## Monday, June 29

7:00 am - 6:00 pm	Neurotrauma Registration Desk Open	Main Lobby @ SFCC
7:00 am - 8:00 am	Continental Breakfast & Visit Exhibits	Sweeney A-D Ballroom
7:00 am - 8:00 am	<b>POSTER SESSION I: GROUPS A1-A4</b> [1.0 CME]	Sweeney A-D Ballroom
7:55 am - 8:00 am	President's Welcome - Helen Bramlett, PhD	Sweeney E-F Ballroom
8:00 am - 9:15 am	<b>PL01 NEW INVESTIGATORS AND NEW VISIONS FOR CNS INJURY RESEARCH</b> [1.25 CME] Chairs: Gregory Holmes, PhD, Penn State University; Diane Snow, PhD, University of Kentucky	Sweeney E-F Ballroom
8:00-8:25	<b>PL01-01</b> ENHANCING RESPIRATORY PLASTICITY FOLLOWING CERVICAL SPINAL CORD INJURY Michael Lane, PhD, Drexel University	
8:25-8:50	<b>PL01-02</b> RNA SPLICING IN CNS DAMAGE: DIAGNOSING THE INJURED SPLICEOSOME Travis Jackson, PhD, University of Pittsburgh	
8:50-9:15	<b>PL01-03</b> PLASTICITY IN THE CORTICOSPINAL SYSTEM AFTER SPINAL CORD INJURY Monica Perez, PhD, University of Miami	
9:15 am - 10:30 am	<b>S01 CLINICALLY RELEVANT MODELS OF NEUROINFLAMMATION AFTER TBI</b> [1.25 CME] Chairs: Courtney Robertson, MD, Johns Hopkins University; Susanna Rosi, PhD, UC San Francisco	Sweeney E-F Ballroom
9:15-9:40	<b>S01-01</b> NEUROINFLAMMATION IN THE DEVELOPING BRAIN AFTER INJURY Sujatha Kannan, MD, Johns Hopkins University	
9:40-10:05	<b>S01-02</b> FRONTAL LOBE INJURY AND HIGHER-ORDER COGNITIVE FUNCTIONS Catharine Winstanley, PhD, University of British Columbia	
10:05-10:30	<b>S01-03</b> TREATMENTS TO TARGET NEUROINFLAMMATION Cesar Borlongan, PhD, University of South Florida	
9:15 am - 10:30 am	<b>S02 AGE AND SCI</b> [1.25 CME] Chair: Kim Anderson-Erisman, PhD, University of Miami	O'Keeffe Room
9:15-9:40	<b>S02-01</b> FORTY YEARS OF LIVING WITH SPINAL CORD INJURY - PHYSICAL AND PSYCHOSOCIAL CHANGES OVER TIME Susan Charlifue, PhD, Craig Hospital	Sponsored by
9:40-10:05	<b>S02-02</b> MUSCLE CHANGES WITH SPINAL CORD INJURY AND AGE Christine Thomas, PhD, University of Miami	
10:05-10:30	<b>S02-03</b> ACCELERATED AGING AFTER SCI Rachel Cowan, PhD, University of Miami	
9:15 am - 10:30 am	<b>S03 NOVEL AND EMERGING IMAGING FOR DETECTION AND DIAGNOSIS OF TBI</b> [1.25 CME] Chairs: Andre Obenaus, PhD, Loma Linda University; Timothy Duong, PhD, UT Health Science Center	Coronado Room
9:15-9:40	<b>S03-01</b> MAGNETIC RESONANCE IMAGING OF MILD TRAUMATIC BRAIN INJURY Andrew Mayer, PhD, The Mind Research Network	
9:40-10:05	<b>S03-02</b> MRI OF EXPERIMENTAL TRAUMATIC BRAIN INJURY Timothy Duong, PhD, UT Health Science Center	
10:05-10:30	<b>S03-03</b> CLINICAL PHENOTYPE OF TRAUMATIC VASCULAR INJURY AND POSSIBLE THERAPEUTIC IMPLICATION Ramon Diaz-Arrastia, MD, PhD, Uniformed Services University of the Health Sciences	
10:30 am - 11:00 am	Coffee Break & Visit Exhibits	Sweeney A-D Ballroom
11:00 am - 12:15 pm	<b>S04 PROGENITOR CELL THERAPY FOR ADULT TBI: PRECLINICAL FINDINGS AND CLINICAL OUTCOMES</b> [1.25 CME] Chairs: Linda Ewing-Cobbs, PhD, UT Health Science Center; Charles Cox, Jr., PhD, UT Health Science Center	Sweeney E-F Ballroom
11:00-11:25	<b>S04-01</b> CELLULAR THERAPIES FOR TBI: TARGETS AND APPROACH Charles Cox, Jr., MD, UT Health Science Center	Sponsored by
11:25-11:50	<b>S04-02</b> PRECLINICAL MODELS OF CELLULAR THERAPY: INFLAMMATORY RESPONSE Pramod Dash, PhD, UT Health Science Center	
11:50-12:15	<b>S04-03</b> NEUROIMAGING AND FUNCTIONAL OUTCOMES AFTER CELLULAR THERAPY FOR SEVERE ADULT TBI Linda Ewing-Cobbs, PhD, UT Health Science Center Jenifer Juranek, PhD, UT Health Science Center	

Monday

# AGENDA

## Monday, June 29

Monday

11:00 am - 12:15 pm	<b>S05 THE ROLE OF apoE AND APOE GENOTYPE IN OUTCOME AFTER TBI</b> [1.25 CME] Chairs: Mark Burns, PhD, Georgetown University; Barry Jordan, MD, Burke Rehabilitation Hospital	Coronado Room
11:00-11:25	<b>S05-01</b> APOE4 AS A RISK FACTOR FOR POOR OUTCOME AFTER TBI - CLINICAL AND PRECLINICAL EVIDENCE Mark Burns, PhD, Georgetown University	
11:25-11:50	<b>S05-02</b> THE EFFECTS OF APOE GENOTYPE ON PROTEOMIC AND LIPIDOMIC RESPONSE TO INJURY IN DIFFERENT MOUSE MODELS OF TBI Fiona Crawford, PhD, The Roskamp Institute	
11:50-12:15	<b>S05-03</b> NEUROPROTECTIVE AND ANTI-INFLAMMATORY THERAPIES FOR CNS INJURY BASED UPON APOLIPOPROTEIN-E Michael Vitek, PhD, Duke University	
11:00 am - 12:15 pm	<b>S06 GENETIC DISSECTION OF LOCOMOTOR CIRCUITRY</b> [1.25 CME] Chair: Scott Whittemore, PhD, University of Louisville	O'Keeffe Room
11:00-11:25	<b>S06-01</b> CONDITIONAL SILENCING OF PROPRIOSPINAL NEURONS: HOPPING TO A NEW TUNE David Magnuson, PhD, University of Louisville	
11:25-11:50	<b>S06-02</b> TAKING A STEP TOWARDS MOTOR FUNCTIONAL RECOVERY AFTER SPINAL CORD INJURY: GENETICALLY DEFINING SPINAL MICROCIRCUITS Robert Brownstone, MD, PhD, Dalhousie University	
11:50-12:15	<b>S06-03</b> MUSCLE SPINDLE FEEDBACK DIRECTS LOCOMOTOR RECOVERY AND CIRCUIT REORGANIZATION AFTER SCI Aya Takeoka, PhD, University of Basel	
12:15 pm - 12:30 pm	Lunch Pickup for WinTR Session attendees	Lamy Foyer
12:30 pm - 1:45 pm	<b>WLW WINTR LUNCH SESSION: HUMAN TBI NEUROPATHOLOGY</b> [1.25 CME] Chairs: William Stewart, MBChB, PhD, Southern General Hospital; Patricia Washington, PhD, Georgetown University	Peralta / Lamy Room
12:30-12:55	<b>WLW1-01</b> EXPERIENCE IN EXAMINATION OF HUMAN TBI TISSUE: A NEGLECTED ART William Stewart, MBChB, PhD, Southern General Hospital	
12:55-1:20	<b>WLW1-02</b> BI-DIRECTIONAL TRANSLATIONAL STUDIES IN TBI: EXPERIMENTAL DESIGN USING HUMAN SAMPLES Victoria Johnson, PhD, University of Pennsylvania	
1:20-1:45	<b>WLW1-03</b> THE GLASGOW TRAUMATIC BRAIN INJURY ARCHIVE Jennifer Hay, University of Glasgow	
12:15 pm - 1:45 pm	FREE TIME - LUNCH ON YOUR OWN	
1:45 pm - 3:00 pm	<b>PL02 THERAPEUTIC HYPOTHERMIA AND TARGETED TEMPERATURE MANAGEMENT AFTER SCI AND TBI - IS THE VERDICT STILL OUT?</b> [1.25 CME] Chair: W. Dalton Dietrich, PhD, University of Miami	Sweeney E-F Ballroom Sponsored by <b>ZOLL</b>
1:45-2:10	<b>PL02-01</b> PERSPECTIVES ON HYPOTHERMIA AFTER TBI AND SCI - REVIEW OF NEW BASIC RESEARCH IN TEMPERATURE MANAGEMENT W. Dalton Dietrich, PhD, University of Miami	
2:10-2:35	<b>PL02-02</b> HYPOTHERMIA FOR TRAUMATIC BRAIN INJURY: IT WORKS WITH CORRECT PATIENT SELECTION David Okonkwo, MD, PhD, University of Pittsburgh	
2:35-3:00	<b>PL02-03</b> THERAPEUTIC HYPOTHERMIA AND TARGETED TEMPERATURE MANAGEMENT AFTER SCI AND TBI - IS THE VERDICT STILL OUT? Allan Levi, MD, PhD, University of Miami	
3:00 pm - 3:30 pm	"Sweet Treat" Coffee Break & Visit Exhibits	Sweeney A-D Ballroom
3:00 pm - 4:00 pm	<b>POSTER SESSION II: GROUPS A5-A8 and T1-T20</b> [1.0 CME] Student Competition Final Judging	Sweeney A-D Ballroom
4:00 pm - 5:00 pm	<b>POSTER SESSION III: GROUPS B1-B4</b> [1.00 CME]	
5:00 pm - 6:00 pm	<b>POSTER SESSION III: GROUPS B5-B7</b> [1.00 CME]	
5:00 pm - 6:00 pm	Wine & Cheese Reception with Exhibitors	Sweeney A-D Ballroom
6:00 pm - 8:00 pm	<b>WNR WinTR Mentoring &amp; Networking Reception</b> [1.00 CME] <b>WNR-1</b> CAREER DEVELOPMENT IN NEUROTRAUMA RESEARCH Mary Ellen Michel, PhD, NIH / NICHD	Georgia O'Keeffe Museum Sponsored by 

# AGENDA

## Tuesday, June 30

7:00 am - 6:00 pm	Neurotrauma Registration Desk Open	Main Lobby @ SFCC
7:00 am - 8:00 am	Continental Breakfast & Visit Exhibits	Sweeney A-D Ballroom
7:00 am - 7:45 am	NNS Society Business Meeting	Peralta/Lamy Room
7:00 am - 8:00 am	<b>POSTER SESSION V: GROUPS C1-C5</b> [1.0 CME]	Sweeney A-D Ballroom
7:55 am - 8:00 am	President's Announcements - Helen Bramlett, PhD	Sweeney E-F Ballroom
8:00 am - 9:15 am	<b>PL03 EXECUTIVE FUNCTION AFTER EXPERIMENTAL AND CLINICAL TBI</b> [1.25 CME] Chairs: Anthony Kline, PhD, University of Pittsburgh; Corina Bondi, PhD, University of Pittsburgh	Sweeney E-F Ballroom
8:00-8:25	<b>PL03-01</b> A COMBINED THERAPY OF ENVIRONMENTAL ENRICHMENT AND CITALOPRAM AMELIORATES ATTENTIONAL SET-SHIFTING PERFORMANCE AFTER BRAIN TRAUMA Corina Bondi, PhD, University of Pittsburgh	
8:25-8:50	<b>PL03-02</b> MODELING CHRONIC COGNITIVE DYSFUNCTION AFTER TBI: WHERE DO WE GO FROM HERE? Cole Vonder Haar, PhD, University of British Columbia	
8:50-9:15	<b>PL03-03</b> EXECUTIVE FUNCTION AFTER TRAUMATIC BRAIN INJURY: CHALLENGES IN ITS ASSESSMENT & MANAGEMENT William Barr, PhD, New York University	
9:15 am - 10:30 am	<b>S07 CLINICAL SCIENCE OF SPORTS CONCUSSION</b> [1.25 CME] Chairs: Christopher Giza, MD, UCLA; Michelle LaPlaca, PhD, Georgia Institute of Technology/Emory University	Coronado Room
9:15-9:40	<b>S07-01</b> EPIDEMIOLOGY OF SPORTS CONCUSSIONS R. Dawn Comstock, PhD, University of Colorado	
9:40-10:05	<b>S07-02</b> THE CHALLENGES OF CONCUSSION DIAGNOSIS IN ATHLETES Kevin Guskiewicz, PhD, University of North Carolina	
10:05-10:30	<b>S07-03</b> EVIDENCE BASED ASSESSMENT TO SPORT CONCUSSION MANAGEMENT Gerard Gioia, PhD, Children's National Medical Center	
9:15 am - 10:30 am	<b>S08 OPERATION BRAIN TRAUMA THERAPY: THE THRILL OF VICTORY AND THE AGONY OF DEFEAT</b> [1.25 CME] Chair: Frank Tortella, PhD, Walter Reed Army Institute of Research	Sweeney E-F Ballroom
9:15-9:40	<b>S08-01</b> MULTI-CENTER PRE-CLINICAL THERAPY SCREENING IN TBI: RESULTS OF THE OBTT CONSORTIUM Patrick Kochanek, MD, University of Pittsburgh	
9:40-10:05	<b>S08-02</b> A UNIQUE TOOL FOR CROSS MODEL COMPARISON IN PRECLINICAL TRAUMATIC BRAIN INJURY Deborah Shear, PhD, Walter Reed Army Institute of Research	
10:05-10:30	<b>S08-03</b> BIOMARKERS AS A WINDOW ON TBI MODELING AND THERAPEUTIC EFFICACY: RESULTS OF THE OBTT CONSORTIUM Stefania Mondello, MD, PhD, University of Messina	
9:15 am - 10:30 am	<b>S09 INFLUENCE OF LESION, STRESS AND EXERCISE ON BLOOD BRAIN BARRIER PERMEABILITY IN THE CNS</b> [1.25 CME] Chair: D. Michele Basso, PhD, Ohio State University	O'Keeffe Room
9:15-9:40	<b>S09-01</b> REMOTE BLOOD BRAIN BARRIER DISRUPTION AFTER MID-THORACIC SPINAL CORD INJURY D. Michele Basso, EdD, Ohio State University	
9:40-10:05	<b>S09-02</b> MICROGLIAL ACTIVATION AND THE RECRUITMENT OF MONOCYTES TO THE CNS: LESSONS LEARNED FROM MODELS OF PSYCHOLOGICAL STRESS AND SCI Jonathan Godbout, PhD, Ohio State University	
10:05-10:30	<b>S09-03</b> EXERCISE AFTER TRAUMATIC BRAIN INJURY: IS IT A DOUBLE-EDGED SWORD? Grace Griesbach, PhD, Centre for NeuroSkills	
10:30 am - 11:00 am	Coffee Break & Visit Exhibits	Sweeney A-D Ballroom
11:00 am - 12:15 pm	<b>PL04 THE PATIENT'S PERSPECTIVE : RECOVERY FROM SEVERE TBI</b> [1.25 CME] Chair: Kim Anderson-Erisman, PhD, University of Miami	Sweeney E-F Ballroom
11:00-11:40	<b>PL04-01</b> DOES THIS WHEELCHAIR MAKE MY BUTT LOOK BIG? Briana Walker-Tavano, Speaker, Briana Walker, Intl.	
11:40-12:15	<b>PL04-02</b> RECOVERY FROM SEVERE TBI: PATIENT PERSPECTIVE Cathy Liu, MD, University of California, Davis Kiarash Shahlaie, MD, PhD, University of California, Davis	

# AGENDA

## Tuesday, June 30

Tuesday

12:15 pm - 1:45 pm	NNS Officers & Councilors Lunch	Santa Fe School of Cooking
12:15 pm - 1:45 pm	FREE TIME - LUNCH ON YOUR OWN	
1:45 pm - 3:00 pm	<p><b>S10 OPEN COMMUNICATIONS: TBI</b> [1.25 CME]</p> <p>Chair: Ramona Hicks, PhD, One Mind</p> <p>1:45-2:00 <b>S10-01</b> PREVENTING POSTTRAUMATIC EPILEPTOGENESIS BY STIMULATING CORTICAL EXCITATORY ACTIVITY AFTER TBI Xiaoming Jin, PhD, Indiana University</p> <p>2:00-2:15 <b>S10-02</b> CHRONIC NEUROPHYSIOLOGICAL RECORDING OF THE HIPPOCAMPUS IN AWAKE BEHAVING SWINE AFTER DIFFUSE BRAIN INJURY John Wolf, PhD, University of Pennsylvania</p> <p>2:15-2:30 <b>S10-03</b> ABBREVIATED ENVIRONMENTAL ENRICHMENT CONFERS ROBUST NEUROBEHAVIORAL AND COGNITIVE BENEFITS IN BRAIN INJURED FEMALE RATS Hannah Radabaugh, University of Pittsburgh</p> <p>2:30-2:45 <b>S10-04</b> NEUROINFLAMMATORY MYELOID CELL PROCESSES ASSOCIATE WITH DIFFUSELY INJURED AXONS FOLLOWING MILD TRAUMATIC BRAIN INJURY IN MICROPIGS Audrey Lafrenaye, PhD, Virginia Commonwealth University</p> <p>2:45-3:00 <b>S10-05</b> CHARACTERIZATION OF ENDOGENOUS BRAIN-DERIVED NEUROTROPHIC FACTOR EXPRESSION IN RESPONSE TO PENETRATING BALLISTIC-LIKE INJURY Ying Deng-Bryant, PhD, Walter Reed Army Institute of Research</p>	Sweeney E-F Ballroom
1:45 pm - 3:00 pm	<p><b>S11 OPEN COMMUNICATIONS: SCI</b> [1.25 CME]</p> <p>Chair: Philip Popovich, PhD, Ohio State University</p> <p>1:45-2:00 <b>S11-01</b> THE CGRP8-37 RECOMBINANT PEPTIDE CONSTRUCT TO REDUCE CHRONIC PAIN FROM RAT SPINAL CORD INJURY Chenxu Han, PhD, Florida International University</p> <p>2:00-2:15 <b>S11-02</b> LONGITUDINAL OPTOGENETIC MAPPING OF THE CORTICOSPINAL TRACT AS A NOVEL APPROACH FOR FUNCTIONAL EVALUATION OF SPINAL CORD INJURY Xiaoming Jin, PhD, Indiana University</p> <p>2:15-2:30 <b>S11-03</b> 3D IMAGING OF AXONS IN TRANSPARENT SPINAL CORDS FROM RODENTS AND NON-HUMAN PRIMATES Pantelis Tsoufas, MD, University of Miami</p> <p>2:30-2:45 <b>S11-04</b> TARGETING THE TRPV4 CHANNEL TO REDUCE INFLAMMATION AND IMPROVE OUTCOME FOLLOWING SCI Raymond Grill, PhD, University of Mississippi</p> <p>2:45-3:00 <b>S11-05</b> ATTENUATING GASTROINTESTINAL VASCULAR PERMEABILITY AFTER SPINAL CORD INJURY Juan Herrera, PhD, UT Health Medical School</p>	O'Keeffe Room
1:45 pm - 3:00 pm	<p><b>S12 OPEN COMMUNICATIONS: CLINICAL</b> [1.25 CME]</p> <p>Chair: Bruce Lyeth, PhD, University of California, Davis</p> <p>1:45-2:00 <b>S12-01</b> A PROGNOSTIC MODEL FOR DETERMINING ONE-MONTH OUTCOMES IN MILD TRAUMATIC BRAIN INJURY Hayley Falk, Johns Hopkins University</p> <p>2:00-2:15 <b>S12-02</b> AN INITIAL EVALUATION OF THE NINDS PHENOTYPING COMMON DATA ELEMENTS FOR TRAUMATIC BRAIN INJURY Leighton Chan, PhD, National Institutes of Health</p> <p>2:15-2:30 <b>S12-03</b> ADOLESCENT TRAUMATIC BRAIN INJURY INCREASES ALCOHOL CONSUMPTION AND REWARD IN FEMALE MICE Zachary Weil, PhD, Ohio State University</p> <p>2:30-2:45 <b>S12-04</b> SINGLE EPISODE OF SEVERE AXONAL INJURY IN HUMANS IS ASSOCIATED WITH PATHOLOGY RESEMBLING CHRONIC TRAUMATIC ENCEPHALOPATHY Daniel Perl, MD, Uniformed Services University of the Health Sciences</p> <p>2:45-3:00 <b>S12-05</b> TRAUMATIC AXONAL INJURY IN THE LIVING HUMAN BRAIN: CONCORDANCE OF MICRODIALYSIS AND ADVANCED MRI APPROACHES David Brody, MD, PhD, Washington University St. Louis</p>	Coronado Room
3:00 pm - 3:30 pm	"Brain Freeze" Break & Visit Exhibits	Sweeney A-D Ballroom
3:00 pm - 4:00 pm	<b>POSTER SESSION VI: GROUPS C6-C9</b> [1.0 CME]	Sweeney A-D Ballroom
4:00 pm - 5:00 pm	<b>POSTER SESSION VII: GROUPS D1-D6</b> [1.00 CME]	
5:00 pm - 6:00 pm	<b>POSTER SESSION VIII: GROUPS D7-D9</b> [1.00 CME]	
5:00 pm - 6:00 pm	Wine & Cheese Reception with Exhibitors	Sweeney A-D Ballroom
7:00 pm - 10:00 pm	<p><b>NMHM An Evening in the Land of Enchantment</b></p> <p><i>Sponsored by the National Neurotrauma Society - Ticket Required</i></p>	NM History Museum / Palace of the Governors



# AGENDA

## Wednesday, July 1

7:00 am - 4:00 pm	Neurotrauma Registration Desk Open	Main Lobby @ SFCC
7:00 am - 8:00 am	Continental Breakfast	Sweeney A-D Ballroom
7:00 am - 8:00 am	NNS 2016 Planning Committee Meeting	Teseque Room (2nd floor)
7:55 am - 8:00 am	President's Announcements - Helen Bramlett, PhD	Sweeney E-F Ballroom
8:00 am - 9:15 am	<b>PL05 NEUROIMAGING OF CHRONIC TRAUMATIC ENCEPHALOPATHY</b> [1.25 CME] Chair: Samuel Gandy, MD, PhD, Icahn School of Medicine at Mount Sinai	Sweeney E-F Ballroom
8:00-8:25	<b>PL05-01 NEUROIMAGING CORRELATES OF REPETITIVE LOW-LEVEL BLAST EXPOSURE IN MILITARY SERVICE MEMBERS</b> James Stone, MD, PhD, University of Virginia	
8:25-8:50	<b>PL05-02 NEUROIMAGING OF BOXERS</b> Barry Jordan, MD, Burke Rehabilitation Hospital	
8:50-9:15	<b>PL05-03 THE NEUROANATOMY OF CTE</b> Dara Dickstein, PhD, Icahn School of Medicine at Mount Sinai	
9:15 am - 10:30 am	<b>S13 BRAIN INJURY: EFFECTS ON PHYSIOLOGY AND FUNCTION BEYOND THE BRAIN</b> [1.25 CME] Chairs: Jonathan Lifshitz, PhD, University of Arizona, Emily Swartz-Besecker, PhD, Gettysburg College	Coronado Room
9:15-9:40	<b>S13-01 HEPATIC AND SPLENIC CONTRIBUTIONS TO TRAUMATIC BRAIN INJURY</b> Lee Shapiro, MD, Texas A&M Health Science Center	
9:40-10:05	<b>S13-02 NEUROGENIC IMMUNE DEFICIENCY AFTER SPINAL CORD INJURY: MECHANISMS OF ACTION AND THERAPEUTIC OPPORTUNITIES</b> Phillip Popovich, PhD, Ohio State University	
10:05-10:30	<b>S13-03 INTESTINAL BARRIER DYSFUNCTION AFTER TRAUMATIC BRAIN INJURY</b> Vishal Bansal, MD, University of California, San Diego	
9:15 am - 10:30 am	<b>S14 PURINES - FORGOTTEN MEDIATORS IN CNS INJURY</b> [1.25 CME] Chair: Patrick Kochanek, MD, University of Pittsburgh	Sweeney E-F Ballroom Sponsored by
9:15-9:40	<b>S14-01 ROLE OF THE 2',3'-cAMP-ADENOSINE PATHWAY IN TRAUMATIC BRAIN INJURY</b> Edwin Jackson, PhD, University of Pittsburgh	
9:40-10:05	<b>S14-02 ROLE OF ADENOSINE IN POSTTRAUMATIC SEIZURES AND EPILEPSY: A POTENTIAL NEW TARGET</b> Detlev Boison, PhD, Legacy Research Institute, Dow Neurobio Laboratories	
10:05-10:30	<b>S14-03 URATE - A NOVEL POTENTIAL THERAPY IN CNS INJURY AND NEURODEGENERATION</b> Michael Schwarzschild, MD, PhD, Massachusetts General Hospital	
9:15 am - 10:30 am	<b>S15 POST-TRAUMATIC EPILEPSY: MECHANISMS AND MANIFESTATIONS</b> [1.25 CME] Chair: Bridgette Semple, PhD, University of Melbourne	O'Keeffe Room Sponsored by
9:15-9:40	<b>S15-01 CLINICAL RESEARCH INSIGHTS INTO PERSONAL BIOLOGY AND BIOSUSCEPTIBILITY WITH EPILEPTOGENESIS AND POST-TRAUMATIC EPILEPSY</b> Amy Wagner, MD, University of Pittsburgh	
9:40-10:05	<b>S15-02 SEIZURE SUSCEPTIBILITY AFTER TRAUMATIC INJURY TO THE PEDIATRIC BRAIN</b> Bridgette Semple, PhD, University of Melbourne	
10:05-10:30	<b>S15-03 NON-CONVULSIVE SEIZURES OBSERVED 1 YEAR FOLLOWING TRAUMATIC BRAIN INJURY</b> Thomas Sick, PhD, University of Miami	
10:30 am - 11:00 am	Coffee Break	Sweeney A-D Ballroom
11:00 am - 11:45 am	<b>AWARDS CEREMONY &amp; iWatch Drawing</b>	Sweeney E-F Ballroom
11:45 am - 1:00 pm	<b>Student / Post-Doc Lunch with NNS Officers &amp; Councilors</b>	Sweeney A-B Ballroom
11:45 am - 1:00 pm	FREE TIME - LUNCH ON YOUR OWN	
1:00 pm - 2:15 pm	<b>PL06 CELL DEATH IS STILL ALIVE</b> [1.25 CME] Chairs: Michal Hetman, MD, PhD, University of Louisville; Scott Whittemore, PhD, University of Louisville	Sweeney E-F Ballroom
1:00-1:25	<b>PL06-01 AUTOPHAGY AND NEURODEGENERATION</b> Esperanza Arias, PharmD, PhD, Albert Einstein College of Medicine	

# AGENDA

## Wednesday, July 1

1:25-1:50	<b>PL6-02 HEAVY METAL KILLS: ZINC IS AN ENDOGENOUS SUPPRESSOR OF CELL SURVIVAL AND AXON REGENERATION AFTER OPTIC NERVE INJURY</b> Larry Benowitz, PhD, Boston Children's Hospital/Harvard Medical School	
1:50-2:15	<b>PL06-03 TARGETING THE HOMEOSTATIC ARM OF THE ER STRESS PATHWAY IMPROVES FUNCTIONAL RECOVERY AFTER SCI</b> Sujata Saraswat, PhD, University of Louisville	
2:15 pm - 3:45 pm	<b>PL07 FACILITATING TRANSPARENCY IN DATA ANALYSIS FOR TBI AND SCI RESEARCH</b> [1.5 CME] Chair: Denes Agoston, MD, PhD, Uniformed Services University	Sweeney E-F Ballroom
2:15-2:37	<b>PL07-01 INTRODUCTION ABOUT BIG AND SMALL DATA IN TBI AND SCI</b> Denes Agoston, MD, PhD, Uniformed Services University	
2:37-3:00	<b>PL07-02 TOWARDS A ROADMAP FOR TRANSLATION OF CANDIDATE TREATMENTS FOR SPINAL CORD INJURY</b> Wolfram Tetzlaff, MD, PhD, University of British Columbia, ICORD	
3:00-3:22	<b>PL07-03 PRECLINICAL TRAUMATIC BRAIN INJURY COMMON DATA ELEMENTS: TOWARDS A COMMON LANGUAGE ACROSS LABORATORIES</b> Douglas H. Smith, MD, University of Pennsylvania	
3:22-3:45	<b>PL07-04 FACILITATING REPRODUCIBILITY AND DATA INTEGRATION FOR SCI RESEARCH WITH MIASCI AND REGENBASE</b> Vance Lemmon, PhD, University of Miami	
3:45 pm - 4:00 pm	<b>CLOSING REMARKS &amp; INTRODUCTION OF 2016 PRESIDENT</b> Helen Bramlett, PhD Diane Snow, PhD	Sweeney E-F Ballroom

Wednesday



The National Neurotrauma Society is committed to the promotion of neurotrauma research by enhancing communications, providing a forum, and increasing support on the National and International level. The National Neurotrauma Society seeks to accelerate research that will provide answers for clinicians and ultimately improve the treatments available to patients.

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- Eligibility for NNS research and travel awards
- Opportunity to serve on Committees and Council
- Opportunity to submit scientific session proposals for the annual meeting
- Optional membership in Women in Neurotrauma Research (WiNTR)

# STUDENT POSTER COMPETITION FINALISTS & POSTER SET UP TIMES

T1-01 3:00 PM  
Morioka, Kazuhito; Brain and Spinal Injury Center (BASIC), University of California, San Francisco  
EARLY HINDLIMB UNLOADING PRODUCES CHRONIC BIOMECHANICAL, PHYSIOLOGICAL AND MOLECULAR SIGNATURES OF MALADAPTIVE PLASTICITY IN SCI

T1-02 3:15 PM  
Deng, Lingxiao; Indiana University  
DENDRITIC MORPHOLOGY AND NEUROTRANSMITTER TYPE OF THORACIC DESCENDING PROPRIOSPINAL NEURONS IN SHAM, AXOTOMY, AND GDNF TREATMENT

T1-03 3:30 PM  
Ganpule, Shailesh; Johns Hopkins  
COMPUTATIONAL MODELING AND VALIDATION OF BRAIN DEFORMATION IN HUMAN VOLUNTEERS WITH RELEVANCE TO TRAUMATIC BRAIN INJURY

T1-04 3:45 PM  
Merkel, Steven; Temple University School of Medicine  
ADOLESCENT BRAIN INJURY INDUCES CHRONIC MESOLIMBIC NEUROINFLAMMATION THAT COINCIDES WITH ENHANCED ADDICTION-LIKE BEHAVIOR IN MICE

T1-05 4:00 PM  
Muccigrosso, Megan; The Ohio State University  
COGNITIVE DEFICITS DEVELOP 30D AFTER TBI AND ARE EXAGGERATED BY MICROGLIA-ASSOCIATED REACTIVITY TO PERIPHERAL IMMUNE CHALLENGE

T1-06 3:00 PM  
Daiutolo, Brittany; Thomas Jefferson University  
GENETIC AND PHARMACOLOGICAL MODULATION OF TRIGEMINAL PAIN MOLECULES IN A MODEL OF TRAUMATIC BRAIN INJURY

T1-07 3:15 PM  
Hong, James; Toronto Western Research Institute  
LEVEL-SPECIFIC OPTIMIZATION OF CELLULAR INTERVENTION IN SPINAL CORD INJURY - A NEW PARADIGM

T1-08 3:30 PM  
Greco, Tiffany; UCLA  
KETOGENIC DIET DECREASES OXIDATIVE STRESS AND IMPROVES MITOCHONDRIAL RESPIRATORY COMPLEX ACTIVITY

T1-09 3:45 PM  
Ogle, Sarah; University of Arizona  
EXPERIMENTAL DIFFUSE TRAUMATIC BRAIN INJURY INCREASES ASTROCYTE-SECRETED THROMBOSPONDIN-1 IN THE THALAMUS

T1-10 4:00 PM  
Nielson, Jessica; University of California San Francisco  
PERIOPERATIVE HYPERTENSION PREDICTS WORSE FUNCTIONAL RECOVERY FOLLOWING THORACIC SPINAL CORD INJURY IN RATS

T1-11 3:00 PM  
McGuire, Jennifer; University of Cincinnati  
KINASES REGULATING GLUTAMATE TRANSPORTERS ARE DIFFERENTIALLY ACTIVATED AFTER LATERAL FLUID PERCUSSION

T1-12 3:15 PM  
Murardashvili, Nino; University of Louisville  
ADIPOSE STROMAL VASCULAR FRACTION CELL TREATMENT MITIGATES INCREASED CEREBROVASCULAR PERMEABILITY AFTER TRAUMATIC BRAIN INJURY

T1-13 3:30 PM  
Harris, James; University of Pennsylvania  
NEURONAL PLASMALEMMAL PERMEABILITY/DENDRITIC BEADING IN THE HIPPOCAMPUS FOLLOWING DIFFUSE BRAIN INJURY IN SWINE

T1-14 3:45 PM  
Myrga, John; University of Pittsburgh  
COMT AND ANKK1 GENETICS INTERACT WITH DEPRESSION TO INFLUENCE BEHAVIOR FOLLOWING MODERATE/SEVERE TBI

T1-15 4:00 PM  
Lajud Avila, Naima; University of Pittsburgh  
DELAYED AND ABBREVIATED ENVIRONMENTAL ENRICHMENT AFTER EXPERIMENTAL TRAUMATIC BRAIN INJURY INCREASES HIPPOCAMPAL NEUROGENESIS

T1-16 3:00 PM  
Han, Kihwan; University of Texas at Dallas  
DEPRESSIVE SYMPTOMS ALTER AMYGDALA CONNECTIVITY IN TRAUMATIC BRAIN INJURY

T1-17 3:15 PM  
Dennis, Emily; USC Keck School of Medicine  
SLOWED CALLOSAL FUNCTION IN TBI LINKED TO IMPAIRED WHITE MATTER INTEGRITY

T1-18 3:30 PM  
Brabazon, Fiona; USUHS  
INTRANASAL INSULIN TREATMENT OF TRAUMATIC BRAIN INJURY: EFFECTS ON MEMORY AND CEREBRAL METABOLISM

T1-19 3:45 PM  
Todani, Masaki; Virginia Commonwealth University  
THE ROLE OF THE ATP-SENSITIVE POTASSIUM CHANNEL IN THE VASCULAR DYSFUNCTION ASSOCIATED WITH REPETITIVE MILD TRAUMATIC BRAIN INJURY

T1-20 4:00 PM  
Holleran, Lauren; Washington University St. Louis  
ADVANCED DIFFUSION MRI-BASED RADIOLOGICAL-PATHOLOGICAL CORRELATIONS IN CHRONIC TRAUMATIC ENCEPHALOPATHY

## Top Poster Finalists

**Author Set-Up Time:**  
Sunday beginning at 1:00 pm

**Poster Viewing Times:**  
Posters should remain on display from set up until 6:00 pm on Tuesday

**Final Competition Judging**  
Monday from 3:00 to 4:00 pm

**Author Removal Time:**  
Tuesday from 6:00 – 6:30 pm

*NNS assumes no responsibility for posters left on boards after the poster removal period.*

## Poster Sessions A & B

**Author Set-Up Time:**  
Sunday beginning at 1:00 pm

**Poster Viewing Times:**  
Posters should remain on display from set up until 6:00 pm on Monday

**Group A Presentations**  
Monday from 7:00 to 8:00 am  
Monday from 3:00 to 4:00 pm

**Group B Presentations**  
Monday from 4:00 to 5:00 pm  
Monday from 5:00 to 6:00 pm

**Author Removal Time:**  
Monday from 6:00 – 6:30 pm

## Poster Sessions C & D

**Author Set-Up Time:**  
Monday beginning at 6:00 pm

**Poster Viewing Times:**  
Posters should remain on display from set up until 6:00 pm on Tuesday

**Group C Presentations**  
Tuesday from 7:00 to 8:00 am  
Tuesday from 3:00 to 4:00 pm

**Group D Presentations**  
Tuesday from 4:00 to 5:00 pm  
Tuesday from 5:00 to 6:00 pm

**Author Removal Time:**  
Tuesday from 6:00 – 6:30 pm

# POSTER SESSION I

## CELL DEATH

A1-01 7:00 AM  
Effgen, Gwen; Columbia University  
REPETITIVE PRIMARY BLAST-INDUCED VULNERABILITY AND DEFICITS IN LONG-TERM POTENTIATION WITHOUT CELL DEATH

A1-02 7:15 AM  
Hetman, Michal; Kentucky Spinal Cord Injury Research Ctr  
INHIBITION OF RNA-POLYMERASE-1 PROTECTS OLIGODENDROCYTES AGAINST ENDOPLASMIC RETICULUM STRESS

A1-03 7:30 AM  
Miller, Anna; Medical College of Wisconsin  
USE OF AN IN VITRO MODEL TO STUDY THE ACUTE EFFECTS OF BLAST OVERPRESSURE ON NEURONS AND GLIAL CELLS

A1-04 7:00 AM  
Chao, Honglu; Nanjing Medical University  
INHIBITION OF CA<sup>2+</sup>-INDEPENDENT PLA<sub>2</sub>γ EXACERBATED THE MECHANICAL STRETCH INJURY IN PRIMARY CORTICAL NEURONS

A1-05 7:15 AM  
Shellington, David; UCSF  
A NOVEL METHOD FOR TRAUMATIC INJURY OF ORGANOTYPIC HIPPOCAMPAL SLICE CULTURES

A1-06 7:30 AM  
Lipinski, Marta; University of Maryland, Baltimore  
DISRUPTED AUTOPHAGY AFTER SPINAL CORD INJURY IS ASSOCIATED WITH ER STRESS AND NEURONAL CELL DEATH

A1-07 7:00 AM  
Lipinski, Marta; University of Maryland, Baltimore  
LYSOSOMAL DAMAGE LEADS TO INHIBITION OF AUTOPHAGY & CONTRIBUTES TO NEURONAL CELL DEATH AFTER TBI

A1-08 7:15 AM  
Parsley, Maggie; University of Texas Medical Branch  
SILICONE PAD DEMONSTRATES SIMILAR LEVEL OF EFFECTIVENESS AS NEOPRENE PAD ON FLUID PERCUSSION INJURY DEVICE

A1-09 7:30 AM  
Zeng, Yaping; University of Texas Medical Branch  
PROTECTIVE EFFECTS OF ESTROGEN IN VASCULAR SMOOTH MUSCLE CELLS AFTER RAPID-STRETCH INJURY

## SECONDARY INJURY

A2-01 7:00 AM  
Yonan, Charles; Avanir Pharmaceuticals, Inc.  
SAFETY, TOLERABILITY, AND EFFECTIVENESS OF DEXTROMETHORPHAN/QUINIDINE FOR PSEUDOBULBAR AFFECT IN TRAUMATIC BRAIN INJURY: PRISM-II

A2-02 7:00 AM  
Vedantam, Aditya; Baylor College of Medicine  
DOES A HIGHER HEMOGLOBIN TRANSFUSION THRESHOLD AFFECT THE RISK OF PROGRESSIVE HEMORRHAGE AFTER SEVERE TRAUMATIC BRAIN INJURY?

A2-03 7:15 AM  
Zhao, Shu; Indiana University School of Medicine  
THE ROLE OF 7,8-DIHYDROXYFLAVONE IN PREVENTING DENDRITE DEGENERATION IN CORTEX AFTER MODERATE TRAUMATIC BRAIN INJURY

A2-04 7:30 AM  
Liu, Nai-Kui; Indiana University School of Medicine  
PROFILE OF PHOSPHOLIPID ALTERATIONS OF SPINAL CORD INJURY: LIPIDOMIC ANALYSIS

A2-05 7:00 AM  
Sashindranath, Maithili; Monash University  
DOES THE PLASMINOGEN ACTIVATION SYSTEM REGULATE POST-TRAUMATIC DEMENTIA?

A2-06 7:15 AM  
Mullah, Saad; Naval Medical Research Center  
THE PERFLUOROCARBON NVX-108 INCREASED BRAIN TISSUE OXYGENATION AFTER CONTROLLED CORTICAL IMPACT BRAIN INJURY IN THE RAT

A2-07 7:30 AM  
Abutarboush, Rania; Naval Medical Research Center/ HJF  
OXYGEN CARRIER M-101 DID NOT CAUSE VASOCONSTRICTION AND IMPROVED CEREBRAL OXYGENATION AFTER TBI IN RATS

A2-08 7:00 AM  
Yan, Wei; The Second Affiliated Hospital, Zhejiang University  
TREATMENT AND RISK FACTORS FOR POST-TRAUMATIC EXTERNAL HYDROCEPHALUS FOLLOWING DECOMPRESSIVE CRANIECTOMY

A2-09 7:15 AM  
Jodoin, Marianne; Universite de Montreal  
THE INCIDENCE RATE OF MILD TRAUMATIC BRAIN INJURY IN PATIENTS SUFFERING FROM AN UPPER OR LOWER LIMB FRACTURE

A2-10 7:30 AM  
Gurkoff, Gene; University of California, Davis  
CALCIUM AND GLUTAMATE SIGNALING AFTER TBI VISUALIZED IN-VITRO USING GENE-ENCODED MOLECULAR SENSORS GCAMP6 AND IGLUSNFR.

A2-11 7:00 AM  
Yontuas, Heather; University Of Kentucky  
A "NEET" MITOCHONDRIAL TARGET FOR TBI: THE IMPORTANCE OF MITONEET IN PIOGLITAZONE MEDIATED NEUROPROTECTION

A2-12 7:00 AM  
Nazar, Ryan; University of Louisville  
DANTE: DEFORMITY, ANKYLOSIS, NEUROLOGIC DEFICIT, TRANSLATION, EXTENSIVE TRAUMA. A MNEMONIC PREDICTING SPINAL INSTABILITY

A2-13 7:15 AM  
Harrison, Emily; University of Nebraska Medical Center  
INCREASES IN INFLAMMATION-ASSOCIATED MIRNAS AND CHARACTERIZATION OF LONG-TERM OUTCOMES IN A CCI MODEL OF TBI

A2-14 7:30 AM  
Wu, Ping; University of Texas Medical Branch  
ENHANCING HIPPOCAMPAL NEURON SURVIVAL AFTER MULTIPLE BRAIN INJURIES BY HUMAN NEURAL STEM CELL-SECRETED GLIAL CELL LINE-DERIVED NEU

A2-15 7:00 AM  
Guptarak, Jutatip; University of Texas Medical Branch  
ACUTE EFFECTS OF 17β-ESTRADIOL ON OXIDATIVE STRESS RESPONSE PROTEINS AFTER TBI

A2-16 7:15 AM  
Alshareef, Ahmed; University of Virginia  
CHARACTERIZATION OF BRAIN MATERIAL PROPERTIES FOLLOWING BRAIN BLAST INJURY

A2-17 7:30 AM  
Fortune, Ryan; UTHealth GSBS  
SPINAL CORD INJURY CAUSES DISTINCT ACUTE AND CHRONIC PHASES IN THE TESTES AND BLOOD TESTES BARRIER OF A SPRAGUE-DAWLEY RAT MODEL

A2-18 7:00 AM  
Friess, Stuart; Washington University at St. Louis  
DELAYED HYPOXIA FOLLOWING TRAUMATIC BRAIN INJURY EXACERBATES AXONAL INJURY

## BLOOD-BRAIN BARRIER

A3-01 7:15 AM  
Bharadwaj, Vimala; Arizona State University  
EVALUATING THE POTENTIAL FOR NANOPARTICLE DELIVERY AFTER TRAUMATIC BRAIN INJURY

A3-02 7:30 AM  
Rossi, Janet; LSUHSC/Children's Hospital  
ISG15 INTERACTS WITH JUNCTIONAL PROTEINS PRIOR TO BBB DISRUPTION FOLLOWING TBI IN YOUNG MICE

A3-03 7:00 AM  
Lutton, Evan; Temple University School of Medicine  
ENDOTHELIAL TARGETED ANTIOXIDANT ENZYME THERAPY TO COMBAT SECONDARY INJURY AND PRESERVE BBB INTEGRITY FOLLOWING EXPERIMENTAL TBI

A3-04 7:00 AM  
Browning, Jenny; Walter Reed Army Institute of Research  
PROFILE OF BLOOD BRAIN BARRIER DISRUPTION FOLLOWING SINGLE AND REPEATED CLOSED HEAD IMPACT CONCUSSION IN RATS

## PEDIATRIC

A4-01 7:15 AM  
Clark, Robert; Children's Hospital of Pittsburgh  
PHASE I TRIAL OF N-ACETYLCYSTEINE IN COMBINATION WITH PROBENECID IN CHILDREN AFTER SEVERE TBI

A4-02 7:30 AM  
Jernberg, Jennifer; Johns Hopkins  
FATTY ACID OXIDATION IS INCREASED SELECTIVELY IN ASTROCYTES OF INJURED HIPPOCAMPUS AFTER TBI

A4-03 7:00 AM  
Robertson, Courtney; Johns Hopkins School of Medicine  
20-HETE INHIBITION IMPROVES OUTCOME IN A PEDIATRIC RAT MODEL OF TRAUMATIC BRAIN INJURY

A4-04 7:15 AM  
Costine, Beth; Massachusetts Gen. Hospital/ Harvard Med.  
LARGE-ANIMAL COMBINED INSULT MODEL FOR INFLICTED BRAIN INJURY IN INFANCY

A4-05 7:30 AM  
Bayir, Hulya; Safar Center for Resuscitation Research  
MAGNETIC RESONANCE SPECTROSCOPY IMAGING OF THE  
HIPPOCAMPUS AT 7T AFTER MILD TBI IN IMMATURE BRAIN

A4-06 7:00 AM  
Fischer, Jesse; University of Houston  
CHRONIC WHITE MATTER DAMAGE FOLLOWING PEDIATRIC TBI

A4-07 7:15 AM  
Moore, Megan; University of Washington  
AVAILABILITY OF OUTPATIENT REHABILITATION SERVICES  
AND BARRIERS TO CARE FOR VULNERABLE POPULATIONS  
AFTER PEDIATRIC TBI

## POSTER SESSION II

### BIOMARKER

A5-01 3:00 PM  
Bogoslovsky, Tanya; Center for Neuroscience and  
Regenerative Medicine  
SINGLE MOLECULAR ARRAY GLIAL FIBRILLARY ACID PROTEIN  
AND TOTAL TAU ARE INCREASED UP TO 90 DAYS AFTER  
TRAUMATIC BRAIN INJURY

A5-02 3:15 PM  
Kilbaugh, Todd; University of Pennsylvania  
PERIPHERAL BLOOD MITOCHONDRIAL DNA AS A BIOMARKER  
OF CEREBRAL MITOCHONDRIAL DYSFUNCTION FOLLOWING  
TRAUMATIC BRAIN INJURY

A5-03 3:30 PM  
Rhind, Shawn; DRDC Toronto  
ALTERATIONS OF CIRCULATING CHEMOKINES IN RELATION TO  
NEUROLOGICAL OUTCOME AFTER MODERATE-TO-SEVERE TBI

A5-04 3:45 PM  
Thelin, Eric; Karolinska Institutet  
NEURON-SPECIFIC ENOLASE IS SIGNIFICANTLY CORRELATED  
TO OUTCOME POST TRAUMATIC BRAIN INJURY, ALBEIT NOT IN  
PRESENCE OF SERUM S100B

A5-05 3:00 PM  
Wong, Ling; National Intrepid Center of Excellence  
TRANSCRANIAL DOPPLER MEASURES EFFECTS OF  
MIND-BODY TRAINING ON CEREBRAL AUTOREGULATION IN  
SERVICE MEMBERS WITH COMBAT RELATED TBI

A5-06 3:15 PM  
Torch, William; Washoe Sleep Disorders Centers  
PROGRESSIVE LIMBIC ANTEROGRADE TRANS-NEURONAL  
DEGENERATION: A NEUROPATHOLOGICAL & -RADIOLOGICAL  
BIOMARKER IN HIPPOCAMPAL DISEASE

A5-07 3:30 PM  
Samadani, Uzma; New York University School of Medicine  
HELMETS MAY PROVIDE PARTIAL PROTECTION AGAINST  
CONCUSSION: A PROSPECTIVE STUDY WITH SCAT3 AND EYE  
TRACKING

A5-08 3:45 PM  
Gill, Jessica; NIH  
PERIPHERAL CONCENTRATIONS OF TOTAL TAU ARE INCREASED  
IN MILITARY PERSONNEL WHO SUSTAIN TRAUMATIC BRAIN  
INJURIES DURING DEPLOYMENT

A5-09 3:00 PM  
Algamil, Moustafa; Roskamp Institute  
EXPLORING THE MOLECULAR OVERLAP IN THE BRAIN AND  
PLASMA OF TBI AND AD MOUSE MODELS USING PROTEOMIC  
AND LIPIDOMIC TECHNOLOGY

A5-10 3:15 PM  
Tenovuo, Olli; Turku University Hospital  
GFAP AND UCH-L1 DURING THE FIRST WEEK AFTER A TBI -  
CORRELATIONS WITH CLINICAL AND IMAGING FINDINGS AND  
OUTCOME

A5-11 3:30 PM  
Wanner, Ina; UCLA  
A NEW PANEL OF HUMAN ASTROGLIAL NEUROTRAUMA  
BIOMARKERS AND TRAUMA RELEASE MECHANISMS

A5-12 3:45 PM  
Griffiths, Daniel; University of Arizona College of Medicine  
EVALUATION OF THE EXTRACELLULAR MATRIX AS A SOURCE  
OF BIOMARKERS FOR INJURY SEVERITY WITHIN 24 HOURS OF  
DIFFUSE BRAIN INJURY

A5-13 3:00 PM  
Wang, Kevin; University of Florida  
OPERATION BRAIN TRAUMA THERAPY (OBT): SERUM-BASED  
BIOMARKER INVESTIGATION IN A MICROPIG FLUID  
PERCUSSION INJURY MODEL

A5-14 3:15 PM  
Yang, Zhihui; University of Florida  
A SYSTEMATIC RAT SPINAL CORD INJURY BIOMARKER STUDY  
AND TEMPORAL BIOMARKER PROFILING IN TWO BIOFLUID  
TYPES

A5-15 3:30 PM  
Wang, Kevin; University of Florida  
HUMAN SPINAL CORD INJURY CSF AND SERUM BIOMARKER  
STUDY

A5-16 3:45 PM  
Sharrock, Matthew; University of Kansas Medical Center  
PROTON MAGNETIC RESONANCE SPECTROSCOPY PREDICTORS  
OF TISSUE LOSS AFTER TRAUMATIC BRAIN INJURY

A5-17 3:00 PM  
Hutchison, Michael; University of Toronto  
COMPARISON OF SYSTEMIC INFLAMMATORY PROFILES IN  
HEALTHY ATHLETES WITH AND WITHOUT A HISTORY OF  
CONCUSSION

A5-18 3:15 PM  
Boutte, Angela; Walter Reed Army Institute of Research  
MULTIVARIATE BIOMARKER PROFILING, SENSORY MOTOR  
DEFICITS, CONSCIOUSNESS AFTER SINGLE AND REPEAT  
PROJECTILE CONCUSSIVE INJURY

A5-19 3:30 PM  
Johnson, David; Walter Reed Army Institute of Research  
INVESTIGATION OF PUTATIVE ACUTE SERUM DIAGNOSTIC  
BIOMARKERS IN A PROJECTILE CONCUSSIVE IMPACT INJURY

A5-20 3:45 PM  
Deng-Bryant, Ying; Walter Reed Army Institute of Research  
DISCOVERING PROGNOSTICATORS FOR REPEATED  
CONCUSSIONS: A GLOBAL METABOLOMIC STUDY

### EDEMA

A6-01 3:00 PM  
Atkins, Tyler; Carolinas Medical Center  
ACUTE HYDROCEPHALUS IN CERVICAL SPINAL CORD INJURY:  
TWO DISTINCT PATHOPHYSIOLOGIC CAUSES AND LITERATURE  
REVIEW

A6-02 3:15 PM  
Washington, Patricia; Columbia University  
APOE GENOTYPE AND ACUTE EDEMA FORMATION FOLLOWING  
EXPERIMENTAL TRAUMATIC BRAIN INJURY

A6-03 3:30 PM  
Maeda, Takeshi; Nihon University School of Medicine  
CILOSTAZOL ATTENUATES BLOOD-BRAIN BARRIER  
DISRUPTION AND SUBSEQUENT SECONDARY CELLULAR  
DAMAGE FOLLOWING CORTICAL CONTUSION IN RATS

### ENDOCRINE

A7-01 3:45 PM  
Thomas, Theresa; University of Arizona College of Medicine  
EXPERIMENTAL DIFFUSE BRAIN INJURY LEADS TO CHRONIC  
CORTICOSTERONE DYSFUNCTION WITH EVIDENCE OF  
COMPROMISED NEURON MORPHOLOGY

A7-02 3:00 PM  
Vanino, Dana; University of Pittsburgh  
A PROSPECTIVE EVALUATION OF NEURO-ENDOCRINE AND  
NUTRITION ABNORMALITIES FOLLOWING SEVERE TRAUMATIC  
BRAIN INJURY IN ADULT PATIENTS

A7-03 3:15 PM  
Mazzeo, Anna Teresa; University of Torino  
ENDOCRINE DYSFUNCTION AND PITUITARY AUTOIMMUNITY  
IN CRITICAL AND NEUROCRITICAL ILLNESS

### REGENERATION & PLASTICITY

A8-01 3:30 PM  
Rabchevsky, Alexander; UKY  
PHARMACOLOGICAL MANIPULATION OF MTOR ACTIVITY TO  
MODULATE MALADAPTIVE INTRASPINAL PLASTICITY AND  
AUTONOMIC DYSREFLEXIA

A8-02 3:45 PM  
Chen, Jinhui; Indiana University School of Medicine  
IN VIVO REPROGRAMMING REACTIVE GLIA INTO IPSCS TO  
PRODUCE NEW NEURONS IN THE CORTEX FOLLOWING TBI

A8-03 3:00 PM  
Wang, Xiaoting; Indiana University School of Medicine  
TRAUMATIC BRAIN INJURY SEVERITY AFFECTS NEUROGENESIS  
IN ADULT MOUSE HIPPOCAMPUS

A8-04 3:15 PM  
Costine, Beth; Massachusetts General Hospital/ Harvard  
Medical School  
FIX THE LESION OR KEEP BRAIN DEVELOPMENT GOING?  
NEUROBLAST PATTERNS AFTER TBI IN THE IMMATURE  
GYRENEPHALIC BRAIN

A8-05 3:30 PM  
Bergold, Peter; SUNY-Downstate Medical Center  
SPECIFIC MODES OF REMYELINATION ARE ASSOCIATED WITH  
IMPROVED BEHAVIORAL OUTCOMES AFTER CONTROLLED  
CORTICAL IMPACT

A8-06 3:45 PM  
Oswald, Duane; The Ohio State University Medical Center  
GOLLI-MYELIN BASIC PROTEIN IS REQUIRED FOR MATURATION OF OLIGODENDROCYTE PROGENITORS AND REMYELINATION OF CONTUSED SPINAL CORDS

A8-07 3:00 PM  
Segal, Andrew; UCLA  
EXAMINING THE TIME-COURSE OF D-CYCLOSERINE ADMINISTRATION IN DEVELOPING RATS FOLLOWING LATERAL FLUID PERCUSSIVE INJURY

A8-08 3:15 PM  
Lemmon, Vance; Univ. of Miami  
MIASCI ONLINE: AN ANNOTATION TOOL FOR THE MINIMAL INFORMATION ABOUT A SPINAL CORD INJURY EXPERIMENT (MIASCI) REPORTING STANDARD

A8-09 3:30 PM  
Hoffman, Ann; University of California Los Angeles  
IMMEDIATE AND PERSISTENT DENDRITIC HYPERTROPHY IN THE BASOLATERAL AMYGDALA FOLLOWING EXPERIMENTAL DIFFUSE TRAUMATIC BRAIN INJURY

A8-10 3:45 PM  
Wu, Ping; University of Texas Medical Branch  
INDUCED MOTOR NEURON DIFFERENTIATION FROM ENDOGENOUS NEURAL STEM CELLS IN MICE AFTER SPINAL CORD INJURY

A8-11 3:00 PM  
Powell, Melissa; Virginia Commonwealth University  
INTERACTIVE ROLE OF MATRIX METALLOPROTEINASE 9 AND OSTEOPOINTIN IN OLFACTORY BULB SYNAPTOGENESIS FOLLOWING TBI

A8-12 3:15 PM  
Vascak, Michal; Virginia Commonwealth University  
THE EFFECT OF MILD TRAUMATIC BRAIN INJURY (MTBI) ON THE STRUCTURAL PLASTICITY OF THE AXON INITIAL SEGMENT (AIS)

## POSTER SESSION III

### AGING

B1-01 4:00 PM  
Kinoshita, Takahiro; Osaka General Medical Center  
DECOMPRESSIVE CRANIECTOMY IN CONJUNCTION WITH LESION EVACUATION IN GERIATRIC TRAUMATIC BRAIN INJURY: A PROPENSITY SCORE ANALYSIS

B1-02 4:15 PM  
Mouzon, Benoit; Roskamp Institute  
THE ROLE OF TAU AND OTHER PATHOLOGIES IN AN ANIMAL MODEL OF REPETITIVE MTBI

B1-03 4:30 PM  
Lynch, Cillian; Roskamp Institute  
CHRONIC IMPAIRMENT OF CEREBRAL BLOOD FLOW IN A MOUSE MODEL OF REPETITIVE MILD TRAUMATIC BRAIN INJURY

B1-04 4:45 PM  
Thompson, Hilaire; The Univ. of Washington  
AGING RELATED DIFFERENCES IN PATTERNS OF MEDICATION USE AT TIME OF TRAUMATIC BRAIN INJURY

B1-05 4:00 PM  
Von Leden, Ramona; USUHS  
AGING RATS SHOW ALTERATIONS TO GLIAL CELL ACTIVATION AND FUNCTIONAL RECOVERY AFTER SPINAL CORD INJURY

B1-06 4:15 PM  
Harris, Janna; Univ. of Kansas Medical Center  
1H-MRS SUGGESTS MECHANISMS UNDERLYING POOR RECOVERY AFTER INJURY TO THE AGED BRAIN

B1-07 4:30 PM  
Chou, Austin; University of California - San Francisco  
EFFECT OF AGING ON HIPPOCAMPAL-DEPENDENT COGNITION AND NEUROINFLAMMATORY RESPONSES AFTER TRAUMATIC BRAIN INJURY

B1-08 4:45 PM  
Bachstetter, Adam; University of Kentucky  
MW151, A SMALL MOLECULE INHIBITOR OF NEUROINFLAMMATION, PREVENTS CLOSED HEAD INJURY INDUCED COGNITIVE DEFICITS IN APP/PS1 KI MICE

B1-09 4:00 PM  
Isokuortti, Harri; University of Tampere  
WHO GETS HEAD TRAUMA OR RECRUITED IN MILD TRAUMATIC BRAIN INJURY RESEARCH?

### NEURODEGENERATION

B2-01 4:15 PM  
Glushakova, Olena; Banyan Biomarkers, Inc.  
THE ROLE OF APOPTOSIS IN LONG-TERM AXONAL, MICROVASCULAR AND BLOOD-BRAIN BARRIER DAMAGE AFTER TRAUMATIC BRAIN INJURY IN RATS

B2-02 4:30 PM  
Saber, Maha; Lerner's Research Institute at Cleveland Clinic  
THE ROLE OF TREM2 IN TRAUMATIC BRAIN INJURY-INDUCED NEUROINFLAMMATION AND NEURODEGENERATION

B2-03 4:45 PM  
Torch, William; Washoe Sleep Disorders Centers  
PROGRESSIVE LIMBIC ANTEROGRADE TRANS-NEURONAL DEGENERATION (LATND): A NEUROPATHOLOGICAL BIOMARKER IN TBI-INDUCED CTE & DEMENTIA

B2-04 4:00 PM  
Greco, Tiffany; UCLA  
EMERGING ROLE OF GAPDH IN TBI INDUCED AMYLOIDOSIS

B2-05 4:15 PM  
Dore, Sylvain; University of Florida  
HIPPOCAMPAL DEGENERATION AFTER TRAUMATIC BRAIN INJURY: THE ROLES OF THE PGE2 EP1 RECEPTOR

B2-06 4:30 PM  
Dixon, C. Edward; University of Pittsburgh  
REGIONAL EXPRESSION OF WILD-TYPE ALPHA-SYNUCLEIN AFTER TRAUMATIC BRAIN INJURY IN RATS

B2-07 4:45 PM  
Watts, Lora; University of Texas Health Science Center  
NEUROPROTECTIVE EFFECT OF METHYLENE BLUE IN MODERATE TRAUMATIC BRAIN INJURY

B2-08 4:00 PM  
Kayed, Rakez; University of Texas Medical Branch, Galveston  
TOXIC TAU SEEDS DERIVED FROM TRAUMATIC BRAIN INJURY MODELS ACCELERATE COGNITIVE DYSFUNCTION IN TAUOPATHY MICE

B2-09 4:15 PM  
Cartagena, Casandra; Walter Reed Army Institute of Research  
ACUTE REGION OF INTEREST CHANGES IN KEY BRAIN INJURY MARKERS FOLLOWING PENETRATING BALLISTIC-LIKE BRAIN INJURY

B2-10 4:30 PM  
Boutte, Angela; Walter Reed Army Institute of Research  
BRAIN CATHEPSIN B IS ELEVATED IN BOTH MILD-CLOSED AND SEVERE-PENETRATING TRAUMATIC BRAIN INJURY MODELS

B2-11 4:45 PM  
Lucke-Wold, Brandon; West Virginia University  
MODELING CHRONIC NEURODEGENERATION FOLLOWING NEUROTRAUMA: A MULTIPLE MODEL EXPERIENCE

### AXONAL INJURY

B3-01 4:00 PM  
Daphalapurkar, Nitin; Johns Hopkins University  
DYNAMIC SHEARING DEFORMATIONS IN LIVING HUMAN BRAIN WITH RELEVANCE TO TRAUMATIC BRAIN INJURY

B3-02 4:15 PM  
Volman, Vladislav; L-3 Communications  
A COMPUTATIONAL MODEL OF WHITE MATTER AXON FOR QUANTIFYING ACUTE AND DELAYED INJURY SEQUELAE, WITH APPLICATION TO REPEATED INJURY

B3-03 4:30 PM  
Brizuela, Mariana; University of Tasmania  
THE MICROTUBULE-STABILIZING DRUG EPOTHILONE D INCREASES AXONAL SPROUTING RESPONSE IN AN IN VITRO MODEL OF TRANSECTION INJURY

B3-04 4:45 PM  
McNally, Shannon; National Institutes of Health  
DTI CORRELATES OF ATTENTION AND PROCESSING SPEED IN SUB-ACUTE AND CHRONICTRAUMATIC BRAIN INJURY

B3-05 4:00 PM  
Smith, Caleb; Texas Tech University  
THERAPEUTIC EFFECTS OF TAMOXIFEN IN SPINAL CORD INJURY

B3-06 4:15 PM  
Mayer, Andrew; The Mind Research Network  
CROSS-SECTIONAL DIFFERENCES IN FRACTIONAL ANISOTROPY WITHOUT LONGITUDINAL EVIDENCE OF RECOVERY BY ONE MONTH POST-CONCUSSION

B3-07 4:30 PM  
Ruven, Carolin; The University of Hong Kong  
TRANSPLANTATION OF EMBRYONIC SPINAL CORD DERIVED CELLS INTO TRANSECTED PERIPHERAL NERVE TO PREVENT MUSCULAR ATROPHY

B3-08 4:45 PM  
Dolle, Jean-Pierre; University of Pennsylvania  
STABILIZING MICROTUBULES AFTER TRAUMATIC AXONAL INJURY MITIGATES ACCUMULATION OF TAU, CALCIUM INFLUX AND AXONAL DEGENERATION

B3-09 4:00 PM  
Jacobs, Kimberle; Virginia Commonwealth University  
FUNCTIONAL ALTERATIONS IN INTRINSIC AND SYNAPTIC PROPERTIES 1 MONTH AFTER MILD TRAUMATIC BRAIN INJURY

B3-10 4:15 PM  
Jin, Xiaotao; Virginia Commonwealth University  
ALTERED GABAERGIC SYNAPTIC TRANSMISSION IN LAYER V  
PYRAMIDAL NEURONS AFTER MILD TRAUMATIC BRAIN  
INJURY

B3-11 4:30 PM  
Gangolli, Mihika; Washington University in St. Louis  
ADVANCED DIFFUSION MRI METHODS TO QUANTITATIVELY  
DISTINGUISH BETWEEN COMPLEX WHITE MATTER AND  
TRAUMATIC AXONAL INJURY

B3-12 4:45 PM  
Zhang, Liying; Wayne State Univ  
BLAST INDUCED SPATIAL AND TEMPORAL ALTERATIONS IN  
GLIAL EXPRESSION AND AXONAL INJURY IN THE RAT SPINAL  
CORD

B3-13 4:00 PM  
Zhang, Liying; Wayne State Univ  
OPEN FIELD PRIMARY BLAST EXPOSURE INDUCES NEURONAL  
AND GLIAL ALTERATIONS IN FRONTAL CORTEX

B3-14 4:15 PM  
Zhang, Liying; Wayne State University  
BIOMECHANICAL RESPONSE, NEUROPATHOLOGY AND  
BIOMARKER EXPRESSION IN AN EXPERIMENTAL MODEL OF  
TRAUMATIC BRAIN INJURY

B3-15 4:30 PM  
Catenaccio, Eva; Albert Einstein College of Medicine  
NECK STRENGTH IS ASSOCIATED WITH HISTORY OF  
CONCUSSION IN AMATEUR ADULT SOCCER PLAYERS

## EPILEPSY & SEIZURE

B4-01 4:30 PM  
Grinberg, Yelena Y.; University of California, Riverside  
PROGRESSIVE SEIZURES FOLLOWING MICROGLIAL  
ACTIVATION AND INFLUX OF PROFESSIONAL APCs IN  
AUTOIMMUNE TARGETING OF ASTROCYTES

B4-02 4:45 PM  
Ritter, Anne; University of Pittsburgh  
NEURONAL GLUTAMATE TRANSPORTER GENETIC VARIATION:  
IMPACT ON EPILEPTOGENESIS AND EPILEPSY RISK  
FOLLOWING SEVERE TBI

B4-03 4:00 PM  
Ritter, Anne; University of Pittsburgh  
COMPARISON OF FACTORS PREDICTING POST-TRAUMATIC  
SEIZURE AT 1, 2, & 5 YEARS POST-INJURY: A TBIMS ANALYSIS

B4-04 4:15 PM  
Lu, Xi-Chun May; Walter Reed Army Institute of Research  
EFFECTS OF LEVETIRACETAM AND GABAPENTIN COMBINA-  
TION THERAPY ON POST-TRAUMATIC NONCONVULSIVE  
SEIZURES (NCS) INDUCED BY A PENETRATING

B4-05 4:30 PM  
Lu, Xi-Chun; Walter Reed Army Institute of Research  
SYNERGISTIC EFFECTS OF PHENYTOIN AND ETHOSUXIMIDE  
AGAINST POST-TRAUMATIC NONCONVULSIVE SEIZURES

## POSTER SESSION IV

### FUNCTION

B5-01 4:45 PM  
Thompson, Hilaire; The Univ. of Washington  
SUICIDAL IDEATION IN THE FIRST 6 MONTHS POST-MILD TBI

B5-02 5:00 PM  
Haefeli, Jenny; UCSF Brain and Spinal Injury Center  
MONITORING SENSORY FUNCTION AFTER CERVICAL SPINAL  
CORD INJURY IN NON-HUMAN PRIMATES

B5-03 5:15 PM  
Sharma, Sourabh; University of California, San Francisco  
OUTPATIENT CARE REFERRAL AT 3-MONTHS IS ASSOCIATED  
WITH 6-MONTH SYMPTOMATOLOGY FOLLOWING MILD TBI

### IMAGING

B6-01 5:30 PM  
Levin, Harvey; Baylor College of Medicine  
IS DTI A NEUROIMAGING MARKER FOR MTBI WITH LOSS OF  
CONSCIOUSNESS?

B6-02 5:45 PM  
Joshi, Shristi; Center for Neuroscience and Regenerative  
Medicine  
STREAMLINING PARTICIPANT RECRUITMENT FOR TBI AND  
PTSD RESEARCH STUDIES

B6-03 5:00 PM  
Wilson, Colin; Center for Neuroscience and Regenerative  
Medicine, USUHS  
CHARACTERIZATION OF THE CONTROLLED CORTICAL IMPACT  
BRAIN INJURY MODEL BASED ON LONGITUDINAL  
MONITORING BY FDG-PET

B6-04 5:15 PM  
Williford, Joshua; Center for Neuroscience and Regenerative  
Medicine/ Henry M. Jackson Foundation  
KINETICS OF TRAUMATIC MENINGEAL INJURY USING  
DYNAMIC CONTRAST ENHANCED FLUID ATTENUATED  
INVERSION RECOVERY IMAGING

B6-05 5:30 PM  
Urbanczyk, Caryn; Duke University  
SHEAR SHOCK WAVE DEVELOPMENT IN NEUROLOGICAL  
TISSUES

B6-06 5:45 PM  
Rodgers, Richard; Indiana University School of Medicine  
CLINICAL UTILITY OF OUTPATIENT FOLLOW-UP COMPUTED  
TOMOGRAPHY IN A TRAUMATIC SUBDURAL HEMATOMA  
POPULATION

B6-07 5:00 PM  
Robertson, Courtney; Johns Hopkins School of Medicine  
PET IMAGING OF A7 NICOTINIC ACETYLCHOLINE RECEPTORS  
IN A RAT MODEL OF TRAUMATIC BRAIN INJURY

B6-08 5:15 PM  
Whalen, Michael; Massachusetts General Hospital  
DECREASED CEREBRAL BLOOD FLOW IS ASSOCIATED WITH  
WORSE COGNITIVE OUTCOME AFTER REPETITIVE CONCUS-  
SIONS IN MICE

B6-09 5:30 PM  
Duhaime, Ann-Christine; Massachusetts General Hospital  
MRI FINDINGS IN ACUTE TBI: INTER-RATER RELIABILITY USING  
NIH COMMON DATA ELEMENTS

B6-10 5:45 PM  
Tu, Tsang-Wei; National Institute of Health  
IN VIVO GLUCO-CEST MRI DETECTS METABOLIC CRISIS IN  
MILD TRAUMATIC BRAIN INJURY

B6-11 5:00 PM  
Butman, John; NIH  
MICROHEMORRHAGE IS NOT FOREVER: CROSS-SECTIONAL  
ANALYSIS INDICATES RESOLUTION OVER EXTENDED FOLLOW  
UP INTERVALS

B6-12 5:15 PM  
Butman, John; NIH  
IMPROVED VISUALIZATION OF SUPERFICIAL HEMORRHAGE IN  
SUSCEPTIBILITY WEIGHTED IMAGES

B6-13 5:30 PM  
Hosomi, Sanae; Osaka University  
CHRONIC NEUROINFLAMMATION ANALYSIS AFTER  
TRAUMATIC BRAIN INJURY USING TSPO-PET AND MRI IN MICE

B6-14 5:45 PM  
Luoto, Teemu; Tampere University Hospital  
ACUTE TRAUMATIC INTRACRANIAL LESIONS INCREASE THE  
RISK OF CERVICAL SPINE INJURIES

B6-15 5:00 PM  
Dardzinski, Bernard; USUHS  
DIFFUSION MR IMAGING REVEALS ABNORMALITIES IN THE  
CORPUS CALLOSUM AFTER SINGLE TBI VERSUS OVERLYING  
CORTEX AFTER REPETITIVE TBI

B6-16 5:15 PM  
Schneider, Walter; University of Pittsburgh  
QUANTITATIVE WHITE MATTER ANALYSIS WITH HIGH  
DEFINITION FIBER TRACKING PREDICTS NEUROPSYCHOLOGI-  
CAL TEST PERFORMANCE IN CHRONIC TBI

B6-17 5:30 PM  
Isokuortti, Harri; University of Tampere  
THE TYPE AND LOCATION OF INTRACRANIAL ABNORMALITIES  
FOLLOWING MILD TRAUMATIC BRAIN INJURY

B6-18 5:45 PM  
Okonkwo, David; UPMC Presbyterian  
PET IMAGING WITH PITTSBURGH COMPOUND B OF AMYLOID  
DEPOSITION IN WHITE MATTER IN CHRONIC TBI

B6-19 5:00 PM  
Dennis, Emily; USC Keck School of Medicine  
LONGITUDINAL CHANGES IN REGIONAL BRAIN VOLUME IN  
PEDIATRIC TBI: PRELIMINARY ANALYSES

B6-20 5:15 PM  
Gatson, Joshua; UT Southwestern Medical Center  
AMYLOID PLAQUES ARE INCREASED IN THE BRAIN OF TBI  
SURVIVORS AT 1, 12, AND 24 MONTHS AFTER INJURY

B6-21 5:30 PM  
Herrera, Juan; UTHealth Medical School at Houston  
DIFFUSION TENSOR IMAGING ANALYSIS OF MILD TBI

B6-22 5:45 PM  
Cartagena, Casandra; Walter Reed Army Institute of Research  
ACUTE CHANGES IN FDG PET AFTER SINGLE AND REPEAT MTBI  
IN RATS CORRELATE WITH CLINICALLY RELEVANT SYMPTOMS  
OF CONCUSSION

B6-23 5:00 PM  
Senseny, Justin; Walter Reed National Military Med. Center  
SOFTWARE TOOL FOR LOADING TRAUMATIC BRAIN INJURY  
NEUROIMAGE DATA INTO AN EXTERNAL REPOSITORY

B6-24 5:15 PM  
Senseny, Justin; Walter Reed National Military Med. Center  
SHARED NEUROIMAGING DATA OF MILITARY AND BLAST  
TRAUMATIC BRAIN INJURY USING A DATA SHARING  
REPOSITORY

B6-25 5:30 PM  
Kou, Zhifeng; Wayne State University  
CONNECTOME-SCALE ASSESSMENT OF BRAIN NETWORK  
CONNECTIVITY IN MILD TRAUMATIC BRAIN INJURY

B6-26 5:45 PM  
Wiseman, Natalie; Wayne State University  
VALIDATION OF DUAL-INJECTION PERFUSION IMAGING: A  
PILOT STUDY

### NEUROPATHOLOGY

B7-01 5:00 PM  
McKee, Ann; Boston University  
CLINICOPATHOLOGICAL FINDINGS IN 100 FORMER NFL  
PLAYERS

B7-02 5:15 PM  
Goldstein, Lee; Boston University School of Medicine  
EARLY CHRONIC TRAUMATIC ENCEPHALOPATHY IN YOUNG  
ATHLETES AFTER CONCUSSIVE HEAD INJURY AND A MOUSE  
MODEL OF IMPACT CONCUSSION

B7-03 5:30 PM  
Griffin, Allison; CNRM/HJF/NIH  
INJECTABLE FIDUCIAL MARKER IN MRI GUIDED PATHOLOGY  
OF BRAIN INJURY

B7-04 5:45 PM  
Ogier, Michael; French Armed Forces Biomedical Research  
Institute  
LONG-TERM COGNITIVE DEFICITS INDUCED BY TRAUMATIC  
BRAIN INJURY IN RATS ARE EXAGGERATED BY PRE-EXPOSURE  
TO LIFE-THREATENING STRESS

B7-05 5:00 PM  
Karelina, Kate; Ohio State University  
NEUROMETABOLIC CONSEQUENCES OF REPEATED TBI

B7-06 5:15 PM  
Hylin, Michael; Southern Illinois University  
IMPROVEMENTS IN COGNITIVE FUNCTION FOLLOWING  
TRAUMATIC BRAIN INJURY VIA EIF2A PHOSPHORYLATION  
AND REDUCTION IN ER STRESS

B7-07 5:30 PM  
Namjoshi, Dhananjay; The University of British Columbia  
EXPOSURE TO ANABOLIC ANDROGENIC STEROIDS DOES NOT  
EXACERBATE ACUTE POST-INJURY OUTCOMES IN MICE  
SUBJECTED TO REPETITIVE CONCUSSION

B7-08 5:45 PM  
Leonessa, Fabio; USUHS  
EVIDENCE OF BOTH BRAIN AND SPINAL CORD INJURY IN RATS  
EXPOSED TO EXPLOSIVE-DRIVEN PRIMARY BLAST

B7-09 5:00 PM  
Tchantchou, Flaubert; University of Maryland  
A RAT MODEL OF UNDERBODY BLAST-INDUCED BRAIN INJURY  
WITH EVIDENCE OF NEUROBEHAVIORAL DEFICITS, NEURONAL  
DEATH AND INFLAMMATION

B7-10 5:15 PM  
Washington, Patricia; Columbia University  
ASSOCIATION BETWEEN APOE GENOTYPE AND NEURODEGEN-  
ERATIVE PATHOLOGIES AFTER TRAUMATIC BRAIN INJURY

## 2015 TRAVEL GRANT AWARDEES

*Each year, the National Neurotrauma Society provides a limited number of travel grants to enable and encourage attendees to participate in the annual meeting by easing their financial burden. These travel grants are made possible due to grants provided by the National Institutes of Health / National Institute of Neurological Disorders and Stroke, and the Journal of Neurotrauma.*

**Please join us in congratulating this years' awardees:**

(\* Denotes Student Competition Finalist)

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Chao, Honglu, Nanjing Medical University, China  
Chou, Austin, University of California San Francisco  
Daglas, Maria, Monash University, Australia  
Gangolli, Mihika, Washington University in St. Louis  
Ganpule\*, Shailesh, Johns Hopkins  
Gupta, Deepak, All India Institute of Medical Sciences, India  
Han\*, Kihwan, University of Texas at Dallas  
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Holleran\*, Laurena, Washington University St. Louis  
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Littlejohn, Erica, University of Kentucky  
McCutcheon, Victoria, University of Toronto, Canada  
Merkel\*, Steven, Temple University School of Medicine  
Nielson\*, Jessica, University of California San Francisco  
Ogle\*, Sarah, University of Arizona  
Powell, Melissa, Virginia Commonwealth University  
Russell, Nicholas, Virginia Commonwealth University  
Saber, Maha, Lerner's Research Institute at Cleveland Clinic  
Schneider, Brandy, Wayne State University School of Medicine  
Strain, Misty, Texas A&M University  
Tu, Tsang-Wei, National Institute of Health  
Turtle, Joel, Texas A&M University  
Uldreaj, Antigona, University of Toronto  
Urbanczyk, Caryn, Duke University  
Von Leden, Ramona, Uniformed Services University of the Health Sciences  
Vonder Haar, Cole, University of British Columbia  
Wang, Xiaoting, Indiana University School of Medicine  
Wang, Jiaqiong, University of Miami Miller School of Medicine  
Wiseman, Natalie, Wayne State University  
Wolohan, Stephanie, University of California Los Angeles



# POSTER SESSION V

## COGNITION

C1-01 7:00 AM

Mu, Weiya; Albert Einstein College of Medicine  
SYMPTOMATIC, PSYCHIATRIC, BEHAVIORAL AND COGNITIVE OUTCOMES IN BLAST EXPOSED VETERANS

C1-02 7:15 AM

Catenaccio, Eva; Albert Einstein College of Medicine  
GENDER DIFFERENCES IN EXPOSURE TO AND OUTCOMES OF MILD TRAUMATIC BRAIN INJURY IN AMATEUR ADULT SOCCER PLAYERS

C1-03 7:30 AM

Marion, Donald; Defense and Veterans Brain Injury Center  
MILITARY DEPLOYMENT INCREASES THE RISK FOR TBI FOLLOWING DEPLOYMENT

C1-04 7:00 AM

Wright, David; Emory University  
VERY EARLY ADMINISTRATION OF PROGESTERONE DOES NOT IMPROVE COGNITIVE OUTCOMES IN PATIENTS WITH MODERATE TO SEVERE TBI

C1-05 7:15 AM

Lopez, Katherine; Center for Neuroscience and Regenerative Medicine  
NEUROANATOMICAL AND COGNITIVE DIFFERENCES IN MILD TRAUMATIC BRAIN INJURY PATIENTS WITH AND WITHOUT POST-TRAUMATIC STRESS DISORDER

C1-06 7:30 AM

Shenouda, Christian; Center for Neuroscience and Regenerative Medicine  
THE EFFECT OF SINGLE VS. MULTIPLE HEAD INJURIES ON BEHAVIORAL AND COGNITIVE OUTCOMES

C1-07 7:00 AM

Pick, Chaim; Tel Aviv University  
MICE, TRAUMATIC BRAIN INJURY, AND COGNITIVE EFFECTS OF ENRICHED ENVIRONMENT

C1-08 7:15 AM

Paneka, William; University of British Columbia  
TRAUMATIC BRAIN INJURY CORRELATES IN A VULNERABLY HOUSED POPULATION

C1-09 7:30 AM

Vonder Haar, Cole; University of British Columbia  
CONTROLLED CORTICAL IMPACT INCREASES COCAINE INTAKE IN RATS: A POTENTIAL ROLE FOR NEUROINFLAMMATION IN ADDICTION

C1-10 7:00 AM

Hoffman, Ann; University of California Los Angeles  
STIMULUS-SPECIFIC ENHANCED CONTEXTUAL FEAR LEARNING FOLLOWING LATERAL FLUID PERCUSSION EXPERIMENTAL TRAUMATIC BRAIN INJURY

C1-11 7:15 AM

Yue, John; University of California, San Francisco  
APOE-ε4 IS ASSOCIATED WITH DECREASED SIX-MONTH VERBAL MEMORY PERFORMANCE AFTER MILD TBI

C1-12 7:30 AM

Titus, David J; University of Miami  
POSITIVE ALLOSTERIC MODULATION OF THE A7 NICOTINIC ACETYLCHOLINE RECEPTOR REVERSES CHRONIC COGNITIVE DEFICITS AFTER TBI

C1-13 7:00 AM

Bramlett, Helen; University of Miami  
DOSE-RESPONSE EVALUATION OF KOLLIDON IN THE MIAMI FLUID PERCUSSION MODEL OF TRAUMATIC BRAIN INJURY: AN OBTT CONSORTIUM STUDY

C1-14 7:15 AM

Johnson, Kathia; University of Texas Medical Branch  
PERSISTENT BEHAVIORAL DEFICITS IN RATS AFTER MODERATE FLUID-PERCUSSION INJURY

## GENE EXPRESSION

C2-01 7:30 AM

Gill, Jessica; National Institutes of Health  
MENINGEAL INJURY DETECTED BY CONTRAST ENHANCED FLUID-ATTENUATED INVERSION RECOVERY IMAGES AND DIFFERENTIAL GENE EXPRESSION

C2-02 7:00 AM

Balakathiresan, Nagaraja; USUHS/HJF  
A COMPARATIVE STUDY ON SERUM MICRORNA BIOMARKER SIGNATURES OF MILD TRAUMATIC BRAIN INJURY AND POSTTRAUMATIC STRESS DISORDER

C2-03 7:15 AM

Pitkanen, Asla; Univ. of Eastern Finland  
TRANSCRIPTOMICS OF AGGRAVATED EPILEPTOGENESIS AND COGNITIVE DECLINE AFTER TBI IN APP/PS1 MOUSE MODEL OF ALZHEIMER'S DISEASE

C2-04 7:30 AM

Fiskum, Gary; Univ. of Maryland, Baltimore  
AEROMEDICAL EVACUATION-RELEVANT HYPOBARIA WORSENS TBI IN RATS EXPOSED TO UNDERBODY BLAST-INDUCED HYPERACCELERATION

C2-05 7:00 AM

May, Hazel; University of Arizona  
DIFFUSE TRAUMATIC BRAIN INJURY RESULTS IN BIMODAL VARIATION OF SYNAPTIC MARKER EXPRESSION IN THE SOMATOSENSORY CORTEX OVER TIME

C2-06 7:15 AM

Winkler, Ethan; University of California San Francisco  
DRD2 C957T POLYMORPHISM IS ASSOCIATED WITH IMPROVED 6-MONTH VERBAL LEARNING FOLLOWING TRAUMATIC BRAIN INJURY

C2-07 7:30 AM

Puccio, Ava; University of Pittsburgh  
BRAIN HYPOXIA RESPONSIVE GENE EXPRESSION IN SEVERE TRAUMATIC BRAIN INJURY PATIENTS

C2-08 7:00 AM

Merchant-Boma, Kian; University of Rochester Med. Ctr.  
GENOME-WIDE CHANGES IN GENE EXPRESSION FOLLOWING SPORTS-RELATED CONCUSSION

C2-09 7:15 AM

Weisz, Harris; University of Texas Medical Branch  
PATHWAY ANALYSIS OF LONG TERM GENOMIC CHANGES AFTER EXPERIMENTAL TBI

C2-10 7:30 AM

Boone, Debbie; University of Texas Medical Branch  
PATHWAY ANALYSIS OF NEUROPROTECTIVE DRUG TREATMENT AFTER ACUTE TRAUMATIC BRAIN INJURY

## NEUROCRITICAL CARE

C3-01 7:00 AM

Babu, Maya; Mayo Clinic  
THE INFLUENCE OF INSURANCE STATUS ON SPINE TRAUMA PATIENT TRANSFERS AT A LEVEL I TRAUMA CENTER WITH A LARGE CATCHMENT AREA

C3-02 7:15 AM

Baronia, Benedicto; Texas Tech University HSC  
TREATMENT OF TRAUMATIC NON-CONVEXITY SUBDURAL HEMORRHAGE IS SIMILAR TO TREATMENT OF TRAUMATIC SUBARACHNOID HEMORRHAGE.

C3-03 7:30 AM

Wolahan, Stephanie; UCLA  
EARLY NUTRITIONAL THERAPY AND MINIMAL BLOOD GLUCOSE VARIABILITY IMPROVE OUTCOMES AFTER TBI

C3-04 7:00 AM

Wolahan, Stephanie; UCLA  
METABOLOMICS OF HUMAN TRAUMATIC BRAIN INJURY

C3-05 7:15 AM

Choi, Phillip; University of Pittsburgh  
USE OF ASPIRIN AND P2Y12 RESPONSE ASSAYS IN DETECTING REVERSAL OF PLATELET DYSFUNCTION CAUSED BY ANTIPLATELET AGENTS IN TBI

C3-06 7:30 AM

Bauer, Joshua; University of Pittsburgh  
TRANSFUSION REVERSAL OF PRE-MORBID ORAL ASPIRIN USE IS NOT PROTECTIVE AGAINST RADIOGRAPHIC PROGRESSION OF INTRACRANIAL PATHOLOGY

C3-07 7:00 AM

Hawryluk, Gregory; University of Utah  
INSIGHTS FROM HIGH FREQUENCY INTRACRANIAL PRESSURE DATA: A TREATMENT THRESHOLD BELOW 20MMHG MAY BE MORE APPROPRIATE

C3-08 7:15 AM

Hawryluk, Gregory; University of Utah  
PATIENTS WITH SPINAL CORD INJURIES FAVOR ADMINISTRATION OF METHYLPREDNISOLONE BUT HAVE LITTLE INPUT INTO ITS ADMINISTRATION

C3-09 7:30 AM

D'Aquila, Kathryn; Westchester Medical Center / University of Phoenix  
IMPLEMENTATION OF UNIQUE PROCESS FOR CEREBRAL MICRODIALYSIS AT A LEVEL I TRAUMA CENTER

## NEUROTOXICITY / NEUROEXCITATION

C4-01 7:00 AM

Kibayashi, Kazuhiko; Tokyo Women's Medical University  
NEUROLOGICAL COMPLICATIONS DUE TO A SUBARACHNOID INJECTION OF HYPERTONIC CONTRAST MEDIA IN RAT

C4-02 7:15 AM

Arun, Peethambaran; Walter Reed Army Institute of Research  
ALTERED TRYPTOPHAN METABOLISM IN BLAST-INDUCED TRAUMATIC BRAIN INJURY

**PAIN**

C5-01 7:30 AM  
Jernberg, Jennifer; Johns Hopkins  
MORPHINE TREATMENT AFTER TBI EXACERBATES COGNITIVE IMPAIRMENTS AND REDUCES NEURONAL SURVIVAL IN A RAT MODEL

C5-02 7:00 AM  
Wu, Junfang; University of Maryland, School of Medicine  
TRAUMATIC BRAIN INJURY IN MICE INDUCES CHRONIC HYPERESTHESIA

C5-03 7:15 AM  
Wu, Junfang; University of Maryland, School of Medicine  
CELL CYCLE ACTIVATION CONTRIBUTES TO DEVELOPMENT AND MAINTENANCE OF NEUROPATHIC PAIN FOLLOWING SPINAL CORD INJURY

**POSTER SESSION VI**

**ELECTROPHYSIOLOGY**

C6-01 3:00 PM  
Vogel III, Edward; Columbia University  
DELAYED PRIMARY BLAST-INDUCED ELIMINATION OF LONG-TERM POTENTIATION IN RAT ORGANOTYPIC HIPPOCAMPAL SLICE CULTURES

C6-02 3:15 PM  
Andrade, Pedro; UEF  
EFFECT TBI ON SLEEP AFTER LATERAL FLUID-PERCUSSION INJURY IN RATS.

C6-03 3:30 PM  
Ulyanova, Alexandra; University of Pennsylvania  
ELECTROPHYSIOLOGICAL PHENOTYPING OF HUMAN NEURONS IN SLICES AND DISSOCIATED CULTURE

C6-04 3:45 PM  
Lu, Xi-Chun May; Walter Reed Army Institute of Research  
TIME-COURSE PROFILE OF EEG ABNORMALITY DETECTED BY QEEG POWER SPECTRAL ANALYSIS FOLLOWING A SINGLE CONCUSSIVE BRAIN INJURY IN RATS

**INFLAMMATION**

C7-01 3:00 PM  
Ziebell, Jenna; Barrow Neurological Inst. at Phoenix  
MORPHOLOGY ALONE DOES NOT DEFINE THE RANGE OF MICROGLIAL PHENOTYPES AFTER DIFFUSE BRAIN INJURY

C7-02 3:15 PM  
Harrison, Jordan; Barrow Neurological Institute  
OMEGA-3 DERIVED LIPID MEDIATORS DIFFERENTIALLY IMPACT FUNCTIONAL OUTCOME, SLEEP, AND MICROGLIAL ACTIVATION AFTER EXPERIMENTAL TBI

C7-03 3:30 PM  
Rowe, Rachel; Barrow Neurological Institute  
POST-TRAUMATIC SLEEP AS A BIOINDICATOR OF INFLAMMATION: NOVEL TNF-R INHIBITORS RESTORE FUNCTION FOLLOWING EXPERIMENTAL TBI

C7-04 3:45 PM  
Alvarado-Velez, Melissa; Georgia Institute of Technology  
IMMUNE-MODULATORY HYDROGEL CARRIERS FOR STEM CELL THERAPY AFTER TRAUMATIC BRAIN INJURY

C7-05 3:00 PM  
Pezzillo, Michael; John D Dingell VA Medical Center/Wayne State University School of Medicine  
ANALYSIS OF IBA-1 AND INFLAMMATORY RESPONSE IN YOUNG ADULT MICE AFTER MILD TRAUMATIC BRAIN INJURY

C7-06 3:15 PM  
Rasmussen, Lindsey; Johns Hopkins  
PERIPHERAL IMMUNE RESPONSE AFTER PEDIATRIC TRAUMATIC BRAIN INJURY IN RABBIT

C7-07 3:30 PM  
Zhang, Zhi; Johns Hopkins School of Medicine  
NEUROINFLAMMATION IN A RABBIT MODEL OF PEDIATRIC TRAUMATIC BRAIN INJURY

C7-08 3:45 PM  
Kokiko-Cochran, Olga; Lerner Research Institute  
ACCUMULATING BETA-AMYLOID ALTERS THE POST-INJURY INFLAMMATORY RESPONSE

C7-09 3:00 PM  
Daglas, Maria; Monash University  
THE ADAPTIVE IMMUNE RESPONSE IN THE BRAIN CORRELATES WITH LONG-TERM NEUROLOGICAL DYSFUNCTION IN A MOUSE MODEL OF TBI

C7-10 3:15 PM  
Hinson, Holly; Oregon Health and Science University  
INCIDENCE OF EARLY FEVER IN TBI VERSUS MAJOR TRAUMA

C7-11 3:30 PM  
Ojo, Joseph; Roskamp Institute  
GREY AND WHITE MATTER PATHOBIOLOGY OF A NEWLY DEVELOPED MODEL OF CHRONIC REPETITIVE CONCUSSIVE HEAD INJURY

C7-12 3:45 PM  
Bayir, Hulya; Safar Center for Resuscitation Research  
COMBINED HEAD INJURY PLUS RADIATION EXPOSURE SHIFTS SYSTEMIC RESPONSE TO IRRADIATION FROM ANTI- TO PRO-INFLAMMATORY

C7-13 3:00 PM  
Turtle, Joel; Texas A&M University  
NOCCIPTIVE STIMULATION INDUCES CASPASE 1 ACTIVATION FOLLOWING SPINAL CORD INJURY

C7-14 3:15 PM  
Shultz, Sandy; The University of Melbourne  
TIBIAL FRACTURE EXACERBATES TRAUMATIC BRAIN INJURY OUTCOMES AND INFLAMMATION IN A MOUSE MODEL OF MULTI-TRAUMA

C7-15 3:45 PM  
Yauger, Young; USUHS  
NADPH OXIDASE 4 INHIBITION REVERSES IRON INDUCED PERTURBATIONS OF REACTIVE OXYGEN SPECIES WITHIN ACTIVATED MICROGLIA

C7-16 3:00 PM  
Moritz, Kasey; USUHS  
ALTERATIONS OF PROTEASOME DYNAMICS FOLLOWING TRAUMATIC BRAIN INJURY

C7-17 3:15 PM  
Wagner, Amy; Univ. of Pittsburgh  
MULTIPLE AROMATIZATION MECHANISMS INFLUENCE MORTALITY AND CNS SECONDARY INJURY PROFILES AFTER SEVERE TBI

C7-18 3:30 PM  
Wagner, Amy; Univ. of Pittsburgh  
SERUM TUMOR NECROSIS FACTOR- $\alpha$  ASSOCIATION WITH MORTALITY SIX MONTHS AFTER TBI: MECHANISTIC RELATIONSHIPS WITH ESTRADIOL

C7-19 3:45 PM  
Reddaway, Jack; University of Arizona  
ANTI-INFLAMMATORY DRUGS SHIFT PROPORTIONS OF ACTIVATED MICROGLIA FOLLOWING EXPERIMENTAL DIFFUSE BRAIN INJURY

C7-20 3:00 PM  
Lee, Sangmi; University of California San Francisco  
P75NTR MEDIATES SYSTEMIC INFLAMMATORY RESPONSES BY MODULATING DIFFERENTIATION OF MYELOID CELLS

C7-21 3:30 PM  
Morganti, Josh; University of California San Francisco  
SIMULTANEOUS EXPRESSION OF M1/M2 MACROPHAGE POLARIZATION PHENOTYPES FOLLOWING TBI

C7-22 3:15 PM  
Loane, David; University of Maryland, School of Medicine  
NOX2 REGULATION OF MICROGLIAL ACTIVATION IN THE TBI BRAIN: A NOVEL MECHANISM FOR NEUROPROTECTION AND POST-TRAUMATIC REPAIR

C7-23 3:30 PM  
Wilson, Nicole; University of Miami  
PHOSPHODIESTERASE 4B INHIBITION AS AN ANTI-INFLAMMATORY TREATMENT FOR TRAUMATIC BRAIN INJURY

C7-24 3:45 PM  
Uldreaj, Antigona; University of Toronto  
ANTIBODY-MEDIATED AUTOIMMUNITY AFTER CERVICAL SPINAL CORD INJURY: DISTINCT ROLES FOR IGG AND IGM

C7-25 3:00 PM  
DeMar, James; Walter Reed Army Institute of Research  
EVALUATION OF POLYUNSATURATED FATTY ACID DERIVED MEDIATORS OF INFLAMMATION TO AMELIORATE PRIMARY BLAST WAVE INJURIES IN RATS

C7-26 3:15 PM  
Johnson, David; Walter Reed Army Institute of Research  
ACUTE AND SUBACUTE MICRORNA MODULATION FOLLOWING PBTBI

C7-27 3:30 PM  
Wang, Ying; Walter Reed Army Institute of Research  
CCL2 LEVELS IN CSF AND ITS CORRELATION WITH BLAST-INDUCED NEUROTRAUMA IN RATS

C7-28 3:45 PM  
Boutte, Angela; Walter Reed Army Institute of Research  
HYPOXEMIA AND HEMORRHAGIC SHOCK DELAY INFLAMMATION AND GFAP-DEGRADATION IN RAT PENETRATING BALLISTIC-LIKE BRAIN INJURY.

C7-29 3:00 PM  
Madathil, Sindhu; Walter Reed Army Institute of Research  
TEMPORAL AND REGIONAL CHANGES IN MICROGLIAL PROLIFERATION FOLLOWING PENETRATING BALLISTIC-LIKE BRAIN INJURY IN RATS

## INTRACRANIAL PRESSURE

C8-01 3:15 PM  
Rodgers, Richard; Indiana University School of Medicine  
THE EFFECT OF OSMOTIC AGENTS ON CEREBRAL MICROCIRCULATION AFTER TRAUMATIC BRAIN INJURY

C8-02 3:30 PM  
Armonda, Rocco; MedStar-Washington Hospital Center/Georgetown University Hospital  
RAUMEDIC BOLT: INITIAL CLINICAL EXPERIENCE IN A NEUROSURGICAL POPULATION

## NEUROTRANSMITTER

C9-01 3:45 PM  
Harun, Rashed; University of Pittsburgh  
SEX HORMONE STATUS AND CONTROLLED CORTICAL IMPACT AFFECT DOPAMINE NEUROTRANSMISSION AND RESPONSE TO METHYLPHENIDATE ADMINISTRATION

C9-02 3:00 PM  
Myrka, John; University of Pittsburgh  
DOPAMINE SYSTEM GENETICS AND SEX INTERACT TO AFFECT COGNITIVE DYSFUNCTION AFTER TBI

C9-03 3:15 PM  
Carlson, Shaun; University of Pittsburgh  
ADMINISTRATION OF LITHIUM IMPROVES NEUROTRANSMISSION AND INCREASES VESICULAR DOCKING PROTEINS IN THE STRIATUM AFTER SCI

C9-04 3:30 PM  
Schneider, Brandy; Wayne State University  
TRAUMATIC BRAIN INJURY PRECEDES ENHANCED FEAR CONDITIONING AND SUBREGIONAL CHANGES IN HIPPOCAMPAL EXCITATORY/INHIBITORY TONE

## POSTER SESSION VII

### BIOENGINEERING

D1-01 4:00 PM  
Stemper, Brian; Medical College of Wisconsin  
SUBCONCUSSIVE HEAD IMPACT HISTORY FOR CONCUSSED AND NON-CONCUSSED COLLEGE FOOTBALL PLAYERS

D1-02 4:15 PM  
Stemper, Brian; Medical College of Wisconsin  
SEX-BASED BEHAVIORAL DIFFERENCES IN RATS FOLLOWING HEAD ROTATIONAL ACCELERATION INJURY

D1-03 4:30 PM  
Hicks, Ramona; OneMind  
CREATING A KNOWLEDGE NETWORK FOR TBI RESEARCH: THE ONE MIND PORTAL

D1-04 4:45 PM  
Race, Nick; Purdue University/Indiana University  
EXPLORING THE LINKS BETWEEN BLAST-INDUCED TRAUMATIC BRAIN INJURIES AND PSYCHOSOCIAL DEFICITS IN RATS

### MODELING

D2-01 4:00 PM  
Wirth, Peter; Colby College  
MILD TRAUMATIC BRAIN INJURY IN MALE AND FEMALE RATS: CHARACTERIZATION OF A NEW INJURY PARADIGM

D2-02 4:15 PM  
Jamnia, Naseem; DePaul University  
CLOSED-HEAD SINGLE AND REPEAT CONTROLLED CORTICAL IMPACT IN THE ADULT RAT: EFFECTS ON BEHAVIOR, PHYSIOLOGY, AND PATHOLOGY

D2-03 4:30 PM  
Cui, Jianxia; L-3 communications/Applied Technologies  
A COMPUTATIONAL MODEL OF CORTICAL NETWORK FOR QUANTIFYING NEUROBEHAVIORAL SEQUELAE OF CONCUSSION LINKED TO TRAUMATIC AXONAL INJURY

D2-04 4:45 PM  
Ferguson, Scott; Roskamp Institute  
VISUAL DYSFUNCTION SCREENING IN MICE AFTER TBI USING AN OPTOMOTOR ASSESSMENT OF THE OPTOKINETIC RESPONSE

D2-05 4:00 PM  
Tenovo, Olli; Turku University Hospital  
INJURY PROFILES, DEMOGRAPHY AND REPRESENTATIVENESS OF PATIENTS WITH TBI ATTENDING A REGIONAL EMERGENCY DEPARTMENT

D2-06 4:15 PM  
Ponnaluri, Aditya; UCLA  
ANALYZING CONCUSSION SCORE CRITERIA FOR VINYL NITRILE FOAM AND MICROLATTICE MATERIAL USING A ONE-DIMENSIONAL MODEL

D2-07 4:30 PM  
Tucker, Laura; USUHS  
A SINGLE CONCUSSIVE BRAIN INJURY TRANSIENTLY DISRUPTS HOME CAGE ACTIVITIES IN MALE AND FEMALE C57BL/6J MICE

D2-08 4:45 PM  
Leonard, Anna; University of Alabama at Birmingham  
LOCALIZATION OF THE CORTICOSPINAL TRACT IN PIGS: IMPLICATIONS FOR MODELLING TRAUMATIC SPINAL CORD INJURY

D2-09 4:00 PM  
Martens, Kris; University of British Columbia  
BIOMECHANICAL AND FUNCTIONAL CHARACTERIZATION OF CHIMERA IN AN APP/PS1 MODEL OF ALZHEIMER'S DISEASE

D2-10 4:15 PM  
Abboud, Andrew; University of Pittsburgh  
DYNAMIC PROFILING: OUTCOME PREDICTION IN TBI BASED ON DEMOGRAPHICS, INJURY CHARACTERISTICS, AND INFLAMMATORY MEDIATORS

D2-11 4:30 PM  
Abboud, Andrew; University of Pittsburgh  
DIFFERENTIAL DYNAMIC NETWORKS OF INFLAMMATION IN CEREBROSPINAL FLUID OF TRAUMATIC BRAIN INJURY SEGREGATE SURVIVORS & NON-SURVIVORS

D2-12 4:45 PM  
McCutcheon, Victoria; University of Toronto  
DEVELOPMENT AND CHARACTERIZATION OF A ZEBRAFISH MODEL OF TBI

D2-13 4:00 PM  
Meconi, Alicia; University of Victoria  
IMMUNE CELL ACTIVATION UNDERLYING LEARNING AND MEMORY IMPAIRMENT IN THE JUVENILE FEMALE RAT AFTER REPEAT CLOSED HEAD INJURY

D2-14 4:15 PM  
Zhang, Liying; Wayne State University  
MECHANICAL RESPONSE OF SWINE EXPOSED TO FREE-FIELD BLASTS

### NEUROTRANSPLANTATION

D3-01 4:30 PM  
Gajavelli, Shyam; University of Miami  
SURVIVAL AND BIODISTRIBUTION OF HUMAN FETAL NEURAL STEM CELL TRANSPLANTS IN PENETRATING BALLISTIC BRAIN INJURY (PBTBI)

D3-02 4:45 PM  
Cao, Qi Lin; UT Medical School at Houston  
TRANSPLANTATION OF HUMAN INDUCIBLE PLURIPOTENT STEM CELL-DERIVED NEURAL STEM CELLS PROMOTES LOCOMOTOR RECOVERY AFTER SCI

### TRANSPLANTATION

D4-01 4:15 PM  
Armstrong, Regina; USUHS  
INTRACEREBROVENTRICULAR TRANSPLANTATION OF ADULT NEURAL STEM CELLS (NSCS) AFTER TBI: PROOF-OF-CONCEPT FOR ACTIVATION OF HOST NSCS

D4-02 4:00 PM  
Ahmed, Aminul; University of Miami  
DIFFERENTIATION OF FDA-APPROVED HUMAN NEURAL STEM CELLS WITH FUNCTIONAL IMPROVEMENT AFTER A PENETRATING TBI

### MONITORING

D5-01 4:30 PM  
Gupta, Deepak; AIIMS (All India Institute of Medical Sciences)  
CAN CEREBRAL MICRODIALYSIS USEFULNESS BE EXTRAPOLATED TO CLINICAL PROGNOSTICATION ASSESSMENT IN SEVERE TRAUMATIC BRAIN INJURY?

D5-02 4:45 PM  
LaPlaca, Michelle; Georgia Institute of Technology/ Emory University  
DETECT: A NOVEL TOOL FOR FIELD ASSESSMENT OF CONCUSSION

D5-03 4:00 PM  
Kiderman, Alexander; Neuro Kinetics, Inc.  
TEST-RETEST REPEATABILITY AND REPRODUCIBILITY OF MULTI-MODAL TESTING IN 3D HEAD MOUNTED DISPLAY (HMD) WITH EYE TRACKING SYSTEM.

D5-04 4:15 PM  
Hoffer, Michael; University of Miami  
NEUROSENSORY SYMPTOMS COMPLEXES AFTER ACUTE MILD TRAUMATIC BRAIN INJURY

D5-05 4:30 PM  
Wang, Jiaqiong; University of Miami  
CONDITIONED LOCOMOTION FOLLOWING THORACIC SCI IN RATS: COMPARATIVE ASSESSMENT OF GAIT ANALYSIS USING AUTOMATED DEVICES

D5-06 4:45 PM  
Krasberg, Mark; University of New Mexico  
RELATIONSHIP OF SIMULTANEOUSLY RECORDED VENTRICULAR AND PARENCHYMAL INTRACRANIAL PRESSURE

D5-07 4:00 PM  
Carr, Walter; Walter Reed Army Institute of Research  
SYMPTOMOLOGY OBSERVED IN HUMANS FOLLOWING ACUTE EXPOSURE TO EXPLOSIVE BLAST

## REHABILITATION

D6-01 4:15 PM  
Yu, Mingkun; Shanghai Changzheng Hospital  
SPONTANEOUS FRACTURE OF CRANIOPLASTIC TITANIUM IMPLANTS WITHOUT HEAD TRAUMA IN AN ADULT: A CASE STUDY

D6-02 4:30 PM  
Strain, Misty; Texas A&M University  
EXAMINATION OF STEPPING AND TAIL OSCILLATIONS AS A RESULT OF TEMPORAL RELATIONS AND FREQUENCY

D6-03 4:45 PM  
Larson-Dupuis, Camille; Universite de Montreal  
IMPACT OF AEROBIC EXERCISE ON COGNITIVE FUNCTIONS IN AN AGING MILD TRAUMATIC BRAIN INJURY POPULATION: A PILOT STUDY

D6-04 4:00 PM  
Hamzah, Norhamizan; University Malaya  
EFFECT OF COGNITIVE REHABILITATION IN IMPROVING COGNITIVE SYMPTOMS AND DIFFUSION TENSOR IMAGING FINDINGS FOLLOWING MILD TBI

D6-05 4:15 PM  
Panenka, William; University of British Columbia  
SYMPTOM ATTRIBUTION AFTER MILD TRAUMATIC BRAIN INJURY

D6-06 4:30 PM  
Yue, John; University of California, San Francisco  
TEMPORAL PROFILE OF CARE FOLLOWING MILD TRAUMATIC BRAIN INJURY: PREDICTORS TO HOSPITAL ADMISSION, OUTPATIENT REFERRAL AND OUTCOME

D6-07 4:45 PM  
Kline, Anthony; University of Pittsburgh  
OPTIMIZING ENVIRONMENTAL ENRICHMENT TO MODEL PRECLINICAL NEUROREHABILITATION

D6-08 4:00 PM  
Temkin, Nancy; University of Washington  
TELEPHONE PROBLEM SOLVING TREATMENT FOR ACTIVE DUTY SERVICE MEMBERS WITH MILD TRAUMATIC BRAIN INJURY: A RANDOMIZED CONTROLLED TRIAL

D6-09 4:15 PM  
Pezduz Nelson, Jean; Wayne State University School of Medicine  
BRAIN-INITIATED EXERCISE PROGRAM PROMOTES GREATEST RECOVERY AFTER SCI

## POSTER SESSION VIII

### ASTROCYTE

D7-01 5:00 PM  
Hong, Sue; Ann & Robert H. Lurie Children's Hospital  
THROMBIN PHOSPHORYLATES MYOSIN LIGHT CHAIN IN ASTROCYTES VIA THE RHO KINASE PATHWAY

D7-02 5:15 PM  
Levine, Jaclynn; University of California Los Angeles  
TRAUMATICALLY INJURED ASTROCYTES RELEASE A PROTEOMIC SIGNATURE MODULATED BY STAT3 DEPENDENT CELL SURVIVAL

### NEUROPROTECTION

D8-01 *withdrawn*

D8-02 5:45 PM  
Garcia, Roberto; Baylor College of Medicine  
NEUROPROTECTION WITH PEG-HYDROPHILIC CARBON CLUSTERS IN MILD TRAUMATIC BRAIN INJURY COMPLICATED BY HYPOTENSION IN RODENTS

D8-03 5:00 PM  
Cherian, Leela; Baylor College of Medicine  
NEUROPROTECTIVE EFFICACY OF ERYTHROPOIETIN-MIMETIC PEPTIDE (ARA290) WITH DELAYED ADMINISTRATION AFTER CORTICAL IMPACT INJURY

D8-04 5:15 PM  
Husan, Ammar; Baylor College of Medicine  
LITHIUM AND VALPROATE ADMINISTRATION PROVIDES NEUROPROTECTION AFTER MILD TRAUMATIC BRAIN INJURY COMPLICATED BY HYPOTENSION

D8-05 5:30 PM  
Hoffer, Barry; Case Western Reserve University  
LOWERING TUMOR NECROSIS FACTOR- $\alpha$  SYNTHESIS AMELIORATES NEURONAL AND COGNITIVE LOSS AFTER MILD TRAUMATIC BRAIN INJURY IN MICE

D8-06 5:45 PM  
Layer, Richard; In Vivo Therapeutics  
BIODEGRADABLE NEURO-SPINAL SCAFFOLD PRESERVES SPINAL CORD ARCHITECTURE FOLLOWING SPINAL CONTUSION INJURY IN RATS

D8-07 5:00 PM  
Hanna, George; Loma Linda University Health  
HYPERTONIC SALINE THERAPY AND DECOMPRESSIVE SURGERY WITH MULTI-MODAL THERAPY IN ACUTE SPINAL CORD INJURY

D8-08 5:15 PM  
Chavko, Mikulas; Naval Medical Research Center  
PROTECTIVE EFFECT OF N-ACETYLCYSTEINE AMIDE (NACA) AGAINST BRAIN DAMAGE AFTER EXPOSURE TO BLAST IN A RAT MODEL

D8-09 5:30 PM  
Finan, John; North Shore University Health System  
THE EFFECT OF INTERNAL JUGULAR VEIN COMPRESSION ON HEMORRHAGE IN A PORCINE CONTROLLED CORTICAL INJURY MODEL

D8-10 5:45 PM  
Choo, Anthony; PsychoGenics Inc.  
THE EFFICACY OF PROGESTERONE DEPENDS ON THE TRAUMATIC BRAIN INJURY MODEL

D8-11 5:00 PM  
Sutton, Richard; UCLA  
TBI-INDUCED METABOLOMIC PROFILES IN ENERGETIC, OXIDATIVE STRESS AND INFLAMMATORY PATHWAYS ARE IMPROVED BY ETHYL PYRUVATE TREATMENT

D8-12 5:15 PM  
Geddes, James; University of Kentucky  
SELENIUM DEFICIENCY IS DETRIMENTAL TO MITOCHONDRIAL RESPIRATION FOLLOWING TRAUMATIC BRAIN INJURY

D8-13 5:30 PM  
Littlejohn, Erica; University of Kentucky  
INSULIN-LIKE GROWTH FACTOR-1 OVEREXPRESSION PROMOTES SURVIVAL OF ADULT-BORN NEURONS AFTER TRAUMATIC BRAIN INJURY

D8-14 5:45 PM  
Patel, Samir Kumar; University of Kentucky  
SYNERGISTIC EFFECTS OF  $\beta$ -HYDROXYBUTYRATE AND ACETYL-L-CARNITINE ON MITOCHONDRIAL FUNCTION AFTER SPINAL CORD INJURY

D8-15 5:00 PM  
Cebak, John; University of Kentucky  
RE-PURPOSING AN FDA-APPROVED DRUG AS AN ANTI-OXIDANT TO SCAVENGE REACTIVE CARBONYLS FOLLOWING TBI-INDUCED LIPID PEROXIDATION

D8-16 5:15 PM  
Mondello, Stefania; University of Messina  
BIOMARKER PROFILES SUPPORT A NEUROPROTECTIVE EFFECT OF LEVETIRACETAM IN TBI: FINDINGS FROM OPERATION BRAIN TRAUMA THERAPY

D8-17 5:30 PM  
Dietrich, W. Dalton; University of Miami Miller School of Medicine  
EVALUATION OF GLIBENCLAMIDE IN THE MIAMI FLUID PERCUSSION MODEL OF TRAUMATIC BRAIN INJURY: AN OBTT CONSORTIUM STUDY

D8-18 5:45 PM

Jha, Ruchira; University of Pittsburgh  
EVALUATION OF GLIBENCLAMIDE IN THE PITTSBURGH  
CONTROLLED CORTICAL IMPACT MODEL OF TRAUMATIC BRAIN  
INJURY: AN OBTT CONSORTIUM STUDY

D8-19 5:00 PM

Dixon, C. Edward; University of Pittsburgh  
EVALUATION OF KOLLIDON VA-64 IN THE CONTROLLED  
CORTICAL IMPACT MODEL OF TRAUMATIC BRAIN INJURY: AN  
OBTT CONSORTIUM STUDY

D8-20 5:15 PM

Hawkins, Bridget; University of Texas Medical Branch  
(UTMB)  
TAU OLIGOMER SPECIFIC MONOCLONAL ANTIBODY TO TREAT  
TRAUMATIC BRAIN INJURY

D8-21 5:30 PM

Micci, Maria-Adelaide; University of Texas Medical Branch  
(UTMB)  
THERAPEUTIC APPLICATION OF A PULSED LASER SYSTEM FOR  
BRAIN TRAUMA.

D8-22 5:45 PM

Harper, Matthew; VA Health Care System; University of Iowa  
FUNCTIONAL PRESERVATION OF RETINAL GANGLION CELLS  
WITH P7C3-S243 FOLLOWING BLAST MEDIATED TBI

D8-23 5:00 PM

Caudle, Krista; Walter Reed Army Institute of Research  
EVALUATION OF KOLLIDON VA64 IN THE WRAIR PBBI MODEL:  
STUDIES FROM THE OPERATION BRAIN TRAUMA THERAPY  
(OBTT) CONSORTIUM

D8-24 5:15 PM

Mountney, Andrea; Walter Reed Army Institute of Research  
THE EFFECTS OF SLEEP-ALTERING DRUGS ON SLEEP  
ARCHITECTURE RELATIVE TO TRAUMATIC BRAIN INJURY IN  
RATS

D8-25 5:30 PM

Leung, Lai Yee; Walter Reed Army Institute of Research  
SELECTIVE BRAIN COOLING REDUCES MOTOR DEFICITS  
INDUCED BY COMBINED TRAUMATIC BRAIN INJURY,  
HYPOXEMIA AND HEMORRHAGIC SHOCK

D8-26 5:45 PM

Deng-Bryant, Ying; Walter Reed Army Institute of Research  
EVALUATION OF GLIBENCLAMIDE IN THE WRAIR PBBI MODEL:  
STUDIES FROM THE OPERATION BRAIN TRAUMA THERAPY  
(OBTT) CONSORTIUM

## VASCULAR

D9-01 5:00 PM

Bond, Lisa; BioAxone BioSciences, Inc.  
DEVELOPMENT OF ROCK2-SELECTIVE BA-1049 FOR  
TREATMENT OF CEREBRAL CAVERNOUS MALFORMATIONS

D9-02 5:15 PM

Park, Eugene; St. Michael  
HUMAN UMBILICAL CORD PERIVASCULAR CELL (HUCPVC)  
THERAPY FOR TRAUMATIC BRAIN INJURY: TARGETING THE  
NEUROVASCULAR UNIT.

D9-03 5:30 PM

Decker, Matt; University of Florida  
INSTITUTIONAL REVIEW OF SCREENING FOR BLUNT  
CEREBROVASCULAR INJURIES

D9-04 5:45 PM

Bolding, Ian; University of Texas - Medical Branch  
A COMPARISON OF THE CEREBRAL VASCULAR EFFECTS OF  
VANDENBERG OR ADVANCED BLAST SIMULATOR BLAST  
INJURY IN RATS

D9-05 5:00 PM

Rodriguez, Uylissa; University of Texas Medical Branch  
THE EFFECTS OF BLAST-INDUCED NEUROTRAUMA ON  
CEREBRAL VASCULAR, HISTOPATHOLOGICAL AND  
BEHAVIORAL OUTCOMES

D9-06 5:15 PM

Hawkins, Bridget; University of Texas Medical Branch  
TREATMENT WITH DENDRO[60]FULLERENE PRESERVES  
NEURONS AFTER TRAUMATIC BRAIN INJURY BUT DOES NOT  
IMPROVE CEREBRAL VASCULAR RESPONSE

D9-07 5:30 PM

Di Battista, Alex; University of Toronto  
PERIPHERAL BLOOD MARKERS OF VASCULAR INJURY IN  
MODERATE-TO-SEVERE TBI - RELATIONSHIP TO SYSTEMIC  
CATECHOLAMINES AND OUTCOME.

D9-08 5:45 PM

Kenney, Kimbra; USUHS  
FUNCTIONAL NEAR INFRARED SPECTROSCOPY (FNIRS)- 2  
NON-INVASIVE METHODS TO ASSESS TRAUMATIC VASCULAR  
INJURY AFTER TBI

D9-09 5:00 PM

Russell, Nicholas; Virginia Commonwealth University  
HEME OXYGENASE-1 AND LIPOCALIN-2 INTERACTION  
DURING HEME PROCESSING AFTER TRAUMATIC BRAIN INJURY

D9-10 5:15 PM

Kummer, Terrance; Washington University  
AXONAL INJURY AND NEUROBEHAVIORAL IMPAIRMENT  
AFTER SUBARACHNOID HEMORRHAGE

## AWARDS CEREMONY

Please join us on Wednesday, July 1st for the  
Awards Ceremony, where we will honor all  
poster finalists, WinTR VISA award winner,  
and announce the final winners of the:

**Michael Goldberger Award**

**Murray Goldstein Award**

**Women in Neurotrauma Research Award**

**Alan Faden Award**

**Anthony Marmarou Award**

**AANS/CNS Cranial Trauma Award**

**AANS/CNS Spinal Trauma Award**



The Women in Neurotrauma Research Visiting  
International Scholar Award (WinTR-VISA) was  
established to promote international networking  
opportunities, and to advance the early careers of  
women neurotrauma researchers. The Award  
provides an opportunity for international  
collaboration by subsidizing both travel to the  
National Neurotrauma Symposium and a brief  
period of research training/collaboration in a  
sponsor's laboratory.

The winner for 2015 is **Ms. Patricia Barra de la  
Tremblaye**, PhD candidate in the laboratory of Dr.  
Hélène Plamondon, PhD at the University of  
Ottawa. In addition to attending the upcoming  
33rd Annual NNS Symposium in Santa Fe, Ms. B. de  
la Tremblaye will participate in on-site collaborative  
research at the University of Pittsburgh, in the  
neurotrauma research laboratory of Dr. Anthony  
Kline, PhD.

The award will be officially recognized during the  
NNS Awards Ceremony on Wednesday, July 1st.  
Please join us to congratulate Ms. Patricia B. de la  
Tremblaye on this achievement!

# CME & Disclosure Information

## Disclosure of Conflicts

The following speakers, chairs, presenting authors and/or Program Committee members report the following relevant relationships:

Speakers Bureau:

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**Kochanek, Patrick**

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Patent No.# US 8,628,512 B2

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Advisor/Review Panel: Acorda Therapeutics

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**Morioka, Kazuhito**

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- UHS-PEP designates a maximum of 23.25 CME credits for the National Neurotrauma Society sponsored portion of the entire symposium.
- The optional WinTR lunch session is 1.25 CME credits.
- The optional WinTR mentoring reception is 1.0 CME credit.
- The AANS/CNS sponsored program is designated for a maximum of 6.0 CME credits.

This continuing education activity meets the criteria of Virginia Commonwealth University and the Southern Association of Colleges and Schools. **3.15 CEUs** will be awarded and recorded with the University (if all sessions are completed as described above).

## Educational Learning Objectives

At the conclusion of this three day symposium, attendees will be able to:

- I. Describe injury models and novel approaches to study traumatic brain and spinal cord injury.
- II. Identify advances in therapeutic targeting to enhance outcome after central nervous system injury.
- III. Discuss controversial issues in the translation of therapeutic treatments from the laboratory to the clinic.

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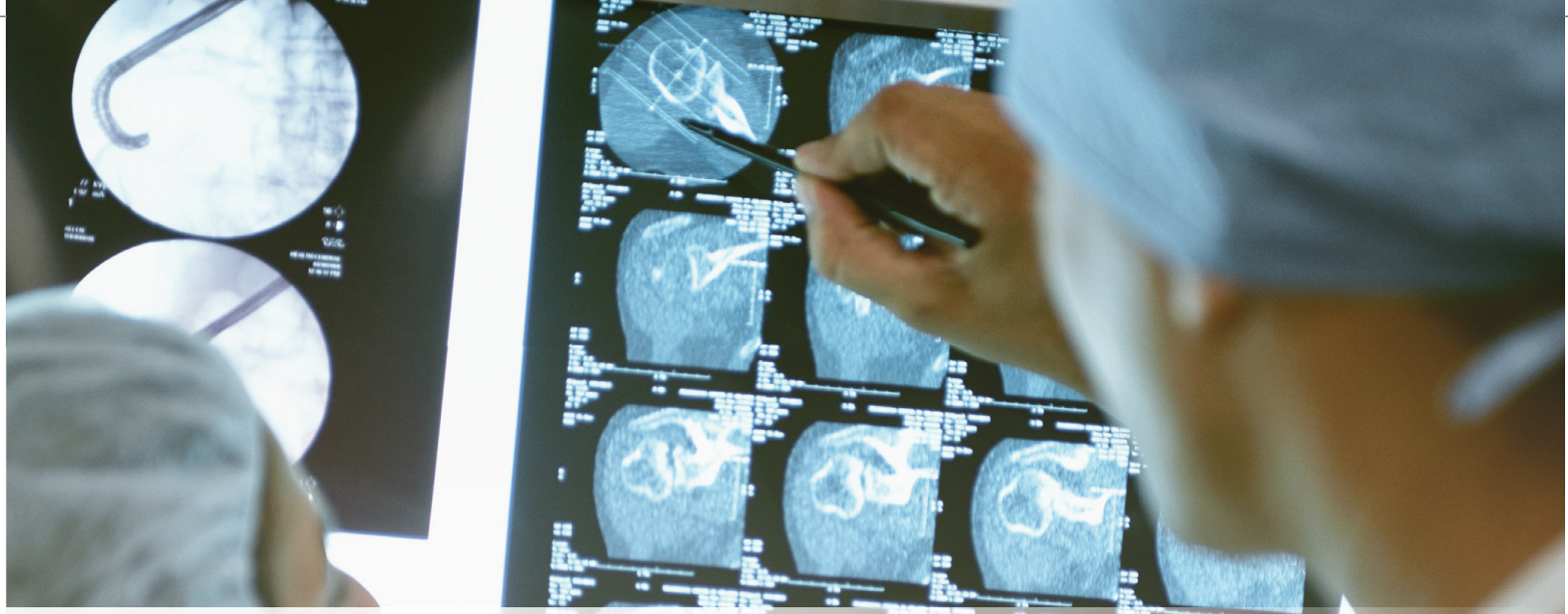
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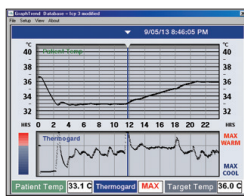


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<sup>1</sup> Diringier MN, et al. *Critical Care Medicine*. 2004;[32]2:559-564.

<sup>2</sup> Hoedemaekers CW, et al. *Critical Care*. 2007;11:R91.

<sup>3</sup> Puccio A, et al. *Neurocrit Care*. 2009;11:82-87.

<sup>4</sup> Patel N, et al. *Cann Medicine*. 2013 Jan;77(1):35-41.

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Please join us at the Welcome Reception in the La Terraza Garden Patio at La Fonda Hotel June 28 and the S04: Progenitor Cell Therapy for Adult TBI: Preclinical session June 29. Mission Connect member Dr. Charles Cox, Jr. will co-chair this session. and he, along with Dr. Pramod Dash, Scientific Director of **Mission Connect**, will address cell therapy.

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