# NEUROTRAUMA 2015

The 33rd Annual Symposium of the

> National Neurotrauma Society

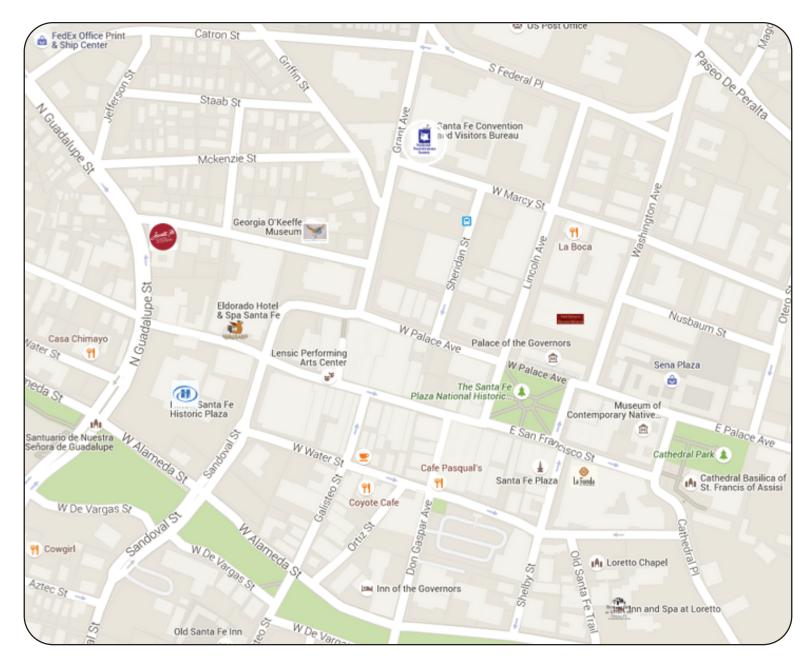
SCIENTIFIC PROGRAM

La Fonda

June 28 - July 1 Santa Fe, New Mexico

WWW.NEUROTRAUMA.ORG

# **DOWNTOWN SANTA FE MAP**





# **Table of Contents**

National Neurotrauma Society Officers & Councilors	1
Welcome Letter from the NNS 2015 President	2
Supporters	3
Exhibitors	4
Invited Faculty Speakers & Session Chairs	5-6
General Conference Information	7
Schedule At-A-Glance	8
Conference Agenda - Scientific Sessions	
Sunday	9
Monday	10-11
Tuesday	12-13
Wednesday	14-15
Student Poster Competition Finalists & Poster Set Up Times	16
Monday Poster Sessions	
Session I - Groups A1-A4 [7:00 am]	17-18
Session II - Groups A5-A8 & T1-T20 Final Judging [3:00 pm]	18-19
Session III - Groups B1-B4 [4:00 pm]	19-20
Session IV- Groups B5-B7 [5:00 pm]	20-21
Travel Grant Awardees	21
Tuesday Poster Sessions	
Session V - Groups C1-C5 [7:00 am]	22-23
Session VI - Groups C6-C9 [3:00 pm]	23-24
Session VII - Groups D1-D6 [4:00 pm]	24-25
Session VIII- Groups D7-D9 [5:00 pm]	25-26
Awards Ceremony, WiNTR VISA Award & iWatch drawing	26
CME Information and Disclosures	27-28
Sponsor Advertisements	29-32





# **EXECUTIVE DIRECTOR**

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

**OFFICERS** 



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

Diane Snow, PhD President 2016 University of Kentucky



Michelle LaPlaca, PhD Vice President 2015 Georgia Institute of Technology Emory University

Jonathan Lifshitz, PhD Vice President 2016 University of Arizona



**Anthony Kline, PhD** Secretary / Treasurer 2015 University of Pittsburgh

Kimberly Byrnes, PhD Secretary / Treasurer 2016 Uniformed Services University

# **COUNCILORS**

Jacqueline Bresnahan, PhD Li Univ. of California, San Francisco Ur

Adam Ferguson, PhD Univ. of California, San Francisco

> **Bruce Lyeth, PhD** Univ. of California, Davis

**Linda Noble-Haeusslein, PhD** Univ. of California, San Francisco

> Philip Popovich, PhD Ohio State University

John Povlishock, PhD Virginia Commonwealth Univ.

**Courtney Robertson, MD** Johns Hopkins University

# **2015 PROGRAM COMMITTEE**

Helen Bramlett, PhD University of Miami

**Pramod Dash, PhD** Univ. of Texas Health Science Ctr.

Ramon Diaz-Arrastia, MD, PhD Uniformed Services University

**Gregory Holmes, PhD** Penn State College of Medicine Anthony Kline, PhD University of Pittsburgh

**Patrick Kochanek, MD** University of Pittsburgh

**Brian Kwon, MD** University of British Columbia

**Michelle LaPlaca, PhD** GA Tech / Emory University Kathryn Saatman, PhD University of Kentucky

**Amy Wagner, MD** University of Pittsburgh

**Kevin Wang, PhD** University of Florida

David Magnuson, PhD University of Louisville

David Okonkwo, MD, PhD University of Pittsburgh

Uzma Samadani, MD, PhD New York University

**Diane Snow, PhD** 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 years' 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,

A. A. A. Arth

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+)



# **Exhibitors**

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

# 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

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

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

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] pa an http://dvbic.dcoe.mil an

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

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

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

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

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 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

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

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

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

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

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

Proprietary MultiBrain<sup>®</sup> and MultiCord<sup>®</sup> 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

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

At 0xHealth, 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, 0xyHealth 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

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 suffring 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

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

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 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

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 neurologic function.

# VisitLEX / Lexington CVB [12]

# 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 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

ZOLL Medical Corporation, a leader in medical products and software solutions, offers Intravascular Temperature Management (IVTM<sup>®</sup>) 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 Denes Agoston, MD, PhD Kim Anderson-Erisman, PhD Esperanza Arias Perez, PharmD, PhD Vishal Bansal, MD William Barr, PhD D. Michele Basso, EdD Larry Benowitz, PhD Detlev Boison, PhD Corina Bondi, PhD Cesar Borlongan, PhD Helen Bramlett, PhD Robert Brownstone, MD, PhD Mark Burns, PhD Susan Charlifue, PhD Dawn Comstock, PhD Rachel Cowan, PhD Charles Cox, Jr., MD Fiona Crawford, PhD Pramod Dash, PhD Sanjay Dhall, MD Ramon Diaz-Arrastia, MD, PhD Dara Dickstein, PhD W. Dalton Dietrich, PhD Ann-Christine Duhaime, MD Timothy Duong, PhD Linda Ewing-Cobbs, PhD Sam Gandy, MD, PhD Aruna Ganju, MD Gerard Gioia, PhD Christopher Giza, MD Jonathan Godbout, PhD Grace Griesbach, PhD Kevin Guskiewicz, PhD Jennifer Hay Michal Hetman, MD, PhD Ramona Hicks, PhD Gregory Holmes, PhD Jason Huang, MD Edwin Jackson, PhD Travis Jackson, PhD Victoria E. Johnson, PhD Barry Jordan, MD Jenifer Juranek, PhD

Sujatha Kannan, MD Gregory Kapinos, MD Anthony Kline, PhD Patrick Kochanek, MD

Shekar Kurpad, MD Michael Lane, PhD

# UNIVERSITY

UNIVERSITY
Uniformed Services University
University of Miami
,
Einstein University
University of California, San Diego
New York University
Ohio State University
Boston Chiidren's Hospital, Harvard University
Legacy Research Institute, Dow Neurobio Labs
University of Pittsburgh
University of South Florida
University of Miami
Dalhousie University
Georgetown University
Craig Hospital
University of Colorado, Denver
University of Miami
University of Texas
Roskamp Institute
University of Texas
University of California, San Francisco
Uniformed Services University
Mt. Sinai Hospital
University of Miami
Harvard University
University of Texas San Antonio
University of Texas Health Science Center
Mt. Sinai Hospital
Northwestern University
Children's National Medical Center
University of California Los Angeles
Ohio State University
Centre for NeuroSkills
University of North Carolina
University of Glasgow
University of Louisville
One Mind
Penn State University
Baylor Scott & White Health
University of Pittsburgh
University of Pittsburgh
University of Pennsylvania
Burke Rehabilitation Hospital
University of Texas
Johns Hopkins University
Hofstra University
University of Pittsburgh
University of Pittsburgh
Medical College of Wisconsin

**Drexel University** 

SESSION	DAY	ROLE
PL07	WED	Speaker & Session Chair
S02	MON	Session Chair
PL04	TUES	Session Chair
PL06	WED	Speaker
S13	TUES	Speaker
PL03	TUES	Speaker
S09	TUES	Speaker & Session Chair
PL06	WED	Speaker
S14	TUES	Speaker
PL03	TUES	Speaker & Session Chair
S01	MON	Speaker
PRES	ALL	Program Chair
S06	MON	Speaker
S05	WED	Speaker & Session Chair
S02	MON	Speaker
S07	TUES	Speaker
S02	MON	Speaker
S04	MON	Speaker & Session Chair
S05	MON	Speaker
S04	MON	Speaker
AANS 1	SUN	Speaker
S03	MON	Speaker
PL05	TUES	Speaker
PL02	MON	Speaker & Session Chair
AANS 4	SUN	Speaker
S03	MON	Speaker & Session Chair
503 504	MON	Speaker & Session Chair
504 PL05		Session Chair
AANS 3	WED	
	SUN	Speaker
S07	TUES	Speaker
S07	TUES	Session Chair
S09	TUES	Speaker
S09	TUES	Speaker
S07	TUES	Speaker
WLW	MON	Speaker
PL06	WED	Session Chair
S10	TUES	Session Chair
PL01	MON	Session Chair
AANS 1	SUN	Speaker
S14	TUES	Speaker
PL01	MON	Speaker
WLW	MON	Speaker
S05	MON	Session Chair
PL05	TUES	Speaker
S04	MON	Speaker
S01	MON	Speaker
AANS 2	SUN	Speaker
PL03	TUES	Session Chair
S08	TUES	Speaker
S14	WED	Session Chair
AANS 3	SUN	Session Chair
PL01	MON	Speaker

# **Invited Faculty Speakers & Chairs**

ROLE Session Chair Speaker Speaker Speaker Session Chair Speaker Session Chair Speaker Speaker Speaker Speaker Speaker Session Chair

Speaker Speaker Speaker Session Chair Speaker Speaker Session Chair Session Chair Session Chair Session Chair Speaker Speaker

Speaker & Session Chair

Speaker & Session Chair

Speaker Speaker Speaker Speaker Speaker Speaker Speaker Session Chair

Speaker Speaker Session Chair Speaker Speaker Speaker Session Chair Session Chair Speaker Speaker Speaker Speaker Session Chair Session Chair

Session Chair

Speaker

S01

MON

# ΝΔΜΕ

NAME	UNIVERSITY	SESSION	DAY
Michelle LaPlaca, PhD	Georgia Institute of Technology/Emory University	S07	TUES
Vance Lemmon, PhD	University of Miami	PL07	WED
Allan Levi, MD, PhD	University of Miami	AANS 3	SUN
		PL02	MON
Jonathan Lifshitz, PhD	University of Arizona	S13	WED
Cathy Liu, MD	University of California, Davis	PL04	TUES
Bruce Lyeth, PhD	University of California, Davis	S12	TUES
David Magnuson, PhD	University of Louisville	S06	MON
Christina Master, MD	CHOP/University of Pennsylvania	AANS 4	SUN
Andrew Mayer, PhD	The Mind Research Network	S03	MON
Mary Ellen Michel, PhD	National Institutes of Health	WNR	MON
Stefania Mondello, MD, PhD	University of Messina	S08	TUES
Andre Obenaus, PhD	Loma Linda University	S03	MON
David Okonkwo, MD, PhD	University of Pittsburgh	PL02	MON
Monica Perez, PT, PhD	University of Miami	PL01	MON
Daniel Perl, MD	Uniformed Services University	AANS 4	SUN
Phillip Popovich, PhD	Ohio State University	S11	TUES
	onio state oniversity	S13	WED
Enrico Rejc, PhD	University of Louisville	AANS 3	SUN
Courtney Robertson, MD	Johns Hopkins University	S01	MON
Richard Rodgers, MD	Goodman Campbell	AANS 1	SUN
Susanna Rosi, PhD	University of California, San Francisco	S01	MON
Uzma Samadani, MD, PhD	New York University	AANS 4	SUN
Sujata Saraswat, PhD	University of Louisville	PL06	WED
Michael Schwarzschild, MD, PhD	Harvard University	S14	WED
Bridgette Semple, PhD	University of Melbourne	S15	WED
Kiarash Shahlaie, MD, PhD	University of California, Davis	PL04	TUES
Lee Shapiro, MD	Texas A&M University	S13	WED
Deborah Shear, PhD	Walter Reed Army Institute of Research	S08	TUES
Thomas Sick, PhD	University of Miami	S15	WED
Soren Singel, MD	Baylor Scott & White Health	AANS 2	SUN
William Smith, MD, PhD	University Medical Center	AANS 1	SUN
Douglas H. Smith, MD	University of Pennsylvania	PL07	WED
Diane Snow, PhD	University of Kentucky	PL01	MON
William Stewart, PhD	University of Glasgow	WLW	MON
Martina Stippler, MD	Harvard University	AANS 2	SUN
James Stone, MD, PhD	University of Virginia	PL05	WED
Emily Swartz-Besecker, PhD	Gettysburg College	S13	WED
Aya Takeoka, PhD	University of Basel	S06	MON
Wolfram Tetzlaff, MD, PhD	University of British Columbia, ICORD	PL07	WED
Christine Thomas, PhD	University of Miami	S02	MON
Frank Tortella, PhD	Walter Reed Army Institute of Research	S08	TUES
Jamie Ullman, MD	North Shore University Hospital	AANS 2	SUN
Mike Vitek, PhD	Duke University	S05	MON
Cole Vonder Haar, PhD	University of British Columbia	PL03	TUES
Amy Wagner, MD	University of Pittsburgh	S15	WED
Briana Walker-Tavano	Briana Walker International, Inc.	PL04	TUES
Patricia Washington, PhD	Georgetown University	WLW	MON
Scott Whittemore, PhD	University of Louisville	S06	MON
	onversity of coulsvine	PL06	WED
	University of Dritich Columbia	FL00	WED

University of British Columbia

# **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 guestions 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 Reaistration 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 Wine & Cheese Poster Reception WiNTR Mentoring Reception

TUESDAY

Wine & Cheese Poster Reception Land of Enchantment Evening

WEDNESDAY

Awards Ceremonv Student/Post Doc Lunch Lunch ticket \$20, pre-order Included for all attendees Tickets \$25/\$15 students

*Included for all attendees* Tickets \$25/\$15 students

Included for all attendees 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.

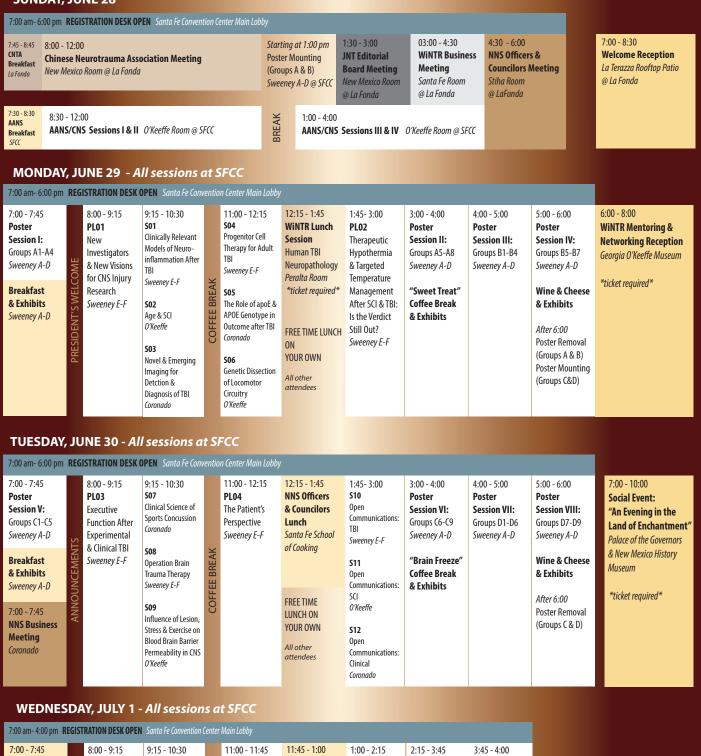
# NNS 2016 Proposal Deadline: September 15, 2015 Abstract Deadline: April 1, 2016

# 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- 4:00 pm <b>K</b>	7:00 am- 4:00 pm Redistration Desk open Santa le convention center main Loboy								
7:00 - 7:45		8:00 - 9:15	9:15 - 10:30		11:00 - 11:45	11:45 - 1:00	1:00 - 2:15	2:15 - 3:45	3:45 - 4:00
Breakfast		PL05	S13		Awards	Student /	PL06	PL07	Closing
Sweeney A-D		Neuroimaging	Brain Injury: Effects		Ceremony	Post-Doc Lunch	Cell Death is	Facilitating	Remarks
		of Chronic	on Physiology &		Sweeney E-F	Hosted by NNS	Still Alive	Transparency in	Introduction of
		Traumatic	Function			Officers &	Sweeney E-F	Data Analysis	2016 President
	VTS	Encephalopathy	Coronado	¥		Councilors	,	for TBI & SCI	Sweeney E-F
	ANNOUNCEMENT	Sweeney E-F	\$14	BREAK		Sweeney A-B		Research	
	E	ŕ	Purines-Forgotten	BR		*ticket required*		Sweeney E-F	
7:00 - 7:45	Ž		Mediators in CNS	H					
NNS 2016	õ		Injury	COFFEE					
Planning	Ξ		Sweeney E-F	8		FREE TIME			
Committee	$\leq$					LUNCH ON			
			S15			YOUR OWN			
Meeting			Post-Traumatic						
Teseque			Epilepsy			All other			
			O'Keeffe			attendees			

# Schedule-At-A-Glance

# AGENDA Sunday, June 28

7:00 am - 6:00 pm	Registration Open	Santa Fe Convention Center
7:30 am - 8:30 am	AANS/CNS Continental Breakfast	O'Keeffe Room @ SFCC
8:00 am - 12:00 pm	Chinese Neurotrauma Association Meeting	New Mexico Room @ La Fonda Hotel
8:30 am - 10:00 am 8:30-9:00	AANSO1 ACUTE CHALLENGES IN THE UNSTABLE SPINE [1.5 CME] Chair: Richard Rodgers, MD, Goodman Campbell AANSO1-01 CERVICAL TRACTION FOR THE TREATMENT OF UNSTABLE SUBAXIAL INJURIES Jason Huang, MD, Baylor Scott & White	O'Keeffe Room @ SFCC
9:00-9:30 9:30-10:00	AANSO1-02 LATERAL APPROACH TO SPINE TRAUMA William Smith, MD, PhD, University Medical Center AANSO1-03 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	AANSO2 ACUTE SURGICAL CRANIAL TRAUMA - TO DRILL OR NOT TO DRILL: THAT IS THE QUESTION [1.5 CME] Chair: Jamie Ullman, MD, North Shore University Hospital	O'Keeffe Room @ SFCC
10:30-11:00	AANS02-01 CONTROVERSIES IN INTRACRANIAL MONITORING Martina Stippler, MD, Harvard Medical School	
11:00-11:30	AANS02-02 PRECISION MEDICINE FOR ICP TREATMENT: TCD INDIVIDUALIZES TARGETING COMPLIANCE AND/OR PERFUSION AMELIORATION Gregory Kapinos, MD, Hofstra University	
11:30-12:00	AANS02-03 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	AANSO3 OUTCOMES AFTER SPINE TRAUMA [1.5 CME] Chair: Shekar Kurpad, MD, Medical College of Wisconsin	O'Keeffe Room @ SFCC
1:00-1:30	AANS03-01 DOES TIMING MATTER? Aruna Ganju, MD, Northwestern University	
1:30-2:00	AANS03-02 LUMBOSACRAL SPINAL CORD EPIDURAL STIMULATION FOR STANDING AFTER CHRONIC COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville	
1:30-2:00 2:00-2:30	COMPLETE PARALYSIS IN HUMANS	
	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER?	New Mexico Room @ La Fonda Hotel
2:00-2:30	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami	New Mexico Room @ La Fonda Hotel O'Keeffe Room @ SFCC
2:00-2:30 1:30 pm - 3:00 pm	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami Journal of Neurotrauma Editorial Board Meeting AANS04 OUTCOMES AFTER CRANIAL TRAUMA [1.5 CME]	-
2:00-2:30 1:30 pm - 3:00 pm 2:30 pm - 4:00 pm	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami Journal of Neurotrauma Editorial Board Meeting AANS04 OUTCOMES AFTER CRANIAL TRAUMA [1.5 CME] Chair: Uzma Samadani, MD, PhD, New York University AANS04-01 LONG TERM FUNCTIONAL OUTCOMES AFTER HEMICRANIECTOMY FOR TRAUMA	-
2:00-2:30 1:30 pm - 3:00 pm 2:30 pm - 4:00 pm 2:30-3:00	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami Journal of Neurotrauma Editorial Board Meeting AANS04 OUTCOMES AFTER CRANIAL TRAUMA [1.5 CME] Chair: Uzma Samadani, MD, PhD, New York University AANS04-01 LONG TERM FUNCTIONAL OUTCOMES AFTER HEMICRANIECTOMY FOR TRAUMA Ann-Christine Duhaime, MD, Massachusetts General Hospital AANS04-02 HOW STRONG IS THE EVIDENCE LINKING TRAUMA AND/OR TAU TO DEMENTIA?	-
2:00-2:30 1:30 pm - 3:00 pm 2:30 pm - 4:00 pm 2:30-3:00 3:00-3:30	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami Journal of Neurotrauma Editorial Board Meeting <b>AANS04 OUTCOMES AFTER CRANIAL TRAUMA</b> [1.5 CME] Chair: Uzma Samadani, MD, PhD, New York University AANS04-01 LONG TERM FUNCTIONAL OUTCOMES AFTER HEMICRANIECTOMY FOR TRAUMA Ann-Christine Duhaime, MD, Massachusetts General Hospital AANS04-02 HOW STRONG IS THE EVIDENCE LINKING TRAUMA AND/OR TAU TO DEMENTIA? Daniel Perl, MD, Uniformed Services University of the Health Sciences AANS04-03 PREVALENCE OF VISION PROBLEMS AFTER CONCUSSION IN CHILDREN 11-17 YEARS OLD	-
2:00-2:30 1:30 pm - 3:00 pm 2:30 pm - 4:00 pm 2:30-3:00 3:00-3:30 3:30-4:00	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami Journal of Neurotrauma Editorial Board Meeting <b>AANS04 OUTCOMES AFTER CRANIAL TRAUMA</b> [1.5 CME] Chair: Uzma Samadani, MD, PhD, New York University AANS04-01 LONG TERM FUNCTIONAL OUTCOMES AFTER HEMICRANIECTOMY FOR TRAUMA Ann-Christine Duhaime, MD, Massachusetts General Hospital AANS04-02 HOW STRONG IS THE EVIDENCE LINKING TRAUMA AND/OR TAU TO DEMENTIA? Daniel Perl, MD, Uniformed Services University of the Health Sciences AANS04-03 PREVALENCE OF VISION PROBLEMS AFTER CONCUSSION IN CHILDREN 11-17 YEARS OLD Christina Master, MD, CHOP/University of Pennsylvania	O'Keeffe Room @ SFCC
2:00-2:30 1:30 pm - 3:00 pm 2:30 pm - 4:00 pm 2:30-3:00 3:00-3:30 3:30-4:00 3:00 pm - 4:30 pm	COMPLETE PARALYSIS IN HUMANS Enrico Rejc, PhD, University of Louisville AANS03-03 ARE STEM CELLS THE ANSWER? Allan Levi, MD, PhD, University of Miami Journal of Neurotrauma Editorial Board Meeting AANS04 OUTCOMES AFTER CRANIAL TRAUMA [1.5 CME] Chair: Uzma Samadani, MD, PhD, New York University AANS04-01 LONG TERM FUNCTIONAL OUTCOMES AFTER HEMICRANIECTOMY FOR TRAUMA Ann-Christine Duhaime, MD, Massachusetts General Hospital AANS04-02 HOW STRONG IS THE EVIDENCE LINKING TRAUMA AND/OR TAU TO DEMENTIA? Daniel Perl, MD, Uniformed Services University of the Health Sciences AANS04-03 PREVALENCE OF VISION PROBLEMS AFTER CONCUSSION IN CHILDREN 11-17 YEARS OLD Christina Master, MD, CHOP/University of Pennsylvania	O'Keeffe Room @ SFCC Santa Fe Room @ 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	POSTER SESSION I: GROUPS A1-A4 [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	PL01 NEW INVESTIGATORS AND NEW VISIONS FOR CNS INJURY RESEARCH [1.25 CME] Chairs: Gregory Holmes, PhD, Penn State University; Diane Snow, PhD, University of Kentucky	Sweeney E-F Ballroom
8:00-8:25	PL01-01 ENHANCING RESPIRATORY PLASTICITY FOLLOWING CERVICAL SPINAL CORD INJURY Michael Lane, PhD, Drexel University	
8:25-8:50	PL01-02 RNA SPLICING IN CNS DAMAGE: DIAGNOSING THE INJURED SPLICEOSOME Travis Jackson, PhD, University of Pittsburgh	
8:50-9:15	PL01-03 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	S01-01 NEUROINFLAMMATION IN THE DEVELOPING BRAIN AFTER INJURY Sujatha Kannan, MD, Johns Hopkins University	
9:40-10:05	S01-02 FRONTAL LOBE INJURY AND HIGHER-ORDER COGNITIVE FUNCTIONS Catharine Winstanley, PhD, University of British Columbia	
10:05-10:30	S01-03 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	S02-01 FORTY YEARS OF LIVING WITH SPINAL CORD INJURY - PHYSICAL AND PSYCHOSOCIAL CHANGES OVER TIME Susan Charlifue, PhD, Craig Hospital	$\mathbb{N}$
9:40-10:05	S02-02 MUSCLE CHANGES WITH SPINAL CORD INJURY AND AGE Christine Thomas, PhD, University of Miami	CRAIG H NEILSEN FOUNDATION
10:05-10:30	S02-03 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	S03-01 MAGNETIC RESONANCE IMAGING OF MILD TRAUMATIC BRAIN INJURY Andrew Mayer, PhD, The Mind Research Network	
9:40-10:05	S03-02 MRI OF EXPERIMENTAL TRAUMATIC BRAIN INJURY Timothy Duong, PhD, UT Health Science Center	
10:05-10:30	S03-03 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</b> <b>AND CLINICAL OUTCOMES</b> [1.25 CME]	Sweeney E-F Ballroom
11:00-11:25	Chairs: Linda Ewing-Cobss, PhD, UT Health Science Center; Charles Cox, Jr., PhD, UT Health Science Center S04-01 CELLULAR THERAPIES FOR TBI: TARGETS AND APPROACH Charles Cox, Jr., MD, UT Health Science Center	Sponsored by Mission Connect
11:25-11:50	S04-02 PRECLINICAL MODELS OF CELLULAR THERAPY: INFLAMMATORY RESPONSE Pramod Dash, PhD, UT Health Science Center	l a project of 1998 feandation
11:50-12:15	S04-03 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	

# AGENDA Monday, June 29

11:00 am - 12:15 pm 11:00-11:25 11:25-11:50 11:50-12:15	<ul> <li>S05 THE ROLE OF apoE AND APOE GENOTYPE IN OUTCOME AFTER TBI [1.25 CME]</li> <li>Chairs: Mark Burns, PhD, Georgetown University; Barry Jordan, MD, Burke Rehabilitation Hospital</li> <li>S05-01 APOE4 AS A RISK FACTOR FOR POOR OUTCOME AFTER TBI - CLINICAL AND PRECLINICAL EVIDENCE</li> <li>Mark Burns, PhD, Georgetown University</li> <li>S05-02 THE EFFECTS OF APOE GENOTYPE ON PROTEOMIC AND LIPIDOMIC RESPONSE TO INJURY IN DIFFERENT</li> <li>MOUSE MODELS OF TBI</li> <li>Fiona Crawford, PhD, The Roskamp Institute</li> <li>S05-03 NEUROPROTECTIVE AND ANTI-INFLAMMATORY THERAPIES FOR CNS INJURY BASED UPON APOLIPOPROTEIN-E</li> <li>Michael Vitek, PhD, Duke University</li> </ul>	Coronado Room
11:00 am - 12:15 pm 11:00-11:25 11:25-11:50	SO6 GENETIC DISSECTION OF LOCOMOTOR CIRCUITRY [1.25 CME] Chair: Scott Whittemore, PhD, University of Louisville SO6-01 CONDITIONAL SILENCING OF PROPRIOSPINAL NEURONS: HOPPING TO A NEW TUNE David Magnuson, PhD, University of Louisville SO6-02 TAKING A STEP TOWARDS MOTOR FUNCTIONAL RECOVERY AFTER SPINAL CORD INJURY: GENETICALLY DEFINING SPINAL MICROCIRCUITS	O'Keeffe Room
11:50-12:15	Robert Brownstone, MD, PhD, Dalhousie University S06-03 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 12:30-12:55 12:55-1:20 1:20-1:45	WLW WINTR LUNCH SESSION: HUMAN TBI NEUROPATHOLOGY [1.25 CME]         Chairs: William Stewart, MBChB, PhD, Southern General Hospital; Patricia Washington, PhD, Georgetown University         WLW1-01 EXPERIENCE IN EXAMINATION OF HUMAN TBI TISSUE: A NEGLECTED ART         William Stewart, MBChB, PhD, Southern General Hospital         WLW1-02 BI-DIRECTIONAL TRANSLATIONAL STUDIES IN TBI: EXPERIMENTAL DESIGN USING HUMAN SAMPLES         Victoria Johnson, PhD, University of Pennsylvania         WLW1-03 THE GLASGOW TRAUMATIC BRAIN INJURY ARCHIVE         Jennifer Hay, University of Glasgow	Peralta / Lamy Room
12:15 pm - 1:45 pm	FREE TIME - LUNCH ON YOUR OWN	
1:45 pm - 3:00 pm	PLO2 THERAPEUTIC HYPOTHERMIA AND TARGETED TEMPERATURE MANAGEMENT AFTER SCI AND TBI - IS THE VERDICT STILL OUT? [1.25 CME] Chair: W. Dalton Dietrich, PhD, University of Miami	Sweeney E-F Ballroom Sponsored by
1:45-2:10	PL02-01 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	PL02-02 HYPOTHERMIA FOR TRAUMATIC BRAIN INJURY: IT WORKS WITH CORRECT PATIENT SELECTION David Okonkwo, MD, PhD, University of Pittsburgh	
2:35-3:00	PL02-03 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	POSTER SESSION II: GROUPS A5-A8 and T1-T20 [1.0 CME] Student Competition Final Judging	Sweeney A-D Ballroom
4:00 pm - 5:00 pm	POSTER SESSION III: GROUPS B1-B4 [1.00 CME]	
5:00 pm - 6:00 pm	POSTER SESSION III: GROUPS B5-B7 [1.00 CME]	
5:00 pm - 6:00 pm	Wine & Cheese Reception with Exhibitors	Sweeney A-D Ballroom
6:00 pm - 8:00 pm	WNR WINTR Mentoring & Networking Reception [1.00 CME] WNR-1 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	POSTER SESSION V: GROUPS C1-C5 [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	PL03 EXECUTIVE FUNCTION AFTER EXPERIMENTAL AND CLINICAL TBI [1.25 CME] Chairs: Anthony Kline, PhD, University of Pittsburgh; Corina Bondi, PhD, University of Pittsburgh	Sweeney E-F Ballroom
8:00-8:25	PL03-01 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	PL03-02 MODELING CHRONIC COGNITIVE DYSFUNCTION AFTER TBI: WHERE DO WE GO FROM HERE? Cole Vonder Haar, PhD, University of British Columbia	
8:50-9:15	PL03-03 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	S07-01 EPIDEMIOLOGY OF SPORTS CONCUSSIONS R. Dawn Comstock, PhD, University of Colorado	
9:40-10:05	S07-02 THE CHALLENGES OF CONCUSSION DIAGNOSIS IN ATHLETES Kevin Guskiewicz, PhD, University of North Carolina	
10:05-10:30	S07-03 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</b> <b>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	S08-01 MULTI-CENTER PRE-CLINICAL THERAPY SCREENING IN TBI: RESULTS OF THE OBTT CONSORTIUM Patrick Kochanek, MD, University of Pittsburgh	
9:40-10:05	S08-02 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	S08-03 BIOMARKERS AS A WINDOW ON TBI MODELING AND THERAPEUTIC EFFICACY: RESULTS OF THE OBTT CONSORTI Stefania Mondello, MD, PhD, University of Messina	UM
9:15 am - 10:30 am	S09 INFLUENCE OF LESION, STRESS AND EXERCISE ON BLOOD BRAIN BARRIER PERMEABILITY IN THE CNS [1.25 CME] Chair: D. Michele Basso, PhD, Ohio State University	O'Keeffe Room
9:15-9:40	S09-01 REMOTE BLOOD BRAIN BARRIER DISRUPTION AFTER MID-THORACIC SPINAL CORD INJURY D. Michele Basso, EdD, Ohio State University	
9:40-10:05	S09-02 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	S09-03 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	PL04 THE PATIENT'S PERSPECTIVE : RECOVERY FROM SEVERE TBI [1.25 CME]	Sweeney E-F Ballroom
11:00-11:40	Chair: Kim Anderson-Erisman, PhD, University of Miami PL04-01 DOES THIS WHEELCHAIR MAKE MY BUTT LOOK BIG? Briana Walker-Tavano, Speaker, Briana Walker, Intl.	
11:40-12:15	PL04-02 RECOVERY FROM SEVERE TBI: PATIENT PERSPECTIVE Cathy Liu, MD, University of California, Davis Kiarash Shahlaie, MD, PhD, University of California, Davis	

Tuesday

# AGENDA Tuesday, June 30

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	S10 OPEN COMMUNICATIONS: TBI [1.25 CME]	Sweeney E-F Ballroom
	Chair: Ramona Hicks, PhD, One Mind	·
1:45-2:00	S10-01 PREVENTING POSTTRAUMATIC EPILEPTOGENESIS BY STIMULATING CORTICAL EXCITATORY ACTIVITY AFTER TBI Xiaoming Jin, PhD, Indiana University	
2:00-2:15	S10-02 CHRONIC NEUROPHYSIOLOGICAL RECORDING OF THE HIPPOCAMPUS IN AWAKE BEHAVING SWINE AFTER DIFFU John Wolf, PhD, University of Pennsylvania	SE BRAIN INJURY
2:15-2:30	S10-03 ABBREVIATED ENVIRONMENTAL ENRICHMENT CONFERS ROBUST NEUROBEHAVIORAL AND COGNITIVE BENEFITS IN BRAIN INJURED FEMALE RATS Hannah Radabaugh, University of Pittsburgh	
2:30-2:45	S10-04 NEUROINFLAMMATORY MYELOID CELL PROCESSES ASSOCIATE WITH DIFFUSELY INJURED AXONS FOLLOWING MILD TRAUMATIC BRAIN INJURY IN MICROPIGS Audrey Lafrenaye, PhD, Virginia Commonwealth University	
2:45-3:00	S10-05 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	
1:45 pm - 3:00 pm	S11 OPEN COMMUNICATIONS: SCI [1.25 CME]	O'Keeffe Room
	Chair: Philip Popovich, PhD, Ohio State University	
1:45-2:00	S11-01 THE CGRP8-37 RECOMBINANT PEPTIDE CONSTRUCT TO REDUCE CHRONIC PAIN FROM RAT SPINAL CORD INJURY Chenxu Han, PhD, Florida International University	
2:00-2:15	S11-02 LONGITUDINAL OPTOGENETIC MAPPING OF THE CORTICOSPINAL TRACT AS A NOVEL APPROACH FOR FUNCTIONAL EVALUATION OF SPINAL CORD INJURY Xiaoming Jin, PhD, Indiana University	
2:15-2:30	S11-03 3D IMAGING OF AXONS IN TRANSPARENT SPINAL CORDS FROM RODENTS AND NON-HUMAN PRIMATES Pantelis Tsoulfas, MD, University of Miami	
2:30-2:45	S11-04 TARGETING THE TRPV4 CHANNEL TO REDUCE INFLAMMATION AND IMPROVE OUTCOME FOLLOWING SCI Raymond Grill, PhD, University of Mississippi	
2:45-3:00	S11-05 ATTENUATING GASTROINTESTINAL VASCULAR PERMEABILITY AFTER SPINAL CORD INJURY Juan Herrera, PhD, UT Health Medical School	
1:45 pm - 3:00 pm	S12 OPEN COMMUNICATIONS: CLINICAL [1.25 CME]	Coronado Room
	Chair: Bruce Lyeth, PhD, University of California, Davis	
1:45-2:00	S12-01 A PROGNOSTIC MODEL FOR DETERMINING ONE-MONTH OUTCOMES IN MILD TRAUMATIC BRAIN INJURY	
2:00-2:15	Hayley Falk, Johns Hopkins University S12-02 AN INITIAL EVALUATION OF THE NINDS PHENOTYPING COMMON DATA ELEMENTS FOR TRAUMATIC BRAIN INJUF Leighton Chan, PhD, National Institutes of Health	RΥ
2:15-2:30	S12-03 ADOLESCENT TRAUMATIC BRAIN INJURY INCREASES ALCOHOL CONSUMPTION AND REWARD IN FEMALE MICE Zachary Weil, PhD, Ohio State University	
2:30-2:45	S12-04 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	
2:45-3:00	S12-05 TRAUMATIC AXONAL INJURY IN THE LIVING HUMAN BRAIN: CONCORDANCE OF MICRODIALYSIS AND ADVANCED MRI APPROACHES David Brody, MD, PhD, Washington University St. Louis	
3:00 pm - 3:30 pm	"Brain Freeze" Break & Visit Exhibits	Sweeney A-D Ballroom
3:00 pm - 4:00 pm	POSTER SESSION VI: GROUPS C6-C9 [1.0 CME]	Sweeney A-D Ballroom
4:00 pm - 5:00 pm	POSTER SESSION VII: GROUPS D1-D6 [1.00 CME]	
5:00 pm - 6:00 pm	POSTER SESSION VIII: GROUPS D7-D9 [1.00 CME]	
5:00 pm - 6:00 pm	Wine & Cheese Reception with Exhibitors	Sweeney A-D Ballroom
7:00 pm - 10:00 pm	NMHM An Evening in the Land of Enchantment Sponsored by the National Neurotrauma Society - Ticket Reauired	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	PL05 NEUROIMAGING OF CHRONIC TRAUMATIC ENCEPHALOPATHY [1.25 CME] Chair: Samuel Gandy, MD, PhD, Icahn School of Medicine at Mount Sinai	Sweeney E-F Ballroom
8:00-8:25	PL05-01 NEUROIMAGING CORRELATES OF REPETITIVE LOW-LEVEL BLAST EXPOSURE IN MILITARY SERVICE MEMBERS James Stone, MD, PhD, University of Virginia	
8:25-8:50	PL05-02 NEUROIMAGING OF BOXERS Barry Jordan, MD, Burke Rehabilitation Hospital	
8:50-9:15	PL05-03 THE NEUROANATOMY OF CTE 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</b> THE BRAIN [1.25 CME]	Coronado Room
	Chairs: Jonathan Lifshitz, PhD, University of Arizona, Emily Swartz-Besecker, PhD, Gettysburg College	
9:15-9:40	S13-01 HEPATIC AND SPLENIC CONTRIBUTIONS TO TRAUMATIC BRAIN INJURY Lee Shapiro, MD, Texas A&M Health Science Center	
9:40-10:05	S13-02 NEUROGENIC IMMUNE DEFICIENCY AFTER SPINAL CORD INJURY: MECHANISMS OF ACTION AND THERAPEUTIC OPPORTUNITIES Phillip Popovich, PhD, Ohio State University	
10:05-10:30	S13-03 INTESTINAL BARRIER DYSFUNCTION AFTER TRAUMATIC BRAIN INJURY 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
9:15-9:40	S14-01 ROLE OF THE 2',3'-cAMP-ADENOSINE PATHWAY IN TRAUMATIC BRAIN INJURY Edwin Jackson, PhD, University of Pittsburgh	ISN International Society for Neurochemistry
9:40-10:05	S14-02 ROLE OF ADENOSINE IN POSTTRAUMATIC SEIZURES AND EPILEPSY: A POTENTIAL NEW TARGET Detlev Boison, PhD, Legacy Research Institute, Dow Neurobio Laboratories	
10:05-10:30	S14-03 URATE - A NOVEL POTENTIAL THERAPY IN CNS INJURY AND NEURODEGENERATION 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	S15-01 CLINICAL RESEARCH INSIGHTS INTO PERSONAL BIOLOGY AND BIOSUSCEPTIBILTIY WITH EPILEPTOGENESIS AND POST-TRAUMATIC EPILEPSY Amy Wagner, MD, University of Pittsburgh	Eisai
9:40-10:05	S15-02 SEIZURE SUSCEPTIBILITY AFTER TRAUMATIC INJURY TO THE PEDIATRIC BRAIN Bridgette Semple, PhD, University of Melbourne	
10:05-10:30	S15-03 NON-CONVULSIVE SEIZURES OBSERVED 1 YEAR FOLLOWING TRAUMATIC BRAIN INJURY Thomas Sick, PhD, University of Miami	
10:30 am - 11:00 am	Coffee Break	Sweeney A-D Ballroom
11:00 am - 11:45 am	AWARDS CEREMONY & iWatch Drawing	Sweeney E-F Ballroom
11:45 am - 1:00 pm	Student / Post-Doc Lunch with NNS Officers & Councilors	Sweeney A-B Ballroom
11:45 am - 1:00 pm	FREE TIME - LUNCH ON YOUR OWN	
1:00 pm - 2:15 pm	PLO6 CELL DEATH IS STILL ALIVE [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	PL06-01 AUTOPHAGY AND NEURODEGENERATION Esperanza Arias, PharmD, PhD, Albert Einstein College of Medicine	

# AGENDA Wednesday, July 1

	1:25-1:50	PL6-02 HEAVY METAL KILLS: ZINC IS AN ENDOGENOUS SUPPRESSOR OF CELL SURVIVAL AND AXON REGENERATION AFTER OPTIC NERVE INJURY Larry Benowitz, PhD, Boston Children's Hospital/Harvard Medical School	
	1:50-2:15	PLO6-03 TARGETING THE HOMEOSTATIC ARM OF THE ER STRESS PATHWAY IMPROVES FUNCTIONAL RECOVERY AFTER SC Sujata Saraswat, PhD, University of Louisville	1
2:15 pm -	- 3:45 pm	PL07 FACILITATING TRANSPARENCY IN DATA ANALYSIS FOR TBI AND SCI RESEARCH [1.5 CME] Chair: Denes Agoston, MD, PhD, Uniformed Services University	Sweeney E-F Ballroom
	2:15-2:37	PL07-01 INTRODUCTION ABOUT BIG AND SMALL DATA IN TBI AND SCI Denes Agoston, MD, PhD, Uniformed Services University	
	2:37-3:00	PL07-02 TOWARDS A ROADMAP FOR TRANSLATION OF CANDIDATE TREATMENTS FOR SPINAL CORD INJURY Wolfram Tetzlaff, MD, PhD, University of British Columbia, ICORD	
	3:00-3:22	PL07-03 PRECLINICAL TRAUMATIC BRAIN INJURY COMMON DATA ELEMENTS: TOWARDS A COMMON LANGUAGE ACROSS LABORATORIES Douglas H. Smith, MD, University of Pennsylvania	
	3:22-3:45	PL07-04 FACILITATING REPRODUCIBILITY AND DATA INTEGRATION FOR SCI RESEARCH WITH MIASCI AND REGENBASE Vance Lemmon, PhD, University of Miami	
3:45 pm -	- 4:00 pm	CLOSING REMARKS & INTRODUCTION OF 2016 PRESIDENT Helen Bramlett, PhD Diane Snow, PhD	Sweeney E-F Ballroom



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.

# **Become a Member Today**

For more information, stop by the Society booth or visit:

www.neurotrauma.org

# As a National Neurotrauma Society Member, you will receive:

- Reduced registration fees to attend the Annual Symposium
- Discounted annual subscription fees for the Journal of Neurotrauma
- Updates on the activities of the Society and important meetings in the field
- Information on funding sources, research and educational opportunities in the field
- 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)

15

# 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

T1-054:00 PMMuccigrosso, Megan; The Ohio State UniversityCOGNITIVE DEFICITS DEVELOP 30D AFTER TBI AND AREEXAGGERATED BY MICROGLIA-ASSOCIATED REACTIVITY TOPERIPHERAL 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

Muradashvili, 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

T1-163:00 PMHan, Kihwan; University of Texas at DallasDEPRESSIVE SYMPTOMS ALTER AMYGDALA CONNECTIVITY INTRAUMATIC 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

T1-193:45 PMTodani, Masaki; Virginia Commonwealth UniversityTHE ROLE OF THE ATP-SENSITIVE POTASSIUM CHANNEL IN THEVASCULAR DYSFUNCTION ASSOCIATED WITH REPETITIVE MILDTRAUMATIC BRAIN INJURY

T1-20 4:00 PM Holleran, Laurena; 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 OLIGODEN-DROCYTES 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 CA2+-INDEPENDENT PLA2Ÿ EXACERBATED THE MECHANICAL STRETCH INJURY IN PRIMARY CORTICAL NEURONS

A1-05 7:15 AM Shellington, David; UCSD 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 DEXTRO-METHORPHAN/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 17ÄŸ-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

Algamal, 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 (OBTT): 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

**GYRENCEPHALIC BRAIN** 

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

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

PRODUCE NEW NEURONS IN THE CORTEX FOLLOWING TBI

TRAUMATIC BRAIN INJURY SEVERITY AFFECTS NEUROGENESI 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

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 MATURA-TION OF OLIGODENDROCYTE PROGENITORS AND REMYELIN-ATION 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 OSTEOPONTIN 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

B1-014:00 PMKinoshita, Takahiro; Osaka General Medical CenterDECOMPRESSIVE CRANIECTOMY IN CONJUNCTION WITHLESION 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

B1-084:45 PMBachstetter, Adam; University of KentuckyMW151, A SMALL MOLECULE INHIBITOR OF NEUROINFLAM-MATION, PREVENTS CLOSED HEAD INJURY INDUCEDCOGNITIVE 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 Insitute 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 ANISOTRO-PY 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 PENETRATIN

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

B6-145:45 PMLuoto, Teemu; Tampere University HospitalACUTE TRAUMATIC INTRACRANIAL LESIONS INCREASE THERISK 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 Insitute 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

Senseney, 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

Senseney, 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

B7-065:15 PMHylin, Michael; Southern Illinois UniversityIMPROVEMENTS IN COGNITIVE FUNCTION FOLLOWINGTRAUMATIC BRAIN INJURY VIA EIF2A PHOSPHORYLATIONAND 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 burder 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)

Chou, Austin, University of California San Francisco 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 Harun, Rashed, University of Pittsburgh Holleran\*, Laurena, Washington University St. Louis Littlejohn, Erica, University of Kentucky Nielson\*, Jessica, University of California San Francisco 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 Ulndreaj, Antigona, University of Toronto Wang, Jiagiong, University of Miami Miller School of Medicine

# **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 Panenka, 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 7:15AM Yue, John; University of California, San Francisco APOE-ɛ4IS 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-IN-DUCED HYP ERACCELERATION

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 TRAUMATICBRAIN INJURY

C2-07 7:30 AM Puccio, Ava; University of Pitts burgh BRAIN HYPOXIA RESPONSIVE GENE EXPRESSION IN SEVERE TRAUMATIC BRAIN INJURY PATIENTS

C2-08 7:00 AM Merchant-Borna, Kian; University of Rochester Med. Ctr. GENOME-WIDE CHANGES IN GENE EX PRESSION 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 NEUROP ROTECTIVE 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 P2Y 12 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 ADMINISTRA-TION OF METHY LPREDNISOLONE 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 HY PERTONIC CONTRAST MEDIA IN RAT

C4-02 7:15 AM Arun, Peethambaran; Walter Reed Army Institute of Research ALTERED TRYP TOP HAN METABOLISM IN BLAST-INDUCED TRAUMATIC BRAIN INJURY

# PAIN

# C5-01 7:30 AM

Jemberg, 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 DEVELOP MENT 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 HIPPOC AMPAL SLICE CULTURES

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

C6-03 3:30 PM Ulyanova, Alexandra; University of Pennsylvania ELECTROPHY SIOLOGIC AL PHENOTY PING 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 PHENOTY PES 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 INFLAM MA-TION: 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 ANALY SIS 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 IMM UNE 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; Lemer Research Institute ACCUM ULATING BETA-AMYLOID ALTERS THE POST-INJURY INFLAMMATORY RESPONSE

C7-09 3:00 PM Daglas, Maria; Monash University THE ADAPTIVE IMM UNE 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-INFLAM MATORY

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

C7-14 3:15 PM Shultz, Sandy; The University of Melbourne TIBIAL FRAC TURE EXACERBATES TRAUMATIC BRAIN INJURY OUTCOMES AND INFLAM MATION 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 OX YGEN 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 MECHANISM SINFLUENCE MORTALITY AND CNS SECONDARY INJURY PROFILES AFTER SEVERE TBI

C7-18 3:30 PM Wagner, Amy; Univ. of Pittsburgh SERUM TUMOR NECROSIS FACTOR-A 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

C7-203:00 PMLee, Sangmi; University of California San FranciscoP75NTR MEDIATES SYSTEMIC INFLAMMATORY RESPONSES BYMODULATING 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-INFLAM-MATORY TREATMENT FOR TRAUMATIC BRAIN INJURY

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

C7-253:00 PMDeMar, James; Walter Reed Army Institute of ResearchEVALUATION OF POLY UNSATURATED FATTY ACID DERIVEDMEDIATORS OF INFLAM MATION TO AMELIORATE PRIMARYBLAST WAVE INJURIES IN RATS

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

C7-27 3:30 PM

Wang, Ying; Walter Reed Army Institute of Research CCL2 LEVELS IN CSF AND ITS CORRELATION WITH BLAST-IN-DUCED NEUROTRAUMA IN RATS

# C7-28 3:45 PM

Boutte, Angela; Walter Reed Army Institute of Research HYPOXEMIA AND HEMORRHAGIC SHOCK DELAY INFLAM MA-TION AND GFAP-DEGRADATION IN RAT PENETRATING BALLISTIC-LIKE BRAIN INJURY.

C7-29 3:00 PM

Madathil, Sindhu; Walter Reed Army Institute of Research TEM PORAL 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 MICROCIRCU-LATION AFTER TRAUMATIC BRAIN INJURY

C8-02 3:30 PM Armonda, Rocco; MedStar-Washington Hospital Center/Georgetown University Hospital RAUMEDICBOLT: INITIAL CLINICAL EXPERIENCE INA NEUROSURGICAL POPULATION

# **NEUROTRANSMITTER**

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

C9-02 3:00 PM Myrga, 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 IM PROVES NEUROTRANSMIS-SION AND INCREASES VESICULAR DOCKING PROTEINS IN THE STRIATUM AFTER CCI

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

# **POSTER SESSION VII**

# **BIOENGINEERING**

D1-014:00 PMStemper, Brian; Medical College of WisconsinSUBCONCUSSIVE HEAD IMPACT HISTORY FOR CONCUSSED ANDNON-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; One Mind 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: CHARAC TERIZATION OF A NEW INJURY PARADIGM

D2-O2 4:15 PM Jamnia, Naseem; DePaul University CLOSED-HEAD SINGLE AND REPEAT CONTROLLED CORTIC AL 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 CORTIC AL 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 OPTOM OTOR ASSESSM ENT OF THE OPTOKINETIC RESPONSE

D2-05 4:00 PM Tenovuo, 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-DIMEN-SIONAL MODEL

D2-07 4:30 PM Tucker, Laura; USUHS A SINGLE CONCUSSIVE BRAIN INJURY TRANSIENTLY DISRUPTS HOME CAGE ACTIVITIES IN MALE AND FEMALE C57 BL/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 (PBBI)

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 Amstrong, 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 IM PROVEMENT AFTER A PENETRATING TBI

# MONITORING

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

D5-02 4:45 PM LaPlaca, Michelle; GeorgiaInstitute 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 PARENCHY MAL 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 CRANIOPLASTICTITANIUM 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 AEROBICEXERCISE 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 SY MPTOMS AND DIFFUSION TENSOR IMAGING FINDINGS FOLLOWING MILD TBI

D6-05 4:15 PM Panenka, William; University of British Columbia SYMPTOM ATTRIBUTION AFTER MILD TRAUMATICBRAIN 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 PRECLINIC AL 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 Peduzzi 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 PHOSP HORY LATES MYOSIN LIGHT CHAIN IN ASTROCYTES VIA THE RHO KINASE PATHWAY

D7-02 5:15 PM Levine, Jaclym; University of California Los Angeles TRAUMATIC ALLY 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-HYDROPHILICCARBON 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 CORTIC AL 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-A SYNTHESIS AMELIORATES NEURONAL AND COGNITIVE LOSS AFTER MILD TRAUMATIC BRAIN INJURY IN MICE

D8-06 5:45 PM Layer, Richard; InVivo 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; NorthShore University HealthSystem THE EFFECT OF INTERNAL JUGULAR VEIN COM PRESSION ON HEMORRHAGE IN A PORCINE CONTROLLED CORTIC AL INJURY MODEL

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

D8-11 5:00 PM Sutton, Richard; UCLA TBI-INDUCED M ETABOLOMIC PROFILES IN ENERGETIC, OXIDATIVE STRESS AND INFLAM MATORY 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, Samirkumar; University of Kentucky SYNERGISTIC EFFECTS OF B-HYDROXY BUTYRATE 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 CORTIC AL 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) THERAPEUTICAPPLICATION OF A PULSED LASER SYSTEM FOR BRAINTRAUMA.

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 SELEC TIVE BRAIN COOLING REDUCES MOTOR DEFICITS INDUCED BY COM BINED 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; Bio Axone Bio Sciences, 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

NEURONS AFTER TRAUMATIC BRAIN INJURY BUT DOEST IMPROVE CEREBRAL VASCULAR RESPONSE

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!

# **Tuesday - Poster Sessions**

# **CME & Disclosure Information**

# **Disclosure of Conflicts**

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

Speakers Bureau: Bansal, Vishal Consultant: Oxeia Biopharmaceuticals

Bond, Lisa Employee: BioAxone BioSciences, Inc.

**Borlongan, Cesar** Grant Recipient: Karyopharm Inc. Shareholder: Sanbio Inc.

Dhall, Sanjay Honorarium Recipient: Depuy Spine (JNJ) Globus Spine

**Dietrich, W. Dalton** Speakers Bureau: Zoll Medical Gioia, Gerard Royalty Recipient: Psychological Assessment Resources, Inc.

**Kannan, Sujatha** Holder of Intellectual Property Rights: Glia Therapeutics

**Kiderman, Alexander** Employee: Neuro Kinetics, Inc.

Kochanek, Patrick Holder of Intellectual Property Rights: Patent No.# US 8,628,512 B2 Grant Recipient: NIH and US Army Kwon, Brian Advisor/Review Panel: Acorda Therapeutics

Layer, Richard Employee: InVivo Therapeutics

Morioka, Kazuhito Grant Recipient: NIH (NS088475, NS067092) Craig H. Neilsen Foundation Wings for Life Spinal Cord Research Found.

Samadani, Uzma Shareholder: Oculogica Inc. Smith, William Consultant, Shareholder & Honorarium Recipient: NuVasive, Inc.

Thelin, Eric Speakers Bureau: Roche Diagnostics

Vitek, Mike Holder of Intellectual Property Rights: Cognosci, Inc. Oncotide Pharmaceuticals, Inc.

Wang, Kevin Shareholder: Banyan Biomarkers, Inc.

Yonan, Charles Employee: Avanir Pharmaceuticals, Inc.

Adhering to the ACCME Standards (see www.accme.org), all relationships reported have been resolved according to VCU's Policy on Conflict of Interest. All presenting faculty affirm that they will employ the best available evidence from all sources to support any clinical recommendations made in their presentations. If learners detect any commercial bias in any presentation, they should document their observations on the Activity Evaluation Form.

# **Continuing Medical Education**

This activity has been planned and implemented in accordance with the accreditation statement and policies of the Accreditation Council for Continuing Medical Education (ACCME) through the joint providership of University Health Services Professional Education Programs (UHS-PEP) of Virginia Commonwealth University Health System and the National Neurotrama Society. UHS-PEP is accredited by the ACCME to provide continuing medical education for physicians.

UHS-PEP designates this live activity for a maximum of 31.5 AMA PRA Category 1 Credits<sup>(TM)</sup> Physicians should claim only the credit commensurate with the extent of their participation in the activity.

### Credits are designated as follows:

- 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.

# **Claiming CME or CEU Credit**

# To claim CME or CEU credits for the meeting:

- 1. Complete the CME Survey questions for EACH DAY you attend. You will receive an email evaluation survey at the end of the conference. On the submission confirmation page for the survey, you will receive a CME ACCESS CODE.
- 2. Login to your NNS account and click on the "Claim CMEs" link. Enter the CME Access Code and select the sessions you attended. Your CME certificate will be available instantly in your NNS account under "CME Certificates".

# **Disclosure Information**

# **Disclosure Statement**

In adherence to the Accreditation Council for Continuing Medical Education (ACCME) Standards for Commercial Support of CME, UHS Professional Education Programs discloses all relevant relationships which program faculty and planners report having with commercial interests whose products or services they may discuss during their presentation, or that they may select as topics for presentation.

# These speakers, chairs, presenting authors and Program Committee members report having no relevant relationships:

Abboud, Andrew Abutarboush, Rania Agoston, Denes Ahmed, Aminul Algamal, Moustafa Alshareef, Ahmed Alvarado-Velez, Melissa Anderson-Erisman, Kim Andrade, Pedro Arias, Esperanza Armonda, Rocco Armstrong, Regina Arun, Peethambaran Atkins, Tyler Babu, Mava Bachstetter, Adam Balakathiresan, Nagaraja Baronia, Benedicto Barr, William Basso, D. Michele Bauer, Joshua Bayir, Hulya Benowitz, Larry Bergold, Peter Besecker, Emily Bharadwaj, Vimala Bogoslovsky, Tanya Boison, Detlev Bolding, lan Bondi, Corina Boone, Debbie Boutte, Angela Brabazon, Fiona Bramlett, Helen Brizuela, Mariana Brody, David Browning, Jenny Brownstone, Robert Burns, Mark Butman, John Cao, Qi Lin Carlson, Shaun Carr, Walter Cartagena, Casandra Catenaccio, Eva Caudle, Krista Cebak, Johnny Chao, Honglu Charlifue, Susan Chavko, Mikulas Chen, Jinhui Chieng, Lee Onn Choi, Phillip Choo, Anthony Chou, Austin Clark, Robert Comstock, R, Dawn Costine, Beth Cowan, Rachel Cox, Charles Crawford, Fiona Cui, Jianxia Daglas, Maria

Daiutolo, Brittany Daphalapurkar, Nitin Dardzinski, Bernard Dash, Pramod Day, Nicole Decker, Matt DeKosky, Steven DeMar, James Deng, Lingxiao Deng-Bryant, Ying Dennis, Emily Di Battista, Alex Diaz-Arrastia, Ramon Dickstein, Dara Dixon, C. Edward DÕAquila, Kathryn Dolle, Jean-Pierre Dore, Sylvain Dsurney, John Duhaime, Ann-Christine Duong, Tim Effgen, Gwen Ewing-Cobbs, Linda Falk, Hayley Ferguson, Scott Finan, John Fischer, Jesse Fiskum, Gary Fortune, Ryan Friess, Stuart Gajavelli, Shyam Gandy, Sam Gangolli, Mihika Ganju, Aruna Ganpule, Shailesh Garcia, Roberto Gatson, Joshua Geddes, James Gill. Jessica Glavaski-Joksimovic, Aleksandra Glushakova, Olena Godbout, Jonathan Goldstein, Lee Greco, Tiffany Griesbach, Grace Griffin, Allison Grill, Raymond Grinberg, Yelena Gupta, Deepak Guptarak, Jutatip Gurkoff, Gene Guskiewicz, Kevin Hachem, Laureen Haefeli, Jenny Hamzah, Norhamizan Han, Kihwan Han, Chenxu Hanna, George Harper, Matthew Harris, Janna Harris, James

Harrison, Jordan

Harrison, Emily Harun, Rashed Hawkins, Bridget Hawryluk, Gregory Hay, Jennifer Herrera, Juan Hetman, Michal Hicks, Ramona Hinson, Holly Hoane, Michael Hoffer, Barry Hoffer, Michael Hoffman, Ann Holleran, Laurena Holmes, Gregory Hong, Sue Hong, James Hosomi, Sanae Huang, Jason Husan, Ammar Hutchison, Michael Hylin, Michael Isokuortti, Harri Jackson, Edwin Jackson, Edwin Jackson, Travis Jacobs, Kimberle Jamnia, Naseem Jenkins, Taylor Jernberg, Jennifer Iha, Ruchira Jin, Xiaotao Jin, Xiaoming Jodoin, Marianne Johnson, David Johnson, Kathia Johnson, Victoria Jordan, Barry Joshi, Shristi Juranek, Jenifer Kapinos, Gregory Karelina, Kate Kayed, Rakez Kenney, Kimbra Khan, Mushfiquddin Kibavashi, Kazuhiko Kilbaugh, Todd Kinoshita, Takahiro Kizhakke Madathil, Sindhu Kline, Anthony Kokiko-Cochran, Olga Kou, Zhifeng Krasberg, Mark Kummer, Terrance Lafrenaye, Audrey Lajud Avila, Naima Lane, Michael LaPlaca, Michelle Larson-Dupuis, Camille Lee, Sangmi Lei, Zhigang Lemmon, Vance Leonard, Anna

Leonessa, Fabio Leung, Lai Yee Levi, Allan Levin, Harvey Levine, Jaclynn Lifshitz, Jonathan Lipinski, Marta Littlejohn, Erica Liu, Cathy Liu, Nai-Kui Loane, David Lu, Xi-Chun May Lucke-Wold, Brandon Luoto, Teemu Lutton, Evan Lyeth, Bruce Lynch, Cillian Maeda, Takeshi Magnuson, David Marion, Donald Martens, Kris Master, Christina Mathew, Leela May, Hazel Mayer, Andrew Mazzeo, Anna Teresa McCrea, Michael McCutcheon, Victoria McGuire, Jennifer McKee, Ann Meconi, Alicia Meier, Timothy Merchant-Borna, Kian Merkel, Steven Micci, Maria-Adelaide Michel, Mary Ellen Miller, Anna Mondello, Stefania Moore, Megan Morganti, Josh Moritz, Kasey Mouzon, Benoit Mu, Weiya Muccigrosso, Megan Mullah, Saad Muradashvili, Nino Myrga, John Namjoshi, Dhananjay Nazar, Ryan Nguyen, Gaston Nielson, Jessica Obenaus, Andre Ogier, Michael Ogle, Sarah Ojo, Joseph Okonkwo, David Oswald, Duane Park, Eugene Parsley, Maggie Patel, Samirkumar Peduzzi Nelson, Jean Perez, Monica Perl, Daniel

Pezzillo, Michael Pick, Chaim Pitkanen, Asla Ponnaluri, Aditya Popovich, Phillip Powell, Melissa Puccio, Ava Rabchevsky, Alexander Race, Nick Radabaugh, Hannah Rasmussen, Lindsey Reddaway, Jack Rejc, Enrico Rhind, Shawn Ritter, Anne Robertson, Courtney Rodgers, Richard Rodriguez, Uylissa Rosi, Susanna Rossi, Janet Rowe, Rachel Russell, Nicholas Ruven, Carolin Saber, Maha Saraswat, Sujata Sashindranath, Maithili Schneider, Eric Schneider, Brandy Schneider, Walter Schwarzschild, Michael Segal, Andrew Semple, Bridgette Senseney, Justin Shahlaie, Kia Shapiro, Lee Sharma, Sourabh Sharrock, Matthew Shear, Deborah Shellington, David Shultz, Sandy Sick, Thomas Singel, Soren Smith, Caleb Smith, Douglas Snow, Diane Stemper, Brian Stewart, Willie Stippler, Martina Stone, James Strain, Misty Sutton, Richard Takeoka, Aya Tchantchou, Flaubert Temkin, Nancy Tenovuo, Olli Tetzlaff, Wolfram Thomas, Christine Thomas, Theresa Thompson, Hilaire Titus, David Todani, Masaki Torch, William Tortella, Frank

Tu, Tsang-Wei Tucker, Laura Turtle, Joel Ullman, Jamie UIndreaj, Antigona Ulyanova, Alexandra Urbanczyk, Caryn Vanino, Dana Vascak, Michal Vedantam, Aditya Veeramuthu, Vigneswaran Vogel III, Edward Volman, Vladislav Von Leden, Ramona Vonder Haar, Cole Wagner, Amy Walker, Briana Wang, Xiaoting Wang, Jiaqiong Wang, Ying Wanner, Ina Washington, Patricia Watts, Lora Weil, Zachary Weisz, Harris Whalen, Michael Whittemore, Scott Williford, Josh Wilson, Nicole Wilson, Colin Winkler, Ethan Winstanley, Catharine Wirth, Peter Wiseman, Natalie Wolahan, Stephanie Wolf, John Wong, Ling Wright, David Wu, Ping Wu, Junfang Wynne, Karon Yan, Wei Yang, Zhihui Yauger, Young Yontuas, Heather Yu, Mingkun Yue, John Zeng, Yaping Zhang, Zhi Zhang, Liying Zhao, Shu Ziebell, Jenna

# C R A I G • H N E I L S E N FOUNDATION

is pleased to support the National Neurotrauma Society 2015 Symposium

The Craig H. Neilsen Foundation's mission is to improve the quality of life for those living with spinal cord injury and to support scientific exploration for effective therapies and treatments leading to a cure.



Please visit our website at **chnfoundation.org** for more information

# The Bridge to a Meaningful Recovery



For over 35 years Centre for Neuro Skills (CNS) has been recognized as an experienced and respected world leader for providing intensive postacute community-based brain injury rehabilitation. With facilities in California and Texas, the highly-trained CNS staff offers outcome driven medical treatment, therapeutic rehabilitation and disease management services for individuals recovering from acquired and traumatic brain injury.

For additional information about CNS, please visit us at neuroskills.com or call us at 800.922.4994.

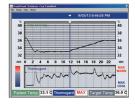


Two-thirds of the Top Neuro Hospitals Rely on ZOLL IVTM™

# Find Out Why



The Thermogard XP® Temperature Management System



Track patient and system data and electronically transfer to the patient's file.

The ZOLL Intravascular Temperature Management (IVTM) system has been proven to be 64% more effective than surface cooling techniques for fever reduction in neurologic intensive care unit patients.<sup>1</sup> That's why top hospitals rely on ZOLL IVTM.

The IVTM system uses a heat-exchange catheter that monitors core temperature and automatically adjusts to changes in patient temperature. It precisely maintains target temperature within 0.2°C 97% of the time<sup>2</sup> and reduces fever burden by 85%.<sup>3</sup>

Safe and effective, complication rates are comparable to those seen with surface methods.<sup>1,4</sup> When target temperature is quickly reached and reliably maintained, patient management is simplified.

<sup>1</sup> Diringer MN, et al. *Critical Care Medicine*. 2004;(32)2:559–564. <sup>2</sup> Hoedemaekers CW, et al. *Critical Care*. 2007;11:891. <sup>3</sup> Puccio A, et al. *Neurocrit Care*. 2009;11:82–87. <sup>4</sup> Patel N, et al. *Conn Medicine*. 2013 Jan;77(1):35–41. Based on the 2013–2014 U.S. News Best Hospitals: Neurology & Neurosurgery



Visit www.zoll.com/emn and experience ZOLL IVTM for yourself. Get started now with your FREE evaluation.





TIRR Foundation's Mission Connect has proudly supported the NNS since 2004.

Please join us at the Welcome Reception in the La Terraza Garden Patio at La Fonda Hotel June 28 and the SO4: 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.

# Save the Dates! June 26-29 Lexington, Kentucky

# **Neurotrauma 2016** The 34th Annual Symposium of the NATIONAL NEUROTRAUMA SOCIETY

National Neurotrauma Society

# www.neurotrauma.org