



## **Programme and Information Book**

www.ints2016.com

## **CODMAN NEURO**

DePuy Synthes

# When Simplicity and Accuracy Matter

### DIRECTLINK<sup>™</sup> ICP Module and CODMAN MICROSENSOR<sup>®</sup> ICP Transducer

Codman & Shurtleff, Inc. 325 Paramount Drive Raynham, MA 02767-0350 USA www.depuysynthes.com

Codman Neuro is a trading division of Johnson & Johnson Medical Ltd. **Registered Office:** PO Box 1988, Simpson Parkway, Livingston, West Lothian, EH54 0AB Registered in Scotland, No.SC 132162

## Direct-//-Link

© Codman Neuro, a division of DOI 2015. All rights reserved. DSUS/COD/0815/0391 9/15 JP

rectmLink

#### **CONTENTS**

Scientific Programme Committee	3
Welcome message by INTS President	4
Welcome message by INTS2016 Chair	4
Symposium Programme	5
Invited Speakers	9
INTS2016 Symposium Venues	12
Exhibition Floorplan - BALLROOM EAST	13
General Information	14
Authors List - Oral Presentations	16
Authors List - Poster Presentations	19

#### **Scientific Programme Committee**

Prof Bo-Michael Bellander, Karolinska University Hospital, Sweden Dr András Büki, University of Pécs, Hungary Prof Tony Figaji, University of Cape Town, South Africa Prof Edward Hall, University of Cape Town, South Africa Prof David Hovda, UCLA Brain Injury Research Center, USA Prof David Menon, University of Cambridge, United Kingdom Prof David Menon, University of Toronto, Canada Prof Michael Fehlings, University of Toronto, Canada Prof Lars Hillered, Uppsala University, Sweden Prof Takeshi Maeda, Nihon University School of Medicine, Japan Prof John Povlishock, Virginia Commonwealth University, USA Prof Katsuji Shima, National Defense Medical College Japan, Japan Prof Esther Shohami, Hebrew University of Jerusalem, Israel Prof Andreas Unterberg, Heidelberg University Hospital, Germany Prof Robert Vink, University of South Australia, Australia





#### Welcome message by INTS President

Dear Delegates of the 12th Symposium of the International Neurotrauma Society,

It is my great honor and pleasure to welcome you to Cape Town.

In the last two years the organizers headed by Professor Tony Figaji made extreme efforts to make this event a memorable and substantially important meeting of our society. The Board of the Society aimed to aid the organizers, who, in my opinion have done a great job, in the construction of a scientific program of real merit and value. We are living in interesting times: the landscape of neurotrauma research and care has been rapidly changing, creating new challenges for the scientific community. We have to face and answer questions and problems raised by the aging of the population and the increasing occurrence of challenging multimorbid cases.



The location of the meeting also has to highlight and remind us that neurotrauma has particular challenges in developing countries and that the scientific community has to make every effort to distribute the gains and benefits of their results all over the entire World, representing another "translation of research", if you will. These interesting times are also characterized by an unprecedented growing body of international collaborations headed by the INTBIR initiative.

As President of the International Neurotrauma Society my major goal, which with the aid of the Board, our next President and the General Assembly, should also achieve is the establishment of, and the transition to a membership-based, strong scientific society, serving the goals of translational research where our communications, meetings and goals focus on a balanced distribution and promotion of activities of both basic and clinical science. This kind of dual focus and the bench to bedside approach was and will be the trait and symbol of our society. I hope that this meeting will serve the goals of the society and contribute to the better care of brain and spine injury worldwide.

#### Wishing you a valuable and fruitful meeting!

András Büki

Professor and Chair Department of Neurosurgery, Pecs University, Pecs, Hungary President of the International Neurotrauma Society Secretary of the Hungarian Neurosurgical Society Member of the Hungarian College of Neurosurgeons Treasurer of the EANS Board Member of the European Brain Injury Consortium

#### Welcome message by INTS2016 Chair

#### **Dear Colleagues and Friends**

Welcome to Cape Town and the 2016 Symposium of the International Neurotrauma Society. We are excited to host this meeting in our city, the first time it has been held outside the so-called developed world. This is an important step, given the mandate of an international society to be truly global and the fact that the burden of neurotrauma is greatest in the developing world. So too, though, are the opportunities. And amidst all the research, clinical, or policy challenges that we will face in the years to come, I hope that we remember how each of these represents a unique opportunity to accomplish something worthwhile.



Our primary goal is that you have a productive and rewarding meeting. For all of the presenters, thank you for your hard work and your efforts to be here to present it. This meeting is mainly about your contributions. We hope that it will be well received, that you will impart

something to others, and by their feedback that they will impart something of worth to you. For all delegates, please contribute in all possible ways – in question and answer sessions, around the posters, in coffee breaks and meal times – your feedback is invaluable – it is what makes this meeting come alive. This must not be a meeting of dry lectures but rather of to and fro discussion, even cut and thrust debate where needed, so that we get the most out of our time together.

Please attend the poster sessions and comment on the work. It honours the presenter and you will learn something valuable. The amount of work represented by each of these posters is considerable and the presenters will benefit from your active engagement. Please also visit the industry stands – these meetings would not be possible without the generous support of our industry partners.

In addition to having a great meeting, I hope that you will also enjoy Cape Town and South Africa. Feel free to ask any of us locals for advice – we each have our own take on what is great about this place. There is so much to do, but please do not be tempted to skip the academic sessions - we need you there! When the program is done however, enjoy everything Cape Town has to offer – from the iconic Table Mountain to the panoramic views on the circular path up Lion's Head, from any of the dozens of beaches on the Indian ocean or Atlantic Ocean side of the Peninsula to Cape Point at its tip, from the Constantia vineyards of the city to the winelands of Stellenbosch and Franshoek a little further out, from the street food markets and coffee shops to the world class high end restaurants, from the coolness of the Kalk Bay fishing village to the buzz of the Waterfront, from the history of the Bo-Kaap Malay community to the enormity of Robben Island, whether you are hiking, abseiling, sharkcage diving, surfing, kiteboarding, paragliding, mountain biking, animal watching, swimming with penguins, or just relaxing with your Chardonnay – I hope you have a fantastic stay in Cape Town.

Come back anytime.

Tony Figaji

2016 Congress Host Vice president of the INTS Professor of Neurosurgery Head of Paediatric Neurosurgery University of Cape Town NRF Chair of Clinical Neurosciences Venues for other meetings and sessions will be confirmed in the final programme on site.

Monday, 1 F	February 2016
17h00 – 18h30	INTS Board Meeting (The Boardroom 1.3)
19h00 – 20h00	Opening of INTS2016 (Ballroom West)
20h00 – 21h00	Welcome Cocktail Function (Exhibition Hall)

#### Tuesday, 2 February 2016

001-00			
08h00 – 09h00	SUNRISE SEMINAR: (Ballroom West)	SUNRISE SEMINAR: (Meeting room 1.4)	SUNRISE SEMINAR: (Meeting room 1.6)
	<u>SS1: Clinical Trials</u> Session Chairs: Ross Bullock & Andrew Maas	<u>SS2: Update on axonal pathology</u> Session Chairs: Barry Jordan & David Brody	SS3: Clinical Issues In Spine Injury Session Chairs: Robert Dunn & Kyoung-Suok Cho
08h00 - 08h20	Clinical Trial design: Lessons learned - <i>Jamie Cooper</i>	Update On Axonal Injury – John Povlishock	New Classification – Michael Fehlings
08h20 - 08h40	Data Collection And Sharing - Peter Le Roux	Axonal Pathology After TBI – Willie Stewart	Spinal Cord Pressure And Perfusion – Robert Vink
08h40 - 09h00	RCTs, Comparative Effectiveness And Patient Heterogeneity - Patrick Kochanek	Axonal Injury After Repetitive TBI – Mayumi Prins	Timing And Role Of Surgical Intervention – David Welsh
09h00 – 09h15	R	EFRESHMENT BREAK - (Ballroom East – Exhibition Ha	ıll)
09h15 – 10h45	MAIN PLENARY (Ballroom West)		Session Chairs: Patrick Kochanek & Edward Hall
09h15 - 09h45	Current Status and Priorities for Research in TBI - F	Ross Bullock	
09h45 – 10h15	Current Status and Priorities for Research in Spinal	Cord Injury - Michael Fehlings	
10h15 – 10h45	Mild TBI: from Denial to Hysteria - Chris Giza		
10h45 – 11h40	MAIN PLENARY (Ballroom West)	S	ession Chairs: Robert Vink & Andreas Unterberg
10h45 – 11h00	Update on Status of Basic and Clinical Neurotraum	a Research in China <i>– Baiyun Liu</i>	
11h00 – 11h15	Update on International Initiatives in TBI research: 0	Challenges and Successes – Andrew Maas, Elizabeti	h Theriault
11h15 – 11h40	Introduction of the INTS 2016 Honorary Lecturer: A Honorary Lecture: Brain Injury- a Lifetime Problem	ndreas Unterberg for Neurosurgeons and Neuroscientists – Alex Baeth	mann
11h40 – 13h00	POSTER SESSION – FIRST ROUND (Ballroom East	– Exhibition Hall)	
13h00 – 14h00		LUNCH (Ballroom East – Exhibition Hall)	
14h00 – 15h15	PARALLEL PLENARY (Meeting Room 1.4)	PARALLEL PLENARY (Meeting Room 1.6)	PARALLEL PLENARY (Ballroom West)
	PP1: Neuroprotection and Regeneration Session Chairs: Willie Stewart & Thomas Glenn	PP2: Neuro-inflammation Session Chairs: Baiyun Lu & Adel Helmy	PP3: Spinal Cord Injury – Clinical Session Chairs: David Welsh & Jan Schwab
14h00 – 14h25	OBTT: Logistical Challenges In Multi-Centred Laboratory Studies – Patrick Kochanek	Experimental Strategies To Manipulate Microglia Activation – Elisa Zanier	New Outcome Assessment Tools – Rob Dunn
14h25 – 14h50	Carbonyl Scavenging As Neuroprotective Approach For TBI – Edward Hall	Lessons From Preclinical Models – Robert Vink	Methylprednisolone In Spinal Cord Injury – Jan Schwab
14h50 – 15h15	The Role Of The Endocannabinoid System In Neuroprotection And Regeneration – Esther Shohami	Lessons From Clinical Methods – Adel Helmy	A Clinical Guideline for the Timing of Surgical Decompression in the Treatment of Acute Traumatic Spinal Cord Injury – <i>Michael Fehlings</i>
15h15 – 15h55	FREE PAPERS – PARALLEL (Meeting Room 1.4)	FREE PAPERS - PARALLEL (Meeting Room 1.6)	FREE PAPERS - PARALLEL (Ballroom West)
15h15 – 15h25	Role of cerebrovascular cells in tau processing following traumatic brain injury – <i>Corbin Bachmeier</i>	Investigating the complex relationship between neuroinflammation, neurodegeneration and long- term functional outcomes in an experimental model of traumatic brain injury – <i>Lyndsey Collins-</i> <i>Praino</i>	A clinical guideline for the use of high-dose methylprednisolone in the treatment of acute traumatic spinal cord injury – <i>Michael Fehlings</i>
15h25 – 15h35	Migraine-associated mutations in the Cav2.1 p/q Ca2+ channel increase posttraumatic cortical spreading depressions and significantly worsen outcome following traumatic brain injury - <i>Nicole Angela Terpolilli</i>	Characterising the localised inflammatory response in pericontusional brain following traumatic injury – <i>Mathew Guilfoyle</i>	Complete reduction of cervical dislocations: a biomechanical approach – <i>Sujoy Sanyal</i>
15h35 – 15h45	RTBI induced decrease in cerebral glucose metabolism contributes to Alzheimer's pathogenesis – <i>Tiffany Greco</i>	Intravenous AAV9-IL4 as a method for simultaneously regulating inflammation inside and outside the central nervous system – <i>Jodie Hall</i>	Comparison of anterolateral and posterior approaches in the management of thoracolumbar burst fractures – <i>Kyoung-Suok Cho</i>
15h45 – 15h55	Determining the relative contribution of early oxidative changes, loss of oligodendrocyte precursor cells and node/paranode abnormalities to function, in nerve vulnerable to secondary degeneration – <i>Melinda Fitzgerald</i>	Human umbilical cord perivascular cell (hucpvc) therapy for traumatic brain injury: targeting the neurovascular unit – <i>Katya Park</i>	Epidemiology of acute spinal cord injuries in the Groote Schuur Hospital acute spinal cord injury (GSH ASCI) unit over the past 11 years – <i>Rob</i> <i>Dunn</i>
15h55 – 16h00	Discussion	Discussion	Discussion
16h00 – 16h15		REFRESHMENT BREAK (Ballroom East – Exhibition Hal	
16h15 – 18h00	PARALLEL PLENARY (Ballroom West)	PARALLEL PLENARY (Meeting Room 1.6)	PARALLEL PLENARY (Meeting Room 1.4)
	PP4: Chronic Progressive Injury Session Chairs: Esther Shohami & Grace Griesbach	PP5: Spinal cord injury – Preclinical Session Chairs: Michael Fehlings & Reggie Edgerton	PP6: Clinical Neuromonitoring Session Chairs: Randy Chesnut & David Menon
16h15 – 16h40	Evidence For Chronic Traumatic Degeneration – Barry Jordan	Neuroprotection Trials – Michael Fehlings	Guidelines For Multimodality Monitoring – Peter le Roux
16h40 – 17h05	Neuropathology Of Single And Repetitive TBI – Willie Stewart	Inflammation in SCI – Jan Schwab	Integrating Neuromonitoring – Tony Figaji
17h05 – 17h30	The Role Of Apo E On Outcome – Barry Jordan	Hypothermia – <i>Dalton Dietrich</i>	Determination Of Brain Death: Global Variations – Takashi Araki





17h30 – 18h00	FREE PAPERS – PARALLEL (Ballroom West)	FREE PAPERS - PARALLEL (Meeting Room 1.6)	FREE PAPERS - PARALLEL (Meeting Room 1.4)
17h30 – 17h40	Life-long sports-related repetitive concussive head injury in htau mice: deficits in cerebral blood flow, gliosis, axonal injury and mild increase(s) in t-tau and tau oligomers – <i>Benoit Mouzon</i>	Effects Of Adenosine Monophosphate-activated Kinase In The Ventral Horn Of Rabbit Spinal Cord After Transient Ischemia - Seung-myung Moon	A novel non-invasive cerebral bio-impedance monitor mimics ICP waveform in severe TBI patients – Guy Rosenthal
17h40 – 17h50	Influence of a western diet and Apo E genotype on outcome after mild repetitive TBI in a mouse model – <i>Fiona Crawford</i>	Identification of a protease activated receptor 2-il- 6-stat3 signaling circuit that regulates astrogliosis and motor recovery in traumatic spinal cord injury – Isobel Scarisbrick	Autoregulation-based optimal cerebral perfusion pressure in a prospective traumatic brain injury cohort – <i>Joseph Donnelly</i>
17h50 – 18h00	Human traumatic brain injury induces rapid accumulation of amyloid-beta oligomers and protofibrils in surgically resected brain tissue – Niklas Marklund	Embryonic spinal cord derived cells help to prevent muscle atrophy after peripheral nerve transaction – <i>Carolin Ruven</i>	Core outcomes and common data elements in chronic subdural haematoma (CODE-CSDH) – Angelos Kolias
18h00 – 18h10			A randomised, double blind, placebo-controlled trial of a two-week course of dexamethasone for adult patients with a symptomatic chronic subdural haematoma (DEX-CSDH trial) – <i>Angelos</i> <i>Kolias</i>
19h00 – 22h00		EVENING AT LEISURE / OPTIONAL EVENT	

#### Wednesday, 3 February 2016

08h00 – 09h00	SUNRISE SEMINAR: (Ballroom West)	SUNRISE SEMINAR: (Meeting room 1.4)	SUNRISE SEMINAR: (Meeting room 1.6)
	<u>SS4: Pathophysiology</u> Session Chairs: John Povlishock & Mayumi Prins	<u>SS5: Assessing Outcome</u> Session Chairs: Grace Griesbach & Lars Hillered	<u>SS6: Paediatric issues</u> Session Chairs: Chris Giza & Llewellyn Padayachy
08h00 – 08h20	Oxidative Injury – Edward Hall	Optimising Assessment Tools – Andrew Maas	Autoregulation In Paediatric Brain Injury – <i>Ken</i> Brady
08h20 – 08h40	Where Are We Going With Cortical Spreading Depression Research In TBI? – Jed Hartings	Cognitive Decline And Repair following TBI – Esther Shohami	Managing Paediatric TBI: Variations In Current Practice – <i>Michael Bell</i>
08h40 - 09h00	Plasticity In Rehabilitation Of Spinal Cord Injury – Reggie Edgerton	Patient-reported and Performance-based Outcomes in Persons after Mild Traumatic Brain – Nicole van Steinbuchel	Developing A Paediatric Neurocritical Care Approach – <i>Jose Pineda</i>
09h00 – 09h15	1	REFRESHMENT BREAK (Ballroom East – Exhibition Hal	Ŋ
09h15 – 10h45	MAIN PLENARY (Ballroom West)		Session Chairs: Andras Buki & Helen Bramlet
09h15 – 09h45	Engaging Clinicians In The Lab – John Povlishock		
09h45 – 10h15	Engaging Scientists In The Clinic – Peter Hutchinso	n	
10h15 – 10h45		ch to bedside collaborations in building a great unit -	Peter Hutchinson, John Povlishock, Andras Buki,
10h45 – 11h15	FREE PAPERS (Ballroom West)		
10h45 – 10h55	Mitochondrial DNA And Traumatic Brain Injury – Lis	a Hill	
10h55 – 11h05	Lactate And Human Traumatic Brain Injury: Effects	Of Early Infusion On Body And Brain - Thomas Glen	n
11h05 – 11h15	Succinate Administered Focally Enters The Tricarbo Patients: A 13c-labelled Microdialysis Study - Ibrah	oxylic Acid Cycle Of the Brain And Ameliorates The L	actate/Pyruvate Ratio In Traumatic Brain Injury
11h15 – 13h00	POSTER SESSION – SECOND ROUND (Ballroom E	East – Exhibition Hall)	
13h00 – 14h00		LUNCH (Ballroom East – Exhibition Hall)	
14h00 – 15h15	PARALLEL PLENARY (Meeting Room 1.6)	PARALLEL PLENARY (Meeting Room 1.41-2)	PARALLEL PLENARY (Meeting Room 1.43-4)
	PP7: Microdialysis/ Monitoring Session Chairs: Lars-Owe Koskinen & Niklas Marklund	PP8: Biomarkers Session Chair: Takashi Maeda & Sam Mokogong	<u>PP9: Mild TBI</u> Session Chair: Robert Vink & Mayumi Prins
14h00 – 14h25	Metabolomics – Bo-Michael Bellander	Biomarkers in Mild TBI – Ramon Diaz-Arrastia	The Role Of Substance P In The Development Of Neurodegeneration Following Concussion – Frances Corrigan
14h25 – 14h50	Proteomics in microdialysis - Methods And Results – Lars Hillered	Biomarker Research In Multicentered Studies – Andras Buki	Animal Models Of Mild TBI – Mayumi Prins
14h50 – 15h15	Extended Applications Of Microdialysis - Drug Recovery – Peter Hutchinson	Challenges In Applying Biomarker Research Into Clinical Practice – <i>Bo-Michael Bellander</i>	Rehabilitation After Mild TBI – Grace Griesbach
15h15 – 15h55	FREE PAPERS – PARALLEL (Meeting Room 1.6)	FREE PAPERS - PARALLEL (Meeting Room 1.41-2)	FREE PAPERS-PARALLEL (Meeting Room 1.43 - 4)
	<u>FP9</u>	<u>FP10</u>	<u>FP11</u>
15h15 – 15h25	Microdialysis in severe TBI: a single centre experience in India – <i>Deepak Gupta</i>	Biomarker Changes In Various Fluid Compartments After Traumatic Brain Injury; Temporal Considerations And The Involvement Of The Glymphatic System – <i>Denes Agoston</i>	Toll Like Receptor 4 Activation Can Be Either Detrimental Or Beneficial Following Mild Repetitive Traumatic Brain Injury Depending On Timing Of Activation – <i>Frances Corrigan</i>
15h25 – 15h35	Mitochondrial Dysfunction And Ischaemia In Severe TBI: A Microdialysis Study – <i>Raghav</i> <i>Singla</i>	Circulating Brain Damage Markers For The Diagnosis And Outcome Prediction Of Traumatic Brain Injuries. A Systematic Review And Meta- analysis – Stefania Mondello	Assessment Of Oculomotor, Vestibular, And Reaction Time Responses Following A Concussive Event – Alexander Kiderman
15h35 – 15h45	To Drain Or Not To Drain? Is There A Measurable Advantage To Draining Ventricular Fluid Following Severe TBI? – Mark Krasberg	The Potential Utility Of Brain Injury Biomarkers In Pre-clinical Drug Screening By Operation Brain Trauma Therapy - Stefania Mondello	Sport Related Norms For Novel Concussion Assessment Tools- A Pilot – Joseph Hazzard, Jr
15h45 – 15h55	Post-traumatic Human Seizures And Inter-ictal Discharges Are Generated Via Recurrent Excitation Of Peri-lesional Neural Assemblies – Andres Irimia	Gene Networks Analysis To Elucidate Complexity And To Identify Biomarkers Of TBI – <i>Fernando</i> <i>Gomez-Pinilla</i>	Modeling PTSD and Repetitive Concussive Injury (from Mice to Men) - <i>Joseph Ojo</i>
15h55 – 16h00	Discussion	Discussion	Discussion

16h15 – 18h05	FREE PAPERS –PARALLEL (Meeting Room 1.41-2)	FREE PAPERS - PARALLEL (Meeting Room 1.6)	FREE PAPERS-PARALLEL (Meeting Room 1.43 - 4)
	FP12: Paediatrics: Preclinical and Clinical Session Chairs: Michael Bell & Ken Brady	<u>FP13: Clinical Care</u> Session Chairs: Deepak Gupta & Gian Marus	FP14: Preclinical science Session Chairs: Denes Agoston & Thomas Glenn
16h15 – 16h25	Large-animal combined insult model for inflicted brain injury in infancy – <i>Beth Costine</i>	Characterising the temporal evolution of ICP and cerebrovascular reactivity after severe traumatic brain injury – <i>Hadie Adams</i>	Cortical Gray Matter-White Matter Junction Pattern Of Retention Of The Tauopathy Ligand 18f-t807 (avid-1451) In Clinically Probable CTE – Sam Gandy
16h25 – 16h35	Systemic metabolic derangements are linked to both intracranial pressure and cerebrovascular reactivity in paediatric traumatic brain injury – Adam Young	20 years of ICP monitoring in traumatic brain injury - single centre experience from Cambridge, UK – Joseph Donnelly	Self-assembling peptides and neural precursor cells foster neural regeneration following experimental cervical spinal cord injury - Klaus Zweckberger
16h35 – 16h45	Continuous multimodality monitoring in children after traumatic brain injury- preliminary experience – Adam Young	Current use of intracranial pressure monitoring in Japan – <i>Eiichi Suehiro</i>	Hypoxia Following Traumatic Brain Injury In Rats Exacerbates Lesion Size Whereas Hypoxia- inducible Factor 1 Alpha Increased In Normoxic Rats – <i>Eric Thelin</i>
16h45 – 16h55	Hyperoxia and mortality after severe TBI in children; challenging the definition of hyperoxia – <i>Ilse Klouwen</i>	Alcohol and mortality after moderate-to-severe traumatic brain injury: a meta-analysis of observational studies – <i>Era Daniel Mikkonen</i>	Transplantation Of Human Neural Stem Cells In Penetrating Ballistic Brain Injury – Aminul Ahmed
16h55 – 17h05	Prediction of cerebral morphine concentration in pediatric traumatic brain injury (TBI) with the rat physiologically based pharmacokinetic (PBPK) model – <i>E.C.M.de Lange</i>	Individual patient data meta-analysis: surgery for spontaneous and traumatic intracerebral haemorrhage – <i>Barbara Gregson</i>	Controlled-cortical impact produces regio-specific dysfunction of stimulated dopamine neurotransmission in the dorsal striatum that can be restored with chronic methylphenidate treatment – <i>Rashed Harun</i>
17h05 – 17h15	Severe TBI In Children Treated According To Lund Concept 2000-2009 – <i>Linus Reen</i>	Hopes trial: the randomized multicenter controlled trial for preoperative early-induced hypothermia and its scientific rationale – <i>Shoji Yokobori</i>	Localization of the corticospinal, rubrospinal and spinothalamic tracts in pigs: implications for modelling traumatic spinal cord injury - Anna Leonard
17h15 – 17h25	Whole brain MR spectroscopic determinants of functional outcomes in pediatric traumatic brain injury – <i>Talin Babikian</i>	The management and outcome of patients with chronic subdural haematoma: a prospective, multicenter, observational cohort study in the United Kingdom – Angelos Kolias	Mechanisms of dysregulation of glucose metabolism following graded traumatic brain injury – Lisa Hill
17h25 – 17h35	Fix the Lesion or Keep Development Going? Neuroblast Distribution after Cortical Impact in the Immature Gyrencephalic Brain – <i>Beth Costine</i>	Bayesian model of traumatic brain injury biomarker kinetics – <i>Ari Ercole</i>	Comparing 2 rodent models of single and repetitive blast-induced traumatic brain injury - Lizan Kawa
17h35 – 17h45	Proteomics of brain microdialysis fluid in children with severe TBI – Sarah Ive	Significant Oxygen Extraction Increases Commonly Occur at a CPP of 100 mm Hg - Howard Yonas	Investigating the pathological effects of single mild or repetitive sub-minimal blast-induced neurotrauma – Sarah Hellewell
17h45 – 17h55	Discussion: Priorities for research in paediatric TBI	Phosphorus Spectroscopy: Interrogating Brain Metabolism In Acute Severe Traumatic Brain Injury – Matthew Stovell	Single severe TBI produces progressive pathology with contralateral white matter damage one year after injury – <i>Francesca Pischiutta</i>
17h55 – 18h00	Discussion	Discussion	Discussion
19h30 – 23h00	GALA DINNER (Ballroom East, CT/CC)	1 	1 

#### Thursday, 4 February 2016

08h00 – 09h00	SUNRISE SEMINAR: (Meeting room 1.6)	SUNRISE SEMINAR: (Meeting room 1.4)	SUNRISE SEMINAR: (Ballroom West)
	<u>SS7: Collaborative Data Collection</u> Session Chairs: Ramon Diaz-Arrastia & Deepak Gupta	<u>SS8: Sports Concussion</u> Session Chair: Mike DuTrevou & Chris Giza	SS9: Animal Models In Spinal Cord Injury: Dalton Dietrich & Reggie Edgerton
08h00 - 08h15	CENTER TBI – Andrew Maas	Controversies In Sports Concussion – Chris Giza	Trials Of Bioengineered Strategies – Charles Tator
08h15 - 08h30	ADAPT – Michael Bell	Activate The Brain Or Rest After Concussion? – Grace Griesbach	Stem Cells In SCI – Dalton Dietrich
08h30 - 08h45	INTBIR – Elizabeth Theriault	Postconcussion Syndrome - A Disabling Consequence Of Concussion – Charles Tator	Electrical Stimulation Of Brainstem And Spinal Cord – Reggie Edgerton
0845 – 09h00	Instituting Evidence-Based Recommendations In TBI – Challenges faced – <i>Jose Pineda</i>	Round Table Discussion: Priorities For Concussion Research – Speakers and Chairs	Round table Discussion: Priorities for future preclinical SCI research – Speakers and Chairs
09h00 – 09h15	REFRESHMENT BREAK (Ballroom East – Exhibition Hall)		
09h15 – 10h45	MAIN PLENARY (Ballroom West) Session Chairs: Esther Shohami & Dalton Dietrich		
09h15 – 09h45	Challenges In Severe TBI Management – David Menon		
09h45 – 10h15	Challenges In Acute Spinal Injury Management – Charles Tator		
10h15 – 10h45	Operation Brain Trauma Therapy – Patrick Kochan	ek	
10h45 – 11h25	FREE PAPERS (Ballroom West)		Session Chairs: GK Prusty & Andreas Unterberg
10h45 – 11h05	Results Of The ANZIC Randomized Controlled Tria	l Of EPO27 – Jamie Cooper	
11h05 – 11h15	A Pragmatic Randomized Trial Of Decompressive Craniectomy Versus Craniotomy For Adults With Acute Subdural Haematoma (RESCUE-ASDH) – Angelos Kolias		
11h15 – 11h25	Characterization of Spreading Depolarizations in Severe Traumatic Brain Injury: A Prospective Multi-center Study – Jed Hartings		
11h25 – 13h00	POSTER SESSION – THIRD ROUND (Ballroom East – Exhibition Hall)		
13h00 – 14h00	LUNCH (Ballroom East – Exhibition Hall)		





14h00 – 15h15	PARALLEL PLENARY (Ballroom)	PARALLEL PLENARY (Meeting Room 1.4)	
	PP10: Medical vs Surgical Treatment of Raised ICP Session Chairs: Patrick Semple & Bo-Michael Bellander	PP11: Advanced Imaging Technologies Session Chairs: Howard Yonas & Virginia Newcombe	
14h00 – 14h20	Medical Treatment Of Raised ICP - David Menon	DTI and prognostication – Virgina Newcombe	
14h20 – 14h40	Surgical Treatment Of Raised ICP – Peter Hutchinson	Advanced Diffusion MRI Radiological Pathological Correlations In Post Mortem Human Brain From Chronic Traumatic Encephalopathy Patients – David Brody	
14h40 – 15h00	Round Table Discussion – David Menon, Peter Hutchinson, Tony Figaji	Early Magnetic Resonance Imaging in Traumatic Brain Injury Enhances Prognostication in the Critical Care Setting – <i>Virginia Newcombe</i>	
15h00 – 15h15	Cerebral Contusions: Patients Who Talk And Deteriorate – <i>Takeshi Maeda</i>	Round Table Discussion: Priorities for future imaging research in TBI and SCI: Howard Yonas, Virginia Newcombe, David Brody, Jonathan Coles.	
15h15 – 15h55	FREE PAPERS –PARALLEL (Ballroom)	FREE PAPERS - PARALLEL (Meeting Room 1.4)	
	FP16	FP17	
	<u></u>	<u> </u>	
15h15 – 15h25	Survival after surgery for acute subdural haematoma in adults: an observational cohort study of 2,498 patients – <i>Angelos Kolias</i>	Use of diffusion tensor imaging to assess the impact of normobaric hyperoxia within normal appearing brain following traumatic brain injury – <i>Jonathan Coles</i>	
15h15 – 15h25 15h25 – 15h35	Survival after surgery for acute subdural haematoma in adults: an observational cohort	Use of diffusion tensor imaging to assess the impact of normobaric hyperoxia within normal appearing brain following traumatic brain injury –	
	Survival after surgery for acute subdural haematoma in adults: an observational cohort study of 2,498 patients – <i>Angelos Kolias</i>	Use of diffusion tensor imaging to assess the impact of normobaric hyperoxia within normal appearing brain following traumatic brain injury – <i>Jonathan Coles</i> Posttraumatic unconsciousness: diffuse axonal	
15h25 – 15h35	Survival after surgery for acute subdural haematoma in adults: an observational cohort study of 2,498 patients – <i>Angelos Kolias</i> Comparative effectiveness of surgery for acute subdural hematoma – <i>Thomas Van Essen</i> Secondary Peak Of S-100B Is Associated With Decompressive Hemicraniectomy – <i>Lars-Owe</i>	Use of diffusion tensor imaging to assess the impact of normobaric hyperoxia within normal appearing brain following traumatic brain injury – <i>Jonathan Coles</i> Posttraumatic unconsciousness: diffuse axonal injury or brain stem lesion? – <i>Raimond Firsching</i> Integrated DWI and MRS reveal white matter	
15h25 – 15h35 15h35 – 15h45	Survival after surgery for acute subdural haematoma in adults: an observational cohort study of 2,498 patients – <i>Angelos Kolias</i> Comparative effectiveness of surgery for acute subdural hematoma – <i>Thomas Van Essen</i> Secondary Peak Of S-100B Is Associated With Decompressive Hemicraniectomy – <i>Lars-Owe</i> <i>Koskinen</i> Effectiveness of CT imaging and observation for detection of secondary intracranial hemorrhage in patients with anticoagulation therapy – <i>Anna</i>	Use of diffusion tensor imaging to assess the impact of normobaric hyperoxia within normal appearing brain following traumatic brain injury – <i>Jonathan Coles</i> Posttraumatic unconsciousness: diffuse axonal injury or brain stem lesion? – <i>Raimond Firsching</i> Integrated DWI and MRS reveal white matter dysfunction in pediatric TBI – <i>Emily Dennis</i> In vivo evaluation of cerebral blood flow metabolism, apoptosis and stem cell trafficking following traumatic brain injury using multi-spectral optoacoustic tomography imaging in rats	
15h25 – 15h35 15h35 – 15h45 15h45 – 15h55	Survival after surgery for acute subdural haematoma in adults: an observational cohort study of 2,498 patients – <i>Angelos Kolias</i> Comparative effectiveness of surgery for acute subdural hematoma – <i>Thomas Van Essen</i> Secondary Peak Of S-100B Is Associated With Decompressive Hemicranicctomy – <i>Lars-Owe</i> <i>Koskinen</i> Effectiveness of CT imaging and observation for detection of secondary intracranial hemorrhage in patients with anticoagulation therapy – <i>Anna</i> <i>Antoni</i>	Use of diffusion tensor imaging to assess the impact of normobaric hyperoxia within normal appearing brain following traumatic brain injury – <i>Jonathan Coles</i> Posttraumatic unconsciousness: diffuse axonal injury or brain stem lesion? – <i>Raimond Firsching</i> Integrated DWI and MRS reveal white matter dysfunction in pediatric TBI – <i>Emily Dennis</i> In vivo evaluation of cerebral blood flow metabolism, apoptosis and stem cell trafficking following traumatic brain injury using multi-spectral optoacoustic tomography imaging in rats – <i>Eugene Park</i>	

#### **Invited Speakers**



Prof Takashi Araki Lecturer, Senior Assistant Professor Department of Emergency and Critical Care Medicine, Nippon Medical School Hospital Japan



Prof Michael Bell Professor of Critical Care Medicine University of Pittsburgh School of Medicine United States of America



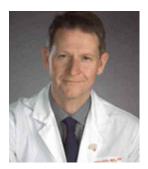
Prof Bo-Michael Bellander Head of Neurotraumatology Karolinksa University Hospital, Sweden



Prof Ken Brady Associate Professor of Pediatrics, Anesthesia, and Critical Care Texas Children's Hospital, Baylor College of Medicine United States of America



**Dr András Büki** University of Pécs, Hungary



Prof Ross Bullock University of Miami and Jackson Hospital, United States of America



Prof (DJ) Jamie Cooper Professor of Intensive Care Medicine Monash University Australia



Dr Frances Corrigan Lecturer University of Adelaide Australia



Prof Ramon Diaz-Arrastia Director of Clinical Research, Center for Neuroscience and Regenerative Medicine Uniformed Services University of the Health Sciences United States of America



Prof W. Dalton Dietrich Professor of Neurological Surgery, Neurology and Cell Biology University of Miami United States of America



Prof Robert Dunn Consultant Spine and Orthopaedic Surgeon Pieter Moll and Nuffield Chair of Orthopaedic Surgery: University of Cape Town South Africa



Prof V. Reggie Edgerton Professor - Integrative Biology and Physiology, Neurology, and Neurosurgery Departments at UCLA University of California, (UCLA) United States of America





Prof Michael Fehlings Professor of Neurosurgery Toronto Western Hospital, University Health Network and University of Toronto Canada



Prof Chris Giza Director, UCLA Steve Tisch BrainSPORT Program, Medical Director, Operation Mend, Associate Professor, Departments of Pediatrics and Neurosurgery at UCLA, University of California, United States of America



Dr Grace Griesbach National Director of Clinical Research Centre for Neuroskills United States of America



Prof Edward D. Hall ch Professor of Anatomy & Neurobiology, Neurosurgery, Neurology & Physical Medicine & Rehabilitation, University of Kentucky, College of Medicine United States of America



Mr Adel Helmy University Lecturer University of Cambridge / Princess Alexandra Hospital United Kingdom/ Australia



Prof Lars Hillered Professor, Senior Consultant Division of Neurosurgery, Uppsala University Hospital, Sweden



Prof Peter Hutchinson Professor of Neurosurgery University of Cambridge United Kingdom



**Prof Barry Jordan** Assistant Medical Director Burke Rehabilitation Hospital United States of America



Prof Patrick Kochanek Director, Safar Center for Resuscitation Research and Vice Chair, Critical Care Medicine University of Pittsburgh School of Medicine United States of America



Prof Peter Le Roux Co-Director of the Brain and Spine Center at Lankenau Medical Center in Wynnewood Professor of Neurosurgery in the Sidney Kimmel Medical College, Thomas Jefferson University United States of America



Prof Andrew Maas Professor & Chairman Department of Neurosurgery University Hospital of Antwerp and University of Antwerp Belgium



Prof Takeshi Maeda Associate Professor Departments of Neurological Surgery and Anesthesiology, Nihon University School of Medicine Japan



Prof David Krishna Menon Head of Department of Anaesthesia University of Cambridge United Kingdom



Dr Virginia Newcombe Academy of Medical Sciences / Health Foundation Clinician Scientist Fellow University Division of Anaesthesia, Cambridge University, United Kingdom



**Prof Jose Pineda** Associate Professor Washington University School of Medicine United States of America



Prof John Povlishock Professor and Chair, Department of Anatomy and Neurobiology Virginia Commonwealth University School of Medicine United States of America



Prof Mayumi Prins Professor UCLA Department of Neurosurgery United States of America



**Dr Sujoy Sanyal** Senior Consultant Neurosurgeon Rabindranath Tagore Hospital India



Prof Jan Schwab Professor of Neurology and Neurosciences The Ohio State University -Wexner Medical Center United States of America



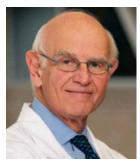
Prof Esther Shohami Professor Emeritus Hebrew University of Jerusalem Israel



Prof William Stewart Consultant Neuropathologist Queen Elizabeth University Hospital Scotland



Dr Elisa Zanier Unit of Cell therapy and Acute Brain Injury, Head Institute of Pharmacological Research Mario Negri (IRFMN), Italy



Prof Charles Tator Professor of Neurosurgery University of Toronto Canada



**Prof Robert Vink** Pro Vice Chancellor: Health Sciences University of South Australia Australia

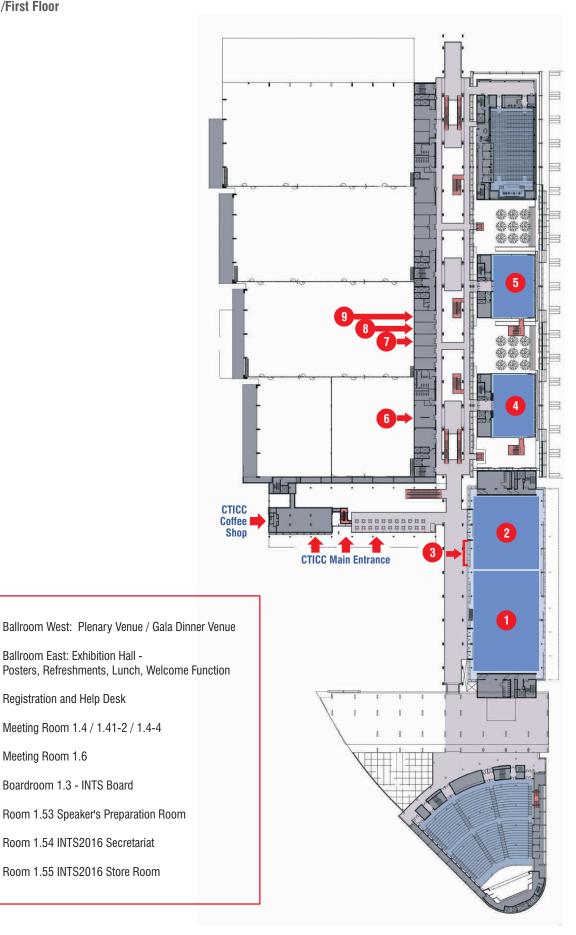


**Dr David Welsh** Consultant Neurosurgeon Vincent Pallotti Hospital South Africa

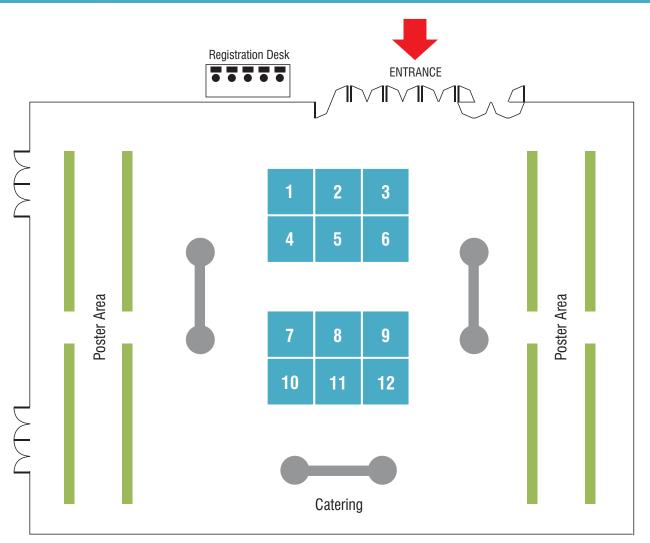




#### **CTICC, Level 1/First Floor**



#### **Exhibition Floorplan - BALLROOM EAST**



#### **Sponsors and Exhibitors**

The INTS2016 Organising Committee gratefully acknowledges the following organisations for their support.



Exhibitors	Stand #
Cadwell	7
Craniotech	10
DePuy Synthes	12
Intamed	9
Integra	11
Medtronic	1,2&3
Local Gift Market	5&6
Tecmed	4
Transport & Tours Desk	8

12<sup>th</sup> Symposium



#### **General Information**

#### VENUE

Cape Town International Convention Centre Convention Square, 1 Lower Long Street, Cape Town

Telephone: +27 (0) 21 410 5000

GPS co-ordinates: - 33.915141,18.425657

EMERGENCY NO's Police Flying Squad 10111 Ambulance 10177 General Emergency107

#### Symposium Team:

- Karin: +27 (0)83 270 9219
- Lauren: +27 (0)81 025 4667
  - Estie: +27 (0)82 410 0226

#### **AIRPORT TRANSFERS**

Should you want to arrange a dedicated return transfer, please contact Robin. Uber is also active in Cape Town. Contact: Robin Troup Mobile: +27 (0) 82 657 3443 Email: info@qualitytouringservices.co.za

#### **CPD POINTS**

CPD accreditation is provided by the Health Professions Council of South Africa. Points are approved for Level 1 at 1 per hour. The official CPD accreditation number is **MDB001/013/01/2016**. Please keep this number on record for your auditing purposes. CPD Certificates will not be provided.

At the time of going to print the status for International Delegates was not available. Please enquire at the Registration Desk.

#### **DISCLAIMER:**

The Local Organising Committee, the INTS and the Symposium Organisers accept no liability for any damages, injuries and/or losses of whatever nature incurred by delegates and accompanying persons.

#### PARKING

Day parking vouchers will be sold at a reduced rate by the CTICC over lunch time on 2, 3 and 4 February.

#### **POSTERS**

All posters should be up by Tuesday 2 February at 09h00. The exhibition hall will be open on Monday 1 February from 13h00 onwards for the set-up of posters. The welcome function will take place in the exhibition hall so it is advisable that you set up before the function. Please note that that the hall will be closed between 15h30 – 16h30 for Health & Safety inspections. Each board will be numbered – please make sure that you use the board with your poster number on it.

Posters should be removed between 16h00 and 18h00 on Thursday 4 February 2016. If posters are left behind, the CTICC waste department will remove them.

#### **REGISTRATION: ON-SITE**

The registration and help desk times are as follows:

Monday 1 February	13h00 – 21h00
Tuesday 2 February	07h00 - 19h00
Wednesday 3 February	07h30 - 20h00
Thursday 4 February	07h30 - 16h30

For security reasons, please ensure that you wear you name badge at all times, including to the social events. Please note that delegates and accompanying persons will need their registration badges to get access to the Symposium proceedings and the social events.

#### **SOCIAL EVENTS**

#### Monday 1 February 2016, Welcome Cocktail Function

Time:	20h00 After the opening ceremony
Venue:	Ballroom East (exhibition hall), CTICC
Access Control:	INTS 2016 delegates and registered accompanying persons
Dress Code:	Business dress / Smart casual

#### Wednesday 3 February 2016, Symposium Gala Dinner

Time:	19h00 for 19h30 Pre-dinner drinks
	19h30 – 23h00 Dinner
Venue:	Ballroom West, CTICC
Access Control:	Pre-registration and payment is necessary for this event.
Dress Code:	Smart Casual

#### **SPEAKER'S PREVIEW ROOM**

All speakers are to report to the speaker's preview room to meet with the technician who will load and test the presentation. Speakers are to visit the speaker's preview room at least one day before their presentation.

Venue: Room 1.53, First Floor, CTICC (if you go up the escalator turn to you left, keep left and you will find room 1.53 on the left)

#### **Operational times:**

Monday 1 February	13h00 - 18h00
Tuesday 2 February	07h00 - 18h00
Wednesday 3 February	07h30 - 18h00
Thursday 4 February	07h30 - 15h00

Please note that presentations will be recorded. Speakers will be required to inform the staff in the speaker's preview room if their presentation and material cannot but used for further marketing and educational purposes.

#### **TOURS AND OPTIONAL SOCIAL EVENT/TOUR**

The appointed tour operator can assist with day tours and customised tours and other pre-booked transport. They are also responsible for organising the Optional Evening tours. Please note that these tours will depart from the CTICC. Please contact them directly for all your tour and transport requirements.

Please visit them at the Travel and Tours Desk from 2 - 4 February during refreshment and lunch breaks.





### Authors List - Oral Presentations

Abstract ID	First name	Surname	Title of abstract
169	Sami	Abu Hamdeh	Human Traumatic Brain Injury Induces Rapid Accumulation Of Amyloid-beta Oligomers And Protofibrils In Surgically Resected Brain Tissue - to be presented by Prof Niklas Markland
153	Hadie	Adams	Characterising The Temporal Evolution Of Icp And Cerebrovascular Reactivity After Severe Traumatic Brain Injury.
122	Denes	Agoston	Biomarker Changes In Various Fluid Compartments After Traumatic Brain Injury; Temporal Considerations And The Involvement Of The Glymphatic System.
32	Aminul	Ahmed	Transplantation Of Human Neural Stem Cells In Penetrating Ballistic Brain Injury
128	Anna	Antoni	Effectiveness Of CT Imaging And Observation For Detection Of Secondary Intracranial Hemorrhage In Patients With Anticoagulation Therapy.
164	Talin	Babikian	Whole Brain Mr Spectroscopic Determinants Of Functional Outcomes - In Pediatric Traumatic Brain Injury
142	Corbin	Bachmeier	Role of cerebrovascular cells in tau processing following traumatic brain injury.
132	David	Brody	Advanced Diffusion Mri Radiological Pathological Correlations In Post Mortem Human Brain From Chronic Traumatic Encephalopathy Patients
103	Kyoung Suok	Cho	Comparison Of Anterolateral And Posterior Approaches In The Management Of Thoracolumbar Burst Fractures
68	Lyndsey	Collins-Praino	Investigating The Complex Relationship Between Neuroinflammation, Neurodegeneration And Long-term Functional Outcomes In An Experimental Model Of Traumatic Brain Injury.
27	Frances	Corrigan	Toll Like Receptor 4 Activation Can Be Either Detrimental Or Beneficial Following Mild Repetitive Traumatic Brain Injury Depending On Timing Of Activation
158	Beth	Costine	Large-Animal Combined Insult Model For Inflicted Brain Injury In Infancy
159	Beth	Costine	Fix the Lesion or Keep Development Going? Neuroblast Distribution after
196	Fiona	Crawford	Cortical Impact in the Immature Gyrencephalic Brain. Influence Of A Western Diet And Apoe Genotype On Outcome After Mild
			Repetitive TBI In A Mouse Model
60	Emily	Dennis	Integrated DWI And MRS Reveal White Matter Dysfunction In Pediatric TBI
38	Valentina	Di Pietro	Mechanisms Of Dysregulation Of Glucose Metabolism Following Graded
173	Joseph	Donnelly	Traumatic Brain Injury presented by Lisa Hill 20 Years Of Icp Monitoring In Traumatic Brain Injury- Single Centre
174	lacanh	Doppolly	Experience From Cambridge, Uk
174	Joseph	Donnelly	Autoregulation-based Optimal Cerebral Perfusion Pressure In A Prospective Traumatic Brain Injury Cohort
13	Robert	Dunn	Epidemiology Of Acute Spinal Cord Injuries In The Groote Schuur Hospital Acute Spinal Cord Injury (gsh Asci) Unit Over The Past 11 Years
167	Ari	Ercole	Bayesian model of traumatic brain injury biomarker kinetics
144	Michael	Fehlings	A Clinical Guideline For The Use Of High-dose Methylprednisolone In The
72	Raimund	Firsching	Treatment Of Acute Traumatic Spinal Cord Injury Posttraumatic Unconsciousness. Diffuse Axonal Injury Or Brain Stem
105	Melinda	Fitzgerald	Lesion? Determining The Relative Contribution Of Early Oxidative Changes, Loss Of
			Oligodendrocyte Precursor Cells And Node/paranode Abnormalities To Function, In Nerve Vulnerable To Secondary Degeneration
165	Sam	Gandy	Cortical Gray Matter-white Matter Junction Pattern Of Retention Of The Tauopathy Ligand 18f-t807 (avid-1451) In Clinically Probable Cte
43	Thomas	Glenn	Lactate And Human Traumatic Brain Injury: Effects Of Early Infusion On Body And Brain
201	Fernando	Gomez-pinilla	Gene Networks Analysis To Elucidate Complexity And To Identify Biomarkers Of Tbi
92	Tiffany	Greco	RTBI Induced Decrease In Cerebral Glucose Metabolism Contributes To Alzheimer's Pathogenesis
199	Barbara	Gregson	Individual Patient Data Meta-analysis: Surgery For Spontaneous And Traumatic Intracerebral Haemorrhage
110	Mathew	Guilfoyle	Characterising The Localised Inflammatory Response In Pericontusional Brain Following Traumatic Injury
138	Deepak	Gupta	Intracerebral Hypoglycemia And Its Clinical Relevance As Prognostic Indicator In Severe Traumatic Brain Injury: A Cerebral Microdialysis Study From India.

100	ladia	Hall	Introvonous ANVO II A as a method for simultaneously resulting
133	Jodie	Hall	Intravenous AAV9-IL4 as a method for simultaneously regulating inflammation inside and outside the central nervous system
50	Jed	Hartings	Characterization Of Spreading Depolarizations In Severe Traumatic Brain
163	Rashed	Harun	Injury: A Prospective Multi-center Study Controlled-cortical Impact Produces Regiospecific Dysfunction Of Stimulated
103	nasiieu	nai uli	Dopamine Neurotransmission In The Dorsal Striatum That Can Be Restored
			With Chronic Methylphenidate Treatment
200	Joseph	Hazzard, Jr.	Sport Related Norms For Novel Concussion Assessment Tools- A Pilot
97	Sarah	Hellewell	Investigating The Pathological Effects Of Single Mild Or Repetitive Sub- minimal Blast-induced Neurotrauma
40	Lisa	Hill	Mitochondrial DNA And Traumatic Brain Injury
59	Andrei	Irimia	Post-traumatic Human Seizures And Inter-ictal Discharges Are Generated Via
88	Ibrahim	Jalloh	Recurrent Excitation Of Peri-lesional Neural Assemblies Succinate Administered Focally Enters The Tricarboxylic Acid Cycle Of Brain
00	Ibrailin	Salion	And Ameliorates The Lactate/pyruvate Ratio In Traumatic Brain Injury
			Patients: A 13c-labelled Microdialysis Study
145	Andrew	Kane	Early Magnetic Resonance Imaging in Traumatic Brain Injury Enhances
151	Lizan	Kawa	Prognostication in the Critical Care Setting presented by Virginia Newcombe Comparing 2 Rodent Models Of Single And Repetitive Blast-induced
101	LIZATI	i unu	Traumatic Brain Injury
56	Alexander	Kiderman	Assessment Of Oculomotor, Vestibular, And Reaction Time Responses
99	llse	Klouwen	Following A Concussive Event Hyperoxia and mortality after severe TBI in children; challenging the definition
55	1120	NIUUWEII	of hyperoxia
73	Angelos G	Kolias	Survival after surgery for acute subdural haematoma in adults: an
89	Angelos G	Kolias	observational cohort study of 2,498 patients Core outcomes and common data elements in chronic subdural haematoma
09	Allyelos G	Rullas	(CODE-CSDH)
90	Angelos G	Kolias	A randomised, double blind, placebo-controlled trial of a two-week course of
			dexamethasone for adult patients with a symptomatic chronic subdural
121	Angelos G	Kolias	haematoma (DEX-CSDH trial) A Pragmatic Randomized Trial Of Decompressive Craniectomy Versus
	7		Craniotomy For Adults With Acute Subdural Haematoma (RESCUE-ASDH)
179	Angelos G	Kolias	The management and outcome of patients with chronic subdural haematoma:
147	Lars-owe	Koskinen	a prospective, multicenter, observational cohort study in the United Kingdom Secondary Peak Of S-100b Is Associated With Decompressive
	Laio owo	Roominon	Hemicraniectomy
210	Mark	Krasberg	To Drain Or Not To Drain? Is There A Measurable Advantage To
81	Anna	Leonard	DrainingVentricular Fluid Following Severe TBI? Localization Of The Corticospinal, Rubrospinal And Spinothalamic Tracts In
		Loonard	Pigs: Implications For Modelling Traumatic Spinal Cord Injury
18	Era	Mikkonen	Alcohol And Mortality After Moderate-to-severe Traumatic Brain Injury: A
67	Stefania	Mondello	Meta-analysis Of Observational Studies Circulating Brain Damage Markers For The Diagnosis And Outcome Prediction
01	otorama	mondono	Of Traumatic Brain Injuries. A Systematic Review And Meta-analysis
77	Stefania	Mondello	The Potential Utility Of Brain Injury Biomarker In Pre-clinical Drug Screening
194	Benoit	Mouzon	By Operation Brain Trauma Therapy Life-long Sports-related Repetitive Concussive Head Injury In Htau Mice:
101	Donon	Modeon	Deficits In Cerebral Blood Flow, Gliosis, Axonal Injury And Mild Increase(s) In
1.10	0		T-tau And Tau Oligomers
146	Seung-myung	Moon	Effects Of Adenosine Monophosphate-activated Kinase In The Ventral Horn Of Rabbit Spinal Cord After Transient Ischemia
182	Joseph	Ojo	Modeling PTSD and Repetitive Concussive Injury (from Mice to Men).
52	Katya	Park	Human umbilical cord perivascular cell (HUCPVC) therapy for traumatic brain
93	Eugene	Park	injury: targeting the neurovascular unit In Vivo Evaluation Of Cerebral Blood Flow Metabolism, Apoptosis And Stem
50	Lugene	ιακ	Cell Trafficking Following Traumatic Brain Injury Using Multi-spectral
			Optoacoustic Tomography Imaging In Rats.
192	Francesca	Pischiutta	Single severe TBI produces progressive pathology with contralateral white matter damage one year after injury
127	Linus	Reen	Severe Tbi In Children Treated According To Lund Concept 2000-2009
189	Guy	Rosenthal	A Novel Non-invasive Cerebral Bio-impedance Monitor Mimics Icp Waveform
00	Carolin	Duwon	In Severe Tbi Patients
23	Carolin	Ruven	Embryonic spinal cord derived cells help to prevent muscle atrophy after peripheral nerve transection.
141	Isobel	Scarisbrick	Identification Of A Protease Activated Receptor 2-il-6-stat3 Signaling Circuit
			That Regulates Astrogliosis And Motor Recovery In Traumatic Spinal Cord
			Injury





64 20	Raghav Eiichi	Singla Suehiro	Mitochondrial Dysfunction And Ischaemia In Severe Tbi: A Microdialysis Stud Current Use Of Intracranial Pressure Monitoring In Japan
140	Nicole Angela	Terpolilli	Migraine-associated Mutations In The Cav2.1 P/q Ca2+ Channel Increase Posttraumatic Cortical Spreading Depressions And Significantly Worsen Outcome Following Traumatic Brain Injury
41	Eric	Thelin	Hypoxia Following Traumatic Brain Injury In Rats Exacerbates Lesion Size Whereas Hypoxia-inducible Factor 1 Alpha Increased In Normoxic Rats
114	Thomas	Van Essen	Comparative Effectiveness Of Surgery For Acute Subdural Hematoma
181	Tonny	Veenith	Use Of Diffusion Tensor Imaging To Assess The Impact Of Normobaric Hyperoxia Within Normal Appearing Brain Following Traumatic Brain Injury presented by Jonathan Coles
214	Nicole	Von SteinbÜchel	Patient-reported and Performance-based Outcomes in Persons after Mild Traumatic Brain Injury
213	Y	Yamamoto	Prediction of cerebral morphine concentration in pediatric traumatic brain injury (TBI) with the rat physiologically based pharmacokinetic (PBPK) model presented by ECM de Lange
9	Shoji	Yokobori	Hopes Trial: The Randomized Multicenter Controlled Trial For Preoperative Early-induced Hypothermia And Its Scientific Rationale
211	Howard	Yonas	Significant Oxygen Extraction Increases Commonly Occur at a CPP of 100 mm Hg
148	Adam	Young	Continuous Multimodality Monitoring In Children After Traumatic Brain Injury- Preliminary Experience
149	Adam	Young	Systemic Metabolic Derangements Are Linked To Both Intracranial Pressure And Cerebrovascular Reactivity In Paediatric Traumatic Brain Injury
48	Klaus	Zweckberger	Self-assembling Peptides And Neural Precursor Cells Foster Neural Regeneration Following Experimental Cervical Spinal Cord Injury

#### **Authors List - Poster Presentations**

Poster presenters are requested to be available at their posters to do a short presentation of approximately 3 minutes to a group of delegates and representatives of the scientific programme committee. There is a possibility that two groups might visit your poster during the session.

ID	First name	Surname	Title of abstract	Presentation Date/Time
182	Martin	Bolcha	Decompressive Craniectomy And A Role Of A Brain Metabolism Monitoring	Tue 2 Feb, 11h40 - 13h00
104	Kyoung Suok	Cho	Comparison Of Early And Late Decompression For	
45	Subir	Dey	Cervical Spinal Cord Injury To Study The Acute Phase Serum Biomarkers In Patients With Mild Traumatic Brain Injury (mTBI) And Correlate	Tue 2 Feb, 11h40 - 13h00
			With Short Term Cognitive Deficits.	Tue 2 Feb, 11h40 - 13h00
34	Valentina	Di Pietro	Micrornas As Novel Biomarkers In Mild And Severe Traumatic Brain Injury presented by Lisa Hill	Tue 2 Feb, 11h40 - 13h00
131	Basil	Enicker	Demographic Profile Of Traumatic Brain Injury Due To	100 2160, 11140 - 151100
			Inter-personal Violence In The Province Of Kwazulu-natal, South Africa	Tue 2 Feb, 11h40 - 13h00
215	Erzsébet	Ezer	A fallen elderly patient with coagulopathy – a new dominant	
			type of severe traumatic brain injury? (Analysis of the "Pécs severe head injury database".)	Tue 2 Feb, 11h40 - 13h00
207	Scott	Ferguson	Age And Gender Effects In The Acute Response To	Tuo 0 Eab 11b40 12b00
160	Se-hoon	Kim	Repetitive Mild Tbi In Htau Transgenic Mice Usefulness Of Expandable Cage For Vertebral Body	Tue 2 Feb, 11h40 - 13h00
			Reconstruction In Trauma-related Unstable Thoracolumbar	
			Spine Fractures Via Single-stage Posterior Approach: Surgical Results Of 30 Patients	Tue 2 Feb, 11h40 - 13h00
162	Se-hoon	Kim	Effectiveness Of The Titanium Expandable Cages For	106 2 1 60, 1 1140 - 10100
			Patients With Pathologic Thoracolumbar Spine Fracture	Tue 2 Feb, 11h40 - 13h00
71	Xiang	Мао	Saikosaponin A Protects The Brain After Controlled Cortical	Tue 0 Feb 11b40 10b00
55	Victoria	Mccutcheon	Impact By Inhibiting The Mapk Pathway In Rats A Two-tier Model Of Traumatic Brain Injury In Zebrafish	Tue 2 Feb, 11h40 - 13h00
00	viotoria	mooutonoon	Designed For High-throughput Drug Evaluation	Tue 2 Feb, 11h40 - 13h00
180	Cezar	Mizrahi	Evacuation Of Chronic Subdural Hematoma In	
			Nonagenarians And Centurions: A 10-year Single	Tue 0 Feb 11640 10600
184	Cezar	Mizrahi	Institution Experience. Cranial Injuries Caused By Rubber Bullets	Tue 2 Feb, 11h40 - 13h00 Tue 2 Feb, 11h40 - 13h00
30	Junzo	Nakao	The Study Of The Severity Factor Of Acute Subdural	100 Z Feb, 111140 - 151100
	0020		Hematoma Of Elderly People With Antithrombotic	
			Treatment Including Noveloralanticoagulants (NOAC).	Tue 2 Feb, 11h40 - 13h00
139	Marie	Onakomaiya	Multi-Tasking in the Computer Assisted Rehabilitation	
			Environment (CAREN) Distinguishes Service Members with Mild Traumatic Brain Injury Alone from those with	
			Comorbid Post-Traumatic Stress Disorder	Tue 2 Feb, 11h40 - 13h00
19	Rahul	Raj	Intensive Care Unit Volume And Mortality Of Patients	····, ····
			With Traumatic Brain Injury	Tue 2 Feb, 11h40 - 13h00
197	Florence	Reith	The Reliability Of The Glasgow Coma Scale: A Systematic Review	Tue 2 Feb, 11h40 - 13h00
209	Rohit	Sarda	Evaluation Of Bacopa Monneira's Effect On New Born	106 2 160, 11140 - 101100
			Rat's Brain Derived Neuronal Stem Cells - A Preliminary	
			In-vitro Feasibility Study Assessing A Promising Agent	
10	Nume	Cilue	For Nervous Tissue Repair.	Tue 2 Feb, 11h40 - 13h00
12	Nuno	Silva	A Poly-pharmacotherapy Approach To Repair The Injured Spinal Cord: Is It The Whole Greater Than The Sum Of Its	
			Parts?	Tue 2 Feb, 11h40 - 13h00
74	Mattias	Skold	Ventral Root Avulsion And Replantation - Description Of	
			Different Gene Expression Patterns In Acute And Delayed	
86	Xin Lin	Tan	Replantation. Worse Outcomes After Experimental Tbi In Mutant	Tue 2 Feb, 11h40 - 13h00
00		Turi	Tdp-43 Mice	Tue 2 Feb, 11h40 - 13h00
208	Toby	Thomas	The Incidence Of Post-traumatic Epilepsy Following	
			Traumatic Brain Injury: Experience Of A Major Trauma	
123	Arnold	Toth	Centre. Microbleeds May Expand Acutely After Traumatic	Tue 2 Feb, 11h40 - 13h00
120	ATTOIU	1001	Brain Injury	Tue 2 Feb, 11h40 - 13h00





155	Hadie	Adams	Is There A Potential Use For Multimodality Correlative	
			Indices As Prognostic Indicators In Severe Traumatic Brain Injury Patients?	Wed 3 Feb, 11h15 - 13h00
124	Corina	Bondi	Evaluation Of Executive Function Impairments After	Wed 3 reb, 11110 - 131100
121	oonna	Donal	Experimental Frontal Traumatic Brain Injury	Wed 3 Feb, 11h15 - 13h00
116	Helen	Bramlett	Effects Of Posttraumatic Hypothermia On Microglia/	
			macrophage Phenotypes After Moderate Fluid Percussion	Wed 2 Feb 11b15 12b00
204	Paul	Brennan	Brain Injury In Rats A Gcs And Pupils Prognostic Index	Wed 3 Feb, 11h15 - 13h00 Wed 3 Feb, 11h15 - 13h00
188	Carlos	Candanedo	Characteristics Of External Ventricular Drainage	
			Parameters In Severe Tbi Versus Non-tbi Patients	Wed 3 Feb, 11h15 - 13h00
101	Kyoung Suok	Cho	Clinical And Radiographic Results Of Unilateral Transpedicular Balloon Kyphoplasty For The Treatment Of	
			Osteoporotic Vertebral Compression Fractures	Wed 3 Feb, 11h15 - 13h00
115	Fredrik	Clausen	Engulfing Astrocytes - A Link Between Tbi And	
4.0		0 "	Alzheimer's Disease?	Wed 3 Feb, 11h15 - 13h00
16 31	Abdalrahman Mattias	Gamil Gunter	Resuscitation Of Traumatic Brain Injured Sudanese Patients Neuronal Vulnerability To Oxidative Stress Is Affected By	Wed 3 Feb, 11h15 - 13h00
51	Matuas	Guillei	Genetic Polymorphism And Related To Susceptibility	
			To Inflammation In The Central Nervous System	Wed 3 Feb, 11h15 - 13h00
119	Holly	Hinson	Early Fever Is Associated With Inflammation After TBI	Wed 3 Feb, 11h15 - 13h00
21	Michael	Hoffer	Tracking Neurosensory Symptoms Of Mtbi Over Time	Wed 3 Feb, 11h15 - 13h00
56	Alexander	Kiderman	Assessment Of Oculomotor, Vestibular, And Reaction Time Responses Following A Concussive Event	Wed 3 Feb, 11h15 - 13h00
118	Lars-owe	Koskinen	An Internal Severe Neuro-trauma And Its Clinical	
			Manifestation	Wed 3 Feb, 11h15 - 13h00
94	Weiping	Li	"Cytoskeleton Protein Carbonylation Contributes To Axonal	
			Injury Following Oxidative Stress presented by Dr Yong-	
14	Mohammad	Maleki	Zhong Gao" Inter-Hemispheric Subdural Hematoma ( IHSDH)	Wed 3 Feb, 11h15 - 13h00 Wed 3 Feb, 11h15 - 13h00
70	Xiang	Mao	Procyanidins Protects Against Oxidative Damage And	
10	Alarig	mao	Cognitive Deficits After Traumatic Brain Injury	Wed 3 Feb, 11h15 - 13h00
69	Xiang	Mao	Decompressive Craniectomy For Severe Traumatic	
100	Nueta	Magumhuka Kabamba	Brain Injury Patients With Fixed Dilated Pupils	Wed 3 Feb, 11h15 - 13h00
193 166	Nyota Andile Lungani	Masumbuko-Kahamba Mbatha	Neurogenic Differentiation Of Human Dental Pulp Stem Cells Traumatic Brain Injury Following Community Assault:	Wed 3 Feb, 11h15 - 13h00
100		Mbatha	A Neurosurgical Perspective	Wed 3 Feb, 11h15 - 13h00
78	Stefania	Mondello	Multimodal Monitoring And Outcome Prediction After	
			Traumatic Brain Injury Using Support Vector Machines	Wed 3 Feb, 11h15 - 13h00
217	Wilheminah	Makhambeni	Gate crush cranial injuries in children	Wed 3 Feb, 11h15 - 13h00
11	Magloire Nkosi	мрептрі	Anxiety, Depression And Cognition Among Medular Injury Patient In Kinshasa (dr Congo). A Cross Sectional Study	Wed 3 Feb, 11h15 - 13h00
80	Haruo	Nakayama	Sports-related Head Injury Seen From Big Data Of Internet	
			Search Engines In Japan	Wed 3 Feb, 11h15 - 13h00
106	Ryan	O'Hare Doig	Specific Combinations Of Ca2+ Channel Inhibitors	
			Reduce Excessive Ca2+ Influx And Increase Neuronal	Wed 3 Feb, 11h15 - 13h00
152	Hima	Pendharkar	And Glial Cell Viability In Vitro Non Accidental Injury: Retrospective Imaging Analysis	vveu 3 reb, 11115 - 131100
IUL	- Initia	i onditatitat	Demonstrates The Entity To Be Under Recognised	Wed 3 Feb, 11h15 - 13h00
98	Stephanie	Plummer	Enhanced Heparan Binding Affinity Of APP96-110	
			Results In Increased Neuroprotection Following Traumatic	
57	Rachel	Rowe	Brain Injury presented by Frances Corrigan Pre-clinical Systematic Approach Identifies Novel Tnf	Wed 3 Feb, 11h15 - 13h00
57	NAUTEI	NUWE	Receptor-1 Inhibitors As Potential Therapeutic Candidates	
			For Traumatic Brain Injury	Wed 3 Feb, 11h15 - 13h00
216	Sinead	Ross	"Pathophysiologyof paediatric traumatic brain injury:	
70		2	A microdialysis pilot study"	Wed 3 Feb, 11h15 - 13h00
76	Suleyman	Sener	Neuropsychological outcome after severe TBI correlated to successive DTI changes.	Wed 3 Feb, 11h15 - 13h00
161	Heustein	Sy	Systematic Review For Judicious Categorized Venous	
			Thromboembolism Prophylaxis In Traumatic Brain Injury	Wed 3 Feb, 11h15 - 13h00
113	Thomas	Van Essen	Systematic Review And Meta-analysis Of The Surgical	
140	Adam	Voung	Outcome Of Traumatic Acute Subdural Hematoma	Wed 3 Feb, 11h15 - 13h00
149	Adam	Young	Correlating Optic Nerve Sheath Diameter With Initial Intracranial Pressure In Paediatric Traumatic Brain Injury	Wed 3 Feb, 11h15 - 13h00
205	Salko	Zahirovic	Diffuse Axonal Injury In Bosnia And Herzegovina -	1.54 0 1 05, 11110 - 10100
			A Single Center Experience	Wed 3 Feb, 11h15 - 13h00
154	Hadie	Adams	Distinct Age-related Differences In Temporal Evolution	
			Of Intracranial Pressure And Cerebrovascular Reactivity	

87	Christopher	Beynon	After Severe Traumatic Brain Injury. Prothrombin Complex Concentrate For Anticoagulation Reversal In Traumatic Intracranial Haemorrhage presented	Thu 4 Feb, 11h25 - 13h00
33	Jonas	Blixt	by Andreas Unterberg Erythropoietin Affects The Dynamic Brain Edema	Thu 4 Feb, 11h25 - 13h00
126	David	Cederberg	Response Following Experimental Traumatic Brain Injury Anti-secretory Factor Reduces Icp In Severe Tbi -	Thu 4 Feb, 11h25 - 13h00
130	David	Cederberg	Preliminary Report Anti Secretory Factor Treatment For Cerebral Edema -	Thu 4 Feb, 11h25 - 13h00
		-	4 Case Reports.	Thu 4 Feb, 11h25 - 13h00
47	Fredrik	Clausen	A Comparison Between 1 Mda And 100 Kda Microdialysis Probes On Cerebral Chemokine And Cytokine Capture After	
109	Fredrik	Clausen	Experimental Traumatic Brain Injury A Novel Treatment Concept For Traumatic Brain Injury: Intranasal Administration Of The Anti-secretory Factor Peptide Af-16 Improved Behavioral Outcome After	Thu 4 Feb, 11h25 - 13h00
195	Daiana	De Blasio	Midline Fluid Percussion In The Rat Pharmacological Inhibition of Mannose Binding Lectin Ameliorates Neurobehavioral Dysfunction Following	Thu 4 Feb, 11h25 - 13h00
95	Sarah	Hellewell	Experimenta TBI presented by Elisa Zanier Assessing The Clinical Utility And Theragnostic Potentials Of Biomarkers Of Traumatic Brain Injury: Findings From	Thu 4 Feb, 11h25 - 13h00
100	Sarah	Hellewell	The Epo-tbi Clinical Trial The Relationship Between Cognitive Performance, Stress And Hormonal Changes In Canadian Forces Troops	Thu 4 Feb, 11h25 - 13h00
62	Adel	Helmy	Before and During Deployment Recombinant Human Interleukin-1 Receptor Antagonist Promotes M1 Microglia Associated Cytokines And	Thu 4 Feb, 11h25 - 13h00
129	Ann	Hoffman	Chemokines Following Human Traumatic Brain Injury Diffuse Traumatic Brain Injury Enhances Fear Learning	Thu 4 Feb, 11h25 - 13h00
79	Xian-jian	Huang	And Alters Processing Within The Auditory Fear Circuit MicroRNAs Expression Profiles In The Hippocampus	Thu 4 Feb, 11h25 - 13h00
108	Se-Hyuk	Kim	Following Traumatic Brain Injury In Adult Rats Continuous Renal Replacement Therapy For Acute Renal	Thu 4 Feb, 11h25 - 13h00
	-		Failure In The Patients With Traumatic Brain Injury	Thu 4 Feb, 11h25 - 13h00
135	Anthony E.	Kline	Traumatic Brain Injury-induced Functional Deficits Are Not Exacerbated By Daily Administration Of Lorazepam	Thu 4 Feb, 11h25 - 13h00
36	Jeong Taik	Kwon	Analysis Of The Outcomes And Recurrence With Three Surgical Techniques For Chronic Subdural Hematoma	Thu 4 Feb, 11h25 - 13h00
215	Sang Kook	Lee	Epidemiologic Review of Korean Neuro Trauma Data Bank System (KNTDBS) in recent 5 years: 2698 Cases	
51	Alexander	Lilja	of Traumatic Brain Injury Experience with the hinged craniotomy technique in	Thu 4 Feb, 11h25 - 13h00
143	Nilesh	Mohan	refractory intracranial hypertension Computed Tomography Marshall Score As A Predictor Of Outcome In Severe Traumatic Brain Injury Patients	Thu 4 Feb, 11h25 - 13h00
10	На	Nguyen	At The National Referral Hospital In Kenya Fenestration Of Bone Flap During Decompressive	Thu 4 Feb, 11h25 - 13h00
185	Joseph	Ојо	Craniotomy For Subdural Hematoma Exploring The Molecular Overlap In The Brain And Plasma Of Repetitive MTBI and AD Mouse Models	Thu 4 Feb, 11h25 - 13h00
186	Magnus	Olivecrona	Using Proteomics Technology. The Stockholm Score for the Prediction of Outcome in	Thu 4 Feb, 11h25 - 13h00
			Persons with Severe Traumatic Brain Injury Treated with an ICP-targeted Therapy	Thu 4 Feb, 11h25 - 13h00
107	Joanna	Simpson	Hyponatraemic and hypo-osmotic states on admission are associated with increased contusion and oedema	
39	Kazutaka	Sugimoto	measured on MR imaging. Serum Biomarkers For Detecting Structural Disorder In Mild Troumatia Brain Jaium.	Thu 4 Feb, 11h25 - 13h00
176	Hee-Jin	Yang	Mild Traumatic Brain Injury Traumatic Subarachnoid Hemorrhage: Intracranial	Thu 4 Feb, 11h25 - 13h00
117	Namkyu	You	Distribution And Association With Other Cranial Injuries Facial Fracture And Traumatic Brain Injury: Correlation	Thu 4 Feb, 11h25 - 13h00
			Between Face And Brain Injuries	Thu 4 Feb, 11h25 - 13h00





Notes	

## Gain new insights into the mechanisms of normal and abnormal brain development

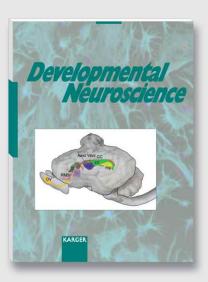


#### Editor-in-Chief S.W. Levison, Newark, N.J.

#### Associate Editors

P.G. Bhide, Tallahassee, Fla. K. Ikenaka, Okazaki J.M. Lauder, Chapel Hill, N.C. C. Mallard, Gothenburg R.S. Nowakowski, Tallahassee, Fla.

G.D. Stanwood, Tallahassee, Fla. (Special Issues) F. Szele, Oxford (Mini-Reviews) S. Tan, Evanston, III.



Developmental Neuroscience is a multidisciplinary journal publishing papers covering all stages of invertebrate, vertebrate and human brain development. Emphasis is placed on publishing fundamental as well as translational studies that contribute to our understanding of mechanisms of normal development as well as genetic and environmental causes of abnormal brain development. The journal thus provides valuable information for both physicians and biologists. To meet the rapidly expanding information needs of its readers, the journal combines original papers that report on progress and advances in developmental neuroscience with concise mini-reviews that provide a timely overview of key topics, new insights and ongoing controversies.

#### **Developmental Neuroscience**

Founded: 1978 Category: Basic Research Fields of Interest: Neurobiology/Neurology

Listed in bibliographic services, including Journal Citation Reports, PubMed/MEDLINE, Biological Abstracts, Embase

2016: Volume 38 6 issues per volume Language: English ISSN 0378–5866 e-ISSN 1421–9859

Impact Factor: 2.697 5-Year Impact Factor: 3.701

#### Selected contributions

- Cellular and Axonal Constituents of Neocortical Molecular Layer Heterotopia: Ramos, R.L.; Siu, N.Y. (Old Westbury, N.Y.); Brunken, W.J. (Brooklyn, N.Y.); Yee, K.T. (Jackson, Miss.); Gabel, L.A. (Easton, Pa.); Van Dine, S.E.; Hoplight, B.J. (Old Westbury, N.Y.)
- The Developmental Mismatch in Structural Brain Maturation during Adolescence: Mills, K.L. (London/Bethesda, Md.); Goddings, A.-L. (London); Clasen, L.S.; Giedd, J.N. (Bethesda, Md.); Blakemore, S.-J. (London)
- The Role of the Anterior Insula in Adolescent Decision Making: Smith, A.R.; Steinberg, L.; Chein, J. (Philadelphia, Pa.)
- Teens Impulsively React rather than Retreat from Threat: Dreyfuss, M.; Caudle, K.; Drysdale, A.T.; Johnston, N.E.; Cohen, A.O. (New York, N.Y.); Somerville, L.H. (Cambridge, Mass.); Galván, A.; Tottenham, N. (Los Angeles, Calif.); Hare, T.A. (Zurich); Casey, B.J. (New York, N.Y.)
- Prenatal Infection Affects the Neuronal Architecture and Cognitive Function in Adult Mice: Li, W.-Y.; Chang, Y.-C. (Taipei); Lee, L.J.-H. (Taipei/Zhunan); Lee, L.-J. (Taipei)
- Prenatal Exposure to the Viral Mimetic Poly I: C Alters Fetal Brain Cytokine Expression and Postnatal Behaviour: Ratnayake, U. (Clayton, Vic./ Parkville, Vic.); Quinn, T.; LaRosa, D.A.; Dickinson, H.; Walker, D.W. (Clayton, Vic.)
- Molecular Changes during Neurodevelopment following Second- Trimester Binge Ethanol Exposure in a Mouse Model of Fetal Alcohol Spectrum Disorder: From Immediate Effects to Long-Term Adaptation: Mantha, K.; Laufer, B.I.; Singh, S.M. (London, Ont.)
- Increased Aggression, Improved Spatial Memory, and Reduced Anxiety-Like Behaviour in Adult Male Mice Exposed to Fluoxetine Early in Life: **Kiryanova**, **V.; Dyck, R.H.** (Calgary, Alta.)

More information at www.karger.com/dne

## KARGER



