

Blast Injury Conference Programme - Day 1

Time	Room A: LT200	Time	Room B: LT500
08:15 - 09:20	Registration and Coffee (foyer)		
09:20 - 09:30	Welcome and housekeeping		
09:30 - 10:10	Plenary 1: Exploiting cell-material interactions for musculoskeletal applications. Molly Stevens, Imperial College London		
10:10 - 10:20	Change over time		
10:20 - 11:30	Session 1A Musculoskeletal injury, injury biomechanics and protection (1) Chairs: Nic Newell and Rob Salzar		Session 1B Biology/physiology of blast Chairs: Neil Eisenstein and Kyle Potter
10:20 - 10:35	Keynote 1A - Clinical implications of blast injury David Weiss, University of Virginia	10:20 - 10:35	Keynote 1B : Traumatic mechanobiology: Dissecting the mechanical loading conditions that lead to molecular responses in mesenchymal stromal cells Sara Rankin, Imperial College London
10:35 - 10:43	Whole body vertical loading verification of calcaneus fracture injury probability Kathryn L Loftis, CCDC DAC	10:35 - 10:43	The application of hexametaphosphate to trauma induced heterotopic ossification in a rodent model Thomas Robinson, University of Birmingham
10:43 - 10:51	Local injury tolerance of the human pelvis in high-rate vertical loading Edward Spratley, University of Virginia	10:43 - 10:51	Investigation of blast effects on wound infection development and antibiotic disposition Vlado Antonic, Walter Reed Army Institute of Research
10:51 - 10:59	Developing blast protection using a validated finite element model of the foot and ankle Eduardo Rebelo, Imperial College London	10:51 - 10:59	TBC
10:59 - 11:07	Restricting lower limb flail is key to preventing fatal pelvic blast injury Iain Rankin, Imperial College London	10:59 - 11:07	The development of exposure guidelines for repeated blast Tim Walilko, Applied Research Associates, Inc.
11:07 - 11:15	Isolated Mil-LX simulating standing Hybrid III for under-body blast Mat Philippens, TNO	11:07 - 11:15	Investigating the functional role of Kif26b in heterotopic ossification Favour Felix Ilemhenbho, Sheffield University
11:15 - 11:30	Questions	11:15 - 11:30	Questions
11:30 - 12:00	Coffee Break (foyer)		
12:00 - 13:10	Session 2A Musculoskeletal injury, injury biomechanics and protection (2) Chairs: Mat Philippens and Rob Salzar		Session 2B Hearing loss Chairs: Andrei Kozlov and Roland Schaeette
12:00 - 12:08	Human injury probability curves of individual lumbar spine vertebrae corresponding to high-rate dynamic compression Dale Robinson, University of Melbourne	12:00 - 12:30	Keynote 2B : Redox homeostasis in noise-induced hearing loss: new mechanisms and therapeutic perspectives Christine Petit, Institute Pasteur
12:08 - 12:16	Development of an adapted lung injury risk criterion for thoracic protective system evaluation against blast loading Johanna Boutillier, French-German Research Institute of Saint-Louis		
12:16 - 12:24	Simulation methodology for occupant injury of armoured vehicles subjected to a mine blast Tim Westerhof, TNO		
12:24 - 12:32	Sizing up blast injury research: A trans-disciplinary evidence-base to maximise impact & relevance Rebecca Brown, Southampton		
12:32 - 12:40	Soft armour for protection against penetrative injury to the extremities George Meek, Imperial College London	12:30 - 12:40	Auditory processing deficits correspond to secondary injuries along the auditory pathway following mild blast induced trauma Emily Han, Purdue University
12:40 - 12:48	Wearable blast sensors for prediction of cumulative brain injury Tim Westerhof, TNO	12:40 - 12:50	An investigation of simulated open field blast-induced damage of the auditory cortex at the level of cells and neural circuits using in vitro and in vivo rat experimental models Michael Bruyns-Haylett, Imperial College London
12:48 - 12:56	How does Defence procure equipment? A combat clothing case study Sarah Anderson, Defence, Equipment and Support	12:50 - 13:00	Hidden hearing loss impacts the neural representation of speech in background noise Roland Schaeette, University College London
12:56 - 13:10	Questions	13:00 - 13:10	Questions
13:10 - 14:00	Lunch Break (foyer)		

Time	Room A: LT200	Time	Room B: LT500
13:10 - 14:00	Lunch Break (foyer)		
14:00 - 14:40	Plenary 2: Blast-related traumatic brain injuries from the wars in Iraq and Afghanistan. David Brody, Uniformed Services University		
14:40 - 14:50	Change over time		
14:50 - 16:00	Session 3A Head and brain injury (1) Chairs: Mazdak Ghajari and David Sharp		Session 3B Clinical and epidemiological aspects of blast injury Chairs: Arul Ramasamy and Ed Spurrier
14:50 - 15:05	Keynote 3A : Exploring the invisible wound: Interface astroglial scarring, a pattern of brain damage unique to blast exposed service members with Prominent persistent behavioural/neurologic symptomatology Daniel Perl, Uniformed Services University	14:50 - 15:05	Keynote 3B : The role of radiology in blast injury Iain Gibb, Royal Army Medical Corps, Portsmouth
15:05 - 15:13	Developing a magnetic resonance imaging (MRI) diagnostic for blast-induced traumatic brain injury Adriana Azor, Imperial College London	15:05 - 15:13	Reconstruction of composite leg defects post war injury during ISIS-related conflict Fadi Ghieh, American University of Beirut
15:13 - 15:21	Patterns of head and neck injury in military vehicle occupants exposed to blast identified from post mortem computerised tomography Emily Ashworth, Imperial College London	15:13 - 15:21	Beyond limb salvage: Institutional trends in limb restoration efforts following blast-related trauma Colin Harrington, Walter Reed National Military Medical Centre
15:21 - 15:29	Monitoring occupational exposures to blast – What have we learned? What are we doing? Walter Carr, Walter Reed Army Institute of Research	15:21 - 15:29	Early management of brachial plexus blast and penetrating injuries Bachar Chaya, American University of Beirut
15:29 - 15:37	Effects of head kinematics and pressure wave transmission on blast induced traumatic brain injury Xiancheng Yu, Imperial College London	15:29 - 15:37	Keeping the torch lit at the US Military's only Level I Trauma Center Joseph Alderete, Brooke Army Medical Centre
15:37 - 15:45	Effects of open field blast overpressure exposure to the brain in a large animal model Colin Teo, National University Hospital, Singapore	15:37 - 15:45	Pattern of upper limb amputation associated with lower limb amputation following blast injury: the UK experience from Iraq and Afghanistan Louise McMenemy, Imperial College London
15:45 - 16:00	Questions	15:45 - 16:00	Questions
16:00 - 16:30	Coffee Break (foyer)		
16:30 - 17:50	Session 4A Head and brain injury (2) Chairs: Mazdak Ghajari and David Sharp		Session 4B Point of wounding and casualty evacuation Chairs: Kirby Gross and Phill Pearce
16:30 - 16:38	A gyrencephalic animal model for blast neurotrauma Cameron 'Dale' Bass, Duke University	16:30 - 16:45	Keynote 4B - Taking a closer look: Comparing combat casualty outcomes over the past century of conflict Jeremy Cannon, University of Pennsylvania
16:38 - 16:46	Computational strain prediction through Finite element modelling predicts the pathophysiological patterns of impact-related experimental Traumatic Brain Injury Cornelius Donat, Imperial College London		
16:46 - 16:54	Potential cause of primary, blast-induced brain injury: direct vs. indirect mechanisms Jaques Reifman, Biotechnology High Performance Software Applications Institute	16:45 - 16:53	Future of combat casualty care Michael Davis, US Army Medical Research & Materiel Command
16:54 - 17:02	Sex-specific differences in rodents following a single blast exposure: focus on the monoamine and galanin systems Lizan Kawa, Karolinska Institute	16:53 - 17:01	CitizenAID and mass casualty preparedness - Awareness, willingness and confidence in university students after a face to face event followed by a social media publicity campaign Ian Pallister, Swansea University Medical School
17:02 - 17:10	Effects of animal orientation on brain responses to primary blast Jaques Reifman, Biotechnology High Performance Software Applications Institute	17:01 - 17:09	Development of life-sized blast injury casualty model for point-of-wounding and damage control training Ian Pallister, Swansea University Medical School
17:10 - 17:18	Studies on different mechanisms for blast TBI Marten Risling, Karolinska Institute	17:09 - 17:17	Homeland Explosive Consequence Assessment Tool (HEXCAT) medical mitigation model: Assessing the benefits of the public health response to an explosive terrorism attack Kevin Wegman, Battelle Memorial Institute
17:18 - 17:26	Xenon improves long-term cognitive function, reduces chronic neurodegeneration and neuroinflammation, and improves survival after traumatic brain injury Robert Dickinson, Imperial College London	17:17 - 17:25	The potential use of the Abdominal Aortic Junctional Tourniquet (AAJT) in a pre-hospital population; a review of requirement, effectiveness and usability Charles Handford, Royal Army Medical Corps
17:26 - 17:34	High-rate strain response predicts histopathological outcomes in a primary blast ferret brain model Matthew Panzer, University of Virginia	17:25 - 17:33	Pre-hospital use of Resuscitative Endovascular Balloon Occlusion of the Aorta Max Marsden, Royal London Hospital
17:34 - 17:50	Questions	17:33 - 17:50	Questions
17:50 -	Drinks Reception (foyer)		

Blast Injury Conference Programme - Day 2

Time	Room A: LT200	Time	Room B: LT500
09:00 - 09:20	Registration and Coffee (foyer)		
09:20 - 10:30	Session 5 Paediatric blast Chair: James Denselow		
09:20 - 09:35	Keynote 5: The global challenge of child conflict injury Kevin Watkins, Save the Children		
09:35 - 09:43	The Paediatric Blast Injury Field Manual Paul Reavley, Bristol Royal Hospital for Children		
09:43 - 09:51	Paediatric blast injury - the challenge of care in low resource environments David Inwald, St Mary's Hospital		
09:51 - 09:59	Paediatric blast radiology - reality and resource Iain Gibb, Royal Army Medical Corps, Portsmouth		
09:59 - 10:07	Stunting and its impact on musculo-skeletal blast injury Michael Berthaume, Imperial College London		
10:07 - 10:15	A strategy for an international trauma registry for child conflict injury Michael von Bertele, King's College London		
10:15 - 10:30	Questions		
10:30 - 11:10	Plenary 3: Conflict Medicine and the "War to end all wars": Rising up to the challenges of protracted conflict Ghassan Abu-Sittah, American University of Beirut		
11:10 - 11:40	Coffee Break		
11:40 - 12:50	Session 6A Civilian/non-combatant blast injury burden Chairs: Shehan Hettiaratchy and Louise McMenemy		Session 6B Rehabilitation and the psychological effects of blast injury Chairs: Jason Wilken and Emily Ashworth
11:40 - 11:55	Keynote 6A: The reverberating effects of Explosive Violence on health care examined - case studies from Syria, Lebanon and Sri Lanka Iain Overton, Action on Armed Violence	11:40 - 11:55	Keynote 6B: My doctors told me I'd never walk again Jon Kendrew, Royal Centre for Defence Medicine
11:55 - 12:03	Blast injury data comparator: From NHS analytics to research lab Andi Orłowski, Imperial College Health Partners	11:55 - 12:03	Proposing a holistic model of recovery Martin Bricknell, King's College London
12:03 - 12:11	Civilian physicians in terror driven MASCAL scenarios - can they perform? An analysis based on the annual report of the German Trauma Registry Sebastian Imach, Krankenhaus Merheim Cologne	12:03 - 12:11	From Soldier to Civilian: Using technology to navigate the maze of transition Peter Le Feuvre, Imperial College London
12:11 - 12:19	Challenges of delivering rehabilitation following blast injury in conflict Peter Skelton, Humanity and Inclusion	12:11 - 12:19	Blast injuries and the psychosocial adjustment to an altered appearance: Exploring how best to support the Armed Forces community Mary Keeling, University of West England
12:19 - 12:27	Medical response in humanitarian demining: More dangerous territory? Paul Ransom, HALO Trust	12:19 - 12:27	"A curious hypochondriac": Blast injury & chronic pain Sarah Dixon-Smith, Imperial College London
12:27 - 12:35	Humanitarian surgery in conflict: Afghanistan, 2009-2014 - the wounding patterns and immediate surgical needs for civilians injured in conflict Laura Maitland, Chelsea and Westminster	12:27 - 12:35	Bone health in transfemoral amputees Joshua Kaufmann, Imperial College London
12:35 - 12:50	Questions	12:35 - 12:50	Questions
12:50 - 13:40	Lunch Break		

Time	Room A: LT200	Time	Room B: LT500
12:50 - 13:40	Lunch Break		
13:40 - 14:20	Plenary 4: <i>Why I don't need to change my socks anymore: life beyond the blast radius</i> Ali Spearing		
14:20 - 15:30	Session 7 Rehabilitation - technology Chairs: Anne Silverman and Chris Nester		
14:20 - 14:35	Keynote 7: <i>Living with extremity trauma and limb loss for a Lifetime: Influences of technology on risk for secondary musculoskeletal complications</i> Brad Hendershot, Walter Reed National Military Medical Centre		
14:35 - 14:43	Early outcomes of the Compress® Transdermal Implant System in transhumeral and transfemoral amputations Jonathan Forsberg, Walter Reed National Military Medical Centre		
14:43 - 14:51	Novel shoe testing system to guide custom orthotic device prescription Jason Wilken, University of Iowa		
14:51 - 14:59	Validation of an FE model for establishing characteristics of a Passive Dynamic Ankle-Foot Orthosis Kirstie Edwards, Imperial College London		
14:59 - 15:07	The burden of transfemoral amputation - computational model for bilateral transfemoral amputees David Henson, Imperial College London		
15:07 - 15:15	Early outcomes of OPRA implants in combat-related transfemoral amputations Jonathan Forsberg, Walter Reed National Military Medical Centre		
15:15 - 15:30	Questions		
15:30 - 15:40	Closing Remarks		