

## Blast Injury Conference Programme - Day 1

Time	Room A: LT200	Time	Room B: LT500
08:30 - 09:20	Registration and Coffee (foyer)		
09:20 - 09:30	Welcome and housekeeping		
09:30 - 10:10	<b>Plenary 1: Exploiting cell-material interactions for musculoskeletal applications.</b> Molly Stevens, Imperial College London		
10:10 - 10:20	Change over time		
10:20 - 11:30	<b>Session 1A Musculoskeletal injury, injury biomechanics and protection (1)</b> Chairs: Nic Newell and Rob Salzar		<b>Session 1B Biology/physiology of blast</b> Chairs: Neil Eisenstein and Kyle Potter
10:20 - 10:35	<b>Keynote 1A - Clinical implications of blast injury</b> David Weiss, University of Virginia	10:20 - 10:35	<b>Keynote 1B : Traumatic mechanobiology: Dissecting the mechanical loading conditions that lead to molecular responses in mesenchymal stromal cells</b> Sara Rankin, Imperial College London
10:35 - 10:43	<b>Whole body vertical loading verification of calcaneus fracture injury probability</b> Kathryn L Loftis, US Army Futures Command, Combat Capabilities	10:35 - 10:43	<b>The application of hexametaphosphate to trauma induced heterotopic ossification in a rodent model</b> Thomas Robinson, University of Birmingham
10:43 - 10:51	<b>Local injury tolerance of the human pelvis in high-rate vertical loading</b> E. Meade Spratley, University of Virginia	10:43 - 10:51	<b>Investigation of blast effects on wound infection development and antibiotic disposition</b> Vlado Antonic, Walter Reed Army Institute of Research
10:51 - 10:59	<b>Developing blast protection using a validated finite element model of the foot and ankle</b> Eduardo Rebelo, Imperial College London	10:51 - 10:59	<b>Blast overpressure model to determine lung injury from simple and complex blast environment</b> Thanyani Pandelani, CSIR Defence and Security
10:59 - 11:07	<b>Restricting lower limb flail is key to preventing fatal pelvic blast injury</b> Iain Rankin, Imperial College London	10:59 - 11:07	<b>The development of exposure guidelines for repeated blast</b> Tim Walilko, Applied Research Associates, Inc.
11:07 - 11:15	<b>Isolated Mil-LX simulating standing Hybrid III for under-body blast</b> Mat Philippens, TNO	11:07 - 11:15	<b>Investigating the functional role of Kif26b in heterotopic ossification</b> 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	<b>Session 2A Musculoskeletal injury, injury biomechanics and protection (2)</b> Chairs: Mat Philippens and Rob Salzar		<b>Session 2B Hearing loss</b> Chairs: Andrei Kozlov and Roland Schaeette
12:00 - 12:08	<b>Human injury probability curves of individual lumbar spine vertebrae corresponding to high-rate dynamic compression</b> Dale Robinson, University of Melbourne	12:00 - 12:30	<b>Keynote 2B : Redox homeostasis in noise-induced hearing loss: new mechanisms and therapeutic perspectives</b> Christine Petit, Institute Pasteur
12:08 - 12:16	<b>Development of an adapted lung injury risk criterion for thoracic protective system evaluation against blast loading</b> Rémy Willinger, University of Strasbourg		
12:16 - 12:24	<b>Simulation methodology for occupant injury of armoured vehicles subjected to a mine blast</b> Tim Westerhof, TNO		
12:24 - 12:32	<b>Sizing up blast injury research: A trans-disciplinary evidence-base to maximise impact &amp; relevance</b> Rebecca Brown, University of Southampton		
12:32 - 12:40	<b>Soft armour for protection against penetrative injury to the extremities</b> George Meek, Imperial College London	12:30 - 12:40	<b>Auditory processing deficits correspond to secondary injuries along the auditory pathway following mild blast induced trauma</b> Emily Han, Purdue University
12:40 - 12:48	<b>Wearable blast sensors for prediction of cumulative brain injury</b> Tim Westerhof, TNO	12:40 - 12:50	<b>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</b> Michael Bruyns-Haylett, Imperial College London
12:48 - 12:56	<b>How does Defence procure equipment? A combat clothing case study</b> Sarah Anderson, Defence, Equipment and Support	12:50 - 13:00	<b>Hidden hearing loss impacts the neural representation of speech in background noise</b> 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	<b>Plenary 2: Blast-related traumatic brain injuries from the wars in Iraq and Afghanistan.</b> David Brody, Uniformed Services University		
14:40 - 14:50	Change over time		
14:50 - 16:00	<b>Session 3A Head and brain injury (1)</b> Chairs: Mazdak Ghajari and David Sharp		<b>Session 3B Clinical and epidemiological aspects of blast injury</b> Chairs: Arul Ramasamy and Ed Spurrier
14:50 - 15:05	<b>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</b> Daniel Perl, Uniformed Services University	14:50 - 15:05	<b>Keynote 3B : The role of radiology in blast injury</b> Iain Gibb, Royal Army Medical Corps, Portsmouth
15:05 - 15:13	<b>Developing a magnetic resonance imaging (MRI) diagnostic for blast-induced traumatic brain injury</b> Adriana Azor, Imperial College London	15:05 - 15:13	<b>Reconstruction of composite leg defects post war injury during ISIS-related conflict</b> Fadi Ghieh, American University of Beirut
15:13 - 15:21	<b>Patterns of head and neck injury in military vehicle occupants exposed to blast identified from post mortem computerised tomography</b> Emily Ashworth, Imperial College London	15:13 - 15:21	<b>Beyond limb salvage: Institutional trends in limb restoration efforts following blast-related trauma</b> Colin Harrington, Walter Reed National Military Medical Centre
15:21 - 15:29	<b>Monitoring occupational exposures to blast – What have we learned? What are we doing?</b> Walter Carr, Walter Reed Army Institute of Research	15:21 - 15:29	<b>Early management of brachial plexus blast and penetrating injuries</b> Bachar Chaya, American University of Beirut
15:29 - 15:37	<b>Effects of head kinematics and pressure wave transmission on blast induced traumatic brain injury</b> Xiancheng Yu, Imperial College London	15:29 - 15:37	<b>Keeping the torch lit at the US Military's only Level I Trauma Center</b> Joseph Alderete, Brooke Army Medical Centre
15:37 - 15:45	<b>Effects of open field blast overpressure exposure to the brain in a large animal model</b> Colin Teo, National University Hospital, Singapore	15:37 - 15:45	<b>Pattern of upper limb amputation associated with lower limb amputation following blast injury: the UK experience from Iraq and Afghanistan</b> Louise McMenemy, Imperial College London
15:45 - 16:00	Questions	15:45 - 16:00	Questions
16:00 - 16:40	Coffee Break (foyer)		
16:40 - 18:00	<b>Session 4A Head and brain injury (2)</b> Chairs: Mazdak Ghajari and David Sharp		<b>Session 4B Point of wounding and casualty evacuation</b> Chairs: Kirby Gross and Phill Pearce
16:40 - 16:48	<b>A gyrencephalic animal model for blast neurotrauma</b> Cameron 'Dale' Bass, Duke University	16:40 - 16:55	<b>Keynote 4B - Taking a closer look: Comparing combat casualty outcomes over the past century of conflict</b> Jeremy Cannon, University of Pennsylvania
16:48 - 16:56	<b>Computational strain prediction through Finite element modelling predicts the pathophysiological patterns of impact-related experimental Traumatic Brain Injury</b> Cornelius Donat, Imperial College London		
16:56 - 17:04	<b>Potential cause of primary, blast-induced brain injury: direct vs. indirect mechanisms</b> Jaques Reifman, Biotechnology High Performance Software Applications Institute	16:55 - 17:03	<b>Future of combat casualty care</b> Michael Davis US Army Medical Research & Materiel Command
17:04 - 17:12	<b>Sex-specific differences in rodents following a single blast exposure: focus on the monoamine and galanin systems</b> Lizan Kawa, Karolinska Institute	17:03 - 17:11	<b>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</b> Ian Pallister, Swansea University Medical School
17:12 - 17:20	<b>Effects of animal orientation on brain responses to primary blast</b> Jaques Reifman, Biotechnology High Performance Software Applications Institute	17:11 - 17:19	<b>Development of life-sized blast injury casualty model for point-of-wounding and damage control training</b> Ian Pallister, Swansea University Medical School
17:20 - 17:28	<b>Studies on different mechanisms for blast TBI</b> Marten Risling, Karolinska Institute	17:19 - 17:27	<b>Homeland Explosive Consequence Assessment Tool (HExCAT) medical mitigation model: Assessing the benefits of the public health response to an explosive terrorism attack</b> Kevin Wegman, Battelle Memorial Institute
17:28 - 17:36	<b>Xenon improves long-term cognitive function, reduces chronic neurodegeneration and neuroinflammation, and improves survival after traumatic brain injury</b> Robert Dickinson, Imperial College London	17:27 - 17:35	<b>The potential use of the Abdominal Aortic Junctional Tourniquet (AAJT) in a pre-hospital population; a review of requirement, effectiveness and usability</b> Charles Handford, Royal Army Medical Corps
17:36 - 17:44	<b>High-rate strain response predicts histopathological outcomes in a primary blast ferret brain model</b> Matthew Panzer, University of Virginia	17:35 - 17:43	<b>Pre-hospital use of Resuscitative Endovascular Balloon Occlusion of the Aorta</b> Max Marsden, Royal London Hospital
17:44 - 18:00	Questions	17:43 - 18:00	Questions
18:00 -	Drinks Reception (foyer)		

## Blast Injury Conference Programme - Day 2

Time	Room A: LT200	Time	Room B: LT500
09:00 - 09:20	Registration (foyer)		
09:20 - 10:30	<b>Session 5 Paediatric blast</b> Chair: James Denselow		
09:20 - 09:35	<b>Keynote 5: The global challenge of child conflict injury</b> Kevin Watkins, Save the Children		
09:35 - 09:43	<b>The Paediatric Blast Injury Field Manual</b> Paul Reavley, Bristol Royal Hospital for Children		
09:43 - 09:51	<b>Paediatric blast injury - the challenge of care in low resource environments</b> David Inwald, St Mary's Hospital		
09:51 - 09:59	<b>Paediatric blast radiology - reality and resource</b> Iain Gibb, Royal Army Medical Corps, Portsmouth		
09:59 - 10:07	<b>Stunting and its impact on musculo-skeletal blast injury</b> Michael Berthaume, Imperial College London		
10:07 - 10:15	<b>A strategy for an international trauma registry for child conflict injury</b> Michael von Bertele, King's College London		
10:15 - 10:30	Questions		
10:30 - 11:10	<b>Plenary 3: Conflict Medicine and the "War to end all wars": Rising up to the challenges of protracted conflict</b> Ghassan Abu-Sittah, American University of Beirut		
11:10 - 11:40	Coffee Break		
11:40 - 12:50	<b>Session 6A Civilian/non-combatant blast injury burden</b> Chairs: Shehan Hettiaratchy and Louise McMenemy		<b>Session 6B Rehabilitation and the psychological effects of blast injury</b> Chairs: Jason Wilken and Emily Ashworth
11:40 - 11:55	<b>Keynote 6A: The reverberating effects of Explosive Violence on health care examined - case studies from Syria, Lebanon and Sri Lanka</b> Iain Overton, Action on Armed Violence	11:40 - 11:55	<b>Keynote 6B: My doctors told me I'd never walk again</b> Jon Kendrew, Royal Centre for Defence Medicine
11:55 - 12:03	<b>Blast injury data comparator: From NHS analytics to research lab</b> Andi Orłowski, Imperial College Health Partners	11:55 - 12:03	<b>Understanding the challenge of recovery for service personnel</b> Peter Le Feuvre, Imperial College London
12:03 - 12:11	<b>Civilian physicians in terror driven MASCAL scenarios - can they perform? An analysis based on the annual report of the German Trauma Registry</b> Sebastian Imach, Krankenhaus Merheim Cologne	12:03 - 12:11	<b>The After Trauma App: Using technology to navigate the maze of transition</b> Karen Hoffman, The Royal London Hospital
12:11 - 12:19	<b>Challenges of delivering rehabilitation following blast injury in conflict</b> Peter Skelton, Humanity and Inclusion	12:11 - 12:19	<b>Blast injuries and the psychosocial adjustment to an altered appearance: Exploring how best to support the Armed Forces community</b> Mary Keeling, University of West England
12:19 - 12:27	<b>Medical response in humanitarian demining: More dangerous territory?</b> Paul Ransom, HALO Trust	12:19 - 12:27	<b>"A curious hypochondriac": Blast injury &amp; chronic pain</b> Sarah Dixon-Smith, Imperial College London
12:27 - 12:35	<b>Humanitarian surgery in conflict: Afghanistan, 2009-2014 - the wounding patterns and immediate surgical needs for civilians injured in conflict</b> Laura Maitland, Chelsea and Westminster	12:27 - 12:35	<b>Bone health in transfemoral amputees</b> 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	<b>Plenary 4: <i>Why I don't need to change my socks anymore: life beyond the blast radius</i></b> Ali Spearing		
14:20 - 15:30	<b>Session 7 Rehabilitation - technology</b> Chairs: Anne Silverman and Chris Nester		
14:20 - 14:35	<b>Keynote 7: <i>Living with extremity trauma and limb loss for a Lifetime: Influences of technology on risk for secondary musculoskeletal complications</i></b> Brad Hendershot, Walter Reed National Military Medical Centre		
14:35 - 14:43	<b>Early outcomes of the Compress® Transdermal Implant System in transhumeral and transfemoral amputations</b> Jonathan Forsberg, Walter Reed National Military Medical Centre		
14:43 - 14:51	<b>Novel shoe testing system to guide custom orthotic device prescription</b> Jason Wilken, University of Iowa		
14:51 - 14:59	<b>Validation of an FE model for establishing characteristics of a Passive Dynamic Ankle-Foot Orthosis</b> Kirstie Edwards, Imperial College London		
14:59 - 15:07	<b>The burden of transfemoral amputation - computational model for bilateral transfemoral amputees</b> David Henson, Imperial College London		
15:07 - 15:15	<b>Early outcomes of OPRA implants in combat-related transfemoral amputations</b> Jonathan Forsberg, Walter Reed National Military Medical Centre		
15:15 - 15:30	Questions		
15:30 - 15:40	Closing Remarks		