Day 3 (Friday, May 11)

**Session 11: New Therapies**

**Chair**

**9:00-9:20**

Enhancement of motor function recovery in mice by delivery of mRNA nanomicelles encoding brain derived neurotrophic factor

S. T. Crowley¹,², K. Kataoka², K. Itaka¹,²

¹Tokyo Medical and Dental University (Japan),
²Kawasaki Institute of Industrial Promotion (Japan)

**9:20-9:40**


A. Horiguchi¹, M. Shiuchi¹, A. Masunaga¹, K. Ojima¹, K. Ito¹, T. Asano¹, Y. Mayumi²,
T. Kushibiki³, R. Azuma³

¹Dept. Urology, National Defense Medical College (JAPAN),
²Dept. Medical Engineering, National Defense Medical College (JAPAN),
³Dept. Plastic Surgery, National Defense Medical College (JAPAN)

**9:40-10:00**

Radionuclide decorporation therapy: The “urgent approach” versus the “precautionary approach” (Invited)

A. Rump¹, D. Stricklin², A. Lamkowski¹, S. Eder¹, M. Abend¹, M. Port¹

¹Bundeswehr Institute of Radiobiology affiliated to the University of Ulm, Munich (Germany),
²Applied Research Associates Inc. (USA)

**Session 12: Microbiome and Infection**

**Chair**

**10:00-10:20**

Potential microbiome signatures to discriminate features associated with TBI vs. psychological stress (Invited)

A. Gautam¹, R. Hammamieh¹, J. C. DeMar², N. Chakraborty³, R. Kumar⁴, A. Hoke⁵,
J. G. Rosenberger², A. B. Batuure², D. J. Bloodgood³, D. M. Wilder³, V. Sajja², M. Jett¹,
J. B. Long³

¹US Army Center for Environmental Health and Research (USA),
²Walter Reed Army Institute of Research (USA),
³The Geneva Foundation (USA),
⁴Advanced Biomedical Computing Center, FNLCR (USA), ⁵ORISE, ISB, USACEHR (USA)

**10:20-10:40**

Receptor desensitization by mitochondrial DAMPs may play a key role in the development of nosocomial pneumonia after trauma (Invited)

K. Itagaki¹, W. Y. Kwon¹,², C. J. Hauser¹

¹Beth Israel Deaconess Medical Center/Harvard Medical School (USA),
²Seoul National University College of Medicine (Korea)

**10:40-10:55**

Coffee Break

**10:55-11:15**

Progress toward understanding the interplay between blast injury and wound infections (Invited)

D. V. Zurawski, V. Antonic, S. Singh, Y. Alamneh, A. C. Jacobs, R. M. Reddinger, J. P. Shearer,
S. D. Tyner, S. T. Demons

Walter Reed Army Institute of Research (USA)

**11:15-11:35**

Blast trauma wound infection epidemiology and microbiology (Invited)

D. R. Tribble¹, A. Ganesan¹,², K. Mende³,⁴, L. Stewart¹²

¹Uniformed Services University of the Health Sciences (USA),
²Henry M. Jackson Foundation for the Advancement of Military Medicine, Inc. (USA),
³Walter Reed National Military Medical Center (USA),
⁴Brooke Army Medical Center, JBSA Fort Sam Houston (USA)
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| 11:35-11:50  | Medical countermeasure for post-traumatic immunosuppression and susceptibility of infection | M. Kinoshita  
Dept. Immunology and Microbiology, National Defense Medical College (Japan)                  |
| 11:50-12:50  | Lunch                                                                |                                                   |
| 12:50-13:20  | Keynote 2                                                            | Chair  
Innovation in military medicine and collaboration  
G. Ludwig  
US Army Medical and Materiel Command (USA) |
| 13:20-13:40  | Session 13: Clinical and Epidemiological Studies (2)                 | Chair  
Effects of blast overpressure exposure during military and law enforcement training: Neurocognitive performance, blood-based biomarkers, and acoustic sensor results (Invited)  
G. H. Kamimori, A. M. Boutte, T. J. O'Shaughnessy, C. R. LaValle, S. V. Sajja, Y. Chen, A. Bagchi  
1Walter Reed Army Institute of Research (USA), 2U.S. Naval Research Laboratory (USA) |
| 13:40-14:00  | Changes in self-reported neurobehavioral symptoms in relation to measurement of blast overpressure on service members involved in combat training (Invited) | J. M. Bailie, S. Win, T. Walliko, I. Babakhanyan, W. Graves, G. Hoyt, P. Sargent, J. Duckworth  
1Defense and Veterans Brain Injury (USA), 2Naval Hospital Camp Pendleton (USA), 3Applied Research Associates (USA), 4Henry M. Jackson Foundation (USA), 5Naval Special Warfare (USA), 6John Hopkins University (USA), 7Uniformed Services University (USA) |
| 14:00-14:20  | Impact of blast overpressure from recoilless rifles on neurobehavioral functioning of military service members (Invited) | J. M. Bailie, S. Win, T. Walliko, I. Babakhanyan, W. Graves, G. Hoyt, P. Sargent, J. Duckworth  
1Defense and Veterans Brain Injury (USA), 2Naval Hospital Camp Pendleton (USA), 3Applied Research Associates (USA), 4Henry M. Jackson Foundation (USA), 5Naval Special Warfare (USA), 6John Hopkins University (USA), 7Uniformed Services University (USA) |
| 14:20-14:35  | Coffee Break                                                         |                                                   |
Naval Health Research Center (USA) |
1Navy Trauma Training Center + USC Medical Center (USA), 2University of Southern California (USA), 3Uniformed Services University of the Health Sciences, USA |
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<tr>
<td>15:15-15:35</td>
<td>Force preservation through individual blast exposure surveillance <em>(Invited)</em>&lt;br&gt;D. Borkholder, S. Featherman, K. Sims&lt;br&gt;BlackBox Biometrics, Inc. (USA)</td>
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<td>15:35-16:05</td>
<td>Open Discussion</td>
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<td>16:05-16:15</td>
<td>Closing Remarks</td>
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