# **Final Announcement**



# The 2<sup>nd</sup> Japan-US Technical Information Exchange Forum on Blast Injury (JUFBI 2017)

April 14<sup>th</sup> (Fri) – 16<sup>th</sup> (Sun), 2017

Hotel Grand Hill Ichigaya, Tokyo, Japan

# **Objective and Scope**

In recent years, attacks using explosive devices have been occurring frequently not only in battle fields and regions of conflict but also in normal cities, resulting in a large number of victims of blast injuries. The number of patients diagnosed as having mild blast-induced traumatic brain injury (mild bTBI), who show higher order brain dysfunction but do not show any abnormalities by conventional diagnostic imaging methods, has been greatly increasing. It has been pointed out that mild bTBI may be associated with post-traumatic stress disorder (PTSD) and other neurodegeneration and related pathologies, such as chronic traumatic encephalopathy (CTE). However, the complex causes and environments and hence the intricate clinical consequences make it difficult to understand the mechanism and pathophysiology of blast injuries.

On the basis of the injury mechanism, blast injuries can be assigned to several categories. Primary injury results from the blast itself; blast overpressure (shock wave) can cause internal injuries, a unique feature of blast injury that is thought to be related to mild bTBI. Secondary injury is caused by fragments and debris propelled by the blast force, resulting in blunt and penetrating injuries. The blast winds can also cause acceleration of the body, resulting in blunt force injuries similar to those caused by car accidents and falls (tertiary injury). In addition, heat, light and toxic gases generated by explosions can cause burn injury, blindness and inhalation injury (quaternary injury). The clinical consequences of post-detonation environmental contaminants, including bacteria, radiation (dirty bombs), and fuel and metals causing tissue reactions, are also involved (quinary injury). To investigate and establish methods for protection against and medical countermeasures to such complex blast injuries, international and cross-disciplinary collaboration is important.

To bring together broad knowledge and expertise and to share national experiences and evidence-based approaches for blast injuries, the 1<sup>st</sup> Japan-US Technical Information Exchange Forum on Blast Injury (JUFBI 2016) was held in June, 2016 in Tokyo. There were nearly 40 papers and more than 100 participants, and there was very active and fruitful discussion on the wide spectrum of blast injuries. Following the successful 1<sup>st</sup> meeting, the 2<sup>nd</sup> Japan-US Technical Information Exchange Forum on Blast Injury (JUFBI 2017) will be held from April 14 to 16, 2017 in Tokyo. The objectives of the 2<sup>nd</sup> Forum are not limited to but focus on:

- a. Assemble a Japan-US forum focused on multi-disciplinary science and medicine necessary to increase our understanding of blast injury.
- b. Achieve a mutual understanding of US/Japan efforts in blast injury research
- c. Identify knowledge gaps requiring collaborative research
- d. Increase understanding and collaborate to improve prevention, clinical diagnosis and treatment of brain, lung and auditory blast injuries.

The meeting agenda includes the following broad topic areas:

- 1) Blast injury epidemiology brain (mTBI), lung and ear injuries; blast energy/physics; IED blast injuries
- 2) Primary blast injury:
  - a. Lung
  - b. Brain
  - c. Ear (Auditory)
- 3) Prevention/Protection/Mitigation:
  - a. Lessons learned from military operations
  - b. Prevention practices e.g., psychological resilience
  - c. Biomedical design criteria for protection (head, lung, ear)
  - d. Clinical current practices, interventions, neurosurgeries, etc.
- 4) Diagnosis Assessment of injury severity (mild, moderate, severe)
- 5) New Technology and methods for blast injury research:
  - a. Imaging technology
  - b. Optogenetics
  - c. Computer-based analysis

Contributions from countries other than Japan and the US as well as from young investigators are welcome.

# **General Information**

#### Meeting Title:

The 2<sup>nd</sup> Japan-US Technical Information Exchange Forum on Blast Injury (JUFBI 2017)

# Organized by:

National Defense Medical College Japan (NDMC)Tokyo University of Agriculture and Technology (TUAT)U.S. Army, Medical Research and Materiel Command (USAMRMC)U.S. Army, Research Development and Engineering Command (RDECOM)

### **Important Dates:**

Abstract submission deadline: March 20 (Monday) Deadline of participation registration: April 5 (Wednesday) JUFBI 2017: April 14 (Friday) - 16 (Sunday), 2017 A closed meeting for members will be held on April 17 (Mon), 2017

#### Venue:

Hotel Grand Hill Ichigaya, Room "Sango" (3<sup>rd</sup> floor) 4-1 Ichigaya-Honmuracho, Shinjuku-ku , Tokyo 162-0845, Japan +81 3-3268-0111 http://www.ghi.gr.jp/en/access/

#### **Registration:**

Registration deadline is April 5, 2017. Pre-registration is required. Absolutely No "On-Site" registration. Registration is free of charge. Please complete the attached registration sheet and submit to Dr. Kyungho Park (for the US participants) or Prof. Shunichi Sato (for Japanese participants).

# **Keynote and Tutorial Lectures:**

Keynote 1 "Decoded neurofeedback and its possible application to PTSD therapy" Dr. Mitsuo Kawato (Advanced Telecommunications Research Institute International)

#### Keynote 2

"Framework for modeling and simulation of human lethality,

injury, and impairment from blast-related threats" Mr. Michael J. Leggieri (DoD Blast Injury Research PCO, USAMRMC)

# Tutorial 1

"Clinical aspects of traumatic brain injury"

Prof. Masaru Mimura (Keio University School of Medicine)

# Tutorial 2

"Blast Shock tube and animal research" Prof. Namas Chandra (New Jersey Institute of Technology)







#### **Get-Together and Conference Dinner:**

Join the get-together and conference dinner for more exciting discussion and communication! Please pay the fees by cash (JPY or USD) on site at the conference registration desk. <u>No</u> credit card is accepted.

Get-Together:

17:30- April 14 (Fri) at Fukunohana (Japanese restaurant)
JPY 4,500 or USD 40
Conference Dinner:
17:30.- April 15 (Sat) at
JPY 7,000 or USD 60

#### **Publication:**

The Forum Proceedings containing a record of presentations (presentation slides) will be published in the form of a DVD.

#### **Meeting Organization Committee:**

General Chair: Mr. Michael Leggieri (USAMRMC, USA) General Co-chairs: Prof. Daizoh Saitoh (NDMC, Japan) Program Chair: Dr. Raj Gupta (USAMRMC, USA) Program Co-Chair: Prof. Shunichi Sato (NDMC, Japan) Members: Prof. Nariyoshi Shinomiya (NDMC, Japan) Mr. Yasushi Yanagi (NDMC, Japan) Dr. Masaki Takeda (ATLA, Japan) Dr. Keisuke Fujii (ATLA, Japan) Prof. Izumi Nishidate (TUAT, Japan) Dr. Shashi Karna (US Army RDECOM, ARL, USA) Dr. Richard Shoge (USAMRMC, USA) Dr Alicia T Crowder (USAMRMC, USA) Dr. Kyungho Park (US Army RDECOM, ITC-PAC, USA) Access:



# **Partners and Sponsors**



#### **Meeting Secretaries:**

Shunichi Sato (NDMC), Izumi Nishidate (TUAT) Raj Gupta (USAMRMC), Kyungho Park (ITC-PAC)

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