

Medical Countermeasures against Combined Injury: Radiation with Burn, Blast, Trauma and/or Sepsis *Agenda*

March 26 - 27, 2007

Division of Allergy, Immunology and Transplantation (DAIT),
National Institute of Allergy and Infectious Diseases (NIAID)
National Institutes of Health (NIH)

Embassy Suites Hotel at the Chevy Chase Pavilion
4300 Military Road, NW
Washington D.C.

Day 1: Monday, March 26, 2007

- 8:00 a.m. Arrival/Sign In/Refreshments
- 8:30 a.m. **Welcome and Goals of the Meeting**
Dr. Narayani Ramakrishnan, DAIT, NIAID, NIH, Bethesda, MD
- 8:35 a.m. **Opening Remarks**
Dr. Richard Hatchett, DAIT, NIAID, NIH, Bethesda, MD
- 8:40 a.m. Medical Requirements for 10KT Detonation Model
Dr. Carl Curling, Institute for Defense Analyses, Alexandria, Virginia
- 9:10 a.m. Discussion
- 9:20 a.m. Overview of the Combined Injury: Radiation in Combination with Trauma, Infectious Disease,
or Chemical Exposure
Dr. Terry Pellmar, Armed Forces Radiobiology Research Institute, Uniformed Services
University of the Health Sciences, Bethesda, MD
- 9:50 a.m. Discussion
- 10:00 a.m. **BREAK**
- 10:15 a.m. Combined Radiation Injuries after the Chernobyl Accident:: Management, Outcome & Lessons
Learned
Dr. Alla Shapiro, Office of Counter-Terrorism and Emergency Coordination, Center for Drug
Evaluation and Research, Food and Drug Administration
- 10:45 a.m. Discussion



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- 10:55 a.m. Study on the Protection and Mechanism of Cervical Sympathetic Block (SB) on Combined Radiation and Burn Injury in Rats
Dr. Yongping Su, Institute of Combined Radiation Injury, Chongqing, China
- 11:25 a.m. Discussion
- 11:35 a.m. Advancements on Understanding the Key Questions of Radiation Combined Injuries
Dr. Zhongmin Zou, Institute of Combined Radiation Injury, Chongqing, China
- 12:05 p.m. Discussion
- 12:15 p.m. **LUNCH**
- 1:15 p.m. Factors Affecting the Outcomes of Sepsis
Dr. Peter Ward, University of Michigan Health Systems, Ann Arbor, Michigan
- 1:45 p.m. Discussion
- 1:55 p.m. The Impact of Burn Injury on Inflammatory and Immunologic Functions: Clinical and Experimental Perspectives
Dr. Martin Schwacha, University Alabama at Birmingham, Alabama
- 2:25 p.m. Discussion
- 2:35 p.m. Current Concepts in the Triage with Early Management of Combined Injuries (Trauma/Burns and Accidental Exposure to Ionizing Radiation)
Dr. Erwin F. Hirsch, Boston University Medical Center, Boston, MA
- 3:05 p.m. Discussion
- 3:15 p.m. **BREAK**
- 3:30 p.m. Effects of Radiation and Traumatic Brain Injury on Hippocampal Neurogenesis
Dr. John Fike, Comprehensive Cancer Center, University of California, San Francisco, CA
- 4:00 p.m. Discussion
- 4:10 p.m. Radiation Effects: Research at FOI - Proteomic Studies of Radiation Response
Dr. Daniela Stricklin, Swedish Defense Research Agency, Sweden



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4:40 p.m. Discussion

4:50 p.m. **ADJOURN**

Day 2: Tuesday, March 27, 2007

8:00 a.m. Arrival/Refreshments

8:30 a.m. Combined Injury in Radiation Threat Environments and Countermeasure Evaluations
Dr. David Ledney, Armed Forces Radiobiology Research Institute, Uniformed Services
University of the Health Sciences, Bethesda, MD

9:00 a.m. Discussion

9:10 a.m. Countermeasures for Radiation-Induced Skin Injury
Dr. Paul Okunieff, University of Rochester Medical Center, Rochester, NY

9:40 a.m. Discussion

9:50 a.m. Targeting Endothelial Dysfunction as Countermeasure against Combined Injury
Dr. Martin Hauer-Jensen, University of Arkansas for Medical Sciences, Arkansas Cancer
Research Center, Little Rock, AR

10:20 a.m. Discussion

10:30 a.m. **BREAK**

10:45 a.m. Potential New Pharmaceutical Agents for Accelerating Wound Healing and for the Prevention
and Reduction of Scarring
Professor Mark Ferguson, University of Manchester, UK

11:15 a.m. Discussion

11:25 a.m. Thrombin Peptide TP508, More Than Just a Tissue Repair Factor: Can its Effects on
Endothelial Dysfunction Offer Protection from Blast and Radiation Injury?
Dr. Darrel Carney, University of Texas Medical Branch, Galveston, TX

11:55 a.m. Discussion



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12:05 p.m. **LUNCH**

1:05 p.m. Cutaneous Radiation Syndrome and Radiation-Induced Multi-Organ-Involvement
Dr. Harald Dörr, Bundeswehr Institute of Radiobiology, Munich, Germany

1:45 p.m. Discussion

1:55 p.m. **BREAK**

2:15 p.m. GENERAL DISCUSSION (Moderators: Dr. Ramakrishnan & Dr. Hatchett)
Topics for consensus:

Animal models for countermeasure development to treat combined injury: current models and future research

What are the endpoints to be studied?

Characterize the salient features of, and identify research priorities that need to be addressed for, the following types of "combined injury":

- Radiation + Sepsis
- Radiation + Burn
- Radiation+ Wound
- Radiation + Burn + Wound

What countermeasures are available? What are the future directions?

Triage and treatment decisions following combined injury (radiation dose vs. injury)

4:30 p.m. **WORKSHOP ADJOURNED**

