Delayed and Late Effects of Acute Radiation Exposure

Agenda

November 14 & 15, 2016

Radiation and Nuclear Countermeasures Program (RNCP)
Division of Allergy, Immunology and Transplantation (DAIT)
National Institute of Allergy and Infectious Diseases (NIAID)
National Institutes of Health (NIH)

Conference Room 1D13
5601 Fishers Lane, Rockville, MD 20852

Day One

7:00 a.m.  
Arrival/Sign In

8:00 a.m.
Welcome and Goals of the Meeting
Lanyn P Taliaferro, PhD – RNCP, DAIT, NIAID, NIH

8:10 a.m.
RNCP Scope & Mission
Charles Hackett, PhD – DAIT Deputy Director/RNCP Acting Associate Director

8:15 a.m.
Opening Remarks; Late Effects and Medical Management
John Koerner, MPH, CIH – Chief, CBRNE Branch PREP Division HHS, OS, ASPR

SESSION 1: Clinical overview “The Human Condition”: non-cancerous late effects

Moderator: Viktor Meineke

9:00 a.m.  
Overview of Different Stages of ARS (Acute, Delayed, Late, Emphasis on Day 30-180)
Viktor Meineke MD, Ph.D – Technical University of Munich/International Scientific Consulting, Germany

9:45 a.m.  
Late Health Effects in Chernobyl ARS Survivors and Issues of Medical Follow-up of Over-exposed Persons
Zhanat Carr, MD – World Health Organization

10:30 a.m.  
BREAK*

10:45 a.m.  
Immunological Alterations and Other Radiation Effects among A-bomb Survivors
Yoichiro Kusunoki, PhD – Radiation Effects Research Foundation

11:30 a.m.  
Q&A Session
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12:00 p.m.  
*LUNCH*

**SESSION 2: Small animal models: Organ-specific Injuries**  
*Moderator: Christie Orschell, PhD - Indiana University and Cath Booth, PhD - Epistem*

1:00 p.m.  
Hematopoietic-ARS Late Effects: Residual Bone Marrow Damage (RBMD)  
Christie Orschell, PhD – Indiana University

1:30 p.m.  
Sub-threshold Late Effects after H-ARS: Multiple Organ Injury  
Joseph L. Unthank, PhD – Indiana University

2:00 p.m.  
Delayed (prolonged) GI System Injury  
Cath Booth, PhD – Epistem Ltd.

2:30 p.m.  
**BREAK***

2:45 p.m.  
Radiation-Induced Lung Injury: Natural History and Molecular Mechanisms of Disease Progression  
Isabel L. Jackson, PhD – University of Maryland School of Medicine

3:15 p.m.  
Biomarkers for Delayed Effects of Acute Radiation Exposure (DEARE) in Rats  
Meetha M Medhora, PhD – Medical College of Wisconsin

3:45 p.m.  
Panel Discussion

4:45 p.m.  
Wrap-up

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**Day Two**

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**SESSION 3: Large animal models: Organ-specific Injuries**  
*Moderator: Tom MacVittie, PhD- University of Maryland Baltimore & Mark Cline, PhD - Wake Forest*

8:00 a.m.  
Opening Remarks and Day 1 Summary  
Merriline Satyamitra, PhD – RNCP, DAIT, NIAID, NIH

8:10 a.m.  
Bridging the Gap: radiation nephropathy in small and large animals  
Eric P. Cohen, MD – University of Maryland School of Medicine

8:35 a.m.  
Long Term Effects of Radiation Exposure on the Gastrointestinal System in Nonhuman Primates  
Kim Hankey, PhD – University of Maryland School of Medicine
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9:00 a.m. The Prolonged Effects of Severe Irradiation on Immune Cell Reconstitution in Rhesus Macaques
Ann M. Farese, PhD – University of Maryland School of Medicine

9:25 a.m. Linking the ARS and DEARE: Medical Countermeasures and Concurrent Multiple Organ Injury (MOI) in the NHP
Thomas J. MacVittie, PhD – University of Maryland School of Medicine

9:55 a.m. Multisystemic Late Effects of Radiation Exposure in Nonhuman Primates
J. Mark Cline, DVM PhD – Wake Forest School of Medicine

10:20 a.m. BREAK*

10:35 a.m. Identifying and Validating Biomarkers for Delayed Effects of Acute Radiation Exposure
Maureen Kane, PhD – University of Maryland School of Pharmacy

11:00 a.m. Long Term Late Effects and Biomarkers in the Minipig
Maria Moroni, PhD – Armed Forces Radiobiology Research Institute

11:25 a.m. Q&A Session/Discussion

12:00 p.m. LUNCH *

SESSION 4: Case Studies: “The Human Condition”
Moderator: Ann A. Jakubowski, MD, PhD – Memorial Sloan Kettering Cancer Center

1:00 p.m. Case Study: Potential Late Effects of Fukushima - Lessons Learned
Pat Zanzonico, PhD – Memorial Sloan Kettering Cancer Center

1:45 p.m. Case Study: Y-12 Criticality Accident (1958)
Carol Iddins, MD – Oak Ridge Institute for Science and Education

2:30 a.m. Q &A/Open Discussion

3:15 p.m. Closing Remarks: Meeting Overview and Wrap-up
David Cassatt, PhD – RNCP, DAIT, NIAID, NIH

4:00 p.m. Meeting Adjourned

*The building cafeteria will be open for purchase of snacks, beverages and lunch