WEDNESDAY JULY 31ST

9.00 – 9.05am Welcome and Introduction
   Nelson Chao (Duke University)

9.05 – 9.45am Keynote Address: Preparedness and Response to Radiation:
   Daniel Sosin (Centers for Disease Control)

9.45 – 10.30am Possible Radiological Scenarios:
   John Crapo (Oak Ridge Institute for Science and Education)

10.30 – 10.50am Coffee Break

10.50 – 11.20am Casualty Triage and Distribution:
   C. Norman Coleman (DHHS/ASPR)

11.20 – 11.50am The Local Response:
   Adela Salame-Alfie (NY State Department of Public Health)

LUNCH: 11.50am – 12.40pm

12.40 – 1:10pm The RITN Response to Radiological Scenarios:
   David Weinstock (Harvard University)

1.10 – 1.50pm Emergency Management from the CMCR perspective:
   Joel Greenberger (University of Pittsburgh)

1.50 – 2.40pm Animal Models of Radiation Damage and Confounders:
   Jacqueline Williams (University of Rochester) & Tom MacVittie (University of Maryland)

2.40 – 3.00pm Coffee Break

3.00pm – 4.45pm Workshop 1: Biodosimetry and Biomarkers - Assessing the Need. (CME event)
Short Presentations (15 minutes each) and Panel Discussion (30 minutes):

MODERATOR - David Brenner (Columbia University)

1. David Brenner (Columbia University): Why biodosimetry?

2. Bob Terbrueggen (DxTerity Diagnostics Inc.): High throughput multiplexed gene expression
   biodosimetry from a drop of blood

   of early- and late-effects of radiation exposure in the mouse model

4. Naduparambil Jacob (Ohio State University): Development of a panel of miRNA biomarkers for
   radiation dose estimation

5. Helen Turner (Columbia University): The RABiT: Ultra-high throughput biodosimetry and beyond

5.15pm – 7.30pm Welcome Reception
THURSDAY AUGUST 1ST

8.30 – 9.00am The Challenge underlying Radiation Mitigation:
   Nelson Chao (Duke University)

9.00 – 9.30am Mitigation Strategies:
   André Gudkov (Roswell Park Cancer Center)

9.30 – 10.00am Coffee Break

10.00 – 11.45am Workshop 2: Small Molecule Radiation Mitigators: (CME event)

Short Presentations (15 minutes each) and Panel Discussion (30 minutes):
MODERATOR - William McBride (University of California – Los Angeles)

8. James Palis (University of Rochester): PGE2 mitigates the megakaryocyte lineage following sublethal radiation injury
9. Paul Okunieff (University of Florida): FGF-P promotes bone marrow recovery after irradiation
10. William McBride (University of California – Los Angeles): 4-Nitrophenylsulfonamides as mitigators of hematopoietic radiation damage

LUNCH: 11.45pm – 1.00pm

1.00pm – 2.45pm Workshop 3: Ligand-receptor Pathways Involved in Mitigation: (CME event)

Short Presentations (15 minutes each) and Panel Discussion (30 minutes):
MODERATOR – John Chute (Duke University)

11. Christine Barbon (Harvard University): A combination with oral enrofloxacin and rBPI21 markedly increases survival of irradiated animals and provides significant amelioration of acute hematopoietic syndrome
12. Diana Marquez-Garban (University of California – Los Angeles): Development of estrogen receptor-beta ligands as medical radiation mitigators
13. Andrei Gudkov (Roswell Park Cancer Center): Randomized, blinded placebo-controlled GLP/GCP study validates efficacy of Toll-like receptor 5 agonist Entolimod (CBLB502) as a mitigator of lethal radiation injury in 179 non-human primates
15. Zoya Gluzman-Poltorak (Neumedicines): Recombinant human interleukin-12 (rHuIL-12) increases survival in mice and non-human primates

2.45 – 3.15pm Coffee Break
3.15 – 5.00pm **Workshop 4: Cell Replacement Approaches for Radiation Mitigation: (CME event)**

Short Presentations (15 minutes each) and Panel Discussion (30 minutes):

**MODERATOR - Chandan Guha (Albert Einstein College)**

16. **John Chute** *(Duke University)*: Radiation Induces Expression of Growth Factor Receptor-Bound Protein 10 (Grb10) Expression in Hematopoietic Stem Cells

17. **Jason Butler** *(Weill Cornell Medical College)*: Endothelial cell transplantation for mitigation of life-threatening radiation-induced hematopoietic suppression

18. **Chandan Guha** *(Albert Einstein College)*: Macrophage-derived regenerative factors in the mitigation of radiation induced gastrointestinal syndrome

19. **Kei Iwamoto** *(University of California – Los Angeles)*: Correction of Radiation-Induced Skin Wound Healing Deficits with Marrow-Derived Mesenchymal Cells

20. **Benny Chen** *(Duke University)*: Delayed wound healing after whole body irradiation is reversed by bone marrow transplantation

5.30 – 7.00pm **Poster Session and Reception (light refreshments)**

**Poster Presentations Include:**

| P1.1 | Bolduc, David | AFRRI | Testing Radiation-Injury Estimation Algorithms using Blood Parameters from a Nonhuman Primate Model: A Pilot Study |
| P1.2 | Dainiak, Nicholas | Yale University | Correlation of nuclear abnormalities in myeloid cells with estimated whole-body dose of radiation received during the Y-12 criticality accident |
| P1.3 | DeBenedetto, Anna | University of Rochester | Individuals With Impaired Skin Barrier Function May Be A Vulnerable Population For Radiation Damage |
| P1.4 | Schaue, Dorte | UCLA | Autofluorescence as a tool to monitor radiation exposure and mitigation |
| P1.5 | Shaowen Hu | NASA | Modeling the blood cell kinetics following radiation exposure–potential use for dose assessment |
| P1.6 | Vidyasagar, Sadasivan | University of Florida | Anoctamin 1: A potential marker for radiotoxicity |
| P2.1 | Cacalano, Nicholas | UCLA | Screen for radiation mitigators that act through the STAT3 pathway |
| P2.2 | Chen, Benny | Duke University | A novel nanoparticle platelet analogue mitigates radiation-induced thrombocytopenia. |
| P2.3 | Danilova, Nadia | UCLA | Zebrfish model for the evaluation and mechanistic studies of radio-mitigators. |
| P2.5 | Lento, William | Duke University | Loss of beta catenin triggers oxidative stress and impairs hematopoietic stem cell regeneration in vivo |
| P3.1 | Cline, Mark | Wake Forest University | Determination of an optimal subcutaneous dose of MnTnHex-2-PyP5+ in Non-Human Primates |
| P3.2 | Gluzman-Poltorak, Zoya | Neumedicines | Enhanced recovery from radiation-induced neutropenia and thrombocytopenia in rHuIL-12-treated NHPs |
| P3.3 | Medhora, Meetha | Medical College of Wisconsin | Histological marker for delayed radiation injury to the lung |
| P3.4 | Ting, Jenny | Duke University | Inflammation and Radiation-Induced Injury |
| P3.5 | Karsunky, Holger | Cellarer Therapeutics | Development of CLT-008, a novel universal myeloid cell therapeutic for the treatment of neutropenia caused by exposure to radiation |
| P4.1 | Chute, John | Duke University | Bone Marrow Endothelial Cell-Derived Mitigators of Radiation Sickness |
| P4.2 | Quarmyne, Mamle | Duke University | Protein Tyrosine Phosphatase Sigma (PTPS) Regulates Hematopoietic Stem Cell (HSC) Differentiation and PTPS (-) cells are highly enriched for HSCs |
| P5.1 | Calvi, Laura | University of Rochester | Long term hematopoietic stem cell dysfunction following low dose sublethal radiation injury |
| P5.2 | Lee, Chang-Lung | Duke University | The tumor suppressor p53 acts during total-body irradiation to promote clonal expansion of thymic lymphomas with dysregulated Notch signaling |
| P5.3 | Lento, William | Duke University | Long-term effects of total body irradiation (TBI) in the hematopoietic compartment of non-human primates (NHP). |
| P5.4 | Mahmood, Javed | University of Toronto | Targeting the renin-angiotensin system combined with an antioxidant mitigates radiation-induced lung damage |
| P5.5 | Jackson, Isabel | University of Maryland | MnTnHex-2-PyP5+ exerts a protective role on irradiated lung tissues through regulation of PTEN signaling |
FRIDAY AUGUST 2nd

8.30 – 10.15am Workshop 5: Mitigation and Treatment of Late Effects: (CME event)
Short Presentations (15 minutes each) and Panel Discussion (30 minutes):
MODERATOR - Jacqueline Williams (University of Rochester)

21. William McBride (University of California – Los Angeles): Late effects of hematopoietic damage
22. Julie Ryan (University of Rochester): Combined radiation skin injury is reduced by local administration of tetrahydrocurcumin or IL-12
23. Isabel Jackson (University of Maryland): Development and refinement of murine model(s) of radiation pneumonitis/fibrosis to link with non-human primate and human pulmonary responses to radiation
24. Mark Cline (Wake Forest University): Multisystemic Late Effects of Radiation Injury in Nonhuman Primates
25. Jacob Finkelstein (University of Rochester): Lung irradiation increased susceptibility to infection with influenza A virus and impaired the ability to complete recovery

10.15 – 10.45am Coffee Break

10.45 – 12.30pm Identification of the Grand Challenges in Radiation Mitigation and Treatment
MODERATOR: William McBride (University of California – Los Angeles)
PANELISTS: Richard Hatchett (DHHS/BARDA), Nelson Chao (Duke University), and Bert Maidment (DHHS/NIAID)

12.30pm Meeting Closes