

Opportunities in Radiation Science: From Low Dose to Climate Change

Monday, March 28, 2022

Opening Session

- 9:30 am **Presentation of the Colors**
Joint Armed Forces Honor Guard
from the Military District of
Washington, DC
- Singing of the National Anthem**
Kimberly Jordan
U.S. Nuclear Regulatory Commission
- 9:35 am **NCRP Welcome**
Kathryn D. Held
President, NCRP
- 9:50 am **Introduction**
Evagelia C. Laiakis
Jessica S. Wieder
Program Co-Chairs

Eighteenth Annual Warren K. Sinclair Keynote Address

- 10:00 am **Introduction of the Speaker**
Kathryn D. Held
- Developing a Long-Term Strategy
for Low-Dose Radiation Research
in the United States**
Joe W. Gray
Oregon Health & Science University

Applying COVID-19 Lessons to Radiological Emergency Response

Sara D. DeCair, *Session Chair*

- 10:20 am **An American in Asia: Takeaways
from the Asian COVID-19
Response**
Andrew J. Cordiner
*Federal Bureau of Investigation
Hazardous Materials Response*

- 10:35 am **Vaccine Hesitancy and the Social
Side to Protective Actions**
Monica Schoch-Spana
*Johns Hopkins Center for Health
Security*
- 10:50 am **Applying Lessons from the COVID-
19 Pandemic Response to
Radiological/Nuclear
Preparedness, Response and
Recovery**
Orly Amir
*U.S. Department of Homeland
Security*
- 11:05 am **Interactive Q&A**
- 11:20 am **Break**

Identifying National Defense Needs

Jeffrey J. Whicker, *Session Chair*

- 11:35 am **National Needs in Emergency
Response and Homeland Security**
Julian G. Hill
*U.S. Department of Homeland
Security*
- 12:00 pm **National Need for U.S. Department
of Defense's Multiple-Parameter
Radiological Biodosimetry/
Dosimetry Diagnostics Network**
Ricardo A. Reyes
Defense Health Agency
- 12:20 pm **Interactive Q&A**
- 12:35 pm **Lunch**

Optimizing Next Generation Medical Treatment

Pat B. Zanzonico, *Session Chair*

- 1:30 pm **The "Promise" of Targeted
Radiopharmaceutical Therapies**
Lisa Bodei
Memorial Sloan Kettering

Summary

1:45 pm **Treatment Optimization in Radiopharmaceutical Therapy**

George Sgouros
Johns Hopkins Hospital

2:00 pm **Optimizing Next Generation Medical Treatment: Identified Opportunities in Medical School Education**

Neha Vapiwala
University of Pennsylvania

2:15 pm **Interactive Q&A**

3:30 pm **Break**

Forty-Fifth Lauriston S. Taylor Lecture on Radiation Protection & Measurements

3:45 pm **Introduction of the Lecturer**
Kathryn D. Held

Long-Term Radiation Animal Studies: A Story Continues
Gayle Woloschak

Integrating Knowledge Across Disciplines

Manuela Buonanno, *Session Chair*

2:30 pm **“Y” and the Change in Practice of Routine Gonadal Shielding During Radiography**

Donald P. Frush
Duke University Medical Center

2:40 pm **Sometimes a Statement Just Isn't Enough: The Importance of Considering Your Audience and Their Needs**

Angela Shogren
U.S. Environmental Protection Agency

2:50 pm **Interactive Q&A**

3:00 pm **Preclinical Studies with Proton FLASH Radiotherapy for Gastrointestinal and Sarcoma Tumors in Rodents and Canines**

Constantinos Koumenis
University of Pennsylvania

3:10 pm **FLASH: High Therapeutic Potential While Sparing Normal Tissue Complications at Ultra-High Dose Rates: Dosimetry Aspects**

Magdalena Bazalova-Carter
University of Victoria, Canada

3:20 pm **Interactive Q&A**

Tuesday, March 29, 2022

Understanding Individual Responses to Ionizing Radiation

Nobuyuki Hamada, *Session Chair*

9:30 am **Potential Modifiers of Radiation-related Risk of Circulatory Diseases: Implications for Individual Differences in Radiation Response**

Preetha Rajaraman

9:50 am **Interactive Q&A**

Supporting Space Travel

Jeffrey J. Whicker, *Session Chair*

10:00 am **Space Exploration: Evolving Recommendations for Radiation Protection Standards and Research**

S. Robin Elgart
National Aeronautics and Space Administration

10:20 am **Interactive Q&A**

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Fifth Thomas S. Tenforde Topical Lecture

- 10:30 am **Introduction of the Lecturer**
Jessica S. Wieder
- Opportunities in Radiation Science: Applying Our Collective Knowledge to the Challenges of Our Time**
Jill A. Lipoti
- 11:00 am **Break**

Addressing Waste Management

Brian A. Powell, *Session Chair*

- 11:15 am **DOE Cleanup Efforts with Alaskan Native, Native American, Minority and Low-income Peoples and Communities**
Joanna Burger
Rutgers University
- 11:30 am **In-Service Condition of Radon Barriers over Uranium Mill Tailings Disposal Facilities in the United States**
Craig Benson
University of Virginia
- 11:45 am **ARPA-E ONWARDS Program: Addressing the Backend of Advanced Reactors Fuel Cycles**
Robert Ledoux
U.S. Department of Energy
- 12:00 pm **Interactive Q&A**
- 12:15 pm **Lunch**

Reducing Climate Change through Nuclear Power

Willie O. Harris, *Session Chair*

- 1:00 pm **Nuclear Energy - Today and Tomorrow**
Hilary Lane
Nuclear Energy Institute
- 1:15 pm **NextGen RP: Applying Remote and Automated Technologies to Enhance and Optimize Nuclear Power Plant Radiation Protection Operations**
Karen S. Kim-Stevens
Electric Power Research Institute
- 1:30 pm **Small Modular Reactor/Advanced Nuclear Reactor Health Physics Challenges**
Bryan S. Pell
Duke Energy
- 1:45 pm **Interactive Q&A**

Interactive: Opportunities in Radiation Science

- 2:00 pm Evagelia C. Laiakis
Jessica S. Wieder
Program Co-Chairs

Conclusions

- 2:30 pm **NCRP Vision for the Future and Program Area Committee Activities**
Kathryn D. Held
President, NCRP
- 3:00 pm **Adjourn Scientific Meeting**
- 3:15 pm **NCRP Annual Business Meeting**
- 4:30 pm **Adjourn**



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