Monday, March 27, 2023

Opening Session
8:10 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

8:15 am NCRP Welcome
Kathryn D. Held
President, NCRP

8:20 am Introduction
Eric J. Grant, Program Chair
Emily A. Caffrey, Program Vice Chair

Nineteenth Annual Warren K.
Sinclair Keynote Address
8:30 am Introduction of the Speaker
Kathryn D. Held

What do Risk Modelers Want?
What Can Biologists Provide?
Michael M. Weil
Colorado State University

Setting the Stage with Epidemiology
Lydia B. Zablotska & Kristin Fabre,
Session Co-Chairs
9:00 am What Dose-Response Modeling Can, and Cannot, Tell Us About the Biological Mechanisms of Radiation Health Effects
Dale L. Preston
Hirosft International

9:20 am Radiation-Related Cardiovascular Disease: Clinical and Epidemiological Studies
Andrew Einstein
Columbia University

9:40 am Overview of NCRP Report No. 186:
Approaches for Integrating Information from Radiation Biology and Epidemiology to Enhance Low-Dose Health Risk Assessment
R. Julian Preston
U.S. Environmental Protection Agency

10:00 am Break

Mechanistic Underpinnings: Cancer and Cardiovascular Disease
Sally A. Amundson & R. Julian Preston,
Session Co-Chairs
10:30 am Low-Dose Effects: Insights from Low and High Linear-Energy Transfer Radiation
Albert J. Fornace, Jr.
Georgetown University

11:00 am Radiation-Related Genomic Profile of Papillary Thyroid Carcinoma After the Chernobyl Accident in 1986
Stephen J. Chanock
National Cancer Institute

11:30 am Precision Medicine with Induced Pluripotent Stem Cells and Application in Space Radiation Risk Assessment
Joseph C. Wu
Stanford Cardiovascular Institute

12:00 pm Mechanistic Underpinnings for Radiation-Induced Cardiovascular Disease
Marjan Boerma
University of Arkansas for Medical Sciences

12:30 pm Lunch
Models and Extrapolations
Mark P. Little & Robert L. Ullrich,
Session Co-Chairs

2:00 pm Human Biosamples for Translational Radiation Studies
Roy E. Shore
New York University Grossman School of Medicine

2:30 pm An Overview of Approaches for Developing Bioindicators for Risk Estimation at Low Doses and Dose Rates
Dmitry Klokov
Institute for Radiological Protection and Nuclear Safety, France

3:00 pm Mathematical Modeling Approaches in Oncology: Can Calculus Cure Cancer?
Helen M. Byrne
University of Oxford

3:30 pm Estimating Radiation Risks at Very Low Doses: Radiobiologists, Epidemiologists and Modelers Can Do this Together
David J. Brenner
Columbia University

4:00 pm Use of Single-Cell Assays in Radiation Studies: Technology
James A. Lederer
Brigham and Women’s Hospital

4:30 pm Break

Cancer Risks and Public Health Issues Across the Radiation Frequency Spectrum: The Long and the Short of It
Martha S. Linet
National Institutes of Health

6:00 pm Reception

Tuesday, March 28, 2023

8:15 am NCRP Annual Business Meeting

9:30 am Break

Sixth Thomas S. Tenforde Topical Lecture

9:45 am Introduction of the Lecturer
Eric J. Grant
Towards Evaluating Cell Damage via Microscopy Imaging and Analysis of Cell Organization
Susanne M. Rafelski
Allen Institute for Cell Science

Research Needs for Filling the Gaps
Emily A. Caffrey & Eric J. Grant,
Session Co-Chairs

10:15 am Epidemiology v2.0: Some Ideas for the Path Forward
Jonine L. Bernstein
Memorial Sloan Kettering Cancer Center

10:30 am Can Artificial Intelligence Improve Risk Assessment for Radiation-induced Adverse Health Outcomes?
Issam El Naqa
H. Lee Moffitt Cancer Center

Forty-Sixth Lauriston S. Taylor Lecture on Radiation Protection and Measurements

5:00 pm Introduction of the Lecturer
Jerrold T. Bushberg
Integration of Physics, Biology and Epidemiology in Radiation Risk Assessment

10:45 am  Computational Biology for Future Modeling of Diseases: Is Artificial Intelligence the Way of the Future?
Afshin Beheshti
National Aeronautics and Space Administration Ames Research Center

11:00 am  Looking Forward: Where Do We Go from Here?
Simon Bouffler
Public Health England

11:20 am  Panel Discussion:
Simon Bouffler, Moderator
Afshin Beheshti
Jonine L. Bernstein
Issam El Naqa
Susanne M. Rafelski

12:10 pm  Wrap-Up
Eric J. Grant, Program Chair
Emily A. Caffrey, Program Vice Chair

12:20 pm  NCRP Vision for the Future and Program Area Committee Activities
Kathryn D. Held
President, NCRP

12:30 pm  Adjourn