

CERAD ANNUAL CONFERENCE 10TH – 11TH FEBRUARY 2020

The Norwegian Academy of Sciences and Letters
Drammensveien 78, 0271 OSLO

Theme

Status 2019 – Future research priorities

Monday February 10

09:30-10:00 Coffee

10:00 Welcome by the new CERAD Director Deborah H. Oughton

10:05 Opening of the CERAD Annual Conference, Rector NMBU Sjur Baardsen

Session 1: CERAD Research activities Chair: CERAD Chairman Øystein Johnsen

10:15 CERAD Highlights 2019 Former CERAD Director Brit Salbu and the CERAD team

1. Uncertainties in calculations of atmospheric dispersion of radionuclides - The Western Norway case. Erik Berge
2. Micro-analytical characterization of Fen and Søve minerals. Simone Cagno
3. High resolution Al transport modelling in Sandnesfjorden estuary. Magne Simonsen
4. Impact assessments for dumped nuclear objects in the Arctic. Justin Brown
5. Radiocaesium containing particles in Fukushima soils and pond sediments. Estela Reinoso Maset
6. Development of a module for radioactive particle transformation processes in the FDMT food-chain model. Ole Christian Lind
7. Transfer of radionuclides to fish. Hans-Christian Teien
8. Transgenerational memory and effects. Peter Alestrøm
9. Quantitative Adverse Outcome Pathways (qAOPs) for predicting the hazards of radiation and radionuclides. You Song
10. Damage, defense and effects in the radioresistant organism *C. elegans*, Dag Brede
11. Effects of chronic low dose rate ionizing radiation, using mice as model. Anka Olsen
12. Low dose radiation effects on leukemia in mice. Dag Markus Eide
13. Molecular mechanisms behind differential radiosensitivity in plants. Jorunn E. Olsen
14. Computational and experimental assessment of Multiple stressor – moving from exposure to environmental Hazard and Risk. Knut Erik Tollefsen
15. The importance of social science studies in the field of ionizing radiation: risk communication and stakeholder involvement. Yevgeniya Tomkiv

11:15 Future nuclear challenges
CERAD Deputy Director Per Strand, DSA

11:45 Societal and ethical relevance of CERAD research
New CERAD Director Deborah H. Oughton, NMBU

12:30 - 14:00 Lunch

Session 2: _____ Chair: CERAD Research Director Ole Christian Lind, NMBU

14:00 -14:30 The Komsomolets expedition 2019. Hilde E. Heldal, HI and Hans Christian Teien, NMBU

14:30 - 15:00 Challenges associated with decommissioning of the IFE reactors and handling and storage of spent nuclear fuel. Pål Mikkelsen, Director, Norwegian nuclear decommissioning (NND)

15:00 - 15:15 Discussion - Legacy site challenges
Chaired by Malgorzata Sneve, DSA

15:15 - 15:45 Nuclear weapons – current developments and potential consequences of their use
Steinar Høibråten, Norwegian Defense Research Establishment (FFI)

15:45 - 16:00 Discussion – Nuclear threats
Chaired by S. Høibråten

16:00 – 16:30 Coffee

16:30 – 17:00 Health effects of exposure to radon in combination with other stressors
Andrzej Wojcik, Stockholm University

17:00 – 17:20 Reducing Uncertainties In Dose-Effect Studies Through Improved Wildlife Dosimetry, Tom Hinton, Fukushima University and CERAD

17:20 - 17:30 Discussion

17:30 - 18:00 Looking back to see the future of radioecology
Former CERAD Director Brit Salbu

18:00 - 19:00 Hybris Concert – CERAD house orchestra

19:00 Dinner

Tuesday February 11

09:00 Coffee

09:30 Session 4: Young Scientist Session Chair: Education Director Lindis Skipperud

09:30 Recruiting scientists in radioecology
CERAD Education director Lindis Skipperud

09:35 Research focus and highlights

1. Uncertainty in atmospheric dispersion models following the FDNPP accident
Magnus Ulimoen
2. Bioimaging uranium distributions in *Daphnia magna*
Ian Thomas Behnke Byrnes
3. Implementation of FDMT and Absalom models in ECOLEGO
Ali Hosseini
4. Site specific transfer factors to reduce uncertainties in impact and risk assessments
Desiree Auren
5. Comparing uranium exposure route (waterborne vs. dietary) toxicokinetics in a freshwater food chain
Shane Scheibener
6. Model experiments to support uptake experiments in the field of ^{137}Cs and ^{90}Sr in Prussian carp (*Carassius gibelio*)
Elena Kashparova
7. Reprotoxicity of gamma radiation in the zebrafish (*Danio rerio*)
Selma Hurem
8. ATAC-seq for mapping of effects on the epigenome
Leif Lindeman
9. Nanoparticle characterization and toxicity
Lisa M. Rossbach
10. A systematic approach using growth studies, histology and molecular biology tools
Payel Bhattacharjee
11. Transgenerational effects of gamma radiation in mice
Hildegunn Dahl

11:45 Way forward and Closing, CERAD Director Deborah H. Oughton

12:00 – 13:00 Lunch