



Federal Office for
Radiation Protection

Workshop Program

International Workshop on Studies of Uranium Miners and Uranium Processing Workers
23–25 May 2023

Day 1 | Tuesday 23 May 2023

11:00
12:30 Registration, welcome coffee and snacks

12:30
13:00 **Session 1: Welcome & introduction**
Michaela Kreuzer, Nora Fenske, Federal Office for Radiation Protection (BfS), Germany

13:00
14:30 **Session 2: Uranium miners studies – Radon and lung cancer**
Chair: Dominique Laurier (IRSN, France), Michaela Kreuzer (BfS, Germany)

13:00 **From BEIR VI in 1999 to UNSCEAR 2019 – summary, discussion & open research questions**
Dominique Laurier, Institute for Radiological Protection and Nuclear Safety (IRSN), France

13:40 **PUMA: Pooled Uranium Miners Analysis – an overview**
David Richardson, University of California, Irvine, USA
Estelle Rage, IRSN, France

14:05 **Radon and lung cancer in PUMA: results from the largest pooled study of uranium miners**
Kaitlin Kelly-Reif, National Institute for Occupational Safety and Health (NIOSH), USA

14:30 – 15:00 Coffee break

15:00
17:00 **15:00 PUMA – lung cancer among miners hired after 1959**
David Richardson, University of California, Irvine, USA

15:25 **German uranium miners cohort – update and lifetime risk calculations**
Michaela Kreuzer, BfS, Germany

15:50 **Interaction of radon and smoking on the lung cancer risk**
Felix Heinzl, BfS, Germany

16:20 **Discussion**

17:00 **Get together**



Day 2 | Wednesday 24 May 2023

08:30
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10:00

Session 3: Uranium processing workers studies

Chair: Olivier Laurent (IRSN, France), Ashley Golden (Oak Ridge Associated Universities, ORAU, USA)

08:30 **iPAUW (international Pooled Analysis of Uranium Workers): Overview of study aims and methods**
Lydia Zablotska, University of California, San Francisco, USA (online presentation)

09:15 **A dosimetry protocol to harmonize dose estimates for the iPAUW study**

Estelle Davesne, French Alternative Energies and Atomic Energy Commission (CEA), Université Paris-Saclay, France

09:45 **Discussion**

10:00 – 10:30 Coffee & poster

10:30
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12:00

Session 4: Radon and other diseases than lung cancer

Chair: Rachel Lane (CNCS, Canada), David Richardson (University of California, Irvine, USA)

10:30 **Radon and other cancers than lung cancer**
Nora Fenske, BfS, Germany

11:00 **Radon and circulatory system diseases**
Estelle Rage, IRSN, France

11:30 **Non-malignant respiratory diseases in uranium miners**

Mary Schubauer-Berigan, International Agency for Research on Cancer (IARC), France

12:00 – 13:00 Lunch

13:00
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14:45

Session 5: Dosimetry

Chair: Augusto Giussani (BfS, Germany), Estelle Davesne (CEA, France)

13:00 **Radon dosimetry in uranium miners studies**
Demetrio Gregoratto, UK Health Security Agency (UKHSA), United Kingdom

13:30 **Does the dose matter? And what else? – Factors modifying doses and dose distributions upon radon exposure**
Balázs Madas, Centre for Energy Research (CER), Hungary

14:00 **How accurate are our dose assessments? Uncertainties in dose coefficients for the German uranium miners cohort**
Bastian Breustedt, Kerntechnische Entsorgung Karlsruhe GmbH (KTE), Germany

14:30 **Discussion**

14:45 – 15:15 Coffee break

15:15
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17:00

Session 6: Molecular epidemiology

Chair: Maria Gomolka (BfS, Germany), Tongwu Zhang (NIH National Cancer Institute, USA; online chair)

15:15 **Overview: Biological studies in uranium miners**
Maria Gomolka, BfS, Germany

15:45 **Molecular profile of lung cancer exposed to radon in rats and uranium miners**
Laura Mezquita, Hospital Clinic – IDIBAPS, University of Barcelona, Spain

16:15 **Whole genome sequencing reveals chromosomal particularities in lung tumors of uranium miners**
Reinhard Ullmann, Institut für Radiobiologie der Bundeswehr (BIR), Germany

16:45 **Discussion**

19:00

Conference dinner at Augustiner Stammhaus



Day 3 | Thursday 25 May 2023

08:30
10:00

Session 7: Radon and lung cancer – uncertainties

Chair: Veronika Deffner (BfS, Germany), Bastian Breustedt (KTE Karlsruhe, Germany)

08:30 Accounting for radon exposure uncertainty when estimating the risk of death by lung cancer in the French and Czech cohorts of uranium miners

Sophie Ancelet, IRSN, PSE-SANTE/SESANE/LEPID, France (online presentation)

09:10 Uncertainty in exposure assessment in the German uranium miners cohort

Nicole Ellenbach, Sabine Hoffmann, Ludwig-Maximilians-Universität München, Germany

09:50 Discussion

10:00 – 10:30 Coffee break

10:30
12:30

Session 8: Relevance, summary and future of the studies

Chair: Nora Fenske, Peter Scholz-Kreisel (BfS, Germany)

10:30 Uranium exploration, resources, and production: a global overview

Mark Mihalasky, International Atomic Energy Agency (IAEA), Austria

11:00 Summary of workshop

Michaela Kreuzer (BfS)

11:20 Panel discussion: The future of research on uranium miners and uranium processing workers

Dominique Laurier (IRSN, France)

Balázs Madas (CER, Hungary)

Werner Rühm (ICRP; BfS, Germany)

Mary Schubauer-Berigan (IARC, France)

Moderation: Peter Scholz-Kreisel (BfS)

12:20 Close-up of workshop

Nora Fenske (BfS)

12:30

Check-out

Project meetings

Monday 22 May 2023

14:00
18:15

RadoNorm Work Package 3

BfS Neuherberg

Tuesday 23 May 2023

08:30
11:30

iPAUW satellite meeting

Kolpinghaus, conference room

Thursday 25 May 2023

13:30
16:30

PUMA satellite meeting

Kolpinghaus, conference room