How studies of background radiation and childhood cancer can improve our understanding of the effects of low-dose ionizing radiation.

SPEAKERS

Prof. Richard Wakeford  
University of Manchester, UK

Dr. Ausrele Kesminiene  
International Agency for Research on Cancer  
Section of Environment and Radiation  
World Health Organization, France

Prof. Mark Little  
National Cancer Institute  
Division of Cancer Epidemiology and Genetics  
Radiation Epidemiology Branch, Bethesda, Maryland, USA

Prof. Ole Raaschou-Nielsen  
Institute of Cancer Epidemiology  
Danish Cancer Society, Denmark

Dr. Gerry Kendall  
Childhood Cancer Research Group  
University of Oxford, UK

Dr. Jacqueline Clavel  
Dr. Denis Hémon  
French Institute of Health and Medical Research (INSERM)  
Paris Descartes University, France

Prof. Anssi Auvinen  
Dr. Atte Nikkilä  
School of Health Sciences  
University of Tampere, Finland

PD Dr. Peter Kaatsch  
PD Dr. Claudia Spix  
German Childhood Cancer Registry  
University Medical Center Mainz, Germany

Dr. Ben Spycher  
Institute of Social and Preventive Medicine  
University of Bern, Switzerland
Background and Objectives

It is well established from studies of atomic bomb survivors and other exposed groups that medium to high doses of ionising radiation can induce cancer. Furthermore, children are known to be more sensitive to radiation. However, the direct epidemiological investigation of cancer risks associated with low dose radiation (<100 mSv) remains a major challenge.

Recently, several large record-based studies have investigated associations between the risk of childhood cancer and exposure to natural background radiation. However, the evidence from these studies is mixed.

This scientific workshop will bring together researchers in the field and interested parties from around the world to discuss how epidemiological studies of exposure to background radiation and risk of childhood cancer can improve our understanding of the effects of low-dose ionising radiation.

The first day is organized as plenary sessions followed by a panel discussion that will provide the opportunity to highlight the methodological challenges and discuss the limitations of previous studies.

The second day will be held as round table discussions to debate methodological advances and initiate a multi-national collaboration between the research study groups. The study teams of the recent epidemiological studies will be represented, but the session is open to all interested people.

For more information please contact: antonella.mazzeiabba@ispm.unibe.ch

Program

Tuesday, 5 June (room 24)

13.00 Welcome & setting the scene
Ben Spycher

Broader context
Chair: Matthias Egger

13:15 Epidemiological evidence of cancer risks following exposure to ionising radiation in childhood
Richard Wakeford

13:45 Childhood leukaemia and CT scans: Overview of recent epidemiological studies
Ausrele Kesminiene

14:15 Methodological challenges of epidemiological research on the effects of natural background radiation
Mark Little

14.45 Coffee Break

Recent studies on background radiation and childhood cancer
Chair: Claudia Kühni

15.15 Indoor radon and childhood leukaemia
Ole Raaschou-Nielsen

15.35 A record-based case-control study of natural background radiation and the incidence of childhood leukaemia and other cancers in Great Britain during 1980-2006
Gerry Kendall

15:55 Background ionizing radiation and the risk of childhood cancer: a census-based nationwide cohort study
Ben Spycher

16:15 Coffee break

16.30 Residential Exposure to Natural Background Radiation and Risk of Childhood Leukaemia in France, 1990-2009
Jacqueline Clavel / Denis Hémon

16.50 Background radiation and childhood leukemia: A nationwide register-based case-control study
Anssi Auvinen / Atte Nikkilä

17.10 Background gamma radiation and childhood cancer in Germany: an ecological study
Claudia Spix / Peter Kaatsch

Panel discussion
Chair: Richard Wakeford

17:30 What have we learnt?

19:30 Dinner

Wednesday, 6 June (room 220)

Round table discussion
Chairs: Anssi Auvinen, Ben Spycher

8:30 Open questions and methodological challenges

10:00 Coffee break

10:30 Possibilities and scope of future collaboration

12:00 Summing up

12:30 Stand-up Lunch / Farewell