Symposium on Health Impact of Pre- and Early Post-natal Irradiation

7 October, 2011 // Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique // Brussels-Belgium

Scope

The first objective of this symposium is to assess the up-to-date scientific data in the field of radiation-induced risks from an exposure of embryos to ionizing radiation. The potential risks associated with an acute embryonic exposure include essentially prenatal mortality, growth retardation and congenital anomalies, mental retardation, leukemia and cancer. Recent data from radiobiological research showed that the genetic characteristics of the exposed embryos may modulate their radiation sensitivity to some extent. On the other hand, new data from epidemiological studies are raising concern. Those include possible increases in particular congenital anomalies or cognitive effects after exposure of germ cells or embryos to chronic low dose irradiation. Early infancy is also a period of peculiar radiation sensitivity, as illustrated by the large increase in the incidence of thyroid cancer observed among people exposed as children to high levels of radioactive iodine after the Chernobyl accident.

Leading specialists have been asked to deliver lectures in the different fields covered by the symposium.

The second objective of the symposium is to discuss the current data and its potential implications, as well as the needs for future research. This part of the symposium will include a round table discussion between various stakeholders, some of them work outside the radiation protection community (journalists, philosophers, legal experts, ...).

Intended to be both scientifically accurate and yet understandable to an educated non-specialist audience, the symposium will take place at the Royal Academies for Science and the Arts of Belgium, in the heart of Brussels.

Time | Titles | Speakers
--- | --- | ---
08:50 - 09:00 | Welcome by Patrick Smeesters | Chair: Patrick Smeesters
09:00 - 09:30 | "Effect of ionizing radiation on the developing embryo: the classic view" | Hanane Derradji
09:30 - 10:15 | "Exposure of early embryos to chemicals and ionizing radiation: the dogma of Teratology revisited?" | Paul Jacquet
10:15 - 10:45 | Coffee break | Chair: Hans Vanmarcke
10:45 - 11:15 | "In utero irradiation and cognitive effects: recent animal experiments" | Rafi Benotmane
11:15 - 12:00 | "Prenatal exposure to ionizing radiation and cognitive effects in humans" | Marten Palme
12:00 - 12:45 | "Neural tube defects and other malformations in Ukraine" | Wladimir Wertelecki
12:45 - 14:00 | Walking lunch | Chair: Petra Willems
14:00 - 14:45 | "Childhood and adult cancer after intra-uterine exposure to ionizing radiation" | Elisabeth Cardis
14:45 - 15:15 | "Diagnostic X-ray exposure and DNA damage in children: bystander effects?" | Hubert Thierens
15:15 - 15:45 | Coffee break | Chair: Paul Jacquet
15:45 - 16:30 | "Genomic alterations and thyroid cancer after childhood exposure to radioiodine due to the Chernobyl accident" | Geraldine Thomas
16:30 - 17:15 | "In utero irradiation and transgenerational effects: from mice to men?" | Simon Bouffler
17:15 - 18:00 | Round table discussion of current evidence, potential implications and research needs | Patrick Smeesters
18:00 - 18.15 | Closing summary |
18:15 - 19:00 | Cocktail reception |
Route description
From Brussels Airport: By train to Brussels Central Station.
By train: Brussels Central Station. It takes about ten minutes to walk from Central Station to the Academy House. Alternatively, take the metro.
By metro: Subway station Trone
From Central Station: line 1 to Kunst-Wet (Art-Loi) and there line 2.
From Brussels-North (Noordstation, Bruxelles-Nord): tramway to Rogier and there line 2.
From Brussels-South (Zuidstation, Bruxelles-Midi): line 2.

Seminar location
Académie royale des Sciences, des Lettres et des Beaux-Arts de Belgique
Rue ducale 1/ Hertogsstraat 1
1000 Brussels
Tel.: +32 (0)2 550 22 12

Correspondence and further information
Organising committee
SCK•CEN
Paul Jacquet: pjacquet@sckcen.be ; +32 (0)14 33 27 28
Hanane Derradj: hderradj@sckcen.be ; +32 (0)14 33 21 51
Sarah Baatout: sbaatout@sckcen.be ; +32 (0)14 33 27 29

FANC
Petra Willems: petra.willems@fanc.fgov.be ; +32 (0)2 289 20 33
Patrick Smeesters: patrick.smeesters@fanc.fgov.be ; +32 (0)2 289 21 39

Registration fee
Full registration: 80 EUR
Students or retired: 40 EUR

Administrative secretariat
Betty Vandingelen
Els van Musscher
SCK•CEN
Boeretang 200
BE-2400
betty.vandingelen@sckcen.be
els.van.musscher@sckcen.be
Tel: +32 (0)14 33 28 32
Tel: +32 (0)14 33 28 77

Online registrations

Deadline for registrations: 23 September 2011