

WP6: Access to Infrastructures Increasing their visibility

Exposure platforms
and contaminated sites

Databases, Sample
banks, Cohorts

Analytical platforms,
Models & Tools



AIR²
ACCESS TO INFRASTRUCTURES
FOR RADIATION PROTECTION RESEARCH

Editorial

I wish to start the second issue of my Bulletin by thanking all of you for the warm welcome you have given to this publication and your valuable comments. The art of publishing 10 issues a year is a big challenge that will require the willingness and collaboration of everyone. In each issue of the Bulletin, the floor will be given to a member of the Radiation Protection Community, and to give readers here credit in it, we are starting with the CONCERT Coordinator, Dr Thomas Jung.

The editorial team eagerly awaits your noise and contributions to include infrastructures in each of the three categories. AIR² also provides the opportunity to announce future events such as calls for proposals on specific infrastructures, workshops and meetings. Those not exhaustive, AIR² will be glad with your valuable contributions. Dr Inge Isaksson - IERA

The floor to...

In addition to the research area of the EIP CONCERT (interim 2010), it also aims to cover optimal use of research infrastructures in Europe, mainly by enhancing the visibility of infrastructures and facilitating access to them. The term "infrastructure" will encompass different elements, which can be categorized as: (a) exposure platforms, (b) analytical platforms, and (c) analytical platforms.

CONCERT research optimal use of research infrastructures

An important task of the project is to assist the patient's current knowledge of existing infrastructure, e.g. in terms of availability of access, information and characteristics of the infrastructure, usage costs, legal boundaries related to data protection and intellectual property rights. The research infrastructure will be evaluated by CONCERT Task Group who will provide recommendations to the CONCERT research partners, in particular to facilitate infrastructure access.

The knowledge and experiences gathered in the EIP-IPRO project (IPRO) led to the development of the data warehouse (DWH), which was further extended in DWH2, which was further used to build an information and data repository for CONCERT-funded projects. In general, information, data and samples generated from CONCERT funded projects, will be made available to the scientific community via repositories such as DWH.

Dr Thomas Jung - IERA
CONCERT Coordinator



FIGARO
Low-Dose Irradiation facility at the Centre for Environmental Radioactivity

The Norwegian University of Science and Technology (NTNU) has a gamma irradiation facility on campus since 1962. In 2009 a facility for low-dose exposure radiobiological experiments was opened and used for a variety of chronic and sub-chronic exposure studies (e.g. fish, mammals, plants) in order to meet the requirements for small rodent chronic exposure experiments. The present facility, FIGARO, at the Centre of Environmental Radioactivity (CERAD), is equipped with a climate control system (temperature, light, humidity), and is fully approved as an animal research facility, including the use of GMP-robo and other special and animal models.

CERAD

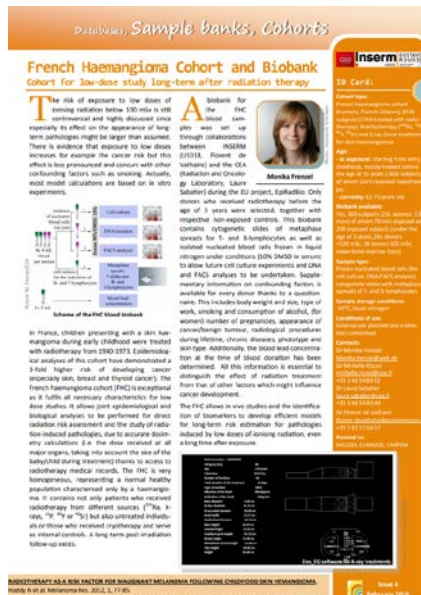
Exposure platforms

These projects, in addition to the success of low-dose irradiation, will also be used for the study of the impact of chronic irradiation on the onset of Parkinson disease in a preclinical mice model and CERAD studies of cancer incidence in APC-mice.

Dr Deborah Ogilvie

FIGARO is primarily designed as an external gamma irradiation facility, although it is also authorized for radionuclide internal exposure (including alpha emitters), as well as other external exposure (e.g. X-rays, ultraviolet, ionizing radiation) and neutron irradiation.

CERAD is open for collaboration, and we welcome suggestions for projects with CONCERT partners.



French Haemangioma Cohort and Biobank
Cohort for low-dose study long-term after radiation therapy

The risk of exposure to the dose of ionizing radiation below 100 mSv is still controversial and highly discussed since especially in the case of the exposure of long-term patients may be larger than assumed. There is evidence that exposure to low-dose ionizing radiation for example the cancer risk but this effect is not pronounced and unclear with other confounding factors such as smoking. Actually, most model calculations are based on *in vitro* experiments.

Analysis for the Haemangioma Cohort

Analysis for the Haemangioma Cohort will be performed during the EIP project. Epidemiological and high-resolution data will be collected. The cohort will be followed up for 10 years. The cohort will be followed up for 10 years. The cohort will be followed up for 10 years.

Biobank

The biobank will collect and store biological samples from the cohort. The biobank will collect and store biological samples from the cohort. The biobank will collect and store biological samples from the cohort.



RENEB
A network for emergency preparedness and scientific research

RENEB is a European Biodiversity Model network to perform large-scale radiological emergency preparedness and scientific research. The network is based on reliable data and techniques combined with high-performance standards. To enhance the effectiveness of the network, RENEB is linked to global emergency preparedness and response systems as well as to the European radiation safety network.

Network

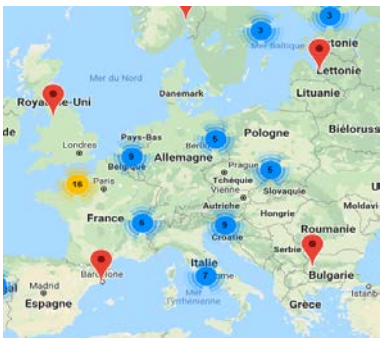
The network was initiated in January 2012 with 21 partners from 13 European countries with the support of the EC (EURATOM FP7, GA 245513). At this time the focus was on emergency preparedness with the aim to significantly increase dose reconstruction capabilities in case of large-scale radiological accidents, individual dose estimation based on biological samples and/or air personal detectors. It has been optimized to support the rapid categorization of major events according to the radiation dose, communication and cross-border collaboration was standardized and cooperation with national and international emergency and preparedness organizations such as IAEA and WHO were initiated.

Activities

The value of RENEB to support topics also outside emergency preparedness is now evident, with emergency strategies to guarantee consistent performance between the partner laboratories, the network has the ability and capacity to contribute to large-scale research projects with the analysis of exposure biomarkers. This includes studies on the effects of low-dose, group-related radiation sensitivity, contribution to research on disease and epidemiological studies when sampling and handling of biological samples. RENEB also shows the development and evaluation of new exposure markers with special view to their applicability for all-weather acute or protracted exposures as well as exposures during both years or decades.

Increase the visibility of your infrastructures: AIR² Bulletin and AIR²D² Database

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AIR²D²
ACCESS TO INFRASTRUCTURES FOR RADIATION PROTECTION RESEARCH
Documented Database

SEARCH OWNER

Exposure platforms, Databases, Sample banks, Cohorts, Analytical platforms, Models, Tools, Global map