



Stockholm University  
Centre for Radiation Protection Research

Stockholm University Research Centre for Radiation Protection Research  
CRPR

[www.crpr-su.se](http://www.crpr-su.se)

## Summary of activities for 2014

### Introduction

With the establishment of CRPR in October 2008, Stockholm University wants to promote excellence and long term national competence in radiation protection research. Stockholm University has a long standing tradition in education and research on the effects of ionizing radiation on man and the environment. The location of CRPR at the Stockholm University provides CRPR with a unique set up of radiation facilities for investigations of effects of low doses and dose rates of low and high LET radiation. CRPR shall promote international cooperation and invite colleagues in Europe to use the low dose and dose rate exposure facilities. Moreover, CRPR represents the SU in the council of the MELODI initiative.

The Centre was created as an independent unit within the Department of Genetics, Microbiology and Toxicology (GMT) at Stockholm University at the Science Faculty of Stockholm University and comprises researchers who are active within the fields of radiobiology, radioecology and radiation dosimetry. In January 2013 GMT fused with two other institutes to form the new Department of Molecular Biosciences, The Wenner-Gren Institute – MBW (<http://www.su.se/mbw/>).

The Centre is headed by a Board of five members, one for each of the three research fields and two others whose competence is judged to be of value for the Centre's operation. The Board members and the chairperson of the board are appointed for three years by the Chancellor based on the recommendations of the Board of the Faculty of Science. The Board has the overall responsibility for the Centre's operation and programme.

The Head of the Centre is appointed for a three year period by the chancellor after hearing the Faculty of Sciences and the board of MBW. The head of the Centre shall not be a member of the board. The Head of the Centre is in charge of the daily activities and should be an employee of the University.

The activities of the Centre are financed from external sources.

From 2013, the webpage of CRPR is <http://www.crpr-su.se>.

## **Activity during 2014**

### **Head CRPR 2014**

*Andrzej Wojcik*, Professor, MBW, Stockholm University

### **CRPR board 2014**

*Eva Forssell-Aronsson*, Professor, Chairperson, Dept of Radiation Physics, Sahlgrenska Academy at University of Gothenburg

*Eva Simic*, Head of research, SSM

*Hooshang Nikjoo\**, Professor, Medical Radiation Physics, Dept of Oncology-Pathology, Karolinska Institutet

*Mats Harms-Ringdahl*, Professor, MBW Stockholm University

*Clare Bradshaw*, Associate professor, Department of Ecology, Environment and Plant Sciences, Stockholm University

\*: Hooshang Nikjoo submitted his resignation on 11<sup>th</sup> February 2014 (see attachment). He will be replaced by Iuliana Toma Dasu from 2015.

The CRPR board met only one time in 2014. Appropriate dates for more meetings were sought, but it was not possible to find a date where all could be present. The minutes from the meeting is attached as annex.

Support has been provided for the CRPR activities by the Swedish Radiation Safety Authority (SSM)

The activity of the CRPR is described below:

### **Workshops**

Workshop: Biological basis of radiotherapy: where do we stand?

4-5 September 2014, Stockholm, Sweden

Venue: The Royal Academy of Sciences

The workshop was attended by nearly 100 participants. The program is attached. More information can be found here: <http://www.crpr-su.se/RT/>

### **CRPR Seminars**

Radiation biology of normal tissues: Scientific progress and perspectives

by: Prof. Wolfgang Dörr, University Vienna, 2014 01 09

Venue: Stockholm University

Looking under the hood of transcription using Bru-Seq

by: Prof. Mats Ljungman, University of Michigan, 2014 01 29

Venue: Stockholm University

Agricultural implications of the Fukushima nuclear accident

by: Prof. Tomoko M. Nakanishi, University of Tokyo, 2014 10 21

Venue: Stockholm University

Development of radiomitigative protocol based on a combination of multiple pharmaceutical drugs

By: Ikuo Kashiwakura, Hiroasaki University, Japan, 2014 12 04

Venue: Stockholm University

Leukaemia in mice induced by chronic exposure to low dose-rate gamma radiation

By: Tokuhisa Hirouchi, Institute of Environmental Sciences, Aomori, Japan, 2014 12 04  
Venue: Stockholm University

Understanding mechanisms of radiation induced leukaemia and low doses effects with new mouse models and neutron-induced AML

By: Christophe Badie, Centre for Radiation, Chemical and Environmental Hazards, Public Health England, UK, 2014 12 04  
Venue: Stockholm University

#### **Other activities 2014**

CRPR is one of the founding members of the MELODI association that started 2010 (<http://www.melodi-online.eu/>). MELODI is a European Platform dedicated to low dose radiation risk research. MELODI will propose R&T priorities for Europe in its field of competence and will seek the views of stakeholders on the priorities for research, keep them informed on progress made, and contribute to the dissemination of knowledge. CRPR is represented in MELODI by Mats Harms-Ringdahl, who is a member of the MELODI bureau. The 2014 MELODI meeting was organised in Barcelona (2014 09 7-9) and attended by Mats Harms-Ringdahl, Eva Forssell-Aronsson, Siamak Haghdoost and Andrzej Wojcik.

CRPR organized a course in radiation biology (15 credits) at Stockholm University for undergraduate and master students.

CRPR organized a European training course (CELOD, 31 March – 11 April 2014) at Stockholm University, within the WP3 program of DoReMi.

CRPR co-organised a European training course Environmental Radiobiology (Assessing Risk to Humans and the Environment, 10-20th June 2014), UMB, Norway within the WP3 program of DoReMi.

In June 2013 CRPR joined the 4 year, FP7 Euratom OPERRA project that will exploit the synergies of EURATOM and other EC programmes considering the most relevant joint program areas and mechanisms for funding joint activities in low radiation dose research. During 2014 an OPERRA workshop was organised by the CRPR entitled: "OPERRA Subtask 4.1.2 meeting with representatives from universities with the aim to make recommendations on how to make full use of the universities research potential for radiation risk research". It was attended by 24 university representatives from European countries. The outcome of the meeting is a list of recommendations to the EU about how the participation of universities in radiation risk research can be increased.

CRPR financially supported the meeting of SWE-RAYS, August 2014, Malmö University:  
<http://swerays.se/workshops/Workshop%202014.html>.

On October 17<sup>th</sup> 2014 Andrzej Wojcik gave a lecture at the German Federal Office of Radiation Protection (BfS) in Munich about the CRPR and its collaboration with SSM. The title of the lecture „Das Zentrum für Strahlenschutzforschung in Stockholm und die Zusammenarbeit mit der Schwedischen Strahlenschutzbehörde". The lecture was attended by ca 30 employees of BfS.

It was discussed on several occasions in the CRPR board that it is important to extend the education in radiation risk to schools. In 2014 a project was submitted to the Wallenberg foundation entitled: "How can teachers support the development of scientific literacy through teaching about risk and risk assessment?" The project is a collaboration between the SU, KTH and the Blackeberg high school in Stockholm. It received funding and will kick off in summer 2015. More information can be found here: <http://www.su.se/mbw/about-us/news/general-news/the-marcus-and-amalia-wallenberg-memorial-fund-has-assigned-funds-for-a-three-year-project-1.212451>



Andrzej Wojcik  
Head of CRPR

Stockholm, 2015 01 16