

Young Scientists and the future of low dose radiation risk research in Europe

Radiation research is entering into its “big data” era. This Copernican revolution arose in the last few years, as it became clear that a comprehensive understanding of radiation exposure health effects is not solely DNA-driven and requires a broader view which is able to take account of non-DNA processes including for instance omics, epigenetics and micro-environment modification, all of which impact on overall response. To deal with this new scientific landscape, initiatives such as the [HLEG](#) and [MELODI](#) were launched to establish a large, long term research platform intended ‘to provide a working framework over the next 20 years, in the context of [HORIZON 2020](#). [DoReMi](#) was then created to foster large multidisciplinary collaborative projects and to enable study of different aspects of large, multi-scale biological responses after a low dose radiation insult. To achieve this ambitious goal, the radiation research community is reaching out to scientists across many different disciplines that may have not otherwise been directly involved in the research in the radiation field. To ensure continued development and sustainability of radiation research in Europe, the scientific community needs to create a new generation of young scientists able to address these continuously changing scientific questions.

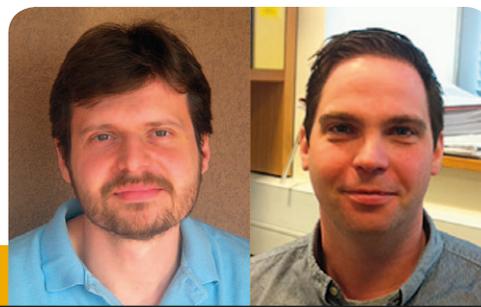
DoReMi recognizes the importance of young scientists in this process. This is for example illustrated by the organization and subvention of DoReMi-sponsored training courses by DoReMi partners, where no registration fees are asked to participating students. In addition, during DoReMi periodic meetings there have been sessions especially dedicated to students and young scientists, allowing them the opportunity to discuss their research amongst fellows.

Outside of the DoReMi efforts in Europe there has not been a well defined and completely open-access strategy to support European young scientists in the field of radiation research. To address this need, a strategy for a young scientists’ network within the EURATOM framework has been designed. This new platform named European Radiation Research Association for Young Scientists or [EURAYS](#), is open to all scholars in training and young investigators (undergraduate and graduate students, junior post-doctoral fellows) interested in disciplines related to radiation risk research. The objective of this program is to create a network/community of young scientists and to promote and facilitate career development within the radiation sciences. Membership is free and the association is currently applying for funding to provide financial support for its members.

EURAYS is only 5 months old, but it has already reached nearly 100 members, from more than 15 European countries. The association supports and facilitates scholarly exchange, interdisciplinary communication, and the establishment of international collaborations, including research training amongst different laboratories across Europe. At the moment the EURAYS founding committee is seeking more people to be involved in the management and promotion of the association. Join [EURAYS](#) and find more about DoReMi activities for students [here](#).

Luca Mariotti
UNIPV
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Karl Butterworth
QUB, RRS SIT chair,
EU-Rays board



DoReMi contributed to International Systems Biology Workshop

[The 6th International Systems Radiation Biology Workshop](#) was organised on 3–5 March in Japan. It focused on tissue stem cells as targets of radiation carcinogenesis which have been successfully mathematically modelled in recent years. Presentations were made from several countries covering a wide range of relevant issues from cellular to molecular systems approaches. In addition, there was an important session on the recovery of Fukushima. The presentations by DoReMi scientists [Prof. Munira Kadhim](#) from Oxford Brookes University and [Dr. Kristian Unger](#) from Helmholtz Zentrum München are available at the DoReMi website.

The EAGLE project

The EAGLE project (Enhancing educAtion, training and communication processes for informed behaviors and decision-making related to ionizing radiation risks) is a Euratom FP7 “coordination action” of 3 years, launched in August 2013 which will help identify and disseminate good practices in information and communication processes related to ionising radiation. More information available [here](#).

DoReMi Training courses

Three training courses are approaching:

- 5–16 May: “[The Molecular Mechanisms of Radiation Carcinogenesis](#)” by HMGU in Munich (Neuherberg), Germany. Even though the registration deadline has passed, there are a few open places left which will be filled with applicants on a first-come first-serve basis.
- 26 May – 6 June: “[Modelling radiation effects from initial physical events](#)” by UNIPV in Pavia, Italy.
- 10–20 June: “[Assessing Risk to Humans and the Environment](#)” by NMBU and SU in Oslo, Norway.

Subscription info

DoReMi Newsletters are published roughly every three months. They are sent to subscribers and published on DoReMi website. If you wish to receive the DoReMi Newsletters directly by email, please subscribe by sending a message to doremi@stuk.fi.

DoReMi and related events

Future events

- [The 41st Annual Meeting of the European Radiation Research Society \(ERR2014\)](#) will be held on 14–19 September 2014 in Rhodes, Greece. As a satellite event, [the 11th International Symposium on Chromosomal Aberrations \(ISCA11\)](#) will be held on 12–14 September at the same venue.
- [The 6th International MELODI Workshop – Integrating observational and experimental research](#) will be held on 7–9 October 2014 in Barcelona, Spain.
- [Conference on Radiation and Health](#) will be held on 21–24 September in Las Vegas, USA, aligned with the Radiation Research Society (RRS). The programme includes joint DoReMi and US NCRP session “Bridging mechanisms of radiation action at low doses and human risk”.

Highlights and interesting documents available

- Several new DoReMi-related peer-reviewed publications are available in the [DoReMi Scientific Information Centre](#).
- DoReMi project story has been published at the H2020 website. More information [here](#).

