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Cooperation and links of the European Network of Biodosimetry (RENEB)

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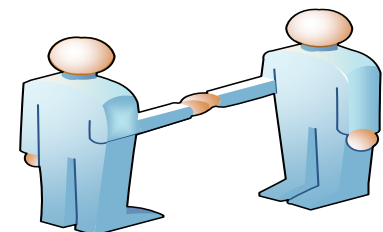
Statens strålevern

Norwegian Radiation Protection Authority

www.nrpa.no

RENEB Dissemination Event - Brussels, 26th November 2015

- **Interaction with WHO and IAEA**
- **Contacts to EU organisations and European associations**
- **Collaboration with regional and global biodosimetry networks**
- **Links to Radiation research activities:**
 - *the EU EURATOM Radiation Protection Research Platforms MELODI, EURADOS, NERIS, ALLIANCE and emerging Medical Platform*
 - *International Association of Biological and EPR Radiation Dosimetry (IABERD)*
 - *NATO Science and Technology Organization, Research Task Group on Ionizing Radiation Bioeffects and Countermeasures*
 - *Participation in development of ISO standards in retrospective dosimetry*



Links and interaction with IAEA

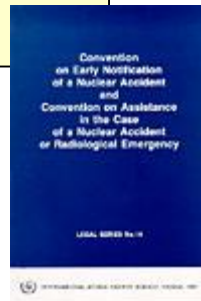
- **Links to Incident Emergency Centre (IEC) of IAEA**

IEC manages the IAEA **Response and Assistance Network (RANET)**. RANET Network is established to support practical implementation of the **Assistance Convention** for providing international assistance, upon request from a State, following a nuclear or radiological incident or emergency.

RANET has a registry of **National assistance capabilities (NAC)**

Under Dose Assessment capabilities in NAC (as for November 2015)

- 10 laboratories in cytogenetic biodosimetry registered in RANET globally
- Among these laboratories 4 laboratories are RENEb laboratories
- 4 other registered non-European laboratories collaborate closely with RENEb.
- no European laboratories registered for performing EPR or OSL dosimetry; globally only 3 laboratories in the NAC registry





Links and interaction with IAEA (2)

- The leader of IEC I. Buglova - RENEb External Advisory Board member
- IEC representatives participate in RENEb annual meetings and contributed to the open public events of RENEb
- RENEb has contacts with **Division of Human Health of IAEA** that deals occasionally with biosimetry.

In 2012 this division organised the coordination meeting for the biosimetry laboratories - mostly from developing countries. RENEb was presented on this meeting.

2015 RENEb was presented at the NIRS/IAEA Technical Meeting “Future of Biosimetry in Asia: Promoting a Regional Network”





Collaboration with WHO

BioDoseNet of WHO - was established in 2007 to fulfil requirements of International Health Regulations 2005

- The majority of RENE B laboratories are members in WHO BioDoseNet (ca 60 member laboratories globally).
- RENE B participates actively in BioDoseNet Coordination Meetings and interacts with BioDoseNet in exercises

RENE B is linked to **Radiation Emergency Medical Preparedness and Assistance Network REMPAN**

http://www.who.int/ionizing_radiation/a_e/rempan/en/

WHO BioDoseNet and REMPAN Coordinator Zhanat Carr is a member of RENE B External Advisory Board





Other international organisations contacted by RENEB

- **European Commission:**

D-G ENERGY, Radiation Protection and Nuclear Safety

D-G Humanitarian Aid and Civil Protection, Emergency Response

- **HERCA**

A voluntary association of the Heads of Radiation Protection Authorities

- **OECD/NEA**

The Nuclear Energy Agency (NEA) - specialised non-governmental agency within the Organisation for Economic Co-operation and Development (OECD)



RENEB Intercomparison exercises made links to the global biodosimetry community

42 Participants 2nd exercise

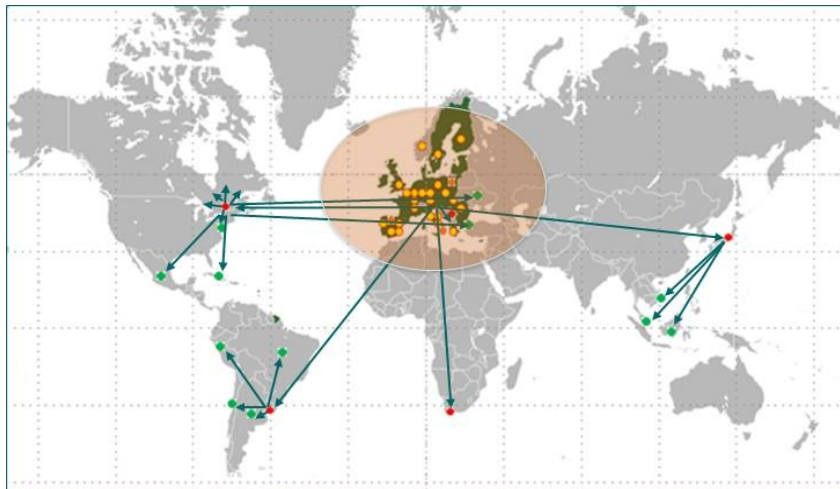
Reneb - 19 labs, 14 EU countries

Reneb-Candidates - 4 labs from, 3 EU countries

Non-Reneb - 19 labs, 18 countries

Contact labs in: Japan, Canada, Uruguay, South Africa, Serbia (non EU)

Assays tested: cytogenetic (dicentrics, micronuclei)



29 Participants 3rd exercise (table-top)

Reneb – 22 consortium members

Reneb-Candidates – 3 labs

Non-Reneb – 3 participants from Canada, South Afrika and Japan

Accident simulation exercise

2 Aims:

- *to exercise activation of the network*
- *dosimetric triage exercise*
- *to test changes of capacities*

Mark triage category by X		
GREEN	ORANGE	RED



Linking RENEB to EU Radiation Research Platforms

NERIS: Emergency preparedness



MELODI: Effects of low doses



EURADOS: Dosimetry



ALLIANCE: Radioecology



Emerging Medical applications of IR

RENEB - the cross-cutting : Infrastructure resource Education & Training





RENEB-EURADOS joined activities

- RENEB participates actively in EURADOS AM
- Joint exercises in EPR and OSL dosimetry
- RENEB and EURADOS are working together on the final RENEB 'new method' intercomparison exercise for Gene Expression, TL and Raman spectroscopy.
- RENEB is mentioned several times in EURADOS strategic research agenda (SRA)





Other research contacts

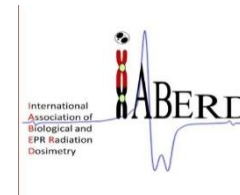
NATO

Science and Technology Organization (STO) acts as NATO's principal organization for science and technology research.

Research Task Group on Ionizing Radiation Bioeffects and Countermeasures (HFM-222 RTG) under NATO Human Factors and Medicine Panel.

In 2012 this group invited Reneb project to present the network to group annual symposium in Ljubljana, Slovenia.

International Association of Biological and EPR Radiation Dosimetry (IABERD)



Established in 2013 to support global EPRBioDose conferences on biodosimetry and EPR.

Last conference in October 2015- special RENEb session



Future of the Network – international collaboration is essential

- To achieve the goal of RENEB:
Ensure sustainable high quality biosimetry capabilities in European countries with sufficient capacity to meet their needs for such services in a timely manner both for radiological emergencies and radiation research needs.

