EURADOS Working Programme on Internal and External Dosimetry

October 10th, 2017
ICRP 4th Symposium
Second ERPW
Paris, France

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Institute of Radiation Protection
Department of Radiation Sciences
Helmholtz Zentrum München, German Research Center for Environmental Health (HMGU)
EURADOS (as of March 2017)

• **Mission**
  Promote research and development in dosimetry
  Contribute to harmonisation in dosimetric practice

• **Voting Member Status (March 2017)**
  72 Voting Members from 30 countries

• **EURADOS Board of Officers**
  Chair: W. Rühm (HMGU, Germany)
  Vice-Chair: F. Vanhavere (SCK-CEN, Belgium)
  Secretary: JF. Bottollier (IRSN, France)
  Treasurer: H. Schumacher (PTB, Germany)

• **EURADOS Office**
  operated by HMGU (W Rühm, J Brehme, (H. Schuhmacher))

• **EURADOS Council**
EURADOS Working Groups

Eight EURADOS Working Groups

- Harmonization of Individual Monitoring (P. Gilvin, UK)
- Environmental Dosimetry (A. Vargas, Spain)
- Computational Dosimetry (R. Tanner, UK)
- Internal Dosimetry (M.A. Lopez, Spain)
- Radiation Dosimetry in Radiotherapy (R. Harrison, UK)
- Retrospective Dosimetry (C. Woda, Germany)
- High-Energy Radiation Fields (J.F. Bottollier, France)
- Dosimetry in Medical Imaging (Z. Knezevic, Croatia)

Associate Members

Almost 500 scientists contributing to the overall EURADOS mission
EURADOS Annual Meetings

Number of participants - History

ICRP-ERPW 2017, Paris

W. Rühm, HMGU
EURADOS Visibility – Website, Newsletter, Reports

Website and newsletter (S Miljanic, P Fattibene): 920 subscribers

Feel free to subscribe if not yet done!

Two EURADOS Reports in 2016


• 2016-02: A. Buffler, G. Reitz, S. Röttger, F. D. Smit, F. Wissmann (Eds.) “Irradiations at the High-Energy Neutron Facility at iThemba LABS”
## EURADOS Peer-Reviewed Publications

### List of publications

In peer reviewed journals published started from the year 2005 related to the work performed in EURADOS working groups.

**February 2017**


**2016**


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### Table: 10 year average number of publications

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of publications</th>
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<tbody>
<tr>
<td>2007</td>
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<td>2015</td>
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<td>2016</td>
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10 year average: every 6 weeks one publication
**EURADOS Workshops and Winterschools**

### Winter Schools:
“Refreshment courses”

- Medical Application of Internal Dosimetry (AM2017)
- Dosimetry for Epidemiological Cohorts (AM2016)
- Fukushima (AM2015)
- RBE, radiation weighting factor and quality factor (AM2014)
- Status and Future Perspectives of Computational Micro- and Nanodosimetry (AM2013)
- Radiation Protection for Medical Staff (AM2011)

### Workshops with Proceedings 1)

Related to research topics where EURADOS Working Groups are involved

- Dosimetry for second cancer risk estimation in radiotherapy (AM2012)
- Accelerator radiation protection and shielding (AM2010)
- Cosmic Radiation and Aircrew Exposure (AM2009)
- Dosimetric Issues in the Medical Use of Ionizing Radiation (AM2008)
- Characterization of Workplaces for the Assessment of the Doses to Individuals (AM2007)

1) 2004-2010: in RPD; 2012: in Rad Meas
EURADOS – Organisation of Intercomparison Exercises

- Intercomparisons regularly organised as needed
  - Whole body, photons
  - Finger ring, photons
  - Whole body, neutrons
  - Active dosemeters
  - Passive area dosemeters
  - Etc. …

- Example: IC2016
  - Whole body dosemeters
  - 86 participants, 36 countries,
  - 6 non-European participants

- Results are
  - Evaluated by Eurados
  - Discussed during Annual Meetings
  - Published in scientific literature
  - Published in detail as EURADOS reports

- 2015-01: A. F. McWhan et al. EURADOS Intercomparison 2010 for Whole Body Dosemeters in Photon Fields
- 2013-03: T.W.M. Grimbergen et al. "EURADOS Intercomparison 2009 for Extremity Dosemeters in Photon and Beta Fields"
All WGs Involved in Training Activities – Recent Examples

Announcement Individual Monitoring Services Learning Network

During the
EURADOS Annual Meeting 2017
AM2017
Karlsruhe, Tuesday 28th February 2017

Dear colleagues from dosimetric services,

We are pleased to invite you to the IMS (Individual Monitoring Service) Learning Network. This is a new initiative from EURADOS (WG2), intended to promote the harmonisation of individual monitoring in Europe by:

- Building on the interest generated at the Individual Monitoring Conferences. These happen every 5 years - too long not discussing, learning, improving, sharing all kinds of dosimetric issues.
- Providing follow-up for colleagues who have attended the WG2 Training Courses on the Technical Recommendations document (RP60(s))
- Providing a development opportunity for IMS staff.

So please join us at the annual meeting at EURADOS for the parallel program on Tuesday. The Learning Network is open to the staff of all individual monitoring services. Please register for the EURADOS Annual Meeting.

What is it about?

During this day we will combine intercomparison participant meeting, external lectures with a practical impact for dosimetry services and intense discussions between peers. The objective is to learn and grow together during this learning network.
EURADOS – Strategic Research Agenda …

EURADOS Stakeholder Workshop – June 30, 2016, Neuherberg, Germany

Meeting of 24 international organisations

• Commenting on EURADOS SRA
• Identifying missing topics
• Expressing interest (or not) in future cooperations

Participating organisations

ALLIANCE, EANM, EFOMP, ENISS, ESR, ESTRO, EURAMET, HERCA, IAEA, IARC, ICRP, ICRU, ILO, IRPA, ISO, ISSDO, MELODI, NEA, NERIS, NUGENIA, PTCOG, RENEB, SSH.

Next Steps

• Workshop report published
• Update of current EURADOS SRA
EURADOS – Future Activities …

• Various intercomparison exercises planned (photons, neutrons)

• Various training actions planned

• Interaction with other players in radiation protection (ICRP, ICRU, EANM, …)

• Stakeholder involvement

• CONCERT involvement

• Development of Research Agenda, Roadmap

• Interaction with MELODI, ALLIANCE, NERIS, EURAMED

… Details see AM2018 …
THANK YOU!