

## **Global Coordination of Low-Dose Research: Scoping Meeting Summary**

## Milan Meeting

- Low-dose research is important to government funding organisations
- Much research is ongoing and planned across the globe
- The CRPPH felt that the global nature of ongoing work merits consideration of some level of global coordination
- To address this need, on 17-18 September 2018, the NEA organised a scoping meeting on global coordination
- Hosted by the University of Milan, the meeting brought together 35 participants from 13 countries, including EU radiological protection research platforms, regulatory authorities, and research organisations

## Pre-meeting Survey

- What research questions are being asked by funding organisations?
- What priorities are given to research questions – what questions need answers?
- What are the characteristics of funded research?
- What coordination and collaboration approaches are being used?

## Key Messages from Meeting

- National and international research coordination has been shown to be efficient and effective
- Low-dose radiation effect research remains an important issue, and global coordination should be encouraged
- A high-level group should be established by the OECD/NEA to support the development of a global coordination initiative
- Research funding organisations should be a focal point to achieve coordination

## Coordination and Collaboration

- **Low-Dose Research:** both low dose and dose rate research (high and low LET), doses below to far below 100 mSv
- **Data Coordination:** characteristics necessary to understand the nature of experimental design, implementation, results
- **Global Coordination** should include:
  - Funding/co-funding, eligibility,
  - Identify existing research and research gaps
  - Avoiding duplication
  - Coordination of resources
  - Joint research projects (e.g. large-scale animal experiments)
  - Facilitating and organising data sharing
  - All-hazards approach, e.g. AOP as bridge to other hazards
  - A low-risk communication strategy
  - Education and training

## Benefits of Coordination

### Coordination Should:

- Improve cost effectiveness
- Improve research efficiency and effectiveness
- Exploit commonalities
- Facilitate data sharing
- Achieve higher quality, broader results
- Increase international awareness of research
- Facilitate access to unique facilities

### But:

- Research collaboration may involve costs, e.g. travel
- NEA coordination will involve costs
- Researchers may be protective of intellectual property

## Where to Start?

- The SRA/Roadmap process used in Europe has been successful, and could be discussed as a starting point to global coordination
- Existing trans-national research coordination and collaboration is seen as extremely valuable (ex. Uranium mining cohort, nuclear workers, radon domestic exposure, RERF, Russian health studies, Fukushima studies, etc.)

## The Current Situation

- Low-dose research is broadly seen as being important for public, occupational, and medical exposures
- Social science should be further emphasised in terms of identifying stakeholder concerns and communicating results
- How stakeholder concerns are collected and considered in research decisions could be considered
- Response to the NEA questionnaire was significant, but more replies would have been useful. It was suggested that responses be solicited from other countries, organisations (e.g. medical research funders, etc.)
- Processes for setting research priorities in most countries are organisation-dependent, with additional holistic coordination and co-funding layer in European-supported research



## Key Coordination Issues to Address

- Sharing of data, resources, facilities, etc.
- Sharing of negative results
- Cohort pooling and quality control
- Ethical issues (e.g. animal experiments, data management, etc.)
- Big data
- Biomarker identification and validation
- Investigate cooperation with the AOP approach for chemical toxicology
- Funding mechanisms for coordination activities
- Informing regulators of state-of-the-art research results
- Global coordination should be based on a network of national coordination structures
- Coordination can form a sustainable, global vision of the way forward, that can justify costs
- Independence of research must be maintained
- Education and training

## Why NEA?

- The global coordination role is seen as being needed for low-dose research, and the NEA is strategically well placed to fill this role:
  - NEA and OECD orientation towards policy aspects
  - Facilitate cooperation with chemical toxicology expertise through the OECD AOP community
  - Facilitate cooperation with the medical community through the OECD health policy and statistics community
  - Experience in organising joint experimental programmes (e.g. CSNI, CRPPH, NEST projects)
  - Experience in organising peer reviews
- Peer review services on request, e.g. for proposal review

## High-Level Group on Low Dose Research

The HLG-LDR will be discussed by the CRPPH Bureau to:

- Propose a process, an organisational structure, tools and a timeline to effectively implement a programme to globally coordinate low-dose research
- Use the CONCERT road-map approach as a starting point
- Address the following issues:
  - identify gaps and needs
  - facilitate joint, international financing
  - exchange of data and data confidentiality considerations
  - global databases (list of links) for RP science studies (see UNSCEAR), tissue banks, etc.
  - exchange experience with AOP experts (OECD)

## Proposed Path Forward

- January 2019: CRPPH Bureau to discuss meeting results, develop proposal for HLG-LDR
- March 2019: CRPPH to discuss proposed HLG-LDR, and agree on, if appropriate, a mandate
- June 2019: If agreed, organise the first HLG-LDR meeting, invite IAEA, EC and EU Platforms, research