MEMORANDUM OF UNDERSTANDING

BETWEEN
The Bundesamt für Strahlenschutz, GERMANY
and the
Bundeswehr Institut für Radiobiologie der Bundeswehr affiliated to the University of Ulm, GERMANY
and the
Centre for Radiation Protection Research, Stockholm University, SWEDEN
and the
Commissariat à l'énergie atomique et aux énergies alternatives, FRANCE
and the
Agenzia Nazionale per le Nuove Tecnologie, L´Energia e lo Sviluppo Economico Sostenibile, ITALY
and the
Fundacion para la Investigation del Hospital Universitario la fe de la Comunidad Valenciana, SPAIN
and the
Helmholtz Zentrum München – Deutsches Forschungszentrum für Gesundheit und Umwelt (GmbH), GERMANY
and the
Instytut Chemii i Techniki Jądrowej, POLAND
and the
Institutul National de Sanatate Publica, ROMANIA
and the
Institut de Radioprotection et de Sûreté Nucléaire, FRANCE
and the
Istituto Superiore di Sanità, ITALY
and the
Instituto Superior Técnico, Universidade de Lisboa, PORTUGAL
and the
National Center for Radiobiology and Radiation Protection, BULGARIA
and the
National Centre for Scientific Research "Demokritos", GREECE
and the
National Public Health Center, HUNGARY
and the
Norwegian Radiation Protection Authority, NORWAY
and the
Public Health England, UNITED KINGDOM
and the

Servicio Madrileño de Salud, Hospital General Universitario Gregorio Marañón, SPAIN
and the
Universitat Autonoma de Barcelona, SPAIN
and the
Universiteit Gent, BELGIUM
and the
University of Tuscia, ITALY
and the
Army Medical and Veterinary Research Center, ITALY
and the
Studiecentrum voor Kernenergie/Centre d'Etude de l'Energie Nucléaire, [also known as the Belgian Nuclear Research Centre], BELGIUM
and the
Dublin Institute of Technology, IRELAND
and the
Forschungszentrum Jülich GmbH, GERMANY
and the
Laboratori Nazionali di Legnaro of Instituto Nazionale di Fisica Nucleare, ITALY
and the
University Sevilla, SPAIN
and the
Radiation Protection Centre, LITHUANIA
and the
French Army Biomedical Research Institute, FRANCE

CONCERNING
AN OPERATING NETWORK IN BIOLOGICAL DOSIMETRY
AND EPR/OSL DOSIMETRY

The Bundesamt für Strahlenschutz (BFS), Germany; the Bundeswehr Institut für Radiobiologie der Bundeswehr affiliated to the University of ULM (BIR), Germany; the Commissariat à l'énergie atomique et aux énergies alternatives (CEA), France; the Agenzia Nazionale per le Nuove Tecnologie, L´Energia e lo Sviluppo Economico Sostenibile (ENEA), Italy; the Helmholtz Zentrum München – Deutsches Forschungszentrum für Gesundheit und Umwelt (HMGU), Germany; the Instytut Chemii i Techniki Jądrowej (ICHTJ), Poland; the Institutul National de Sanatate Publica (INSP), Romania; the Institut de Radioprotection et de Sûreté Nucléaire (IRSN), France; the Istituto Superiore di Sanità (ISS),Italy; the Instituto Superior Técnico, Universidade de Lisboa (IST), Portugal; the Fundacion para la Investigation del Hospital Universitario la fe de la Comunidad Valenciana (LAFE), Spain; the National Center for Radiobiology and Radiation Protection (NCRRP), Bulgaria; the National Centre for Scientific Research "Demokritos" (NCSRD), Greece; the National Public Health Center (NRIRR), Hungary; the Norwegian Radiation Protection Authority (NRPA), Norway; the Public Health England, (PHE), United Kingdom; the Centre for Radiation Protection Research, Stockholm University (SU), Sweden; the Universitat Autonoma de Barcelona (UAB), Spain; the Universiteit Gent (UGent) , Belgium; the University of Tuscia (UNITUS), Italy; the Servicio Madrileño de Salud, Hospital General Universitario Gregorio Marañón (SERMAS), Spain; the Army Medical and Veterinary Research Center (AMVRC), Italy; the Studiecentrum voor Kernenergie/Centre d'Etude de l'Energie Nucléaire (SCK-CEN), Belgium; the Dublin Institute of Technology (DIT), Ireland; the Forschungszentrum Jülich (FZJ), Germany; the Laboratori Nazionali di Legnaro of Instituto Nazionale di Fisica Nucleare (INFN), Italy; the University Sevilla (US), Spain; the Radiation Protection Centre (RSC), Lithuania; the French Army Biomedical Research Institute (IRBA), France hereinafter collectively called the "Participants",

Whereas the importance, in case of a large-scale radiation accident or terrorism attack, to proceed, after the clinical triage of those persons who are potentially involved, to the estimation of the radiation doses in order to determine whether exposure will cause deterministic or stochastic effects;

Considering that, in the immediate post-exposure period, biological dosimetry can also be used in a triage mode to supplement the initial clinical triage by confirming highly irradiated patients who will require clinical intervention and also identifying wrongly diagnosed, false positive cases;

Considering that, later, the biological and EPR/OSL dosimetry will be extended, notably for selected cases that would be analyzed, to produce more accurate evaluation of high partial body exposure;

Whereas the need to handle potentially a large number of casualties following a major event and the little surge capacity of each organization that has only limited number of trained staff;

Anticipating the potential need for mutual assistance in such case to increase the number of samples handled and to achieve faster availability of results, either upon request from one of the Participants, or upon request from national authorities of countries that have no biological dosimetry or EPR/OSL dosimetry capacity, under terms to be determined later;

Considering that the Participants could form a nucleus to which laboratories from other States would join;

Considering the long-term sustainability of the network an annual membership fee is foreseen in the future to cover running costs;

Considering the long-term sustainability of the network rules for participation, e.g. regulations for paper and ownership, will be defined in the future in a consortium agreement;

Expressing therefore their support to establish a network under the name “RENEB” of specialized biological dosimetry units and EPR/OSL units to analyze blood samples or other biological samples or personalized devices for radiation-induced cytogenetic or other biological damage or physical changes;

Considering the need for activities to allow for comparable high quality standards of the biological methods and EPR/OSL techniques used for dose estimation;

State their understanding as follows:

A. The Participants decide to create a network “RENEB” of specialized biological dosimetry units and EPR/OSL dosimetry units.

B. The “RENEB” network includes the biological dosimetry organizations and EPR/OSL dosimetry organizations from the undersigned Participants; other biological dosimetry and EPR/OSL dosimetry organizations could join the “RENEB” network subject to the agreement of the current Participants.

C. The purpose of the RENEB network is to provide mutual assistance in case of radiological emergency, according to the conditions described here.

D. The “RENEB” participants agree to cooperate in Quality assurance activities and in Education and Training events to assure comparably high quality standards of the established dose estimation techniques

E. The “RENEB” participants agree to cooperate in the exchange of scientific information related to RENEB activities

F. The “RENEB” participants agree to cooperate in the exchange of scientists and specialists related to RENEB activities

G. The “RENEB” participants agree to cooperate in the exchange of research data and materials related to RENEB activities

H. The “RENEB” participants agree to cooperate in the setup of an internal communication structure

I. As the scale of an incident becomes apparent, the Participant in the country in which the event occurs decides whether biological dosimetry or EPR/OSL dosimetry can be carried out just in that country or whether to activate the network. Its organization is the lead organization .
In case there is more than one biological dosimetry or EPR/OSL dosimetry organization in a country, the organization which is officially authorized by the responsible authority will take the lead.

J. After activation of the RENEB network, the lead organization informs the partners of the circumstances of the incident, and together they establish by writing the extent of cooperation needed.

K. The Participants’ activities under this Memorandum of Understanding will be conducted in accordance with the laws and regulations under which each Participant operates.

L. The Participants agree to contribute to pre-planning, reagent stockpiling, and sample processing in their organizations to be able to respond promptly to the activation of the RENEB network.

M. Quality assurance activities shall be conducted within the assigned budget in all parties and subject to the applicable laws and regulations in each country.

N. The Participants intend that the collaboration contemplated herein may commence upon signature. The terms of the cooperation may be altered at any time by mutual agreement in writing. If either Participant desires to terminate its activities hereunder, it will give 90 days’ advance written notice to the other Participants.

O. The arrangements, written in this MoU shall be valid as long as no other arrangements are made.

P. The MoU is not intended to be legally binding, and no legal obligations or legal rights shall arise between the Participants from this MoU.

Signed in 2 copies, in the English language. One remains with the signatory and one with RENEB coordinator. After all signatures are collected by the RENEB coordinator each signatory gets one copy of the MoU with all signatures. The originals will be kept by the RENEB coordinator.