

REMPAN

e-NEWSLETTER



World Health Organization

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December, 2018

Editorial

Dear Reader,

We are closing the 2018 with this Special Issue of the Radiation Protection Dosimetry (RPD) Journal that contains Proceedings of the 15th WHO REMPAN meeting held in 2017 in Geneva, where we celebrated together with you the 30th anniversary of the Network's creation. I would like to thank each and all of you for your continuing support, enthusiasm and your endless good will efforts put towards REMPAN's activities and the proceedings of our last meeting.

I would like to express my gratitude to Dr. Christophe Murith (Swiss Federal office of Public Health, WHO Collaborating Center) and Dr. Chunsheng Li (Health Canada) for co-editing this special issue of RPD with me, and say special thanks to Dr. Sergey Alexanin (All-Russian Center of Emergency and Radiation Medicine, WHO Collaborating Center) for supporting the printing costs of the Proceedings).



In addition, we introduced a new title of “**REMPAN Super-Reviewer**” and nominate Prof. Noboru Takamura (Nagasaki University, WHO Collaborating Center) to be the first holder of this title. Congratulations Noboru! You are our inspiration, the Super-Reviewer-2018!

The past year was quite rich with events and activities, keeping all of us very busy. Looking back, we can be proud of our work! To name a few milestones, these are the REMPAN workshops held in Seoul and Stockholm; two REMPAN Webinars; active involvement in IRPA conferences (e.g. a joint WHO-IRPA session at the Asia-Oceania Congress on Radiation Protection held in Melbourne), the 5th BioDoseNet meeting held in Munich, the launch of a new joint WHO-NEA/OECD project for development of a framework for management of mental health impact of radiological and nuclear emergencies, and any more events about which you will reads in this issue. With your help we have translated the ITB guidelines to [Spanish and Japanese](#) languages and are currently finalizing Russian, French and Chinese versions as well.

We look forward to continuing a successful collaboration in the 2019 and wish you happy holidays with your loved ones!

With warmest regards,
Dr Zhanat Carr
 WHO REMPAN Secretariat

In this issue

Editorial	1
News – REMPAN Secretariat	2
Scientific Events	3-4
Radiobiology Conference, Russia	
American-Russian Meeting, Russia	
Biodosimetry Meeting, Austria	
Education, Training, Exercise	4-5
US-Japanese Teaching, USA	
REAC/TS Course, Estonia	
Radiation Protection, Russia	
News – Network Members	6
Nagasaki University / IRNS	
Collaboration, France / Japan	
REAC/TS, USA	
New Publications	7
Coming, going...	7
Upcoming Events and Training Courses	8
Disclosure	8



News – From REMPAN Secretariat

◆ A Triple Billion Strategy

As the global health landscape is constantly evolving and changing and making us to face new challenges, WHO is also in the midst of transformation. WHO is working to strengthen its foundations through strong leadership and by revamping resource mobilization; in addition, the Organization is working on further improving efficiency, transparency and accountability.

The landscape in which WHO operates is complex and diverse, yet the role of the Organization is as vital as ever. There are more synergistic and collaborative partnerships – involving civil society, academic institutions and philanthropic foundations – while the monitoring and measuring of targets and indicators is more focused and ambitious.

In response to current health challenges and disease patterns, and against the backdrop of a changing global health architecture, WHO has a radical new plan. Exactly 70 years since WHO was founded, the draft 13th general programme of work, 2019–2023 sets out not just to transform WHO, but to transform global health and, ultimately, human lives. It starts by clarifying WHO's mission – **to promote health, keep the world safe and serve the vulnerable** – and it goes on to outline several strategic shifts to achieve that mission.

The objectives laid out are ambitious, but significantly, they come with concrete numbers:

- 1 billion more people benefitting from universal health coverage
- 1 billion more people better protected from **health emergencies**
- 1 billion more people enjoying better health and well-being.

The “triple-billion” goal is revolutionary. But at a time when the world is faced with enormous challenges, a bold vision of the future may be the best medicine that the doctor can prescribe. The way forward is outlined in the WHO [Thirteens General Programme of Work for 2019-2023](#). ◆



News – From REMPAN Secretariat

◆ Joint External Evaluations

Radiation program of the WHO and REMPAN Secretariat continue supporting the implementation of the International Health Regulations (IHR-2005) and contributing to the on-going Joint External Evaluation missions – one of the key components of the IHR implementation monitoring framework that complements annual self-reporting by Member States to the WHO Secretariat.

The Joint External Evaluation Tool is intended to assess country capacity to prevent, detect, and respond to public health threats independently of whether they are naturally occurring, deliberate, or accidental.

Countries can request a JEE mission to help them identify the most urgent needs within their health system. The JEE will help engage with stakeholders and partners initiatives to support country outbreak and health emergency preparedness.

The 2nd edition of the [Joint External Evaluation tool \(JEE\) tool](#) was published in 2018.

By the end of 2018, 91 JEE mission was implemented in the WHO member states. The reports of these evaluations are available at: <https://www.who.int/ihr/procedures/mission-reports/en/>

In 2018, REMPAN experts supported the JEE missions in:

- Singapore in April 2018;
- Egypt in October 2018;
- Lithuania in November 2018.



Scientific Events

International Research-to-Practice Conference, Chelyabinsk, Russia - By Alexander Akleyev, URCRM, Chelyabinsk, Russia

The International Research-to-Practice Conference "**Achievements of Radiobiology for Medicine**" held in Chelyabinsk, Russia on September 21, 2018 was organized by the Urals Research Center for Radiation Medicine (URCRM) of the Federal Medical and Biological Agency of Russia, Federal Medical and Biological Agency of Russia, Ministry of Health of the Chelyabinsk Region. The conference was attended by scientists from Russia, USA, and Kazakhstan.



*Conference
"Achievements of
radiobiology for
Medicine" –
Chelyabinsk,
Russia –
September 2018*

The following issues were discussed:

- development of innovative methods for diagnosing and treating human radiation injuries; prospects for the creation and implementation of new radiopharmaceuticals
- biomedical effects of chronic exposure of men and possible ways to overcome the consequences of such effects.

A collaboration agreement was signed at the conference between the Urals Research Center for Radiation Medicine and the Research Institute for Radiation Medicine and Ecology of Semipalatinsk, Kazakhstan. ♦

The 6th International Course on Medical Management of Radiological and Nuclear Events – Stockholm, Sweden, October 10-12, 2018 - by Leif Stenke, Karolinska University Hospital, Stockholm

A 3-day course was organized by Karolinska Institutet (KI), Stockholm Prehospital Centre and the National Board of Health and Welfare of Sweden in collaboration with the WHO-REMPAN and the European Blood and Marrow Transplantation group (EBMT) and provided an update on medical management of RN events. Lessons from major past and recent accidents were provided by the world's top experts. Topics also include emergency communication and international collaboration and research. The participants were mainly physicians with the background in hematology, oncology, emergency medicine, intensive care, infectious diseases, traumatology and general medicine, who may be involved in management of radiation injuries. ♦



Russian-American Working Meeting, Chelyabinsk, Russia

By Alexander Akleyev, URCRM, Chelyabinsk, Russia

On September 17-22, 2018 a Russian-American working meeting was held in Chelyabinsk, Russia devoted to the projects carried out within the framework of the **Russian-American Inter-governmental Agreement on the radiation effects research**. The purpose of the meeting was to discuss joint current work on the projects:

- 1.1 "Improvement of the Techa River Dosimetry System"
- 1.2b "Stochastic Effects of Environmental Radiation Exposure in Populations Living near the Mayak Industrial Association".

During the working meeting, methods for analyzing the radiogenic risk of incidence or mortality using averaged doses estimates obtained on the basis of data with multiple realizations when calculating dose uncertainties were discussed. Following the meeting, decisions were made on the application of dose uncertainty assessments to assess the uncertainty of the radiation risk of cancer among residents of the Ural region.

The promising areas for further work of the Russian-American research team are:

- Creation of a new dosimetry system focused on the combined cohort of the exposed population of the Ural region of the Russian Federation
- Completion of work on the age dosimetric model of bone tissue and its integration into the dosimetry system for calculating individual doses and analyzing the risk of solid cancer mortality using new deterministic and stochastic doses on soft tissues calculated with TRDS-2016.

Similar studies will be conducted in the period 2019-2023 to analyze risk of leukemia and solid cancer incidence in exposed population. ♦

Scientific Events

International Conference on Health Effects of Incorporated Radionuclides, HEIR 2018 – Paris, France, 8-11 October 2018. - By Z. Carr, World Health Organization

The HEIR 2018 was jointly organized by IRSN and CEA, two of the leading institutions in Europe in the area of radiation toxicology and in radiation biology. The 12th edition was hosted by IRSN in its new conference facilities and provided an opportunity to discuss the latest advances in all the fields of radionuclide incorporation, such as biokinetics and chemistry of radionuclides, dosimetry of incorporated radionuclides, radiation toxicology and biology, but also uses of radionuclides in medicine, either for therapy or for medical imaging. The event was attended by a number of REMPAN members and gave us an opportunity to discuss relevant activities of the network.

The program and photos from the events are available here: <https://www.heir2018.com/> ♦



Meeting on Development of IAEA Biological Dosimetry Model Laboratory, Vienna, Austria

By Oleg Belyakov, IAEA, Vienna, Austria

The International Atomic Energy Agency (IAEA) organised a Consultants Meeting on development IAEA Biological Dosimetry Model Laboratory (IAEA-BDML) at the Seibersdorf IAEA site. It took place at the IAEA headquarters, Vienna International Center, in Vienna, Austria from July 17-20, 2018. The new laboratory will be a part of the Section of Applied Radiation Biology and Radiotherapy at the Division of Human Health.



Expert Group IAEA-BDML (left to right): P. Hande (Singapore), W. Dörr (Austria), U. Kulka (Germany), V. Vinnikov (Ukraine), R. Wilkins (Canada), Y. R. Lawrence (Israel), O. Belyakov, IAEA – Vienna, Austria – July 2018

Meeting discussed the general principles and guidelines for developing the biodosimetry services: facilities, resources, biodosimetry procedures, data management, quality assurance and quality control. The experts visited a number of IAEA laboratories at Seibersdorf, where a space was allocated for developing a new biodosimetry laboratory, and shared their valuable views that contributed to the drafting of recommendations for developing and establishing the biodosimetry laboratory at IAEA. ♦

Joint EC-IAEA Workshop on Emergency Preparedness and Response: Requirements and practical implementation - Luxembourg, 4–6 Dec. 2018

By Z. Carr, WHO

The workshop jointly organized by the European Commission and IAEA addressed the respective requirements of the IAEA (GSR Part 7) and EC (relevant legislation) and discussed the national experiences in implementation of these requirements. The WS was attended by the IACRNE members from WHO, NEA/OECD, and International Federation of Red Cross and Red Crescent Societies.



Photo: M. Krottmayr (IFRC), Y. Carr and F. Hanna (WHO), O. Guzman (NEA/OECD)

REAC/TS and University of Hiroshima Cooperate in Teaching

By Carol Iddins, REAC/TS, Oak Ridge, TN, USA

On 15 August, 2018 REAC/TS hosted a special guest lecturer, **Professor Nouyuki Hirohashi**, MD, PhD, from the Department of Radiation Medicine and in the Department of Radiation Disaster Medicine, Research Center for Radiation Casualty Medicine at the Research Institute for Radiation Biology and Medicine at Hiroshima University, Hiroshima, Japan. He presented “New Radiation Emergency Medical System in Japan. Lessons Learned From Fukushima and Hiroshima” as part of the REAC/TS Advanced Radiation Medicine (ARM) Course.



N. Hirohashi teaching at REAC/TS – Oak Ridge, USA – August 2018 ♦

Education, Training, Exercise

REAC/TS Team Held Training Course in Estonia

By Carol Iddins, REAC/TS, Oak Ridge, USA

A team from the **Radiation Emergency Assistance Center/Training Site (REAC/TS)** travelled to Tartu, Estonia, to provide an International Medical Management of Radiation Injuries (I-MED) Course in August 17-21, 2018. The course was hosted by the Estonian National Defence College and was sponsored in cooperation with the North Atlantic Treaty Organization (NATO) Center of Excellence for Military Medicine and the U.S. Department of Energy's National Nuclear Security Administration (NNSA) Office of Counterterrorism and Counter proliferation. This was the **first I-MED course** conducted under this new partnership with the NATO COE for Military Medicine, and Estonia volunteered to host this special event.



Participants and Instructors of REAC/TS Course – Tartu, Estonia – August 2018

Participants from Estonia, Finland, Lithuania, Romania, and the United Kingdom included health care personnel from military and civilian hospitals and ambulance services, and other relevant agencies. The 4-day I-MED course taught how to diagnose and treat radiation injuries and contamination, and use personal protective equipment. The course also involved hands-on drills and techniques for reducing the spread of radioactive contamination during radiological medical care and treatment. REAC/TS training staff are welcoming the new partnership with NATO to enhance and improve future NATO I-MED courses. ♦

Training in Radiation Protection and Safety in Moscow

By Andrey Bushmanov, Burnasyan Federal Medical Biophysical Center (SRC-FMBC), Moscow, Russia

From October 01-12, 2018, the WHO REMPAN Collaborating Center in Moscow, Russia held a training course for medical physicists and radiotherapists from Armenia, Tajikistan, Uzbekistan, Belarus, Latvia, Serbia and Russia (*see photo below*). The training was carried out within the IAEA's Technical Cooperation Program for the Cancer Treatment (PACT), as well as the IAEA Technical Cooperation Project RER/6/033 "Advanced Training in Radiation Therapy (Radiation Oncologists, Medical Physicists and Radiologist Technicians)".



The topic of the training was "Radiation Protection and Safety and Accident Prevention in Radiotherapy". Due to the great experience of the Moscow WHO REMPAN CC in the field of medical management of radiation accidents,

the objective of this training course was the safety culture and prevention radiotherapy accidents.

Training in Radiation Protection and Safety in Moscow

REMPAN e-NEWSLETTER - Issue 18 - December, 2018

(Continued)

Dr Irina Galstyan and Dr Valery Krasnuk addressed the topic of medical management of local radiation injuries after radiotherapy and presented case histories. The training focused on questions of the investigation of accidental exposure, minimizing of clinical consequences and complications of accidental radiation exposure and providing remedial and healthcare actions. ♦

IAEA's International School of Radiation Emergency Management

By Almira Geosev, Civil Protection School (CPS) of the Austrian Federal Ministry of the Interior

REMPAN Liaison Institute in Austria - the Civil Protection School (CPS) of the Austrian Federal Ministry of the Interior is also a Capacity Building Centre (CBC) of the IAEA. The focus of the CPS is on capacity building in the field of CBRN. In this capacity CPS supports IAEA's 3-week course of the International School of Radiation Emergency Management (ISREM). In October, the CPS hosted this course for the 4th time. The participants, coming from 15 different European countries, acquired skills and knowledge on international standards in preparedness and response to radiological emergencies with the aim to implement this knowledge in their national radiological emergency management concept. In 2018, the ISREM also took places in Morocco for the African Region and in Texas, USA for the Caribbean Region. Mrs. Almira Geosev, CPS, who supported these IAEA trainings as a lecturer, says: "It's a great opportunity and experience to get to know experts in radiation protection and emergency management all over the world. I think this course is a great concept to bring everyone on the same page when it comes to EPR".



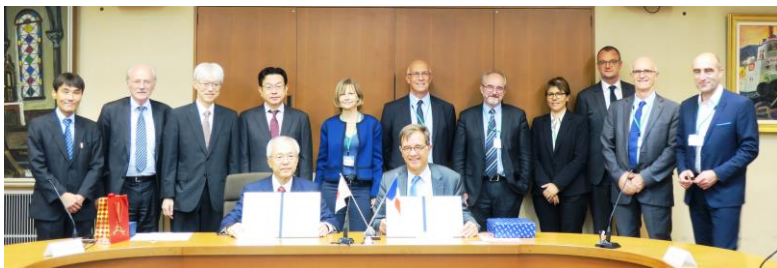
♦

News – From Network Members

Japan and France Agree on Collaboration

By Noboru Takamura, Department of Global Health, Medicine and Welfare, Atomic Bomb Disease Institute, Nagasaki University

On October 24, 2018, Nagasaki University (NU, Japan) and the Institut de Radioprotection et de Sécurité Nucléaire (IRSN, France) concluded an agreement for future collaboration and held their kickoff seminar in Nagasaki, Japan.



Signing Agreement on Future Collaboration – Nagasaki, Japan – October 2018

Both Nagasaki University and IRSN are WHO REMPAN Collaboration Centers, and they have contributed to the recovery efforts in Fukushima through risk communication and dialogue with residents. Through our experiences there, we realized the importance of developing collaborative efforts and of sharing information for being prepared for unexpected nuclear disasters, which resulted in this agreement for future collaboration. The aim of the seminar was to initiate collaborative studies between the institutions based on the mutual understanding.

At the seminar, attended by Prof. Miyazaki, director of the Atomic Bomb Disease Institute and Dr. J. Garnier-Laplace, participants reviewed research activities of both institutions. After the seminar, Prof. S. Kohno, NU president and Dr. J-C Niel, IRSN Director General, have signed the collaborative agreement. Future collaboration, conducted through personnel exchanges as well as research on radiation basic sciences and epidemiology, is being planned. ♦

Joint Seminar of Nagasaki University and KIRAMS

By Noboru Takamura, Department of Global Health, Medicine and Welfare, Atomic Bomb Disease Institute, Nagasaki University

On December 4, 2018, the Korean Institute of Radiological and Medical Sciences (KIRAMS, Republic of Korea) and Nagasaki University (NU, Japan) held their inaugural seminar in Seoul, Republic of Korea (*see photo below*). Both KIRAMS and NU are REMPAN collaboration centers and members of the Asian Radiation Dosimetry Group (ARADOS). In 2017, NU and KIRAMS signed the cooperation agreement. The institutions held the joint seminar to share knowledge of radiation emergency medicine and to promote collaborative study.



Joint Seminar of Nagasaki University and KIRAMS

(continued)

Seminar speakers reported on the radiation emergency medicine and basic radiation science activities, including updates on the Fukushima Health Management Survey and on the health risk of occupational exposure to ionizing radiation in the context of the international nuclear workers study. This joint seminar provided an opportunity to strengthen the relationship between KIRAMS and NU, in anticipation of further development of the exchange program as well as collaborative studies in the field of radiation emergency medicine.



Dr Zhanat Carr visited Radiation Protection Center in Vilnius, Lithuania

By Zhanat Carr, WHO

In November, in the framework of the WHO Joint External Evaluation (JEE) Mission, Z. Carr visited the National [Radiation Protection Center](#) of the Ministry of Health of Lithuania.



Photo: Dr Ramune Stasiunaitene – Deputy Director of RPC; Dr Z.Carr - WHO, and Dr Julius Zilukas – Head of the Department of Expertise and Exposure Monitoring, RPC

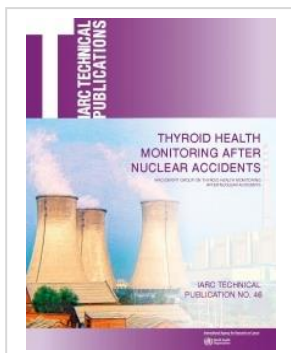
This Center has recently joined the WHO REMPAN as a Liaison Institution and therefore, the JEE was an excellent opportunity for the bilateral meeting and a discussion on future collaboration opportunities.

Lithuania has a long history and a high level of expertise in radiation medicine and radiation biology due to its history of peaceful use of nuclear technology, as well as the experience of Chernobyl accident that happened in 1986 in Ukraine, but most of all affected Belarus – and by proxy – the closest neighbouring country of Lithuania.

We welcome the new member of the REMPAN family and look forward to our future collaboration ♦

New Publications

Thyroid Health Monitoring after Nuclear Accidents WHO/IARC Technical Publication No. 46

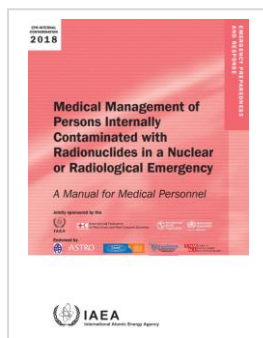


This new publication from the WHO International Agency for Research on Cancer (IARC) provides forward-looking recommendations of a multidisciplinary international Expert Group on long-term strategies for thyroid health monitoring after a nuclear power plant accident. As a basis for the recommendations, this publication also summarizes the available scientific evidence on thyroid cancer and experiences from past nuclear accidents.

The recommendations are intended to specifically address whether thyroid health monitoring should be implemented in a resident population in the vicinity of a nuclear accident and, if so, how such thyroid health monitoring should be prepared for and implemented in the context of general emergency preparedness for and response to nuclear accidents.

Free download in PDF : <https://goo.gl/ek2j34>

IAEA's EPR-Internal Contamination manual was published in August 2018.

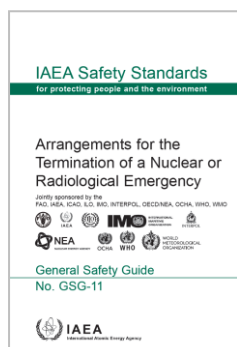


The manual covers the specific measures to be taken in the medical management of individuals who have been internally contaminated through inhalation, ingestion or absorption of radionuclides in a nuclear or radiological emergency. It includes a number of exposure scenarios, risk models and dosimetric data which can be used during the response to a nuclear or radiological emergency or for other purposes. This IAEA publication is co-sponsored by Pan-American Health Organization

The link for free download in PDF:

https://www-pub.iaea.org/MTCD/Publications/PDF/EPR-Contamination_web.pdf

IAEA GSG – 11: Guide on Arrangements for Termination of a Nuclear or Radiological Emergency



This new publication provides guidance and recommendations on arrangements to be made at the preparedness stage, as part of overall emergency preparedness, for the [termination of a nuclear or radiological emergency](#) and the subsequent transition from the emergency exposure situation to either a planned exposure situation or an existing exposure situation. It elaborates the prerequisites that need to be fulfilled so that responsible authorities can declare the nuclear or radiological emergency ended and it gives

detailed guidance on adapting and lifting protective actions. This publication, jointly sponsored by 10 international organizations (FAO, IAEA, ICAO, ILO, IMO, INTERPOL, OECD/NEA, UN OCHA, WHO and WMO) is intended to assist Member States in the application of IAEA Safety Standards Series Nos GSR Part 3 and GSR Part 7. ♦

Coming, going...

Dr. Carol Iddins, has been assigned as a new Director of the Radiation Emergency Assistance Center / Training Site ([REAC/TS](#)) in Oak Ridge, Tennessee, USA.

Dr. Iddins has 25 years of experience in civilian and military medicine and is a recognized subject matter expert in the medical management of radiological injuries and incidents.



*Carol Iddins,
Director of
REAC/TS*



Dr. Christophe Murith - Chef de section risques radiologiques, Département fédéral de l'intérieur DFI, Office fédéral de la santé publique (OFSP), Unité de direction Protection des consommateurs, has retired as of 01 December 2018. We thank Christophe for his enormous contribution and support he has given to the REMPAN work and wish him all the best in his new life of a free electron. Daniel Storch who is the successor of Christophe has very big shoes to fit in. Good luck to both!



*Dr Christophe
Murith, Swiss
Federal Office
of Public
Health*



NRPA in Oslo, Norway has changed the name!

By Monica Dobbertin
Senior Advisor, Section for Emergency Preparedness and Response, NRPA

From January 2019, the name of NRPA will change to the Norwegian Radiation and Nuclear Safety Authority (DSA). The change clarifies the role of the organization as a regulator, and to emphasize the work with nuclear safety and security.

The homepage is www.dsa.no/en and all email addresses will change the domain to @dsa.no ♦



Upcoming Training Courses and Events

WHO Collaborating Center **REAC/TS Training Courses** are scheduled as follows:

Radiation Emergency Medicine (REM)

- 12-15 February, 2019
- 05-08 March, 2019
- 23-26 April, 2019
- 11-14 June, 2019

Advanced Radiation Medicine

- 29 April-03 May, 2019

CONCERT training course "EURADOS-CONCERT"

By Sophie Ancelet, IRSN, Paris, France

The CONCERT training course "EURADOS-CONCERT" is jointly organized by IRSN, PHE, HMGU, BfS, and EURADOS WG10 and will be held from **April 15-19, 2019** at IRSN in Fontenay-Aux-Roses, France.

A total of 20 participants will be accepted and the deadline for applications is February 15, 2019. There is no course fee but only a limited financial support (10 students only) will be available to cover accommodation and breakfast for 5 nights. Preference will be given to students from Eastern and Southern European countries. ♦



Upcoming Events

- **14-15 January, 2019**, Fukushima, Japan:
International Symposium of the Fukushima Medical University “**Build Back Better: from the World to Fukushima, from Fukushima to the World**” – more info at: <http://fmu-global.jp/conferences-and-workshops/>
- **15-16 January, 2019**, Stockholm, Sweden
Workshop Nordic Nuclear and Radiation Risk Estimates – Advances and Uncertainties: <http://www.nks.org/>
- **14 February 2019**, Geneva, Switzerland
Bilateral WHO-IRSN meeting
- **08 March 2019**, Geneva Switzerland
Bilateral WHO-RERF meeting
- **20-21 March, 2019**, Rome, Italy:
Meeting of the [HERCA Working Group on Emergencies \(WE\)](#)
- 27-29 March, 2019, Paris France :
The 77th meeting of the [Committee on Radiation Protection and Public Health \(NEA/OECD\)](#)
- **03-05 April, 2019**, Roskilde, Denmark:
[5th NERIS Workshop](#)
- **13-16 May, 2019**, Munich, Germany:
[ConRad 2019](#) conference
- **12-14 June**, 2019, Geneva Switzerland:
The 27th meeting of the [IACRNE](#)
- **01-03 July, 2019**, Barcelona, Spain:
[RICOMET 2019](#) conference Social Science and Humanities in Ionising Radiation Research

Disclosure

The REMPAN e-NEWSLETTER is produced 2 times a year and circulated by WHO Secretariat to the network members to provide information about latest news on the network's and other relevant activities, developments in radiation emergency preparedness and management.

The REMPAN e-NEWSLETTER was prepared by the WHO Collaborating Centre for Radiation Emergency Medical Preparedness and Assistance, Würzburg, Germany and the REMPAN Secretariat, WHO, Geneva, Switzerland.

The designations employed and the presentation of the information in this Newsletter do not imply the expression of any opinion whatsoever on the part of the Secretariat of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. The World Health Organization does not warrant that the information contained in the Newsletter is complete and correct and shall not be liable whatsoever for any damages incurred as a result of its use.

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NB! The old link for downloading previous issues of the WHO REMPAN e-NEWSLETTERS is under reconstruction, will be available soon.

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