



13th – 16th May, 2019 in Munich, Germany

Bundeswehr Institute of Radiobiology affiliated to the University of Ulm

MONDAY, 13.05.2019

TIME	CONFERENCE OFFICE	BALLROOM SERGEANTS' MESS
from 10:00 AM	Registration and Check In	
7:00 PM - 9:00 PM		"Ice Breaker"
until 12:00 PM		

TUESDAY, 14.05.2019

TIME	LECTURE HALL	BASEMENT
8:15 - 8:45 AM	Welcome addresses	Poster exhibition
8:45 - 9:00 AM	Group photo	
9:00 - 10:00 AM	Radiation health effects and medical countermeasures I	
10:00 - 10:30 AM	Coffee break	
10:30 AM - 12:00 noon	Key Session I "Living in contaminated areas" Part I	
12:00 noon - 1:00 PM	Lunch break	
1:00 - 3:00 PM	Key Session I "Living in contaminated areas" Part II	
3:00 - 3:30 PM	Coffee break	
3:30 - 5:15 PM	Radiation biology/Radiation physics I	
6:00 PM Departure to "Bräustüberl Weihenstephan" Freising		

WEDNESDAY, 15.05.2019

TIME	LECTURE HALL	BASEMENT
8:00 - 10:05 AM	Key Session II "Latest trends in radiation preparedness"	Poster exhibition
10:05 - 10:35 AM	Coffee break	
10:35 - 11:50 AM	Radiation protection	
11:50 - 12:50 AM	Lunch break	
12:50 - 1:50 PM	Radiation accident management	
1:50 - 3:00 PM	Poster presentation (basement)	
3:00 - 3:30 PM	Coffee break	
3:30 - 5:30 PM	Radiation emergency medical preparedness and response	
Free time to explore Munich, suggestions and flyer available at the conference office		

THURSDAY, 16.05.2019

TIME	LECTURE HALL
8:00 - 9:20 AM	Radiation health effects and medical countermeasures II
9:20 – 9:50 AM	Effects of electromagnetic fields
9:50 - 10:20 AM	Coffee break
10:20 – 11:05 AM	Effects of low dose ionizing radiation
11:05 – 11:25 AM	Radiation risk perception of the public/External exposure assessment
11:25 AM – 12:05 PM	Radiation biology/Radiation physics II
12:05 – 12:15 pm	Closing remarks
12:15 - 1:15 PM	Lunch break

Tuesday, 14 May 2019

8:15 – 8:45 am	Welcoming addresses
8:45 – 9:00 am	Group photo
9:00 – 10:00 am	Radiation health effects and medical countermeasures I
10:30 am – 3:00 pm	Key Session "Living in contaminated areas"
3:30 – 5:15 pm	Radiation biology/Radiation physics I

8:15 – 8:45 am **Welcoming addresses**

9:00 – 10:00 am **Radiation health effects and medical countermeasures I**

Chairpersons *Dr. Christophe Badie and LTC (MC) Dr. Stefan Eder*

9:00 – 9:15 am
Prevention and management of long-term adverse health effects associated with exposure to ionizing radiation: an occupational medicine perspective
S. Eder, Bundeswehr Institute of Radiobiology, Germany

9:15 – 9:30 am
Multisite de novo mutations in human offspring after paternal exposure to ionizing radiation
P. Krawtitz, Institute for Genomic Statistics and Bioinformatics, University Bonn, Germany

9:30 – 9:45 am
Measuring response to radiation exposure by real-time differential gene expression sequencing analysis
C. Badie, Public Health England - Centre for Radiation, Chemicals and Environmental Hazards (PHE-CRCE), United Kingdom

9:45 – 10:00 am
The German Uranium Miners Biobank – a treasure chest for radiation research
M. Gomolka, Bundesamt für Strahlenschutz, Germany

10:00 – 10:30 am **Coffee break**

10:30 am – 12:00 noon Key Session I "Living in contaminated areas" Part I

Chairperson

Prof. Dr. Hajo Zeeb and COL (MC) Prof. Dr. Michael Abend

10:30 – 10:40 am

Introduction

M. Abend, Bundeswehr Institute of Radiobiology, Germany

10:40 – 11:00 am

Application of the Radiological Protection System in Post-Accident Situations - An update on ICRP Publications 109 and 111

A. Nisbet, Public Health England - Centre for Radiation, Chemical & Environmental Hazards, (PHE-CRCE) United Kingdom

11:00 – 11:20 am

Individual dose estimation based on radiation measurements in the environment (and it's relation to the environmental monitoring strategy)

F. Gering, Bundesamt für Strahlenschutz, Germany

11:20 – 11:40 am

Countermeasures, radiological surveillance and evolution of regulations in Belarus, after the Chernobyl accident

V. Averyn, Faculty of Biology at the University of Francisk Skaryna, Belarus

11:40 am – 12:00 noon

"Experiences on reduction of external dose to inhabitants of contaminated areas"

K. Andersson, DTU NUTECH Center for Nuclear Technologies, Technical University of Denmark

12:00 noon – 1:00 pm

Lunch break

1:00 – 3:00 pm Key Session I "Living in contaminated areas" Part II*Chairperson**Dr. Florian Gering and COL (MC) Prof. Dr. Michael Abend*

1:00 – 1:20 pm

Coping with radiological exposure in daily life following a nuclear accident: Lessons from the ETHOS and CORE projects in Belarus*T. Schneider*, European Platform on preparedness for nuclear and radiological emergency response and recovery (NERIS), France

1:20 – 1:40 pm

Towards a holistic approach to protection of inhabitants of contaminated environments: the role of non-targeted effects*C. Mothersill*, Department of Biology, McMaster University, Canada

1:40 – 2:00 am

High natural background radiation and health: an overview of current evidence*H. Zeeb*, Leibniz Institute for Prevention Research and Epidemiology – BIPS, Germany

2:00 – 2:20 pm

How dangerous is living in contaminated areas? Epidemiological thoughts on risks and further studies*P. Scholz-Kreisel*, Institute of Medical Biostatistics, Epidemiology and Informatics (IMBEI); University Medical Center of the Johannes Gutenberg University Mainz, Germany

2:20 – 2:40 pm

Social and medical preparedness and response against nuclear accident in Japan; lessons learned from Fukushima thyroid examination*S. Yamashita*, Fukushima Medical University/Nagasaki University, Japan

2:40 – 3:00 pm

Risk communication - a significant contribution to long-term psychosocial support of affected populations*C. Pözl-Viol*, Bundesamt für Strahlenschutz, Germany

3:00 – 3:30 pm**Coffee break**

3:30 – 5:15 pm**Radiation biology/Radiation physics I***Chairperson**TBA and Prof. Dr. Thomas Schmid*

3:30 – 3:45 pm

DNA damage interaction on both nanometer and micrometer scale determine overall cellular damage

G. Dollinger, Universität der Bundeswehr München, Germany

3:45 – 4:00 pm

Mutational patterns and gene expression signatures in a cell line resistant to cytostatics and irradiation

R. Ullmann, Bundeswehr Institute of Radiobiology, Germany

4:00 – 4:15 pm

Radiation –induced mutational changes in the genome, exome and transcriptome of human fibroblasts

A. Kuss, University Medicine Greifswald, Germany

4:15 – 4:30 pm

Biological interaction of a static magnetic field (SMF) with ionizing irradiation

T. Schmid, Institute of Innovative Radiotherapy, Helmholtz Zentrum München, Neuherberg, Germany

4:30 – 4:45 pm

Research in radiotoxicology and the 3Rs - Replace, Reduce and Refine – observations

N. Griffith, CEA, France

4:45 – 5:00 pm

Automatic scoring of dicentric chromosomes and the detection of partial body exposure: Statistical considerations

D. Endesfelder, Bundesamt für Strahlenschutz, Germany

5:00 – 5:15 pm

Is there any similarity in gene expression profile in response to radiation therapy, independently of the cancer type?

J. Polanska, Silesian University of Technology, Gliwice, Poland

6:00 pm

Departure to conference dinner at “Bräustüberl Weihenstephan”

Wednesday, 15 May 2019

8:00 – 10:05 am	Key session II: Latest trends in radiation preparedness
10:35 – 11:50 am	Radiation protection
12:50 – 1:50 pm	Radiation accident management
1:50 – 3:00 pm	Poster presentation in the poster exhibition (basement)
3:30 – 5:30 pm	Radiation emergency medical preparedness and response

8:00 – 10:05 am **Key session II: Latest trends in radiation preparedness**

*Chairpersons**BG (MC) Dr. Michel Drouet and COL (MC) Prof. Dr. Matthias Port*

8:00– 8:05 am

Introduction*M. Port, Bundeswehr Institute of Radiobiology, Germany*

8:05 – 8:20 am

Development of automated high throughput biodosimetry tools for radiological/nuclear mass casualty incidents*A. Balajee, Oak Ridge Institute for Science and Education, USA*

8:20 – 8:35 am

Integration of local, national and international medical responses in a mass casualty radiological/nuclear incident*N. Dainiak, Yale University School of Medicine, USA*

8:35 – 8:50 am

Radioprotective effect of vitamin C as an antioxidant*M. Kinoshita, National Defense Medical College Japan*

8:50 – 9:05 am

Rapid high through-put diagnostic triage after a mass radiation exposure event using early gene expression changes*M. Abend, Bundeswehr Institute of Radiobiology, Germany*

9:05 – 9:20 am

Circulating Cell-Free DNA (cfDNA) Correlates with integral dose and identifies radiotherapy patients who develop gastrointestinal toxicity

P. Okunieff, University of Florida, USA

9:20 – 9:35 am

Assessment of the radiological effects from a “dirty bomb” scenario in urban areas on a metrological microscale

H. Walter, Bundesamt für Strahlenschutz, Germany

9:35 – 9:50 am

MSC-derived extracellular vesicles: New emergency treatment to limit the development of radiation-induced hematopoietic syndrome?

D. Riccobono, French Armed Forces Biomedical Research Institute, France

9:50 – 10:05 am

Genomic instability and DNA-repair predicting radiosensitivity?

C. Streffer, University Medicine Essen, Germany

10:05 – 10:35 am

Coffee break

10:35 – 11:50 am

Radiation protection

Chairpersons

Prof. Dr. Dimitry Bazyka and Dr. Christina Beinke

10:35 – 10:50 am

Misuse of a medical isotope: Playing cards contaminated with I-125, German experience

E. Kroeger, Bundesamt für Strahlenschutz, Germany

10:50 – 11:05 am

Biodosimetry and biodosimetry networks for managing radiation emergency

U. Oestreicher, Bundesamt für Strahlenschutz, Germany

11:05 – 11:20 am

Biodosimetry of internalized irradiation exposures using transcriptional analysis from relapsed and refractory neuroblastoma patients from a NANT11-01 study treated with ¹³¹I-MIBG.

M. Coleman, Lawrence Livermore National Laboratory, USA

11:20 – 11:35 am

Imidazolyl Ethanamide Pentandionic Acid for the Treatment of Acute Radiation Syndrome

M. Czajkowski, Myelo Therapeutics GmbH, Germany

11:35 – 11:50 am

Radiation risks of medical exposure in Russia: current status of the problem within international and national standards

V. Kashcheev, A.Tsyb Medical Radiological Research Center (MRRC), Russia

11:50 am – 12:50 pm

Lunch break

12:50 – 1:50 pm

Radiation accident management

Chairpersons

Prof. Dr. Harold Swartz and Prof. Dr. Manabu Kinoshita

12:50 – 1:05 pm

SEED, a deployable numerical dosimetric reconstruction tool

F. Entine, French defense radiation protection service, France

1:05 – 1:20 pm

Metrology for mobile detection of ionising radiation: The EMIR project 16ENV04 “Preparedness”

S. Neumaier, Physikalisch-Technische Bundesanstalt, Germany

1:20 – 1:35 pm

The accuracy of biological dose reconstruction in case of criticality accident

E. Gregoire, Institut de Radioprotection et de Sûreté Nucléaire, France

1:35 – 1:50 pm

Radiation exposure biomarkers in the practice of the medical radiology: Cooperative research and the role of the International Atomic Energy Agency (IAEA) biodosimetry/radiobiology laboratory

O. Belyakov, International Atomic Energy Agency, Austria

1:50 – 3:00 pm **Poster presentation in the poster exhibition**
Title and topic overview starting on page 18

3:00 – 3:30 pm **Coffee break**

3:30 – 5:30 pm **Radiation emergency medical preparedness and response**

Chairpersons *Prof. Dr. William Blakely and Prof. Dr. Ann Barry Flood*

3:30 – 3:45 pm

Testing of the United States Navy nuclear accident dosimeters

A. Romanyukha, U.S. Navy, USA

3:45 – 4:00 pm

Update on AFRRI's cytogenetic Biodosimetry activities – enhancement of throughput

W. Blakely, Uniformed Services University/Armed Forces Radiobiology Research Institute (AFRRI), USA

4:00 – 4:15 pm

Comparative effectiveness of biomarkers: Expanding a framework to include organ-specific predictions of Injury

A. Flood, Dartmouth Medical School, USA

4:15 – 4:30 pm

Resolution of homogeneity and dose distribution under emergency conditions using Electron Paramagnetic Resonance (EPR) measurements of finger/toe nails in vivo

H. Swartz, Geisel College of Medicine at Dartmouth & Clin-EPR, LLC, USA

4:30 – 4:45 pm

The STORE database; a platform for data and resource sharing in radiation biology, radioecology and epidemiology

P. Schofield, University of Cambridge, United Kingdom

4:45 – 5:00 pm

Natural history of disease progression in a rabbit model of acute radiation sickness following total body irradiation

I. Jackson, University of Maryland School of Medicine, USA

5:00 – 5:15 pm

Developing entolimod, a TLR5 agonist, as a medical countermeasure against acute radiation syndrome

V. Krivokrysenko, Cleveland BioLabs, Inc., USA

5:15 – 5:30 pm

Development of a METREPOL-based response category (RC) algorithm for H-ARS severity triage in a baboon radiation model involving gamma ray and mixed-field (i.e., 5.5 neutron to gamma ray) exposures

D. Bolduc, Uniformed Services University/Armed Forces Radiobiology Research Institute (AFRRI), USA

Free time to explore Munich, suggestions and flyer available at the conference office

Thursday, 16 May 2019

8:00 – 9:20 am	Radiation health effects and medical countermeasures II
9:20 – 9:50 am	Effects of electromagnetic fields
10:20 – 11:05 am	Effects of low dose ionizing radiation
11:05 – 11:25 am	Radiation risk perception of the public/External exposure assessment
11:25 am – 12:10 pm	Radiation biology/Radiation physics II
12:10 – 12:20 pm	Closing remarks

8:00 – 9:20 am **Radiation health effects and medical countermeasures II**

Chairpersons

Prof. Dr. Vijay Singh and Dr. Lanyn Taliaferro

8:00 – 8:15 am

Plasma proteins as new biomarkers of irradiation in humans

A. Tichy, University of Defence, Faculty of Military Health Sciences, Czech Republic

8:15 – 8:30 am

Molecular markers of occupational exposure at area contaminated after radiation accident

D. Bazyka, National Research Center for Radiation Medicine of the National Academy of Medical Sciences of Ukraine, Ukraine

8:30 – 8:40 am

Cataract type and magnitude in mouse is highly dependent on dose and age at irradiation

D. Pawliczek, Helmholtz Zentrum München, Germany

8:40 – 8:55 am

Biomarkers for assessing radiation injury identified using the nonhuman primate model

V. Singh, Uniformed Services University/Armed Forces Radiobiology Research Institute (AFRRI), USA

8:55 – 9:10 am

Radiation-induced cardiovascular disease: 10 years lessons learned from heart proteome analyses

O. Azimzadeh, Helmholtz Zentrum München, Germany

9:10 – 9:20 am

Diagnostic performance of 68Gallium-PSMA PET/CT in a large cohort of patients with biochemical recurrence of prostate carcinoma

M. Hoffmann, Bundeswehr Medical Service Headquarters, Germany

9:20 – 9:50 am

Effects of electromagnetic fields

Chairpersons

Prof. Dr. Marcus Stiemer and MAJ (MC) Dr. Andreas Lamkowski

9:20 – 9:35 am

Examining cell proliferation and differentiation in primary human dermal fibroblasts to ensure EMF exposure experiments under comparable condition

V. Franchini, Scientific Department of Army Medical Center, Italy

9:35 – 9:50 am

Precise and Reproducible SAR-Dosimetry for Electromagnetic Field Exposure Tests

R. Hollan, Universität der Bundeswehr Hamburg, Germany

9:50 – 10:20 am

Coffee break

10:20 – 11:05 pm

Effects of low dose ionizing radiation

Chairpersons

TBA and Prof. Dr. Harry Scherthan

10:20 – 10:35 am

Identification of an epigenomic signature of mixed field neutrons at very low doses

A. Miller, Uniformed Services University/Armed Forces Radiobiology Research Institute (AFRRI), USA

10:35 – 10:45 am

Risk assesement in Siberian group of chemical enterprises personnel

R. Takhauov, Seversk Biophysical Research Center of the Russian Federal Medical and Biological Agency, Russia

10:45 – 10:55 am

Low dose irradiation by low and high LET emitters discriminated by DNA damage geometry

H. Scherthan, Bundeswehr Institute of Radiobiology, Germany

10:55 – 11:05 am

Molecular imaging for longitudinal in vivo prediction of cell death and tissue regeneration after exposure to ionizing radiation

A. Blaeske, Department of Nuclear Medicine, LMU Munich, Germany

11:05 – 11:25 am

Radiation risk perception of the public/External exposure assessment

Chairpersons

Prof. Dr. Prakash Hande and PD Dr. Reinhard Ullmann

11:05 – 11:15 am

Advanced CT-protocols in clinical routine: CTA-Subtraction-Technique in detection of pulmonary embolism. A benefit for patients or only an increase in dose?

K. Nestler, Department for Radiology and Neuroradiology, Bundeswehr Central Hospital, Koblenz, Germany

11:15 – 11:25 am

Reevaluation of the dose effect curve from low to high doses using the standard micronuclei technique in association with a telomere/centromere FISH staining

C. Herate, CEA, France

11:25 am – 12:10 pm

Radiation Biology/Radiation Physics II

Chairpersons

Dr. Ales Tichy and MAJ (MC) Dr. Patrick Ostheim

11:25 – 11:35 am

Using mRNA and small RNA gene expression changes in the peripheral blood for easy detection of Ra-223 incorporation

P. Ostheim, Bundeswehr Institute of Radiobiology, Germany

11:35 am – 11:45 am

Accident with a Se-75 source

V. Kaufmann and P. Adler, NucTecSolutions GmbH, Germany

11:45 – 11:55 am

Protecting skin keratinocytes from ionizing radiation with Bardoxolone-methyl

C. Hermann, Bundeswehr Institute of Radiobiology, Germany

11:55 – 12:05 pm

CT irradiation induced changes of RNA profiles within peripheral blood cells and exosomes

H. Kaatsch, Bundeswehr Institute of Radiobiology, Germany

12:05 – 12:15 pm

Closing remarks

Colonel (MC) Prof. Dr. Matthias Port, conference chairperson

Bundeswehr Institute of Radiobiology, Germany

12:15 – 1:15 pm

Lunch

Posters per Topic

Radiation protection

Abstract ID 22063

How reliable is your measurement equipment? – Evaluation of measurement devices for radioactive and nuclear material

H. Friedrich, M. Risse

Fraunhofer INT, Germany

Abstract ID 27886

The impact of radioactive contamination on the environment and health of the population two decades after the NATO bombing of the territory of the Federal Republic of Yugoslavia

M. Savić¹, B. Đurović¹, Đ. Vukmirović¹, N. Pajić², S. Ilić²

¹ Military Medical Academy, Belgrade, Serbia

² Military Technical Institute, Belgrade, Serbia

Abstract ID 25571

The impact of astaxanthin on global DNA methylation state in irradiated human peripheral blood lymphocytes

D. Kurinnyi¹, Demchenko¹, I. Smetanska³, S. Rushkovsky²

¹ State institution "National Research Center for Radiation Medicine of the National Academy of Medical Sciences of Ukraine"

² Institute of Biology and Medicine, Taras Shevchenko National University of Kyiv

³ University of Applied Sciences Weihenstephan-Triesdorf, Triesdorf

Abstract ID 26091

MiniSzint, a handy, light-weight, very sensitive scintillation gamma-probe for finding and discriminating radioactivity in the field, in homes and in labs

J. Putzger, H. von Philipsborn

Fakultät Physik, Universität Regensburg, Germany

Abstract ID 27580

Cytogenetic Analysis after Temporary Residence in the Area of the Uncontrolled Ruthenium-106 Release in Russia in September 2017

C. Beinke¹, C. Wanke², S.F. Eder^{1,3}, M. Port¹

¹ Bundeswehr Institute of Radiobiology affiliated to the University Ulm, Munich, Germany

² Medizinische Hochschule Hannover, Stabsstelle Strahlenschutz und Abteilung Medizinische Physik

³ Institute and Outpatient Clinic for Occupational, Social and Environmental Medicine, Inner City Clinic, University Hospital of Munich (LMU), Munich, Germany

Abstract ID 27986

Repositioning Radiation Protection Institute of Ghana Atomic Energy Commission as an Efficient Technical and Scientific Support Organization

S. Inkoom¹, E.O. Darko¹, J.K. Amoako¹, F. Otoo¹, E.T. Glover¹, D.O. Kpeglo¹, O.K. Adukp¹, D.N. Adjei¹, J. Otoo¹, J. Owusu-Banahene¹, D.F. Charles¹

¹ Radiation Protection Institute, Ghana Atomic Energy Commission, P. O. Box LG 80, Legon, Accra, Ghana

Email: sinkoom@gmail.com or s.inkoom@gacg.org

Radiation biology/Radiation physics

Abstract ID 22901

Mechanisms and Challenges for Understanding Radiation Induced Changes in Chromatin Nanoarchitecture and Repair Complex Formation

J.-H. Lee¹, E. Maus¹, E. Brieger¹, R. Muhtadi⁴, E. Wagner¹, E. Bobkova¹, F. Schmidt-Kaler¹, M. Krufczik¹, R. Chojowski¹, F. Korn¹, M. Eryilmaz¹, A. Hofmann², D.W. Heermann², F. Bestvater³, S. Schumann^{4,5}, I. Falkova⁶, M. Falk⁷, G. Hildenbrand^{1,7}, H. Scherthan⁴, M. Hausmann¹

¹ Kirchhoff-Institute for Physics, University of Heidelberg, Im Neuenheimer Feld 227, 69120 Heidelberg, Germany;

² Institute for Theoretical Physics, University of Heidelberg, Philosophenweg 12, 69120 Heidelberg, Germany;

³ German Cancer Research Center (DKFZ), Im Neuenheimer Feld 280, 69120 Heidelberg, Germany;

⁴ Department of Nuclear Medicine, University Hospital Würzburg, Oberdürrbacher Str. 6, 97080 Würzburg, Germany;

⁵ Bundeswehr Institute of Radiobiology, Neuherbergstraße 11, 80937 München, Germany;

⁶ Czech Academy of Sciences, Institute of Biophysics, v.v.i., Kravolopolska 135, 612 65 Brno, Czech Republic;

⁷ Department of Radiation Oncology, Universitätsmedizin Mannheim, University of Heidelberg, Theodor-Kutzer-Ufer 3-5, 68159 Mannheim, Germany

Abstract ID 24641

The influence of room-tempered physical plasma on the genome stability of fibroblast cells

N. Gelbrich¹, H. Scherthan², R. Muhtadi², M. Burchardt¹, M. Port², M.B. Stope^{1,2}

¹ Department of Urology - Research Laboratory, University Medicine Greifswald, Greifswald, Germany

² Bundeswehr Institute for Radiobiology affiliated to the University of Ulm, Munich

Abstract ID 25797

Measuring human RNA biomarkers in saliva for prediction of health effects in radiological/nuclear scenarios

P. Ostheim¹, A. Tichý², I. Sirak³, M. Davidkova⁴, M. Markova Stastna⁵, M. Majewski¹, M. Port¹, M. Abend¹

¹ Bundeswehr Institute of Radiobiology affiliated to the University of Ulm, Munich, Germany

² Department of Radiobiology, Faculty of Military Health Sciences in Hradec Kralove, University of Defence in Brno, Czech Republic

³ Department of Oncology and Radiotherapy and 4th Department of Internal Medicine - Hematology, University Hospital, Hradec Kralove Czech Republic

⁴ Department of Radiation Dosimetry, Nuclear Physics Institute of the Czech Academy of Sciences, Prague, Czech Republic

⁵ Institute for Hematology and Blood Transfusion, Hospital Na Bulovce, Prague, Czech Republic

Abstract ID 26091

Uranium exposure increases spermatocytes metaphase apoptosis in rats: inhibitory effect of thymoquinone and N-acetylcysteine

E.A. Ahmed

Department of Biological Science, Faculty of Science, King Faisal University, Saudi Arabia and Laboratory of Immunology and Molecular Physiology, Department of Zoology, Faculty of Science, Assiut University, Assiut, Egypt

Abstract ID 27051

Local inhibition of rRNA transcription without nucleolar segregation after targeted irradiation of the nucleolus at the ion microbeam SNAKE

C. Siebenwirth^{1,(2,4)}, C. Greubel², G.A. Drexler³, J. Reindl², T.E. Schmid⁴, A.A. Friedl³, M. Port¹, G. Dollinger²

¹ Bundeswehr Institute of Radiobiology affiliated to the University of Ulm, Munich, Germany

² Institute for Applied Physics and Metrology, Universität der Bundeswehr München, Munich, Germany

³ Department of Radiotherapy and Radiation Oncology, LMU, Munich, Germany

⁴ Department of Radiation Therapy and Radiooncology, TUM, Munich, Germany

Abstract ID 27189

Parp1-dependent DNA double strand break repair in late spermatocytes of irradiated mouse testicular germ cells

E.A. Ahmed¹, A. Alzahrani², H. Scherthan³

¹ Biological Sciences Department, Faculty of Science, King Faisal University, Hofouf, Saudi Arabia

² Laboratory of Immunology and Molecular Physiology, Zoology Department, Faculty of Science, Assiut University, Assiut, Egypt

³ Institut für Radiobiologie der Bundeswehr in Verb. mit der Universität Ulm, Neuherbergstr 11, D-80937 Munich, Germany

Abstract ID 27419

FISH-cytogenetic studies in a patient with acute leukemia 30 years after irradiation in the accident at the Chernobyl NPP

V.Y. Nugis, I.A. Galstyan, M.G. Kozlova, V.A. Nikitina, C.I. Dobrovolskaya

State Research Center – Burnasyan Federal Medical Biophysical Center of Federal Medical Biological Agency, Moscow, Russia

Abstract ID 27576

Analysis of the Bardoxolone-methyl effect on radiation-induced gamma-H2AX foci and micronuclei formation in human blood lymphocytes in vitro

C. Beinke¹, H. Scherthan¹, M. Port¹, S.F. Eder^{1,2}

¹ Bundeswehr Institute of Radiobiology affiliated to the University Ulm, Munich, Germany

² Institute and Outpatient Clinic for Occupational, Social and Environmental Medicine, Inner City Clinic, University Hospital of Munich (LMU), Munich, Germany

Abstract ID 27582

Elucidation of CDKN1A participation in PHA-mediated lymphocyte stimulation after radiation exposure as a potential starting point of accelerating the cell cycle.

J. Dakovic¹, M. Port¹, C. Beinke¹

¹ Bundeswehr Institute of Radiobiology affiliated to the University Ulm, Munich, Germany

Abstract ID 28934

Synergistic induction of malignant transformation of BEAS-2B cells by ionizing radiation and microgravity through β -arrestin1-FN1-YAP pathway

W.T. Hu, W.W. Pei, L. Zhu, H. Huang, J. Nie, G.M. Zhou

State Key Laboratory of Radiation Medicine and Protection, School of Radiation Medicine and Protection, Soochow University, Suzhou 215123, China

Abstract ID 26991

Impact of bcl-2 and growth pattern on cell turnover, CAFs and EMT in basal cell carcinoma of the head and neck

A.F. Rommel¹, C. Hermann¹, S.F. Eder¹, M. Port¹, R. Werkmeister², N. Pfeil³, A. Berndt³, J.R. Rudat²

¹ Bundeswehr Institute of Radiobiology affiliated to the University of Ulm, Munich, Germany

² Oral and Maxillofacial Surgery/ Department VII, Central Military Hospital Koblenz, Germany

³ Institute of Pathology / Department XIII, Central Military Hospital Koblenz, Germany

Radiation emergency medical preparedness and response

Abstract ID 24611

Development of new biokinetic-dosimetric models for the simulation of iodine blockade in the case of radioiodine exposure

A. Rump¹, S. Eder¹, A. Lamkowski¹, M. Kinoshita², T. Yamamoto³, M. Abend¹, N. Shinomiya², M. Port¹

¹ Bundeswehr Institute of Radiobiology, Munich, Germany

² Japan Self Defense Forces National Defense Medical College Research Institute, Tokorozawa, Japan ³ Japan Ground Self Defense Forces Military Medicine Research Unit and Ministry of Defense Clinic, Tokyo, Japan

Abstract ID 24757

Detection of incorporated radioactive shrapnel after the explosion of a Radiological Dispersal Device in radiological emergency diagnostics

M. Majewski¹, K. Nestler², D.A. Veit², B. Diekmeyer², S. Waldeck², M. Port¹, B.V. Becker²

¹ Bundeswehr Institute of Radiobiology affiliated to the University of Ulm, Munich, Germany

² Department for Radiology and Neuroradiology, Bundeswehr Central Hospital, Koblenz, Germany

Abstract ID 27594

The role of Nagasaki University in the nuclear disaster in Japan

T. Usa¹, Y. Nozaki², M. Kotani³, O. Tasaki², N. Takamura⁴, S. Yamashita³

¹ International Hibakusha Medical Center, Nagasaki University Hospital

² Critical Care Center, Nagasaki University Hospital

³ Headquarter for Nuclear Disaster Response and Preparedness, Nagasaki University

⁴ Atomic Disease Institute, Nagasaki University, Japan

Abstract ID 27205

Emergency planning in Austria for the Treatment of Deterministic Effects - Revision of the National Medical Emergency Plan

A. Ziegler

General Practitioner; Radiation Protection Consultant

Former Head of Department CBRN-Protection of the Emergency Medical Services Vienna, Austria

External exposure assessment

Abstract ID 27247

Radiation exposure of military personnel due to thoriated magnesium alloys in jet engines

T.P. Kuipers¹, A. Schirmer²

¹ The Netherlands Ministry of Defence, Joint Support Command, Healthcare Organization, CEAG, Korte Molenweg 3, 3941 PW, Doorn, The Netherlands

² Radiation Measuring Laboratory of Bundeswehr, Federal Office of Bundeswehr Infrastructure, Environmental Protection and Services, GS I 3, Humboldtstraße 1, D29633 Munster, Germany

Abstract ID 27620

French military personnel translocation background levels

F. Desangles¹, T. Pouget², J. Pateux¹, M. Valente¹

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Radiation accident management

Abstract ID 25097

Validating the gene expression assay for biological dosimetry in emergencies involving exposure to radiation of high and low LET radiation

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Radiation accident management

Abstract ID 25450

Using a combination of cytogenetic and Comet assay methods for detection of radiation-induced damages in human genome

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Abstract ID 25491

Developing a smartphone app for the prediction of the hematological acute radiation syndrome (HARS) based on changes in blood cell counts – the H-module App

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Abstract ID 27300

Cytogenetic biodosimetry for radiation accidents: application of image analysis and its advantage for emergency and expertise networks

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Decontamination measures and monitoring

Abstract ID 23848

Operational research and data mining methods for regulatory supervision of nuclear legacy site Andreeva Bay

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Abstract ID 25726

Skin and hair nuclear decontamination with the Cevindra® cream

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Abstract ID 25911

Determination of bioavailability of aged legacy actinides obtained from a contaminated glove box: application of a simple *in vitro* test

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Abstract ID 25954

Medical countermeasures following internal contamination with radionuclides

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Effects of electromagnetic fields

Abstract ID 27095

Acute and chronic biological effects of an anti-denial system exposure

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Effects of low dose ionizing radiation

Abstract ID 27040

The estimation of acute myocardial infarction risk in people exposed to occupational irradiation

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Abstract ID 27041

Association between gene polymorphisms and the increased frequency of cytogenetic abnormalities in the persons exposed to long-term irradiation (GWAS)

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Abstract ID 27210

Evaluation of DNA Damage and Circulating Progenitor Endothelial Cells In Pediatric Cardiac Catheterization

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Abstract ID 27482

The prevalence of the thyroid gland pathologies among the Armenian liquidators of the Chernobyl Nuclear Power Plant (CNPP) accident

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Abstract ID 27543

Genomic alterations in myeloproliferative neoplasms in patients induced by ionizing radiation due to the Chernobyl nuclear accident

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Radiation health effects and medical countermeasures

Abstract ID 23923

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Abstract ID 24871

RI-MODS/MOF : Overview of preclinical models and innovative therapies at IRBA

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Abstract ID 25575

Pharmacological treatment of inhalation injury after nuclear or radiological incidents: The Chinese and German approach

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Abstract ID 25871

Chromosomal Radiosensitivity in Breast Cancer patients with Different Tumor Size: *In vitro* and *In vivo* Assessment

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Abstract ID 26742

***In vitro* evaluation of the wound healing activity in primary human fibroblasts (HDFa) - a new approach**

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Abstract ID 26979

Preventive reduction of oxidative stress might minimize the risk of thyroid carcinoma after radiation exposure

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Abstract ID 27440

The influence of human mesenchymal stem cells of the adipose tissue on the regeneration process of a radiation-induced wound healing disorder

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Abstract ID 27559

Small peptide mimetic of basic FGF for mitigation of gastrointestinal syndrome

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Abstract ID 27293

Changes of gene expression associated with non-cancer effects in Chernobyl clean-up workers in the remote period after exposure

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Abstract ID 27261

Effect of different antioxidants on X ray induced DNA double strand breaks (DSBs) using γ H2AX and "comet assay"

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Radiation risk perception of the public

Abstract ID 26606

Developing a CompRadRisk NATO App for improved risk communication of radiation exposures –actual status

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Abstract ID 27212

Educational Dialogue on Public Perception of Nuclear Radiation

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Abstract ID 28017

Emergency Readiness in the Current Nuclear Age - An Educational Challenge

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