

The 24th Hiroshima International Symposium

"Research on radiation and its effects in Kazakhstan and other countries"

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Environmental Radioactivity Research Network Center (F-21-14)),
Co-hosted with The Center for Peace, Hiroshima University,
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Period: March 18 - 19, 2022
(Online with Zoom)

Masaharu Hoshi, Noriyuki Kawano (Hiroshima University) *Organizers*

Time schedule of the meeting: UTC: 07:00-14:00,

France: UTC+1: 08:00-15:00, Germany: UTC+1: 08:00-15:00, Moscow: UTC+3: 10:00-17:00, Semey: UTC+6: 13:00-20:00,

Japan: UTC+9: 16:00-23:00, Washington DC: UTC-4: 03:00-10:00, San Diego UTC-7: 00:00-07:00

Program: The timetable below is in Semey

March 18, Session 1: (13:00 – 14:05)

Chairperson: Megu Ohtaki

- 1) 13:00 – 13:05 Opening address: Altay Dyussupov (Rector, Semey Medical University, Kazakhstan)
- 2) 13:05 – 13:35 Kazbek Apsalikov (Scientific Medical Association Semey city, Kazakhstan): 65 years of radiation studies around the Semipalatinsk nuclear test site: realities and perspectives.
- 3) 13:35 – 14:05 Masaharu Hoshi (Hiroshima University, Japan): Overview of our studies of radiation effects in Kazakhstan

March 18, Session 2: (14:05 – 15:55)

Chairperson: Aya Sakaguchi

- 4) 14:05 – 14:25 Aya Sakaguchi (University of Tsukuba, Japan): Preliminary efforts to ensure a safe-environments in areas surrounding uranium mines in Kazakhstan-Introduction of the aXis, JST Project.
- 5) 14:25 – 14:55 Sergazy Dyusseмбаев, Zhaksylyk Serikov, Alexey Klivenko (Shakarim University, Kazakhstan): The quality of meat of farm animals in the conditions of the STS (Semipalatinsk test site).
- 6) 14:55 – 15:25 Meirat Bakhtin, Danara Ibrayeva, Moldir Aumalikova, Yerlan Kashkinbaev, Aisulu Khazipova, Polat Kazymbet (Astana Medical University, Kazakhstan): Assessment of the radon safety of settlements located near the storage of radioactive waste.
- 7) 15:25 – 15:55 Kassym Zhumadilov¹, Aidana Zhumalina¹, Yernaz Sambayev¹, Yeldos Bekzhanov¹, Aselel Bagramova¹, Tulegen Kusainov², Aya Sakaguchi³, Satoru Endo⁴, Shin Toyoda⁵, Hitoshi Sato⁶, Masaharu Hoshi⁴ (L.N. Gumilyov Eurasian National University, Kazakhstan, ²“Stomatolog” Ltd., Stepnogorsk, Kazakhstan, ³University of Tsukuba, Japan, ⁴Hiroshima University, Japan, ⁵Okayama University of Science, Japan, ⁶Ibaraki Prefectural University of Health Sciences, Japan): Study of ⁷Be and ²¹⁰Pb in atmosphere of Akmola region of Kazakhstan.

Coffee Break (15:55 – 16:05)

March 18, Session 3: (16:05 – 17:35)

Chairperson: Evgenia Ostroumova

- 8) 16:05 – 16:35 Talgat Muldagaliev, Aleksandra Lipikhina, Yulia Brait, Faina Konovalova, Merey Dzhambaev, Almagul Mansarina, Kazbek Apsalikov (The Institute of Radiation Medicine and Ecology, Semey Medical University, Kazakhstan): Socio-demographic consequences of SNTS activities at the present stage.
 - 9) 16:35 – 17:05 Steve Simon (National Cancer Institute, USA): The NCI Trinity Health Risk Study (study of 1st nuclear detonation in history).
 - 10) 17:05 – 17:35 Evgenia Ostroumova¹, Bernd Grosche² (IIARC/WHO, France, ²Retired, formerly Federal Office for Radiation Protection, Germany): Radiation-related health risk studies on population around SNTS: Background and future steps.
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Coffee Break (17:35 – 17:45)

March 18, Session 4: (17:45 – 19:15)

Chairperson: Masaharu Hoshi

- 11) 17:45 – 18:15 Kassym Zhumadilov¹, Alexander Ivannikov², Valeriy Stepanenko², Polat Kazymbet³, Shin Toyoda⁴, Masaharu Hoshi⁵ (¹L.N. Gumilyov Eurasian National University, Kazakhstan, ²National Medical Research Radiological Center of the Ministry of Health of the Russian Federation, Russia, ³Institute of Radiobiology and Radiation Protection, NJSC “Astana Medical University”, Kazakhstan, ⁴Okayama University of Science, Japan, ⁵Hiroshima University, Japan): ESR dosimetry study of victims of the Hiroshima atomic bombing: study of potential.
 - 12) 18:15 – 18:45 Stephen D. Egbert (Consultant, San Diego, USA): Spatial profiles of neutron and gamma doses for a Japanese wooden house on its lot, and neutron capture and activation in walls, floors, roof and soil.
 - 13) 18:45 – 19:15 Yoshihiro Noso¹, Atsuko Imagawa², Akio Haruta³, Motomi Ushiyama⁴, Takashi Sawada⁵, Laura Pak⁶, Nailya Chaizhunussova⁷, Ken Inoue⁸, Nobuo Takeichi⁹, Masaharu Hoshi¹⁰ (¹Hiroshima International University, Hiroshima, Japan, ²Abiko Clinic, Chiba, Japan, ³Yokosuka Central Clinic, Kanagawa, Japan, ⁴Sagami Seikyo Hospital, Kanagawa, Japan, ⁵Minatomachi Clinic, Yokohama, Japan, ⁶Oncology Centers Semey Medical University, Semey, Kazakhstan, ⁷Semey Medical University, Semey, Kazakhstan, ⁸Kochi University, Kochi, Japan, ⁹Takeichi Clinic, Hiroshima, Japan, ¹⁰Hiroshima University, Hiroshima, Japan): Trial of remote thyroid examination 10 years after the Fukushima nuclear power accident in COVID-19 pandemic.
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Discussion (19:15 – 19:30)

March 19, Session 5: (13:00–14:00)

Chairperson: Masaharu Hoshi

- 14) 13:00–13:30 Madina Apbassova¹, Nailya Chaizhunossova¹, Dariya Shabdarbayeva¹, Ken Inoue² (¹Semey Medical University, ²Kochi University, Japan): Suicide mortality in Semey region from 2014 till 2018 and 2019–2021.
- 15) 13:30–14:00 Ken Inoue¹, Noriyuki Kawano², Nailya Chaizhunossova³, Nursultan Seksenbayev³, Madina Apbassova³, Nobuo Takeichi⁴, Yoshihiro Noso⁵, Masaharu Hoshi² (¹Kochi University, Japan, ²Hiroshima University, Japan, ³Semey Medical University, Kazakhstan, ⁴Takeichi Clinic, Japan, ⁵Hiroshima International University, Japan): Anxiety and fear about mental and physical health for radiation exposure in the people -importance of dissemination about correct knowledge based on the cooperation in various fields-.
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Coffee Break (14:00–14:10)

March 19, Session 6: (14:10–14:50)

Chairperson: Kassym Zhumadilov

- 16) 14:10–14:20 Zhaxybay Zhumadilov (Nazarbayev University, Kazakhstan): Ionizing radiation exposure and the gut microbiome.
- 17) 14:20–14:50 Almagul Kushugulova (Nazarbayev University, Kazakhstan): The perspectives of pharmabiotic using to prevent Health Effects of Internal Exposure to Radioactive Microparticles.
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Coffee Break (14:50–15:00)

March 19, Session 7: (15:00–16:30)

Chairperson: Nailya Chaizhunossova

- 18) 15:00–15:30 Nariaki Fujimoto (Hiroshima University, Japan): Our animal experiments of ⁵⁶MnO₂ in 2018 and 2019.
- 19) 15:30–16:00 Keiko Otani¹, Megu Ohtaki¹, Nariaki Fujimoto¹, Darkhan Uzbekov², Ynkar Kairkhanova², Aisulu Saimova², Nailya Chaizhunossova², Dariya Habdarbaeva², Almas Azhimkhanov³, Kassym Zhumadilov⁴, Valeriy Stepanenko⁵, Masaharu Hoshi¹ (¹Hiroshima University, Japan, ²Semey Medical University, Kazakhstan, ³National Nuclear Center, Kazakhstan, ⁴Eurasian National University ⁵MRRC Obninsk, Russia): Effects of internal exposure to neutron-activated ⁵⁶MnO₂ powder on locomotor activity in rats.
- 20) 16:00–16:30 Kazuko Shichijo, Toshihiro Takatsuji (Nagasaki University, Japan): Pathological effects in relation to dose level after acute intake of neutron-activated ⁵⁶Mn dioxide powder in Wistar rats.

Coffee Break (16:30–16:40)

March 19, Session 8: (16:40–18:10)

Chairperson: Nariaki Fujimoto

- 21) 16:40–17:10 Bakhyt Ruslanova¹, Nailya Chaizhunossova¹, Dariya Shabdarbayeva¹, Nariaki Fujimoto², Masaharu Hoshi² (¹Semey Medical University, Kazakhstan, ²Hiroshima University, Japan): The effect of various doses of ionizing radiation on liver tissue in experiment.
- 22) 17:10–17:40 Zhaslan Abishev¹, Nailya Chaizhunossova¹, Dariya Shabdarbayeva¹, Nariaki Fujimoto², Masaharu Hoshi² (¹Semey Medical University, Kazakhstan, ²Hiroshima University, Japan): The effects of internal and external exposure on morphological indicators and gene expression in lungs in experiment (rats and mice).
- 23) 17:40–18:10 Nailya Chaizhunossova¹, Gauhar Amantayeva¹, Dariya Shabdarbayeva¹, Nariaki Fujimoto², Masaharu Hoshi² (¹Semey Medical University, Kazakhstan, ²Hiroshima University, Japan): Influence of internal and external ionizing radiation on gene expression of the reproductive system in male laboratory animals.

Discussion: (18:10–18:25)

- 25) 18:25–18:30 Closing Remarks: Masaharu Hoshi (Hiroshima University, Japan)