Friday

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| 8:30 | Welcome Messages | | |
| 9:00 | Invited talk 1: Shin Ichi Miyatake | | |
| | Recent Experience of BNCT for Angiosarcoma and Breast | Chaire Kaii One and Laile Vealevirte | |
| | Cancer in KUR and Road to Investigator–lead Clinical Trial | Chair: Koji Ono and Leila Vaalavirta | |
| | of Accelerator-Based BNCT for High-grade Meningioma | | |
| | Session 1 | | |
| 9:30 | Naonori Ko | | |
| | Evaluation of a treatment planning system used for BNCT at the Kansai BNCT Medical Center | | |
| 9:45 | Hiroyuki Michiue | | |
| | New peptide Drug Delivery System with BSH toward future BNCT clinical application | | |
| 10:00 | Coffee Break sponsored by NEUBORON MEDTECH LTD | | |
| | Session 2 | Chair: Stuart Green and Augustina Portu | |
| 10:30 | Hiroshi Igaki | | |
| | A clinical trial of lithium-targeted accelerator-based boron neutron capture therapy at National Cancer Center Hospital | | |
| 10:45 | Tooru Anfoh | | |
| | Preclinical study of boron neutron capture therapy for bone metastasis using a human lung cancer cell line | | |
| 11:00 | Sadaaki Shiraishi | | |
| | A study on development of remote-changeable Bonner sphere spectrometer for characterization in BNCT irradiation field | | |
| 11:15 | Kiyotaka Akabori (hold by H. Tanaka) | | |
| | Calibration of real-time neutron monitor for BNCT utilizing a | a national neutron standard field | |
| 11:30 | Yuya Kumagai | | |
| | Measurement of dose distribution in water phantom using t | win small ionization chambers for Boron Neutron Capture Therapy | |
| 11:45 | 11:45 Tokiya Inoue | | |
| | Development of Gamma-ray Dosimeter Using Radio-Photol | uminescence Glass Dosimeter and Gamma-ray Filter in A Neutron/Gamma- | |
| | ray Mixed Field for BNCT | | |
| 12:00 | Lunch sponsored by Neutron Therapeutics Inc. & BEC | | |
| | Session 3 | Chair: Tiina Seppälä and Hiroaki Kumada | |

| 13:00 | Filip Ekholm | | | |
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| | Synthesis of glycoconjugates for BNCT | | | |
| 13:15 | Hanna Koivunoro | | | |
| | Comparison of RBE doses with the photon iso-effective dose model for predicting the normal tissue complication probal | | | e complication probability in boron |
| | neutron capture therapy (BNCT) for head and neck cancer patients | | | |
| 13:30 | Liisa Porra | | | |
| | Current status of the accelerator based BNCT facility at Helsinki University Hospital | | | |
| 13:45 | Maria Pedrosa-Rivera | | | |
| | Neutron irradiations of in-vitr | <u>o samples at Institut Laue-Lar</u> | ngevin | |
| 14:00 | Pablo Torres-Sánchez | | | |
| | Measurement of the 14N(n,p) reaction for BNCT dose calculations | | | |
| 14:30 | Coffee Break | | | |
| | Poster Session 1 | Chair: Timofey Bykov and | Poster Session 2 | Chair: Nikita Smolnikov and |
| | | Laroslav Kolesnikov | | Takahiro Nomoto |
| 14:45 | Akihisa Ishikawa | | Keita Okazaki | |
| | Evaluation of Beam Quality Using an Optical Fiber-based | | Investigation of a prompt gamma-ray imaging detector with an 8 x 8 | |
| | Neutron Detector | | array LaBr3(Ce) scintillator and MPPC for Boron Neutron Capture Therapy | |
| 14:52 | Akinori Sasaki | | Makoto Shirakawa | |
| | Development of new bolus for BNCT by C-BENS | | Development of novel boron cluster conjugated PEG derivative for BNCT | |
| | -Irradiation test of 3D printed foot phantom- | | | |
| 14:59 | Alexander Zaboronok | | Martyna Araszkiewicz | |
| | Development of complex boron compounds for treatment | | Modeling of the radiation situation in the rooms at BNCT research post | |
| | and absorbed dose evaluation during BNCT | | using the MCNP code | |
| 15:06 | Alexey Koshkarev | | Mikhail Anikin | |
| | Implementation of the radiat | ion-resist automation system | Design of Compact Beam Shutter for | Biological Shielding on IRT-T Reactor |
| | for BNCT | | for BNCT Applications | |
| 15:13 | Bong Hwan Hong | | Rong-Jiun Sheu | |
| | High power rotating tube targ | get for BNCT | Neutron spectrum determination and | l beam characterization at THOR- |
| | | - | BNCT by multiple foil activation techr | <u>nique</u> |
| 15:20 | Changran Geng | | Sachiko Yoshihashi | |
| | | istic model based an alvais of | Accelerator based DNCT system in No | and the increasing (2) Dreasent |
| | Microdosimetry and Mechani | istic model based analysis of | Accelerator-based BNCT system in No | <u>igoya University (2) - Present</u> |

| 15:27 | Chao Wang | Setareh Fatemi | |
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| | The Design of Beam Monitoring System of the Xiamen | Preliminary study of the shielding for a CdZnTe based SPECT-BNCT | |
| | Humanity Hospital BNCT Center | imaging system in an aBNCT treatment room | |
| 15:34 | Chawon Park | Shingo Tamaki | |
| | Feasibility study of Beam Shape Assembly with PHITS on | Experimental test of a liquid-moderator-based neutron spectrometer for | |
| | <u>9Be(d,n)10B reaction</u> | low energy neutrons | |
| 15:41 | Chiara Magni | Sun-Hong Min | |
| | Experimental and computational studies for the design of | Recent Research Trends on Accelerator-Based BNCT in KIRAMS | |
| | a BNCT facility based on proton accelerator and Be target | | |
| 15:48 | Hikari Nishimura | | |
| | Experimental Examination of Real-time Gamma-ray | | |
| | <u>Spectrum / Dose Monitor</u> | | |
| | Session 4 | Chair: Liisa Porra and Ignacio Porras | |
| 16:00 | Hiroaki Kumada | | |
| | Development status of the iBNCT device as a linac-based ne | utron source of the University of Tsukuba | |
| 16:15 | Akihiko Masuda | | |
| | Neutron spectral fluence measurements of BNCT beams using Bonner sphere spectrometer | | |
| 16:30 | Takao Tsurubuchi | | |
| | In vivo Evaluation of Novel Boron containing compound A-1 for BNCT | | |
| 16:45 | Kei Nakai | | |
| | Study on Application of BNCT to skin malignant melanoma in Japan | | |
| 18:00 -20:00 | Excursion to BNCT Facility (sign up at the registration desk) | | |
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| | Saturday | | |
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| 9:00 | Invited talk 2 : Garth Cruickshank | | |
| | Towards a clinical programme for BNCT: biological | | |
| | targeting | Chair: Leena Kankaanranta and David Nigg | |
| | Session 5 | | |

| 9:30 | Chien-Hsuan Chan | | |
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| | Patients Activation Following Boron Neutron Capture Therapy at Tsing Hua Open-pool Reactor in Taiwan | | |
| 9:45 | Yi-Ying Pan | | |
| | Application of Boron Neutron Capture Therapy as Salvage t | reatment to Recurrent Thyroid Papillary Carcinoma | |
| 10:00 | Yoshio Imahori | | |
| | The possible recovery process of higher brain functions after Amyloid β fragmentation by BNCT in Alzheimer's disease | | |
| 10:15 | Natsuko Kondo | | |
| | Take up of Boronophenylalanine by glioma stem like cells in vitro and vivo | | |
| 10:30 | Coffee Break sponsored by Stella Pharma Corporation | | |
| | Session 6 | Chair: Maria Pedrosa Rivera and Alexander Zaboronok | |
| 11:00 | Agustina Portu | | |
| | Neutron autoradiography to study 10B microdistribution in | lung | |
| 11:15 | Lucas Provenzano <u>Comprehensive benchmarking strategies for BNCT beams based on predicted clinical outcome</u> | | |
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| 11:30 | | | |
| | CT/GB-10 and BNCT/GB-10+Electroporation for oral cancer in the RA-1 | | |
| | facility | | |
| 11:45 | Damian Kaniowski | | |
| Nanostructures of conjugates of antisense oligonucleotides and boron clusters as potential carriers for boron neutr | | | |
| | (BNCT) | | |
| 12:00 | Edyta Michas | | |
| | The possibility of using 3D printing technology in research on BNCT | | |
| 12:15 | Lunch sponsored by Tae Life Sciences | | |
| | Session 7 | Chair: Martyna Araszkiewicz and Alexandr Makarov | |
| 13:15 | Nicoletta Protti | | |
| | State of art of the BNCT-SPECT project at Pavia University a | <u>nd INFN</u> | |
| 13:30 | Chunhui Gong | | |
| | Preliminary study of a 3D-CZT based Single-stage Compton | Camera for BNCT therapeutic dose monitoring | |
| 13:45 | Diego Alberti | | |
| | Carborane based Carbonic Anhidrase IX inhibitors: a potent | ial target for BNCT of malignant pleural mesotheliomas and breast cancer | |
| 14:00 | Hyegang Chang | | |
| | A Deterministic Dose Calculation Algorithm Using Convoluti | ion/superposition method for Treatment Planning System of Boron Neutron | |
| | <u>Capture Therapy</u> | | |
| 14:15 | Kazuki Tsuchida | | |

| | Accelerator-based BNCT system in Nagoya University (1) - Project status - | | | |
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| 14:30 | Shogo Honda | | | |
| | Development of a Sealed Lithium Target for BNCT in Nagoya University | | | |
| 14:45 | Coffee Break | | | |
| | Poster Session 3 | Chair: Diego Alberti and | Poster Session 4 | Chair: Keita Okazaki and Lucas |
| | | Akihiko Masuda | | Provenzano |
| 15:00 | Agustina Portu <u>Tissue Imprints in CR-39 and Lexan to Increase Spatial</u> <u>Resolution of Neutron Autoradiography</u> | | Iaroslav Kolesnikov Study of the influence of space charge on proton beam transport from an accelerator to a neutron target | |
| 15:07 | Ian Postuma Beam shaping assembly optimization by maximizing the uncomplicated tumor control probability on a cylindrical phantom | | | |
| 15:14 | Ian Postuma <u>Evaluation of the therapeutic consequences of patient</u> <u>movement during BNCT treatment for the INFN RFQ</u> <u>epithermal neutron beam</u> | | Kamila Maliszewska-Olejniczak <u>Biological effects of neutron mixed-beam irradiation for boron neutron</u> <u>capture therapy on cell survival and DNA double-strand breaks in cultured</u> <u>colon cancer cells</u> | |
| 15:21 | <u>Hiroyuki Nakamura</u> <u>Development of Cyclic RGD-functionalized Maleimide-</u> <u>closo-dodecaborate Albumin Conjugate (cRGD-MID-AC)</u> <u>as a Tumor Targeting Boron Carrier</u> | | Valeria Monti <u>Diagnostics and spectrometers for the BNCT field characterization tested</u> <u>at the e_LiBANS facility</u> | |
| 15:28 | Takahiro Nomoto Boosting Therapeutic Potential of p-Boronophenylalanine Using Biocompatible Polymers | | Yoshitaka MatsumotoEvaluation of a phenylboronic acid-decorated, sialic acid-targeting novelBNCT agent against B16 melanoma-bearing mouse model | |
| 15:35 | Takahiro Nomoto BPA Delivery System Utilizing Sugar-Modified Polymers Forming Stable Boronate Esters | | Alexandr Makarov System of a Thin Lithium Layer Deposition for an Accelerator Based Neutron Source | |
| 15:42 | Yoshio Imahori Jia-Cheng Lee BNCT for Alzheimer's disease; Synthesis of boron- Comparison of MCNP calculation result between THOR and modified containing compounds binding to amyloid beta plaques source file and in vitro experimental basis | | ult between THOR and modified | |
| 15:49 | Hiroki Tanaka <u>Development of neutron irradiation field for cells and</u> <u>small animals using cyclotron-based epithermal neutron</u> | | Timofey Bykov <u>Automatization of gamma-spectrometry diagnostics on accelerator</u> neutron source for BNCT | |

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| 45.57 | <u>source</u> | Tomohiro Naitou | | |
| 15:56 | Lucas Provenzano | | | |
| | Web toolbox for BNCT treatment assessments | A Fundamental Study on Energy Decomposition and Current-mode SPECT | | |
| 10.00 | | for B-10 Concentration Estimation in Boron Neutron Capture Therapy | | |
| 19:00 | Banquet Dinner (Plaza Restaurant, Hotel Radisson Plaza, | Mikonkatu 23) | | |
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| | Sur | nday | | |
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| 9:00 | Inivited talk 3: Amanda Schwint | | | |
| | Translational and clinical-veterinary BNCT studies for | Chair: Filip Ekholm and Nicoletta Protti | | |
| | head and neck cancer | · · | | |
| | Session 8 | | | |
| 9:45 | Takeshi Nagasaki | | | |
| | Cellular uptake mechanism of kojic acod modified o-carborane as a boron drug toward melanoma-targeting BNCT | | | |
| 10:00 | Mitsunori Kirihata | | | |
| | Development of S-Alkyl-closo-Dodecaborate-Containing An | nino Acids as Boron Carrier for BNCT | | |
| 10:15 | Coffee Break | | | |
| | Session 9 | Chair: Ian Postuma and Kamila Maliszewska-Olejniczak | | |
| 10:45 | Shaojuan Wu | | | |
| | The dosimetric impact of respiratory motion for lung cance | r treatment in boron neutron capture therapy | | |
| 11:00 | Xinxin Zhang | | | |
| | Assessment of secondary cancer risk for patients treated w | ith BNCT | | |
| 11:15 | Chad Lee | | | |
| | TAE Life Sciences' Clinical Neutron Beam System for BNCT | | | |
| 11:30 | Yuan-Hao Liu | | | |
| | The Radiation Shielding Design of Xiamen Humanity Hospit | al BNCT Center | | |
| 11:45 | Lunch sponsored by Stella Pharma Corporation | | | |
| | Session 10 | Chair: Iiro Auterinen and Valeria Monti | | |
| 13:00 | Sergey Taskaev | | | |
| | Novosibirsk accelerator neutron source | | | |

| 13:15 | Nikita Smolnikov |
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| | Design of BSA for Experimental Channel HEC-1 with Compact Beam Shutter at the IRT-T Reactor |
| 13:30 | Aleksandr Kichigin |
| | Accelerator-based boron neutron capture therapy on human glioblastoma U87 - in vitro, in vivo experiments |
| 13:45 | Evgeniia Sokolova |
| | Observation of the luminescence on the lithium neutron generating target under proton beam irradiation |
| 14:00 | Closing Seremony |

YBNCT10 meeting is sponsored by following companies, thank you for your support!



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