

Time	Oct. 8 (Sun)	Oct. 9 (Mon)	Oct. 10 (Tue)	Oct. 11 (Wed)	Oct. 12 (Thu)	Oct. 13 (Fri)
8:00						
9:00		9:30-10:00 Opening Ceremony	9:00-9:50 President's Address	8:30-10:00 Symposium 5 Biomedical & General Matters (S5-1~4)	9:00-9:50 Hatanaka Award 2	8:30-10:30 Symposium 7 New Applications and Protocols for BNCT (S7-1~5)
10:00		10:00-10:50 Hatanaka Award 1	9:50-11:50 Symposium 3 Treatment Planning system (S3-1~5)	10:10-11:20 Chemical & Pharmacy (CP-5~8) Physics & Engineering (PE-12~15)	9:50-11:50 Symposium 6 BNCT Systems using Accelerators (S6-1~5)	10:40-12:30 Clinical Matters (CM-7~12) Physics & Engineering (PE-26~31)
11:00		11:00-13:00 Symposium 1 Clinical Results of BNCT for Brain Tumors (S1-1~5)	11:50-13:05 Fairchild Award 1 (SF-1~5)	11:30-13:00 Biomedical (Bio-6~10) Physics & Engineering (PE-16~20)	11:50-13:05 Fairchild Award 2 (SF-6~10)	
12:00						12:50-13:10 Closing Ceremony
13:00			13:20-14:50 Poster Session I	13:20-18:20 Excursion Naruto and / or Konpira	13:20-14:50 Poster Session II	13:30-14:30 New Executives & Councilors Meeting
14:00		14:10-15:40 Physics & Engineering (PE-1~5) Biomedical (Bio-1~5)				
15:00		15:50-17:00 Boron Image (BI-1~4) Chemical & Pharmacy (CP-1~4)	15:00-16:50 Clinical Matters (CM-1~6) Physics & Engineering (PE-6~11)		15:00-16:30 Physics & Engineering (PE-21~25) Chemical & Pharmacy (CP-9~13)	
16:00	16:00-17:00 Executive Board Meeting					
17:00	17:00-18:00 Board of Councilor's Meeting	17:10-19:10 Symposium 2 Dosimetry (S2-1~5)	17:00-19:00 Symposium 4 Drug Delivery System (S4-1~5)		16:50-17:15 Election Board Coun. 17:15-18:00 General Assembly	
18:00	18:30-20:30 Welcome Reception				18:30-21:00 Banquet	
19:00						
20:00						
21:00						

*Please confirm each details at "Program" pages in official website (<http://icnct-12.umin.jp>).

*Regarding sessions in , upper session will be held on "Oral A", lower session will be held on "Oral B".

Oct. 8th (Sun)

16:00-17:00	Executive Board Meeting (Oral A)
17:00-18:00	Board of Councilor's Meeting (Oral A)
18:30-20:30	Welcome Reception (ANA Clement Hotel)

Oct. 9th (Mon)

9:30-10:00	Opening Ceremony (Oral A)		
Director: Hiroshi Fukuda			
	Wataru	Mori	Greeting
	Yoshinobu	Nakagawa	
	Raymond	Moss	

10:00-10:50	Hatanaka Award 1 (Oral A)		
Chairperson: Hiroshi Fukuda			
	Wolfgang	Sauerwein	BNCT - A BETTER WAY OF RADIOTHERAPY? University Duisburg-Essen, Germany

11:00-13:00	Symposium 1: Clinical Results of BNCT for Brain Tumors (Oral A)		
Chairpersons Britta H-Stenstam, Akira Matsumura			
S1-1	Shin-Ichi	Miyatake	Clinical results of BNCT for malignant gliomas using BSH and BPA simultaneously Department of Neurosurgery, Osaka Medical College, Takatsuki, Japan
S1-2	Teruyoshi	Kageji	Correlation between BNCT radiation dose and histopathological findings in BSH-based intra-operative BNCT for malignant glioma Department of Neurosurgery, School of Medicine, The University of Tokushima, Tokushima, Japan
S1-3	Wolfgang	Sauerwein	Postoperative Treatment of Glioblastoma with BNCT at the Petten Irradiation Facility (EORTC 11961) Department of Radiotherapy, University Hospital Essen, Germany
S1-4	Masahide	Matsuda	Survival and failure patterns of high-grade glioma after BNCT Department of Neurosurgery, Institute of Clinical Medicine, University of Tsukuba, Tsukuba, Ibaraki, Japan
S1-5	Britta	H-Stenstam	Neuropathological postmortem evaluation of GBM patients treated by BNCT Studsvik Medical AB, Nykoping, Sweden

14:10-15:40	Oral Presentation: Physics & Engineering (Oral A)		
Chairpersons Grazia Gambarini, Kuniaki Amemiya			
PE-1	Giuseppe G.	Daquino	Use of gel dosimetry to characterise the dose distribution in the spheroidal holder for liver treatment at the HFR Petten Joint Research Centre, Institute for Energy, Petten, The Netherlands
PE-2	Sara J.	Gonzalez	Detailed dosimetry and clinical outcome analysis for the Argentine BNCT trials of cutaneous nodular melanomas. Comision Nacional de Energia Atomica (CNEA), Argentina
PE-3	Nikolay M.	Borisov	A tool for preparation of voxel phantoms: potentialities for planning of neutron capture therapy. State Research Center - Institute of Biophysics
PE-4	George I.	Borisov	Semiempirical theory of NCT with epithermal neutrons RRC "Kurchatov Institute", Moscow, Russia
PE-5	Antoaneta	Roca	Determination of the neutron capture sensitivity of ionisation chambers based on neutron capture reaction rates Joint Research Centre of the European Commission, P.O. Box 2, 1755ZG Petten, The Netherlands

14:10-15:40	Oral Presentation: Biomedical (Oral B)		
Chairpersons Fong-In Chou, Itsuro Kato			
Bio-1	Shin-ichiro	Masunaga	Usefulness of tirapazamine in reduced dose rate irradiation using gamma-rays or reactor neutrons, referring to the effects on quiescent cells Particle Radiation Oncology Research Center, Research Reactor Institute, Kyoto University
Bio-2	F. I.	Chou	Synthesis of PBAD-lipiodol nanoparticles for combination treatment with boric acid in boron neutron capture therapy for hepatoma <i>in-vitro</i> Nuclear Science and Technology Development Center, National Tsing Hua University, Hsinchu, Taiwan
Bio-3	Weilian	Yang	Neutron Capture Therapy of Epidermal Growth Factor Receptor (EGFR) Positive Gliomas using Boronated Monoclonal Antibody Department of Pathology, The Ohio State University
Bio-4	Cinzia	Ferrari	The BNCT Resistant Fraction of Cancer Cells: An <i>In vitro</i> Morphologic and Cytofluorimetric Study on a Rat Coloncarcinoma Cell Line Department of Surgical Science, Experimental Surgery Laboratory, University of Pavia, Pavia, Italy
Bio-5	Vladimir N.	Mitin	GdNCT of spontaneous canine melanoma Russian Cancer Research Center, Mocsow, Russia

15:50-17:00	Oral Presentation: Boron Image (Oral A)		
Chairpersons Andrea Wittig, Yoshio Imahori			
BI-1	Kuniaki	Amemiya	Atomic force microscopic neutron-induced alpha-autoradiography for boron imaging in detailed cellular histology National Metrology Institute of Japan, National Institute of Advanced Industrial Science and Technology, Tsukuba, Japan
BI-2	Ali	Pazirandeh	Determination of boron distribution in a tumor induced in a rat's brain Nuclear Engineering Department, Islamic Azad University
BI-3	Kunio	Yokoyama	Analysis of boron distribution in animal models for BNCT using two different boron compounds by Secondary Ion Mass Spectroscopy Departments of Neurosurgery, Osaka Medical College, Takatsuki, Japan
BI-4	Andrea	Wittig	¹⁰ B uptake in 5 xenografted tumors after application of BSH and/or BPA University Duisburg-Essen, Essen, Germany

15:50-17:00 Oral Presentation: Chemical & Pharmacy (Oral B)Chairpersons **M.H.Gracia H. Vicente, Yoshinobu Fukumori**

CP-1	Pierluigi Mauri	Pharmacokinetics and Metabolites of 10B-Containing Compounds in Biological Fluids	Institute for Biomedical Technologies-CNR
CP-2	Hiroshi Fukuda	¹⁰ B concentration kinetics in the blood after administration of BPA in cancer patients treated by BNCT with 500mg/kg/BW BPA	Department of Nuclear Medicine and Radiology, Institute of Development, Aging and Cancer, Tohoku University
CP-3	Stuart Green	UK pharmacokinetic study of BPA in patients with high grade glioma to optimise uptake parameters for clinical trials of BNCT	Queen Elizabeth University Hospital, Birmingham, UK
CP-4	Sergey N. Koryakin	Analysis of distribution of dodecaborate derivatives labeled with radioactive iodine in tumour and surrounding tissues of tumour-bearing	Medical Radiological Research Center, Obninsk, Russia

17:10-19:10 Symposium 2 : Dosimetry (Oral A)Chairpersons **Iiro Auterinen, Hiroyuki Takahashi**Commentator **Kent J. Riley**

S2-1	Masayori Ishikawa	Development of a real-time thermal neutron monitor and its clinical application	Department of Radiology, Hokkaido University Hospital, Japan
S2-2	Saverio Altieri	Monte Carlo dose calculations for BNCT treatment of diffuse human lung tumours	Department of Nuclear and Theoretical Physics, University of Pavia, Pavia, Italy
S2-3	Kent J. Riley	The International Dosimetry Exchange for BNCT: A Basis for Pooling and Collectively Analyzing Clinical Results	Nuclear Reactor Laboratory, Massachusetts Institute of Technology
S2-4	Grazia Gambarini	Dose imaging with gel dosimeters in phantoms exposed in reactor thermal columns designed for BNCT	Department of Physics of the University, Milan, Italy
S2-5	Marcelo E. Miller	On-line local measurement of thermal neutron flux on BNCT patient using SPND	Comision Nacional de Energia Atomica, Argentina

Oct. 10th (Tue)**9:00-9:50 President's Address (Oral A)**Chairperson: **Akira Matsumura**

Yoshinobu Nakagawa	Boron Neutron Capture Therapy in Japan -From the Past to the Future-	NHO, Kagawa National Children's Hospital
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9:50-11:50 Symposium 3 : Treatment Planning system (Oral A)Chairpersons **Stead Kiger III, Hiroshi Fukuda**

S3-1	Sander Nievaart	Use of linear programming to obtain an optimum, multi-beam treatment plan in BNCT	Joint Research Centre of the European Commission, Petten, The Netherlands
S3-2	Hiroaki Kumada	Improvement of JCDS, a computational dosimetry system in JAEA for neutron capture therapy	Department of Research Reactor and Tandem Accelerator, Japan Atomic Energy Agency, Tokai, Japan
S3-3	J.R. Albritton	Development of Reference Problems for Neutron Capture Therapy Treatment Planning Systems	Department of Radiation Oncology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
S3-4	Minoru Suzuki	Feasibility of boron neutron capture therapy for malignant pleural mesothelioma from a viewpoint of dose distribution analysis	Particle Radiation Oncology Research Center, Research Reactor Institute, Kyoto University, Osaka, Japan
S3-5	Petri M. Kotiluoto	Effective whole body dose in epithermal neutron irradiation at the FiR 1 BNCT facility	VTT Technical Research Centre of Finland

11:50-13:05 Fairchild Award 1 (Oral A)Chairperson: **Teruyoshi Kageji**

SF-1	Fuquan KONG	The basic experimental study of Boron Neutron Capture Therapy	China Institute of Atomic Energy, Beijing, China
SF-2	J.L. Kiger	Effects of boron neutron capture radiation on the normal lung of rats	Department of Radiation Oncology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
SF-3	Gerard Bengua	An evaluation of near threshold mono-energetic proton energies in the ⁷ Li(p,n) ⁷ Be production of neutrons for BNCT using TPD	Nuclear Engineering Department, Kyoto University, Kyoto, Japan
SF-4	Silva Bortolussi	Boron Uptake Measurements in Metastatic Tumours in Rat Lung	Department of Nuclear and Theoretical Physics, University of Pavia, Pavia, Italy
SF-5	Kei Nakai	HVJ envelope vector system for application in boron neutron capture therapy (BNCT).	Department of Neurosurgery, Institute of Clinical Medicine, Graduate School of Comprehensive Human Sciences, University of Tsukuba

13:20-14:50 Poster Session I (Odd-numbered Posters)

*Please refer to page 7 for more details.

14:10-15:40 Oral Presentation: Clinical Matters (Oral A)Chairpersons **Leena Kankaaranta, Tetsuya Yamamoto**

CM-1	Arash Rezaei	Relationship between irradiation volumes, survival time, and QOL in BNCT treated GBM patients.	Studsvik Medical AB, Nykoping, Sweden
CM-2	Teruyoshi Kageji	Comparison and analysis of BNCT radiation dose between gold wire and JCDS measurement	Department of Neurosurgery, School of Medicine, The University of Tokushima, Tokushima, Japan
CM-3	J.R. Albritton	Comparison of Doses Delivered in Clinical Trials of Neutron Capture Therapy in the USA	Department of Radiation Oncology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
CM-4	Wolfgang Sauerwein	Boron concentration in tissues - an urgent need for standards	University Duisburg-Essen, Essen, Germany

CM-5	Akira	Matsumura	A new NEDO research project towards hospital based accelerator BNCT using advanced DDS system	Department of Neurosurgery, Graduate School of Human Comprehensive Sciences, University of Tsukuba
CM-6	Raymond L. Moss		Requirements for BNCT at a Nuclear Research Reactor - Results from a Workshop organized by the European Commission in Prague 2005	HFR Unit, Institute for Energy, Joint Research Centre, Petten, The Netherlands

15:00-16:50 Oral Presentation: Physics & Engineering (Oral B)

Chairpersons **Saverio Altieri, Kazuyoshi Yamamoto**

PE-6	Hanna	Koivunoro	Simulation study of the photon quality correction factors of ionization chambers for FIR 1 epithermal neutron beam	Department of Physical Sciences, University of Helsinki
PE-7	Hong-Ming	Liu	Experiences of reconstruction the epithermal neutron beam at THOR	Nuclear Science and Technology Development Center, National Tsing Hua University, Hsinchu, Taiwan
PE-8	Zhou	Yongmao	Design and Construction of <In-Hospital Neutron Irradiator>Mark 1	CHINA ZHONGYUAN ENGINEERING CORPORATION
PE-9	Olena O.	Gritzay	The First Main Steps for Development of BNCT Neutron Sources at the Ukrainian and Uzbek Research Reactors	Neutron Physics Department, Institute for Nuclear Research, Kyiv, Ukraine
PE-10	Kenneth W.	Burn	Final Design and Construction Issues of the TAPIRO Epithermal Column	ENEA- Ente Nuove Tecnologie Energia e Ambiente, FIS-NUC
PE-11	Peter J.	Binns	Improved penetration from spectral hardening of reactor produced epithermal neutron beams using ⁶ Li filtration	Nuclear Reactor Laboratory, Massachusetts Institute of Technology, Cambridge, MA, USA

17:00-19:00 Symposium 4 : Drug Delivery System (Oral A)

Chairpersons **Detlef Gabel, Mitsunori Kirihata**

Commentator **Stephen B. Kahl**

S4-1	Elisa M.	Heber	Meeting the challenge of homogeneous boron targeting of heterogeneous tumors for effective Boron Neutron Capture Therapy (BNCT)	Department of Radiobiology, National Atomic Energy Commission, Buenos Aires, Argentina
S4-2	Atsushi	Doi	Intracellular Targeting of Sodium Mercaptoundecahydrododecaborate (BSH) to Malignant Glioma by Transferrin-PEG Liposomes, for Boron Neutron-Capture Therapy (BNCT)	Departments of Neurosurgery, Osaka Medical College, Osaka, Japan
S4-3	Hiroyuki	Nakamura	Transferrin-Conjugated Boron Cluster Liposome: Synthesis and Intracellular Targeting to Solid Tumors for Boron Neutron Capture	Department of Chemistry, Faculty of Science, Gakushuin University, Tokyo, Japan
S4-4	Stephen B.	Kahl	BOPP Revisited: A Study on the Toxicity, Biodistribution and Convection Enhanced Delivery of BOPP in an Intracerebral Rat Glioma Model	Department of Pharmaceutical Chemistry, University of California, San Francisco, San Francisco, CA, USA
S4-5	Andrea	Wittig	Early phase II study on BNCT in metastatic malignant melanoma using the boron carrier BPA	Department of Radiotherapy, University Hospital Essen, Germany

Oct. 11th (Wed)

8:30-10:00 Symposium 5 : Biomedical & General Matters

Chairpersons **Rolf F. Barth, Koji Ono**

S5-1	Rolf F.	Barth	In vivo Evaluation of the 3-Carboranyl Thymidine Analogue (3-CTA), N5-2OH, for Neutron Capture Therapy	The Ohio State University, Department of Pathology
S5-2	Detlef	Gabel	The influence of BSH on membranes	Department of Chemistry, University of Bremen, Bremen, Germany
S5-3	Koji	Ono	Neutron irradiation under continuous BPA injection for solving the problem of heterogeneous distribution of BPA	Research Reactor Institute, Kyoto University, Osaka, Japan
S5-4	Barry	Allen	Internal High LET Targeted Radiotherapy for Cancer	Centre for Experimental Radiation Oncology, Cancer Care Centre, St George Hospital, Kogarah, NSW, Australia

10:10-11:20 Oral Presentation: Chemical & Pharmacy (Oral A)

Chairpersons **George Kabalka, Hiroyuki Nakamura**

CP-5	George W.	Kabalka	Synthesis and <i>In Vivo</i> Distribution of 1-Amino-3-boronocyclopentanecarboxylic Acids	The Departments of Chemistry and Radiology
CP-6	M. Graca H.	Vicente	Syntheses of Phosphonate- and Amine-Substituted CarboranylPorphyrins for Boron Neutron Capture Therapy	Department of Chemistry, Louisiana State University, Baton Rouge, Louisiana, USA
CP-7	Mark W.	Lee	Continued Biological Investigations of Boron-rich Oligomeric Phosphate Diesters (OPDs): Tumor-selective Boron Agents for BNCT.	International Institute of Nano and Molecular Medicine, University of Missouri, Columbia, Missouri, USA
CP-8	Hironobu	Yanagie	Selective Enhancement of Boron Accumulation with Boron-entrapped WOW emulsion in VX-2 Rabbit Hepatic Cancer Model for BNCT	Research Center for Advanced Science & Technology, The University of Tokyo, Tokyo, Japan

10:10-11:20 Oral Presentation: Physics & Engineering (Oral B)

Chairpersons **Alba Zanini, Masaharu Hoshi**

PE-12	Victor N.	Kononov	The time-of-flight epithermal neutron spectrum measurement from accelerator based BNCT facility.	Institute for Physics and Power Engineering
PE-13	Shane	PARK	Thermally Optimized Lithium Neutron Producing Target Design for Accelerator-based BNCT	Department of Nuclear Engineering, Hanyang University, Seoul, Korea
PE-14	Yoshihisa	Tahara	A BNCT Neutron Generator using a 30MeV Proton Beam	Engineering Development Co., Ltd.
PE-15	Unno	Yasuhiro	Benchmark experiments for neutron moderator assembly for Cyclotron-Based Boron Neutron Capture Therapy	Cyclotron and Radioisotope Center, Tohoku University, Miyagi, Japan

11:30-13:00 Oral Presentation: Biomedical (Oral A)

Chairpersons **Gustavo A. Santa Cruz, Shin-ichiro Masunaga**

Bio-6	Elisa M.	Heber	Effect of different BNCT protocols on DNA synthesis in precancerous and normal tissues in an experimental model of oral cancer	Department of Radiobiology, National Atomic Energy Commission, Buenos Aires, Argentina
Bio-7	Vladimir N.	Mitin	BNCT of spontaneous canine osteosarcoma	Russian Cancer Research Center, Moscow, Russia

Bio-8	Li	Sui	Investigation of pUC19 DNA damage induced by direct and indirect effect of ^7Li ion radiation	Department of Nuclear Physics, China Institute of Atomic Energy, Beijing, China
Bio-9	Ching-Sheng	Liu	Monte Carlo simulations of the cellular S-value, lineal energy and RBE for BNCT	Department of Nuclear Science, National Tsing Hua University, Hsinchu, Taiwan
Bio-10	Gustavo A.	Santa Cruz	Microdosimetric Derivation of RBE Values for the $^{10}\text{B}(n,\alpha)^7\text{Li}$ and $^{14}\text{N}(n,p)^{14}\text{C}$ Neutron Capture Reactions in Cells using Data from Ion Experiments	Unidad de Energía Nuclear, Instrumentación y Control, Comisión Nacional de Energía Atómica

11:30-13:00 Oral Presentation: Physics & Engineering (Oral B)

Chairpersons **Mi Sook Kim, Masayori Ishikawa**

PE-16	S. C.	Chung	Study of Material Grouping in Setting up the Head Model for Treatment Planning System for BNCT	Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan, ROC
PE-17	Daniel M.	Minsky	SPECT tomographic image system for dose measurements in BNCT	Depto. de Física, Comisión Nacional de Energía Atómica, Argentina
PE-18	Akiko	Konnai	Neutron spatial distribution measurement with ^6Li -rich TL sheet	National Maritime Research Institute, Tokyo, Japan
PE-19	Yuan-Hao	Liu	On-line neutron monitoring system of epithermal neutron beam for BNCT at THOR	Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan
PE-20	Mi Sook	Kim	Current Status of Korea Boron Neutron Capture Therapy (BNCT) using Hanaro	Department of Radiation Oncology, Korea Institute of Radiological & Medical Sciences, Seoul, Korea

13:20-18:20 Excursion (Naruto and / or Konpira)

Oct. 12th (Thu)

9:00-9:50 Hatanaka Award 2 (Oral A)

Chairperson: **Tooru Kobayashi**

David Nigg

9:50-11:50 Symposium 6 : BNCT Systems using Accelerators (Oral A)

Chairpersons **Andres Kreiner, Tooru Kobayashi**

Commentator **David Nigg**

S6-1	Andres J.	Kreiner	Tandem-ElectroStatic-Quadrupole for Accelerator-Based BNCT.	Departamento de Física, CNEA, Villa Martelli, Prov. Buenos Aires, Argentina
S6-2	Takahiro	Tadokoro	Feasibility Study on a Common Use Accelerator System of Neutron Production for BNCT and Radionuclide Production for PET	Power & Industrial Systems R & D Laboratory, Hitachi, Ltd., Ibaraki, Japan
S6-3	Frederic	Stichelbaut	Design of a Beam Shaping Assembly for an Accelerator-Based BNCT System	Ion Beam Applications
S6-4	Sergey Yu.	Taskaev	Development of lithium target for accelerator based neutron capture therapy	Budker Institute of Nuclear Physics, Novosibirsk, Russia
S6-5	Tooru	Kobayashi	Study on Practical Conditions about Target Thickness and Gaussian Proton Energy using Near Threshold $^7\text{Li}(p,n)^7\text{Be}$ Neutrons for BNCT	Kyoto University Research Reactor Institute, Osaka, Japan

11:50-13:05 Fairchild Award 2 (Oral A)

Chairperson: **Mitsunori Kirihata**

SF-6	Gong	Wu	Neutron Capture Therapy of an Epidermal Growth Factor Receptor Positive Glioma using Boronated Cetuximab Alone or in Combination with BoronoPhenylAlanine	Department of Pathology, The Ohio State University
SF-7	Andrea	Voegel	Synthesis of Dodecaborate-containing DNA-binding Heterocycles for BNCT	Department of Chemistry, University of Bremen, Bremen, Germany
SF-8	Elisabetta	Durisi	In phantom figures of merit for an epithermal beam produced by a D-D compact neutron generator	San Giovanni Battista Hospital, Turin Italy
SF-9	Sander	Nievaart	An optimum source neutron spectrum and holder shape for extra-corporal treatment of liver cancer by BNCT	Joint Research Centre of the European Commission, Institute for Energy, The Netherlands
SF-10	Takashi	Shirakawa	Monoclonal Antibody against Boron Carriers of BNCT Part 2. Preparation of anti p-Boronophenylalanine Antibody (anti-BPA)	Division of Applied Life Science, Graduate School of Life and Environmental Sciences, Osaka Prefecture University, Osaka,

13:20-14:50 Poster Session II (Even-numbered Posters)

*Please refer to page 7 for more details.

15:00-16:30 Oral Presentation: Physics & Engineering (Oral A)

Chairpersons **Stuart Green, Yoshihisa Tahara**

PE-21	Gianrossano	Giannini	Photoneutron source for in-hospital BNCT treatment: feasibility study	Department of Physics, University of Trieste, Trieste, Italy
PE-22	Marko	Fulop	Small proton cyclotrons for NCT	Research Base of Slovak Medical University, Bratislava, Slovak Republic, Europe
PE-23	Alejandro A.	Burlon	Design and construction of a beam shaping assembly for investigation in AB-BNCT at the Tandem accelerator.	Department of Physics, National Atomic Energy Commission (CNEA), Buenos Aires, Argentina
PE-24	Oleg E.	Kononov	Dose rates measurement at Obninsk accelerator based BNCT facility	Institute for Physics and Power Engineering
PE-25	Abdulrahman	Alfuraih	BNCT with linac, Feasibility Study	Department of Physics, University of Surrey, Guildford, Surrey, UK

15:00-16:30 Oral Presentation: Chemical & Pharmacy (Oral B)Chairpersons **Sven Stadlbauer, Kazuo Maruyama**

CP-9	Kazuo	Maruyama	Intracellular Drug Delivery with Intelligent Liposome Carriers	Department of Biopharmaceutics, School of Pharmaceutical Sciences, Teikyo University, Kanagawa, Japan
CP-10	Sven	Stadlbauer	Phosphonate-substituted Carbaboranes for Potential Use in BNCT	Institute of Inorganic Chemistry, University of Leipzig, Leipzig, Germany
CP-11	Jong-Dae	Lee	Synthesis and Liposome Formation of B ₁₂ H ₁₁ S-Substituted Lipids for Boron Delivery System on BNCT	Department of Chemistry, Gakushuin University, Tokyo, Japan
CP-12	Yinghuai	Zhu	Synthesis and Biodistribution of Bis(short-chain-amino)-ortho-dicarbaborane hydrochloride	Institute of Chemical and Engineering Sciences
CP-13	Sang O.	Kang	Water-Soluble BNCT Agents Based on <i>o</i> -Carboranyl- <i>s</i> -triazines	Department of Chemistry, Korea University

16:50-17:15 Election Board Council (Oral A)Chairpersons **Yoshinobu Nakagawa, Ray Moss****17:15-18:00 General Assembly (Oral A)**Chairpersons **Yoshinobu Nakagawa, Ray Moss****18:30-21:00 Banquet (ANA Clement Hotel)****Oct. 13th (Fri) Oral A****8:30-10:30 Symposium 7 : New Applications and Protocols for BNCT (Oral A)**Chairpersons **Wolfgang Sauerwein, Shin-Ichi Miyatake**Commentator **Akira Matsumura**

S7-1	Itsuro	Kato	Boron neutron capture therapy for recurrent head and neck malignancies	Department of Oral and Maxillofacial Surgery II, Osaka University, Osaka, Japan
S7-2	Berta M.	Roth	BNCT clinical trials of multinodular skin melanoma patients in Argentina	Departamento de Terapia Radiante, Instituto de Oncologia Angel H. Roffo, Universidad de Buenos Aires, Argentina
S7-3	Norimasa	Morita	Successful BNCT for Patients with Cutaneous and Mucosal Melanomas: Report of 4 Cases.	Department of Radiation Oncology, Kawasaki Medical School, Okayama, Japan
S7-4	Leena	Kankaanranta	BPA-based boron neutron capture therapy (BNCT) in the treatment of locally recurrent, inoperable head and neck carcinoma: A prospective trial.	Department of Oncology, Helsinki University Central Hospital, Helsinki, Finland
S7-5	Tetsuya	Yamamoto	Combination of fractionated photon radiation and BNCT for glioblastoma	Department of Neurosurgery, Institute of Clinical Medicine, University of Tsukuba

10:40-12:30 Oral Presentation: Clinical Matters (Oral A)Chairpersons **B.M.Roth, Junichi Hiratsuka**

CM-7	Minoru	Suzuki	First attempt of boron neutron capture therapy to hepatocellular carcinoma	Particle Radiation Oncology Research Center, Research Reactor Institute, Kyoto University, Osaka, Japan
CM-8	Jorge E.	Cardoso	Towards a new therapy protocol for liver metastases: Effect of boron compounds and BNCT on normal liver regeneration	Instituto de Oncologia Angel H. Roffo, University of Buenos Aires, Buenos Aires, Argentina
CM-9	Junichi	Hiratsuka	First clinical trial of boron neutron capture therapy for thyroid cancer	Department of Radiation Oncology, Kawasaki Medical School, Kurashiki, Japan
CM-10	Shin-Ichi	Miyatake	Clinical Results of BNCT for Malignant Meningiomas	Department of Neurosurgery, Osaka Medical College, Takatsuki, Japan
CM-11	Teruhito	Aihara	Using BPA alone for boron neutron capture therapy of recurrent head and neck malignancies	Departments of Otolaryngology Head and Neck Surgery, Kawasaki Medical School, Okayama, Japan
CM-12	Peter	van Lent	Selective Elimination of Synovial Macrophages by Boron Neutron Capture Therapy prevents onset of Murine Experimental Arthritis	Department of Rheumatology, St.Radboud University Medical Centre, Nijmegen, The Netherlands

10:40-12:30 Oral Presentation: Physics & Engineering (Oral B)

PE-26	Eid M.	Abdel_Munem	Neutron flux measurement in the thermal column of the Malaysian TRIGA Mark II reactor with MCNP verification.	School of Physics, University Science Malaysia, Penang, Malaysia
PE-27	Tetsuo	Matsumoto	Comparison of depth-dose distributions between reactor and accelerator neutron beams proposed by design studies	Atomic Energy Research Lab., Musashi Institute of Technology
PE-28	Iiro	Auterinen	Measurement of gamma and neutron doses at eight BNCT facilities worldwide	VTT Technical Research Centre of Finland, Espoo, Finland
PE-29	Jiri	Burian	Physical parameters and biological effects of the LVR-15 epithermal neutron beam	Department of Reactor Physics, Nuclear Research Institute Rez, plc., Czech Republic
PE-30	Raymond	Moss	Design and testing of a rotating, cooled device for extra-corporal BNCT of liver cancer at the HFR Petten	HFR Unit, Institute for Energy, Joint Research Centre, Petten, The Netherlands
PE-31	John	Gueulette	Quality Assurance (QA) program in BNCT: RBE of 7 NCT beams for intestinal crypt regeneration in mice	Imagerie Moleculaire et Radiotherapie Experimentale (IMRE), Universite catholique de Louvain, Bruxelles, Belgium

12:50-13:10 Closing Ceremony (Oral A)Director: **Tooru Kobayashi****13:30-14:30 New Executives & Councilors Meeting**

Oct. 10th(Tue) and 12th (Thu) Poster

13:20-14:50		Poster Session	
*Poster Session I (Odd-numbered Posters) : Oct. 10 Tue. 13:20-14:50 Poster Session II (Even-numbered Posters) : Oct. 12 Thu. 13:20-14:50			
P-1(BI)	Kiyoshi Endo	Demonstration of Inter- and Intra-Cellular Distribution of Boron Using particle induced γ -ray emission (PIGE)	Department of Neurosurgery, Institute of Clinical Medicine, University of Tsukuba, Ibaraki, Japan
P-2(BI)	Boris Morozov	The 3D Tomographic Image Reconstruction Package for Prompt-Gamma Measurement of the Boron Neutron Capture Therapy	VTT Technical Research Centre of Finland, Espoo, Finland
P-3(Bio)	Stuart Green	Radiobiology studies for the evaluation of epithermal neutron beams used for BNCT	Queen Elizabeth University Hospital, Birmingham, UK
P-4(Bio)	Shinji Kawabata	Evaluation of the CarboranylPorphyrins H2DCP, H2TCP and H2TBP as Boron Delivery Agents for Neutron Capture Therapy	Department of Pathology, The Ohio State University
P-5(Bio)	Chia-Hung Hsieh	Enhanced Tumor Cell Killing following BNCT with Hyperosmotic Mannitol-Induced Blood-Brain Barrier Disruption and Intracarotid	Institute of Radiological Sciences; National Yang-Ming University, Taipei, Taiwan
P-6(Bio)	Yusei Fujita	Effect of the p53 gene status on the sensitivity of oral squamous cell carcinoma cells to boron neutron capture therapy	Department of Oral and Maxillofacial Surgery II, Osaka University Graduate School of Dentistry, Osaka, Japan
P-7(Bio)	Maria A. Dagrosa	Compound Biological Effectiveness (CBE) Factors Determined in Human Undifferentiated Thyroid Cancer (UTC)	Dept. of Radiobiology, Constituyentes Atomic Center; National Atomic Energy Commission, Buenos Aires,
P-8(Bio)	Nobuhiro Nakagawa	Early effects of boron neutron capture therapy on rat glioma models	Department of Neurosurgery, Kinki university school of medicine, Osaka, Japan
P-9(Bio)	Shih-Ming Hsu	Inefficiency of High Boron Concentrations for Cell Killing in Boron Neutron Capture Therapy	Department of Medical Radiation Technology and Institute of Radiological Sciences, National Yang-Ming University,
P-10(Bio)	Kenji Nagata	Estimation of intratumor boron concentration of boron neutron capture therapy for head and neck tumors using 18FBPA-PET image	Particle Radiation Oncology, Research Reactor Institute, Kyoto University, Osaka, Japan
P-11(Bio)	Ki - Jung Chun	Damage to plasmid DNA by a neutron or γ -irradiation in the presence of boron compounds	Korea Atomic Research Institute, Daejeon, Korea
P-12(Bio)	Yuko Kinashi	2-O- α -D-Glucoptanosyl L-Ascorbic acid reduced mutagenicity at HPRT locus of mouse splenocytes following BNCT	Research Reactor Institute, Kyoto University, Osaka, Japan
P-13(Bio)	J.L. Kiger	An Automated Method for Breathing Frequency Determination for Rat Lung Radiobiology in BNCT	Department of Radiation Oncology, Beth Israel Deaconess Medical Center, Harvard Medical School, Boston, MA, USA
P-14(Bio)	Maria A. Dagrosa	Optimization of the Application of BNCT to Undifferentiated Thyroid Cancer (UTC)	U.A de Radiobiologia (Centro Atomico Constituyentes), Comision Nacional de Energia Atomica, Buenos Aires,
P-15(Bio)	Fumiyo Yoshida	Effects of combined treatment with sodium borocaptate (BSH) and buthionine sulfoximine (BSO) in a rat tumor model.	Grad. School of Comprehensive Human Sciences Functional and Reg. Medical Sciences, University of Tsukuba, Tsukuba,
P-16(Bio)	Wataro Tsuruta	Boron distribution in normal and impaired vascular tissue	Department of Neurosurgery, Institute of Clinical Medicine, University of Tsukuba, Ibaraki, Japan
P-17(Bio)	Naoki Utoguchi	The potency of tumor blood endothelium as a novel target cells in BNCT	Department of Biopharmaceutics, School of Pharmaceutical Sciences, Teikyo University, Kanagawa, Japan
P-18(CM)	Shuji Kamano	A Case of Astrocytoma 19 Year History after BNCT	Kami-Itabashi Hospital Tokyo Japan
P-19(CM)	Yoshifumi Mizobuchi	BNCT for malignant brain tumors in children	Department of Neurosurgery, School of Medicine, The University of Tokushima, Tokushima, Japan
P-20(CM)	Teruyoshi Kageji	Comparison of BNCT radiation dose between BSH-based intra-operative BNCT and BSH, BPA-based non-operative BNCT	Department of Neurosurgery, School of Medicine, The University of Tokushima, Tokushima, Japan
P-21(CM)	Yasushi Shibata	²⁰¹ Tl/ ^{99m} Tc-MIBI SPECT to evaluate therapy effect of BNCT for malignant brain tumor	Department of Neurosurgery, Institute of Clinical Medicine, Graduate School of Comprehensive Human Sciences, Majors
P-22(CM)	Mika K. Kortensniemi	Analysis of in vivo boron biokinetics and physiological variables in BPA-F mediated BNCT in Finland	HUS Helsinki Medical Imaging Center, University of Helsinki, Helsinki, Finland
P-23(CM)	Yasunori Ariyoshi	Boron Neutron Capture Therapy for Advanced and/or Recurrent Cancers in the Oral Cavity	Department of Dentistry and Oral Surgery, Division of Surgery 2, Osaka Medical College
P-24(CM)	Yoshinori Hayakawa	Program for dose distribution calculation used by professor Hiroshi Hatanaka	Department of Clinical Engineering, Toin University of Yokohama, Kanagawa 225-8502, Japan
P-25(CM)	Eero Salli	Co-registration of the BNCT treatment planning images for clinical practice	HUS, Helsinki Medical Imaging Center, Helsinki University Central Hospital, Helsinki, Finland
P-26(CM)	Akira Matsushita	The impact of head movements on dose distributions in BNCT	Department of Neurosurgery, University of Tsukuba, Ibaraki, Japan
P-27(CP)	Wolfgang Sauerwein	¹⁰ B-uptake in different tumors using the boron compounds BSH and BPA (EORTC 11001)	Department of Radiotherapy, University Hospital Essen, Germany
P-28(CP)	Takashi Shirakawa	Monoclonal Antibody against Boron Carriers of BNCT Part 1. Preparation and Characterization of anti Mercaptoundecahydrododecaborate Antibody (anti-BSH)	Division of Applied Life Science, Graduate School of Life and Environmental Sciences, Osaka Prefecture University, Osaka, Japan
P-29(CP)	Eugen Justus	Synthesis and liposomal preparation of two novel dodecaborate cluster lipids for boron neutron capture therapy	Department of Chemistry, University of Bremen, Bremen, Germany
P-30(CP)	Chika Nabeta	Biodistribution of nanoparticles of hydrophobic gadopentetic-acid derivative prepared with a planetary ball mill for neutron-capture therapy	Faculty of Pharmaceutical Sciences and Cooperative Research Center of Life Sciences, Kobe Gakuin University, Kobe, Japan
P-31(CP)	Yoshinobu Fukumori	Gadolinium-loaded chitosan nanoparticles for cancer neutron-capture therapy: pharmaceutical characteristics and in vitro antitumor effect	Faculty of Pharmaceutical Sciences and Cooperative Research Center of Life Sciences, Kobe Gakuin University, Kobe, Japan
P-32(CP)	Gerard C. Krijger	Tumour Targeted Liposomes for Neutron Capture Therapy	Department of Radiation, Radionuclides and Reactors, Delft University of Technology, Delft, The Netherlands
P-33(CP)	Ryo Suzuki	Basic study of a new type liposomal carrier for application to BNCT	Department of Biopharmaceutics, School of Pharmaceutical Sciences, Teikyo University, Kanagawa, Japan
P-34(CP)	Irina Slepukhina	Synthesis and in vitro Toxicity of New Dodecaborate-Containing Amino Acids	Department of Chemistry, University of Bremen, Bremen, Germany
P-35(CP)	Hironobu Yanagie	Synthesis of Polyoxoboronate as Novel Boron Compound	Research Center for Advanced Science & Technology, The University of Tokyo, Tokyo, Japan
P-36(CP)	Mohamed E. El-Zaria	Imidazole Derivatives Containing the Azanonaborane Cluster for Boron Neutron Capture Therapy: Synthesis, Characterization, and In Vitro	Department of Chemistry, Faculty of Science, University of Tanta, Tanta, Egypt
P-37(CP)	Mohamed E. El-Zaria	Azonaborane-Containing Sugars, Possible Boron Carriers for Neutron Capture Therapy	Department of Chemistry, Faculty of Science, University of Tanta, Tanta, Egypt
P-38(CP)	Yoshihide Hattori	Synthesis and Biological Evaluation of Fluorinated p-Boronophenylalanine Derivatives	Faculty of Science and Technology, Kinki University, Osaka, Japan

P-39(CP)	Nicola	Cerullo	A new entry in GdNCT: the nanodosimetry.	Department of Mechanics, Nuclear and Production Engineering (DIMNP) - University of Pisa
P-40(PE)	Josselin	Morand	Monte Carlo Simulation of Neutron and Photon Production in a Thick Beryllium Target at the Essen Fast Neutron Therapy Facility	Strahlenklinik, Universitaetsklinikum Essen
P-41(PE)	Jonny	Ahlback	An accelerator based facility for BNCT	Ion Beam Applications S.A.
P-42(PE)	Basem_A.	Elshahat	Thermal Neutron Dose Calculations in a Brain Phantom from ${}^7\text{Li}(p,n)$ and ${}^3\text{H}(p,n)$ Reaction Based BNCT Setups	Department of Physics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia
P-43(PE)	Khalid	Abdalla	Thermal Neutron Dose Calculation in Synovium Membrane for BNCS	Department of Physics, King Fahd University of Petroleum and Minerals, Dhahran, Saudi Arabia
P-44(PE)	Zeen	Yao	Estimation of $D(d,n){}^3\text{He}$ reaction neutrons in thick targets for BNCT irradiation system	Research Reactor Institute of Kyoto University,
P-45(PE)	Hiroyuki	Miyamaru	Measurement of gamma ray emission from p-Li, p-Be, and d-Be reactions for accelerator-based BNCT.	Division of Electrical, Electronic and Information Engineering, Graduate School of Engineering, Osaka University, Osaka,
P-46(PE)	Alejandro A. Burlon		Reactions induced by deuterons and its applicability to skin tumor treatment.	Department of Physics, National Atomic Energy Commission (CNEA), Buenos Aires, Argentina.
P-47(PE)	Takushi	Takata	High-efficiency neutron generator system as a neutron source for NCT	Kyoto University, Kyoto, Japan
P-48(PE)	Kenichi	Tanaka	Characterization indexes of moderator assembly for accelerator-based BNCT using ${}^7\text{Li}(p,n)$ neutrons at proton energy of 2.5 MeV	Research Institute for Radiation Biology and Medicine, Hiroshima University, Hiroshima, Japan
P-49(PE)	Yuri I.	Belchenko	BNP pilot accelerator-based neutron source for neutron capture therapy	Budker Institute of Nuclear Physics, Novosibirsk, Russia
P-50(PE)	Juan	Esposito	Current status of the accelerator-driven LNL BNCT project	INFN-LNL, Legnaro (Padova), Italy
P-51(PE)	Yoshiharu	Mori	Neutron source with FFAG-ERIT	Research Reactor Institute, Kyoto University, Osaka, Japan
P-52(PE)	Takenori	Matsuura	Study of epithermal neutron field using accelerator based neutron source	Department of Applied Quantum Physics and Nuclear Engineering, Faculty of Engineering, Kyushu
P-53(PE)	Tzung-Yi	Lin	Recent Development of THORplan	Department of Engineering and System Science, National Tsing Hua University, Hsinchu, Taiwan, ROC
P-54(PE)	Li	Deng	MCDB Monte Carlo Dosimetry Code System for BNCT	Lab. Com. Phys., Institute of Applied Physics and Computational Mathematics, Beijing, China
P-55(PE)	Milan	Marek	Upgrade for the epithermal neutron beam at NRI Rez	Department of Reactor Physics, Nuclear Research Institute Rez, plc, Czech Republic
P-56(PE)	Hiroaki	Kumada	Development of Inverse-Planning System for Neutron Capture Therapy	Department of Research Reactor and Tandem Accelerator, Japan Atomic Energy Agency, Tokai, Japan
P-57(PE)	Yoshinori	Sakurai	Dose estimation with gamma-ray telescope system in neutron capture therapy for liver tumors	Sapporo Medical University School of Medicine
P-58(PE)	Igor N.	Sheino	Dose-supplementary therapy of malignant tumors	State Research Center - Institute of Biophysics, Moscow, Russia
P-59(PE)	Takemi	Nakamura	Characteristic of thermal neutron flux distribution in phantom with extended collimator developed for head and neck cancer	Research Reactor Utilization Section, Japan Atomic Energy Agency
P-60(PE)	Piotr	Tulik	Recombination chambers for BNCT dosimetry	Institute of Atomic Energy
P-61(PE)	Cecile	Wojnecki	Refinement of the dual ionisation chamber dosimetry carried out at the accelerator-based epithermal neutron beam facility of the Birmingham	Department of Medical Physics, University Hospital Birmingham, Queen Elizabeth Hospital
P-62(PE)	Fang-Yuh	Hsu	Dose estimation of the THOR BNCT treatment room	Nuclear Science and Technology Development Center, Tsing Hua University, Hsinchu, Taiwan
P-63(PE)	Jinpeng	Geng	Monte Carlo Simulations of the Microdosimetric Parameters for Electrons and Alpha Particles in Cell	China Institute of Atomic Energy, Beijing, China
P-64(PE)	Jouni	Uusi-Simola	Dosimetric study of varying aperture-surface distance at the Finnish BNCT facility	Department of Physical Sciences, University of Helsinki, Helsinki, Finland
P-65(PE)	Hong-Ming	Liu	Extension collimator design for rat liver irradiation at THOR	Nuclear Science and Technology Development Center, National Tsing Hua University, Hsinchu, Taiwan
P-66(PE)	Fang-Yuh	Hsu	In-phantom characterization of the new THOR epithermal neutron beam for BNCT	Department of Nuclear Science, National Tsing Hua University, Hsinchu, Taiwan
P-67(PE)	Chih-Hao	Chang	A Study of Neutron Fluence Rates of the BNCT Beam at THOR Using Foil Activation	Department of Engineering and System Science, National Tsing Hua University, Hsinshu, Taiwan
P-68(PE)	Wen-Chyi	Tsai	Measurement of Dose Rate Components of the BNCT Beam at THOR Using Paired Ionization Chambers	Department of Engineering and System Science, National Tsing Hua University, Hsinshu, Taiwan
P-69(PE)	Tianguang	Cao	Track Structure and DNA damage Spectrum of Proton and α Particle in Water	China Institute of Atomic Energy, Beijing, China
P-70(PE)	Dong Han	Lee	Dosimetric Characteristics of A Thermal Neutron Beam Facility for Neutron Capture Therapy at Hanaro Reactor	Radiation & Medical Science Research Center, Korea Institute of Radiological & Medical Sciences, Seoul, Korea
P-71(PE)	Tetsuo	Matsumoto	Depth-dose evaluation for new cancer treatment using thermal neutron capture gamma-ray agents	Atomic Energy Research Lab., Musashi Institute of Technology
P-72(PE)	Johanna M.	Karila	Dose verification of BNCT head and neck patients with TLD	Dept. of Physical Sciences, University of Helsinki, Helsinki, Finland
P-73(PE)	Viatcheslav F	Khokhlov	Neutron activation methods to determine ${}^{10}\text{B}$ concentrations in biological tissues at the MEPhI Reactor	Moscow Engineering Physics Institute (State University)
P-74(PE)	Tom O.	Seren	Correct treatment of covers in adjustment of epithermal neutron spectra	VTT Technical Research Centre of Finland
P-75(PE)	Xinbiao	Jiang	The Conceptual Calculation for the Neutron Beam Device at Mark-1 In-Hospital Neutron Irradiator	Northwest Institute of Nuclear Technology(NINT)
P-76(PE)	Hiroyuki	Naito	Design of a thermal neutron field by ${}^{252}\text{Cf}$ source for measurement of ${}^{10}\text{B}$ concentrations in the blood samples for BNCT	Kyoto University, Kyoto, Japan
P-77(PE)	Iiro	Auterinen	Personnel doses at the FiR 1 BNCT facility	VTT Technical Research Centre of Finland, Espoo, Finland
P-78(CP)	Tanja	Schaffran	Interaction of liposomes from dimyristoyl phosphatidylcholine (DMPC) and dipalmitoyl phosphatidylcholine (DPPC) with $\text{Na}_2\text{B}_2\text{H}_7\text{SH}$ (BSH)	Department of Chemistry, University of Bremen
P-79(PE)	S.	Custodero	Upgrade of a Compact D-D Neutron Generator for NCT Application	EUROSEA Med srl, Via Livorno, Torino, Italy