



November 2-7, 2008
Florence, Italy - Villa Vittoria

13th International Congress on Neutron Capture Therapy

Scientific Programme

International Society for Neutron Capture Therapy



President of ISNCT
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**Fondazione IRCCS
Policlinico San Matteo**

13th International Congress on Neutron Capture Therapy

SUNDAY

14.30-18.30 REGISTRATION

16.00-17.00 EXECUTIVE BOARD MEETING

SALA ONICE,
PALAZZO DEI CONGRESSI – VILLA VITTORIA

17.00-18.00 BOARD OF COUNCILORS MEETING

SALA ONICE,
PALAZZO DEI CONGRESSI – VILLA VITTORIA

18.30-20.00 WELCOME RECEPTION

MONDAY

SALA VERDE

9.00 -9.45 Opening Ceremony. Chairpersons: R.Barth, S.Altieri

9.45-10.30 SALA VERDE

R. Barth
Hatanaka Lecture

ID	surname	name	title
272	Harling	Otto	Fission Reactor Based Neutron Irradiation Facilities for Neutron Capture Therapy

10.30-11.00 Coffee break

11.00-13.00 PLENARY PL1 SALA VERDE

S. Myatake - L. Kankaanranta

Clinical Studies I: BNCT of Gliomas, Melanoma and Head and Neck Cancer

ID	surname	name	title
136	Matsumura	Akira	Current practices and future directions of therapeutic strategies in glioblastoma: survival benefit and indication of BNCT
83	Kawabata	Shinji	Survival benefit from Boron Neutron Capture Therapy for the newly diagnosed glioblastoma patients
157	Nakagawa	Yoshinobu	Clinical results of BNCT for malignant brain tumors in children
78	Kankaanranta	Leena	Outcome of the First Twelve Patients with Locally Recurred Inoperable Head and Neck Cancer Treated in the Finnish Head and Neck Cancer BNCT Trial.
137	Menéndez	Pablo	BNCT for Skin Melanoma in Extremities: Updated Argentine Clinical Results

13.00-14.30 Lunch

14.30-16.10 PLENARY PL2 SALA VERDE

K. Ono – W. Sauerwein

Clinical Studies II: BNCT of Gliomas and Head and Neck Cancer

ID	surname	name	title
149	Miyatake	Shin-Ichi	Survival benefit of boron neutron capture therapy for recurrent malignant gliomas
86	Kenji	Fukutsuji	Boron Neutron Capture Therapy for Patients with Melanomas of Head-and-Neck
80	Kato	Itsuro	Effectiveness of Boron Neutron Capture Therapy for Recurrent Head and Neck Malignancies
210	Yamamoto	Tetsuja	Boron neutron capture therapy for newly-dignosed gioblastoma: pilot study in Tsukuba
262	Riley	Kent	Collective Analyses of Clinical Outcomes: Globally Advancing BNCT

16.10-16.30 Coffee break

16.30-17.30 PLENARY PL3 SALA VERDE**L. Roveda – K. Riley****Clinical Studies III: Into the Future**

ID	surname	name	title
74	Kageji	Teruyoshi	Clinical results and radiation dose of BSH, BPA-based non-operative BNCT with additional external beam irradiation
7	Barth	Rolf	What is the future for boron neutron capture therapy?
257	Orecchia	Roberto	CNAO: The Italian Hadrontherapy facility

SALA VERDE**17.30-18.15 ROUND TABLE: Discussion on Clinical Studies**
(13 participants of the clinical papers)**9.00-18.00: Posters set-up (Ground Floor).****TUESDAY**

08.30-10.30 PARALLEL A1 SALA VERDE**G. Cruickshank – T. Kageji****Clinical Studies IV: BNCT of Cranial and Extracranial Tumors**

ID	surname	name	title
77	Kankaanranta	Leena	BPA-Based BNCT in the Treatment of Glioblastoma Multiforme: A Dose Escalation Study
209	Teruhito	Aihara	Boron Neutron Capture Therapy for Head and Neck Epithelial Carcinomas other than SCC
225	Yanagie	Hironobu	Feasible Evaluation of Neutron Capture Therapy for Local Recurrent Breast Cancer
252	Sauerwein	Wolfgang	Recurrent thyroid cancer: a case for BNCT? Results from the EORTC trial 11001
200	Skold	Kurt	Efficacy of BNCT for GBM: Assessment of clinical results from Studsvik, Sweden
171	Ono	Koji	The Accelerator Based BNCT Project in Kyoto University Reactor Institute

08.30-10.30 PARALLEL A2 SALA ONICE**F. Hawthorne – M. Kiriha****Chemistry and Pharmacology of Boron delivery agents I**

ID	surname	name	title
42	Gabel	Detlef	Interaction of charged boron clusters with biologically relevant molecules
195	Schaffran	Tanja	New dodecaborate cluster lipids and cholesterol derivatives for BNCT
114	Lesnikowski	Zbigniew	Aggregation of Nucleoside-Boron Cluster Conjugates in Aqueous Solutions and its potential effect on behavior as boron carriers for BNCT
224	Weissfloch	Lothar	Enhancement of p-Boronophenylalanine Uptake into Subcutaneous Rat Gliosarcomas: Synergy of Benserazide and L-dopa
25	Chou	Fong-In	Suitability of boron carriers for boron neutron capture therapy for hepatoma in situ: Accumulation of boron in malignant and normal liver cells with L-boronophenylalanine, mercaptoborane and boric acid
51	Gifford	Ian	Delivery of a Cholesteryl Ester Mimic to Human Prostate Cells via Low-Density Lipoprotein Receptor Mediated Endocytosis

10.30-11.00 Coffee break

11.00-13.00 PLENARY PL4 SALA VERDE**Y. Nakagawa – R. Barth****Clinical Studies V**

ID	surname	name	title
278	Zonta Pinelli	Aris Tazio	Extracorporeal liver BNCT for the treatment of diffuse metastases. What we have learned and what is still to be learned - The BNCT procedure to treat the out of body organs affected by diffuse cancer (TOrMINA)
121	Liberman	Sara	Boron Biodistribution Study in Colorectal Liver Metastases Patients in Argentina
158	Nakai	Kei	Feasibility of Boron Neutron Capture Therapy for malignant spinal tumors

46	Cruickshank	Garth	A Cancer Research UK pharmacokinetic study of BPA-mannitol in patients with high grade glioma to optimise uptake parameters for clinical trials of BNCT
253	Sauerwein	Wolfgang	Pharmacokinetic of BSH - results from EORTC trials
189	Santa Cruz	Gustavo	Dynamic Infrared Imaging of Melanoma and Normal Skin in Patients Treated by BNCT

13.00-14.30 Lunch

14.30-16.30 POSTER SESSION PO1 SALA VERDE

I. Murata – A. Roca

Beam Dosimetry, Medical Physics, Treatment Planning

ID	surname	name	title
101	Kondratenko	Rostislav	The basic theory for 10B NCT with thermal neutrons.
109	Kumada	Hiroaki	Neutron irradiation techniques to reduce skin dose and to improve therapeutic dose distribution using thermal neutron filter
125	Liu	Yuan-Hao	Neutron Flux Mapping inside a PMMA and a RANDO Phantom using Indirect Neutron Radiography
6	Bartesaghi	Giacomo	Evaluation of all Dose Components in the LVR-15 Reactor Epithermal Neutron Beam Using Fricke Gel Dosimeter Layers
43	Gadan	Mario	Preliminary liver dose estimation in the new facility for irradiation of biological samples at the RA-3 Reactor
45	Gambarini	Grazia	TLD-700 glow curve shape for determining thermal neutron fluence and gamma dose in BNCT beams
48	Ghani	Zamir	BNCT Beam Monitoring, Characterisation and Dosimetry
47	Ghani	Zamir	Neutron self-shielding effects and correction factors for foil activation measurements used in BNCT dosimetry
54	Gonzalez	Sara	A Computational Dosimetry Tool for the study of tumor doses and skin toxicities in BNCT
62	Hugtenburg	Richard	Monte Carlo modelling of the influence of boron microdistribution on BNCT microdosimetry
130	Marinelli	Marco	Boron Neutron Capture Therapy (BNCT) dosimetry by synthetic single crystal diamond
150	Morand	Josselin	Construction of an analytic dosimetry tool for BNCT
254	Porras	Ignacio	Exploring a Boron-Sulphur Neutron Capture therapy
183	Pozzi	Emiliano	Testing of a gel equivalent to liver to perform neutron characterizations
186	Sakurai	Yoshinori	An Estimation of Activation for Target Volume due to BNCT at Kyoto University Reactor
212	Tulik	Piotr	BNCT beam monitoring with recombination chamber
216	Tung	Chuan-Jong	Microdosimetry Study of THOR BNCT Beam Using the Tissue Equivalent Proportional Counter
220	Vanossi	Elena	In-phantom dose imaging with polymer gel dosimeter layers
226	Yanagie	Hironobu	Accumulation of Boron Compounds to Tumor with Intrarterial Administration of Boron Entrapped Water-in-Oil-in-Water Emulsion by Using Neutron Capture Autoradiography
60	Hsu	Fang-Yuh	Assessment of Dose Rate Scaling Factors Used in NCTPlan Treatment Planning Code for the BNCT Beam of THOR
120	Li	Hsien-Sheng	BNCT Treatment planning using THORplan
151	Morigi	Maria Pia	BNCT: treatment plans and neutron dose evaluation using a Monte Carlo code

14.30-16.30 POSTER SESSION PO2 SALA ONICE

H. Ichikawa – D. Pietrangeli

Chemistry and Pharmacology

ID	surname	name	title
9	Baumann	Katy	Boron-containing polymers for conjugation to antibodies
58	Carlioni	Paolo	Rational design of boron-rich compounds targeting human thymidine kinase for BNCT

24	Ching	H. Y. Vincent	Boronated DNA Metallointercalators for Boron Neutron Capture Therapy
31	Crossley	Ellen	DNA-targeted Gadolinium Compounds for NCT
63	Ichikawa	Hideki	Biodistribution of BPA and BSH after single, repeated and simultaneous administrations for Neutron-Capture Therapy of Cancer
64	Ichikawa	Hideki	Delivery of BPA using Nanosuspension Formulations for Neutron-Capture Therapy of Cancer
69	Ioppolo	Joseph	Carborane-Containing Phosphonium Salts For Boron Neutron Capture Therapy
70	Ito	Yuichi	Disposition of TF-PEG-liposome-BSH in tumor-bearing mice
76	Kanai	Chika	Effect of Surface Modification on Characteristics of Gadolinium-Loaded Chitosan Nanoparticles for Neutron Capture Therapy of Cancer
107	Kulakov	Victor N.	Scheme of Screening Studies of New Compounds
110	Kunig	Johannes	Glycosylated Carbaboranylphosphonates for Use in BNCT-Anti-Cancer Treatment
260	Manzo	Luigi	Boron carriers for BNCT: state of the art and new perspectives deriving from nanotechnology
175	Panza	Luigi	Synthesis of complex glycosilated carboranes for BNCT
248	Pietrangeli	Daniela	Carboranyl Porphyrazines: Synthetic Aspects and Molecular Properties
185	Rendina	Louis	Boronated Cyclic Peptides As Tumor-Specific Agents for Boron Neutron Capture Therapy
263	Ristori	Sandra	Carborane derivative drugs inserted in liposome as an effective strategy for Boron Neutron Capture Therapy
205	Shimahara	Takeshi	Boron compound delivery to oral squamous cell carcinoma cells using transferrin conjugated PEG-liposomes
197	Shirakawa	Makoto	Synthesis and evaluation of a novel liposome containing BPA-peptide conjugate for BNCT
261	Takagaki	Masao	Non-tumor specificity of polyhedral borane cages toward C6 tumor cells
221	Vöge	Andrea	Synthesis of new dodecahydro-closo-dodecaborate cluster containing compounds
234	Yoshie	Ishikawa	A new fabrication technique of boron carbide particles for BNCT agent

14.30-16.00 PARALLEL ECM3 SALA QUATTRO

NEUTRON SOURCES

ID	surname	name	title
274	Auterinen	Iiro	Reactor based BNCT facilities: current status and future prospects
273	Kreiner	Andres	Accelerator-Based Boron Neutron Capture Therapy

16.30-16.45 Coffee break

16.45-18.30 POSTER SESSION PO3 SALA VERDE

H. Blaumann – I. Auterinen Neutron Sources, Nuclear Engineering

ID	surname	name	title
12	Bengua	Gerard	Beam Shaping Assembly with Liquid Lithium Target for Neutron Production in BNCT
18	Burlon	Alejandro	Comparison between a TESQ accelerator and a reactor as neutron sources for BNCT.
33	Custodero	Salvatore	Thermal Neutron Flux for NCT Application by means of Compact Neutron Generators
84	Ke	Guotu	The Study of Physics and Thermal Characteristics for In-hospital neutron irradiator (IHNI)
118	Li	Yiguo	The Physics Experimental Study for In-hospital Neutron Irradiator
184	Ramos Aruca	Maridelin	Pulsed Neutron Source for Boron Neutron Capture Therapy -- Initial Simulation Results
193	Sasa	Toshinobu	High Energy Proton Application to BNCT Neutron Source (1) - Outline of J-PARC project and Transmutation Experimental Facility -
201	Skorkin	Vladimir	The INR Neutron Sources for Neutron Capture Therapy
202	Sumini	Marco	Perspectives for the Application of Plasma Focus Technology to Neutron Capture Therapy
207	Taskaev	Sergey	First neutron generation in the BINP accelerator based neutron source
13	Blaumann	Herman	Redesign of the RA-6 reactor BNCT facility

19	Burlon	Alejandro	A simulation study for the radiation shielding of a treatment room for AB-BNCT.
49	Ghani	Zamir	Design study to further optimise the Birmingham orthogonal accelerator epithermal neutron beam
52	Giusti	Valerio	BNCT of explanted livers using a suitably shaped neutron spectrum and irradiation box.
72	Jiang	Shiang-Huei	Construction Design of a PGNAA Facility for Boron Concentration Measurement in THOR
100	Komeda	Masao	Performance measurement of the SOF detector for boron neutron capture therapy
102	Kononov	Oleg	Study of irradiation port position for accelerator beam shaping assembly operated ${}^7\text{Li}(p,n){}^7\text{Be}$ neutron producing target.
115	Levinas	Pablo	Transport of high-intensity proton beams through a TESQ accelerator
123	Liu	Hong-Ming	Increase the beam intensity for BNCT by changing the core configuration at THOR
167	Osko	Jakub	Concept of a BNCT line with underwater, in-pool fission converter at reactor MARIA in Świerk

16.45-18.30 POSTER SESSION PO4 SALA ONICE

T. Nariai – J. Bakeine

Biology, Boron Imaging, Clinical Matters

ID	surname	name	title
264	Bakeine	James	FEASIBILITY STUDY OF THE UTILIZATION OF BORON NEUTRON CAPTURE THERAPY (BNCT) IN DIFFUSE LUNG METASTASES IN A RAT MODEL
34	Dagrosa	Alejandra	Radiobiological Studies in a Human Cell Line of Undifferentiated Thyroid Cancer (UTC) for BNCT.
268	Ferrari	Cinzia	Selective uptake of p-BoronoPhenylalanine by osteosarcoma cells for BNCT
105	Koryakin	Sergey	Accumulation of ${}^{131}\text{I}$ -BSH in melanoma B-16 and surrounding tissues of mice following different methods of compound administration
91	Kinashi	Yuko	Bystander effect induced mutagenicity in HPRT locus of CHO cells followed BNCT neutron irradiation: Characteristics of Point mutations by sequence analysis
112	Lee	Chunman	Molecular targeting of CD44 for Mesothelioma
178	Phoenix	Ben	Cell Survival Measurements, with and without Boron, in an Accelerator Produced Epithermal Neutron Beam: A Proposal for a Radiobiological Intercomparison of BNCT Facilities
227	Yanagie	Hironobu	Inhibition of Tumor Growth of Mouse Colon Cancer Cell Line by Boron Neutron Capture Therapy & Immunotherapy
235	Yusei	Fujita	BNCT for oral squamous cell carcinoma cells with p53 gene mutation
39	Endo	Kiyoshi	The Capabilities and Limitations in the Analysis of Boron Micro-Distribution in Tumor Cells Using PIGE
41	Fujimoto	Takuya	Accumulation of MRI Contrast Agents in Malignant Fibrous Histiocytoma for Gadolinium Neutron Capture Therapy
73	Kabalka	George	Biological Evaluation of Boronated Unnatural Amino Acids as New Boron Carriers
87	Khelifi	Rachid	Towards prompt gamma spectroscopy for monitoring boron distributions during extracorporeal treatment of liver metastases by boron neutron capture therapy: a Monte Carlo simulation study
139	Menichetti	Luca	Aromatic aminoacid analogues mimetic of BPA transport : use of O-(2-[${}^{18}\text{F}$]fluoroethyl)-L-tyrosine in experimental animal model of F98 Glioma.
138	Menichetti	Luca	Positron Emission Tomography: a crucial role for BNCT ?
196	Schütz	Christian	Determination of boron in tissue using neutron-autoradiography and ICP-MS
233	Yamamoto	Yohei	T2 Corrected Quantification of L-p-Boronophenylalanine-Fructose Complex Using Proton MR Spectroscopy
90	Kimura	Yoshihiro	BNCT for recurrent oral cancer and metastasis of cervical lymph nodes
134	Matsuda	Masahide	Dose distribution and clinical response of glioblastoma treated with external beam boron neutron capture therapy
156	Nakagawa	Yoshiaki	Cost Analysis of Radiotherapy, Carbon Ion Therapy, Proton Therapy and BNCT in Japan
169	Ohmae	Masatoshi	Intra-arterial Infusion of Boron-10 (${}^{10}\text{B}$) compound in Boron Neutron Capture Therapy for Patient with Maxillary Cancer : A case report
203	Suzuki	Minoru	Boron Neutron capture Therapy (BNCT) for diffuse or multiple pleural tumors: Case reports of two cases

16.45-18.15 PARALLEL ECM4 SALA QUATTRO**DOSIMETRY**

ID	surname	name	title
277	Nigg	David	Computational Dosimetry and Treatment Planning for Neutron Capture Therapy
276	Riley	Kent	Dosimetry for Boron Neutron Capture Therapy

WEDNESDAY**08.30-10.30 PARALLEL B1 SALA VERDE****O. Harling - K.W. Burn****Neutron Sources I: Nuclear Reactors**

ID	surname	name	title
3	Auterinen	Iiro	Reactor based BNCT facilities: current status and future prospects
166	Nigg	David	Performance of a New Composite Single-Crystal Filtered Thermal Neutron Beam for Neutron Capture Therapy Research at the University of Missouri
142	Miller	Marcelo	New irradiation facility for biological samples at the RA-3 reactor thermal column
126	Liu	Yuan-Hao	Neutron Spectra Measurement and Comparison of the HFR and THOR BNCT Beams
135	Matsumoto	Tetsuo	Conceptual design of a liquid metal small fast reactor for BNCT
10	Belousov	Sergey	Preliminary modeling of BNCT beam tube on IRT in Sofia
15	Borisov	George	Program for reconstruction of experimental equipment of tangential horizontal experimental channel (HEC) No7 of IR-8 reactor at RRC "Kurchatov institute" for medical, biological and physical research using capillary neutron optical systems (CNOS)

08.30-10.30 PARALLEL B2 SALA ONICE**S. Green - T. Seppala****Medical Physics I: Dosimetry**

ID	surname	name	title
187	Sakurai	Yoshinori	A Feasibility Study of Dose Estimation with SPECT Technique after BNCT Irradiation
144	Minsky	Daniel	Experimental feasibility studies on a SPECT tomograph for BNCT dosimetry
164	Roca	Antoaneta	Monte Carlo simulation of the current obtained with ionisation chamber detectors in mixed fields of neutrons and gammas
131	Marralle	Maurizio	The gadolinium as a powerful additive for enhancing the neutron sensitivity of ESR dosimeters
44	Gambarini	Grazia	Dose imaging in a thorax phantom with lung-equivalent volume at the epithermal neutron beam of LVR-15 reactor
53	Gonzalez	Sara	Tumor Control and Normal Tissue Complication in BNCT Treatments of Nodular Melanoma: A Search for Predictive Quantities
269	Protti	Nicoletta	Calculations of the Dose Distribution in the Lungs of a Rat Model Irradiated in the Thermal Column of the TRIGA Reactor in Pavia (Italy)

08.30-10.30 PARALLEL B3 SALA QUATTRO**F.S. Rasmussen – H. Nakamura****Boron Imaging and Quantitation I**

ID	surname	name	title
165	Nievaart	Sander	Calibration of the prompt gamma ray spectroscopy facility in Petten for 10B concentrations up to 2000 ppm
122	Lipengolts	Alexey A.	Prompt Gamma Activation Analysis of 10B and Gd in Biological Samples at the MEFH Reactor
50	Giannini	Gianrossano	CR-39 neutron imaging of biological samples at clinical linac's
196	Schütz	Christian	Determination of boron in tissue using neutron-autoradiography and ICP-MS
176	Pazirandeh	Ali	Determination of boron distribution in rat's brain, kidney and liver

11.00-13.00 PARALLEL C1 SALA VERDE

D. Gabel – S. Kahl

Chemistry and Pharmacology of boron delivery agents II

ID	surname	name	Title
58	Hawthorne	M. Frederick	The New and Comprehensive BNCT Program of the International Institute of Nano and Molecular Medicine
159	Nakamura	Hiroyuki	Development of Boron Nano Capsules for Neutron Capture Therapy
265	Oberdisse	Julian	Structural Characterization of Carborane-loaded Liposomes on the Nanoscale Using Scattering Techniques
133	Masunaga	Shin-ichiro	The potential of transferrin-polyethyleneglycol liposomes encapsulating GB-10 as 10B-carriers for boron neutron capture therapy
172	Ono	Koji	Measurement of BPA in the Blood by Fluorometry
104	Kortesniemi	Mika	On-Line Blood Boron Detection using ICP-AES and ICP-MS during BNCT

11.00-13.20 PARALLEL C2 SALA ONICE

D. Nigg – E. Nava

Neutron Sources II: Accelerators

ID	surname	name	Title
92	Kobayashi	Tooru	Neutrons for BNCT from the Near Threshold $7\text{Li}(p,n)^7\text{Be}$ on Thick Li-target
106	Kreiner	Andres J.	Development of a Tandem-ElectroStatic-Quadrupole accelerator facility for BNCT
204	Tahara	Yoshihisa	Epithermal Neutron Generator Using J-PARC 400 MeV Protons
255	Forton	Eric	Overview of the IBA Accelerator-Based BNCT System
40	Esposito	Juan	Be target development for the accelerator-based SPES-BNCT facility at INFN Legnaro
32	Custodero	Salvatore	Feasibility Study for the Upgrade of a Compact Neutron Generator for NCT Application
206	Tanaka	Hiroki	Epithermal neutron generator based on $\text{Be}(p,n)$ reaction using 30 MeV proton cyclotron accelerator at KURRI

12.00-12.45 PARALLEL ECM5 SALA QUATTRO

RADIOBIOLOGY

ID	surname	name	title
275	Schwint	Amanda	Basic Principles in BNCT Radiobiology. Examples taken from our own research in an experimental model of oral cancer

THURSDAY

08.30-10.30 PARALLEL D1 SALA VERDE

A. Kreiner – J. Esposito

Neutron Sources III: Accelerators

ID	surname	name	title
217	Ulianenko	Stepan	Opportunity using of neutron pulse sources at combined boost neutron capture therapy
266	Longo	Francesco	Pulsed Neutron Source for Boron Neutron Capture Therapy -- Initial Simulation Results
21	Ceballos	César	The BSA modeling for an Accelerator-Based BNCT facility for treating shallow skin melanoma at INFN LNL.
56	Halfon	Shlomi	High power accelerator-based boron neutron capture with a liquid lithium target and new applications to treatment of infectious diseases
129	Malyshkin	Gennady	Neutron producing target for BINP accelerator based neutron source
208	Terlizzi	Rita	Design of a Accelerator- Based Neutron Source for Neutron Capture Therapy
222	Vujic	Jasmina	Accelerator-Driven Sub-Critical Multiplier for BNCT

08.30-10.30 PARALLEL D2 SALA ONICE**H. Fukuda – I. Auterinen****Treatment Planning**

ID	surname	name	title
108	Kumada	Hiroaki	Development of a multi-modal Monte-Carlo radiotherapy planning system
163	Nievaart	Sander	Acceleration of Monte Carlo based treatment planning: criteria when adjoint calculations are faster
88	Kiger	Stead	Neutron Beam Source Definition Techniques for NCT Treatment Planning
37	Durisi	Elisabetta	Comparison of different MC techniques to evaluate BNCT dose profiles in phantom exposed to various neutron fields
93	Koivunoro	Hanna	Comparative study of dose calculations with SERA and JCDS treatment planning systems
116	Li	Deng	MCDB Monte Carlo Dosimetry Code System and Its Applications
127	Liu Hsueh	Yen-Wan	Verification of the Accuracy of BNCT Treatment Planning System THORplan

08.30-10.30 PARALLEL D3 SALA QUATTRO**S. Kawabata – A. Schwint****Radiobiology I**

ID	surname	name	title
245	Schwint	Amanda	Boron Neutron Capture Therapy (BNCT) Inhibits Tumor Development from Field-Cancerized Tissue: An Experimental Study that Supports a New Application of BNCT
192	Santa Cruz	Gustavo	High-LET Dose and Microscopic Uncertainties in an Irradiated Cell Population
28	Jori	Giulio	A novel boronated-porphyrin as a radio-sensitizing agent for boron neutron capture therapy of tumours: in vitro and in vivo studies
232	Yang	Weilian	Molecular targeting of the epidermal growth factor receptor
140	Menichetti	Luca	In vitro neutron dosimetry of F98 and Endothelial cultured cells.

10.30-11.00 Coffee break**11.00-13.00 PARALLEL E1 SALA VERDE****T. Yamamoto – S. Liberman****Chemistry and Pharmacology of boron delivery agents III**

ID	surname	name	title
250	Wittig	Andrea	Uptake of BSH and BPA in head and neck squamous cell carcinoma in human patients
141	Michiue	Hiroyuki	The peptide modified BSH has a high uptake level in glioma cells
1	Detta	Allah	BPA uptake and distribution in GBM and normal brain is determined by extensive functional LAT-1 transporter expression which does not correlate with proliferative marker PCNA distribution.
20	Capuani	Silvia	Boronophenylalanine uptake in C6-glioma model is dramatically increased by L-DOPA preloading
14	Borasio	Piero	A novel approach to the study of ^{10}B uptake in human lung by ex-vivo ^{10}BPA perfusion
146	Mitev	Mladen	Building of Scientific Information System for supporting BNCT Development in Bulgaria

11.00-13.00 PARALLEL E2 SALA ONICE**H. Arlinghaus – Y. Imahori****Boron Imaging and Quantitation II**

ID	surname	name	title
270	Bortolussi	Silva	Boron concentration measurement in lung tissue by charged particles spectrometry
179	Pola	Andrea	Study of a Monolithic Silicon Telescope for BNCT Applications
194	Mattera	Andrea	Neutron autoradiography with a silicon detector in a hospital environment
148	Miyata	Shiro	Biodistribution and Imaging studies on F98 rat glioma by convection enhanced delivery of transferrin targeting PEG liposomes encapsulate both BSH and iodine contrast agent
36	Detta	Allah	Rapid biopsy processing for secondary ion mass spectrometric (SIMS) analysis

11.00-13.00 PARALLEL E3 SALA QUATTRO**R. Moss – M. Miller****Neutron Sources IV: Nuclear Reactors and Accelerators**

ID	surname	name	title
161	Nava	Elisabetta	Characterisation of the epithermal beam at the TAPIRO reactor
154	Murata	Isao	Neutron Field Characterization for Accelerator Based BNCT with Low Energy Neutron Spectrometer Based on Position Sensitive ³ He Counter
237	Zanini	Alba	Characterization of a Thermal Cavity in the PhoNeS photo-neutron converter for BNCT research
17	Burian	Jiri	LVR-15 Reactor Epithermal Neutron Beam parameters – results of measurements
182	Portnov	Alexander A.	Specific Features of Implementation of a Clinical Base for Neutron Capture Therapy of Cancer at the IRT MEPHI Reactor
4	Auterinen	Iiro	Collaborative Characterization of the KG 2,5 Accelerator Epithermal Neutron Beam in Obninsk of the Accelerator-Based Epithermal KG Beam in Obninsk
29	Coelho	Paulo	Radiation Field Characterization of the NCT Research Facility at IEA-R1

13.00-14.30 Lunch**SALA VERDE****14.30-14.45 W. Sauerwein: Arlene Lennox Memorial****14.45-15.30 ELECTION BOARD COUNCILORS****15.30-16.30 GENERAL ASSEMBLY****18:00-23:00 SOCIAL BANQUET****FRIDAY**

08.30-10.30 PARALLEL F1 SALA VERDE**M. Pisarev – J. Hopewell****Preclinical Studies**

ID	surname	name	title
249	Wittig	Andrea	Uptake of BSH and/or BPA in human xenografts on nude mice
243	Roveda	Laura	Liver autotransplantation according to a “modified orthotopic piggy-back” technique
247	Moss	Ray	Irradiation of an Explanted Pig Liver at the HFR Petten
143	Minouchehr	Shahin	Determination of Boronophenylalanin (BPA) in healthy liver and tumour tissue of patients with liver metastasis of colorectal carcinoma
147	Arnopolskaya	Alisa	Comparison of BNCT and GdNCT Efficacy in Treatment of Canine Cancer
57	Hampel	Gabriele	Modification of the thermal column of the TRIGA Mainz for the treatment of liver metastasis

08.30-10.30 PARALLEL F2 SALA ONICE**T. Kobayashi – P. Colautti****Medical Physics II: Dosimetry**

ID	surname	name	title
38	Gargioni	Elisabetta	The investigation of neutron capture therapy with nanodosimetric methods I: nanodosimetric radiation quantities
59	Hilgers	Gerhard	The investigation of neutron capture therapy with nanodosimetric methods II: Monte-Carlo simulations and experiment
162	Nichols	Trent	Implications for Clinical Treatment from the Microdosimetry of Boron Neutron Capture Therapy
152	Moro	Davide	BNCT dosimetry performed with a mini twin TEPC
2	Roca	Antoaneta	A preliminary inter-centre comparison study for photon, thermal neutron and epithermal neutron responses of two pairs of ionisation chambers used for BNCT

08.30-10.30 PARALLEL F3 SALA QUATTRO**S. Nievaart – S.W. Kiger****Neutron Sources V: Beam Dosimetry**

ID	surname	name	Title
23	Chin	Mary PW	A detailed Monte Carlo accounting of radiation transport in the brain during BNCT
27	Ciolini	Riccardo	Angle- and energy-differential neutron spectrometry for the SPES BNCT facility
103	Korobeynikov	Valeriy	IMPORTANCE FUNCTIONS APPROACH TO NEUTRON BEAM OPTIMIZATION FOR TUMOR THERAPY
155	Nagels	Sven	DETERMINATION OF THE IRRADIATION FIELD AT THE RESEARCH REACTOR TRIGA MAINZ FOR BNCT
22	Cerullo	Nicola	Progress in gadolinium utilization in NCT

10.30-10.50 Coffee break**10.50-12.10 PARALLEL G1 SALA VERDE****A. Wittig – G. Kabalka****Boron Imaging and Quantitation III**

ID	surname	name	Title
67	Imahori	Yoshio	Basic Methodology for Application to BNCT Using In Vivo Boron Imaging
160	Nariai	Tadashi	PET pharmacokinetic analysis to estimate boron concentration in tumor and brain as a guide to plan BNCT for malignant cerebral glioma.
180	Porcari	Paola	In vivo 19F MR Imaging and Spectroscopy for the BNCT optimization
271	Crosetto	B. Dario	Detecting smaller biological process anomalies than ever before, using the 3D-CBS, an advanced PET/CT

10.50-12.10 PARALLEL G2 SALA ONICE**Y. Fukumori– L. Panza****Chemistry and Pharmacology of boron delivery agents IV**

ID	surname	name	title
75	Kahl	Stephen	Synthesis, Toxicology and Biodistribution of the First Porphyrin Bearing the closo-Monocarbaborane Anion [-CB11H11]-1
211	Tsurubuchi	Takao	Intracellular uptake of a new boronated porphyrin EC032
16	Bregadze	Vladimir	Conjugates of boron clusters with derivatives of natural chlorin and bacteriochlorin
199	Sivaev	Igor	New Approach to Incorporation of Boron in Tumor-Seeking Molecules

10.50-12.10 PARALLEL G3 SALA QUATTRO**A. Schwint – A. Becciolini****Radiobiology II**

ID	surname	name	title
246	Pozzi	Emiliano	Development and Characterization of a Small Animal Irradiation Facility for Boron Neutron Capture Therapy (BNCT) Research at the RA-3 Research Reactor: Application to BPA-BNCT for Oral Cancer
177	Phoenix	Ben	Do the Various Radiations Present in BNCT Act Synergistically? Cell Survival Experiments in Mixed Alpha-Particle and Gamma-Ray Fields
267	Ferrari	Cinzia	Boron Neutron Capture Therapy of liver and lung coloncarcinoma metastases: an in vitro survival study
55	Gruia	Maria Iuliana	Monitorisation of BNCT efficiency using biochemical oxidative stress and apoptosis parameters

SALA VERDE**12.10-12.40 CLOSING CEREMONY CHAIR: S.ALTIERI****12.40-13.40 NEW EXECUTIVE AND COUNCILORS BOARD**

Summary of the Sessions valid for the ECM accreditation

Italian Medical Doctors, Nurses and Sanitary technicians of radiology

MONDAY 3rd NOVEMBER

11.00-13.00 PLENARY PL1 SALA VERDE ECM1

S. Myatake - L. Kankaanranta

Clinical Studies I: BNCT of Gliomas, Melanoma and Head and Neck Cancer

ID	surname	name	title
136	Matsumura	Akira	Current practices and future directions of therapeutic strategies in glioblastoma: survival benefit and indication of BNCT
83	Kawabata	Shinji	Survival benefit from Boron Neutron Capture Therapy for the newly diagnosed glioblastoma patients
157	Nakagawa	Yoshinobu	Clinical results of BNCT for malignant brain tumors in children
78	Kankaanranta	Leena	Outcome of the First Twelve Patients with Locally Recurred Inoperable Head and Neck Cancer Treated in the Finnish Head and Neck Cancer BNCT Trial.
137	Menéndez	Pablo	BNCT for Skin Melanoma in Extremities: Updated Argentine Clinical Results

16.30-17.30 PLENARY PL3 SALA VERDE ECM2

L. Roveda – K. Riley

Clinical Studies III: Into the Future

ID	surname	name	title
74	Kageji	Teruyoshi	Clinical results and radiation dose of BSH, BPA-based non-operative BNCT with additional external beam irradiation
7	Barth	Rolf	What is the future for boron neutron capture therapy?
257	Orecchia	Roberto	CNAO: The Italian Hadrontherapy facility

SALA VERDE

17.30-18.15 ROUND TABLE: Discussion on Clinical Studies

TUESDAY 4th NOVEMBER

14.30-16.00 SALA QUATTRO ECM3

NEUTRON SOURCES

ID	surname	name	title
274	Auterinen	Iiro	Reactor based BNCT facilities: current status and future prospects
273	Kreiner	Andres	Accelerator-Based Boron Neutron Capture Therapy

16.45-18.15 SALA QUATTRO ECM4

DOSIMETRY

ID	surname	name	title
277	Nigg	David	Computational Dosimetry and Treatment Planning for Neutron Capture Therapy
276	Riley	Kent	Dosimetry for Boron Neutron Capture Therapy

WEDNESDAY 5th NOVEMBER

12.00-12.45 SALA QUATTRO ECM5

RADIOBIOLOGY

ID	surname	name	title
275	Schwint	Amanda	Basic Principles in BNCT Radiobiology. Examples taken from our own research in an experimental model of oral cancer