



## **4<sup>th</sup> Scientific Symposium of the DGBNCT: „BNCT on its Way into Hospitals”**

**9.-10. Oktober 2025 in Würzburg**

Venue:

Institute for Sustainable Chemistry & Catalysis with Boron ICB, Würzburg University

Am Hubland

### **Program**

#### **9th October 2025**

##### **From 9:00 Registration with coffee**

09:30	Welcome	Holger Braunschweig
09:40	Organizational Aspects	Wolfgang Sauerwein

#### **Recent clinical achievements in Europe**

09:45	Head and neck cancer BNCT in Finland	Hanna Koivunoro
10:15	The start of patient treatments at Helsinki accelerator-based BNCT facility.	Liisa Porra

#### **10:45 – 11:15 Coffee Break**

11:15	CNAO: status and latest developments and innovations including BNCT	Sandro Rossi
11:45	Preparation of the first clinical trial under MDR at CNAO	Lisa Licitra

#### **Drugs and Chemistry**

12:15	The various methods of synthesizing BPA, their pros and cons and how they affect quality assurance, and clinical applications	Ivan Hlavacek
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12:30	Linkerology® in context with BNCT drugs	Thomas Bruckdorfer
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**13:00 – 14:10**

**Lunchtime**

**Drugs and Chemistry**

14:10	Integration of DNA repair inhibitors in the development of BNCT agents	Diana Barakhtii Filip Ekholm Mirkka Sarparant
14:30	Development and evaluation of new nanoparticles for NCT	Lucie Sancey P. Alvarez-Rodriguez, B. Busser, T. Etrych, A. Pitto-Barry, I. Porras, M. Ruiz-Magana
14:50	Drug development and specific requirements in the case of BNCT	Sven Bahrke
15:10	Novel drug delivery particles with dual effects on cancer theranostics in BNCT	Eiji Matsuura

**Special lecture**

15:30	The role of the ICRU in the further development of BNCT	Pawel Olko
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**15:40 – 16:00**

**Coffee Break**

**Accelerators and neutron sources**

16:00	Accelerator-based neutron sources for BNCT and other applications	Andres Kreiner
16:30	Next Generation BNCT System	Holger Höltermann

**For members only**

**17:00 – 18:00**

**General Assembly of the DGBNCT**

**19:30 Congress Dinner at the “Bürgerspital Weinstuben”**

Theaterstr. 19; <https://www.buergerspital-weinstuben.de/>

All participants and their accompanying persons are invited; costs must be covered by each individual personally.

**Prior registration is mandatory**

**10th October 2025**

**Biological**

08:30	BNCT biology with quantities and units	Mitsuko Masutani Shoji Imamichi, Satoshi Nakamura Masamichi Ishiai Hiroshi Igaki
09:00	Investigating the radiobiology of boron neutron capture therapy in head and neck cancers	Jason Parsons
09:30	Irradiation of BPA-Loaded Melanoma Spheroids and Melanocytes at the Pavia Nuclear Reactor	Michał Silarski
10:00	Proteomics for deciphering radiotherapy resistance: systems biology approach to investigate biomarkers, carriers, and mechanisms useful for improving BNCT	PierLuigi Mauri, D. Perico, A. Depalma, D. Di Silvestre M.Masutani, M. Ishiai, L. Cerchia, G. Piccialli, H. Igaki

**10:30 – 11:00**

**Coffee Break**

11:00	Translational aspects for developing BNCT as a widespread modality in oncology	Andrea Wittig-Sauerwein
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**Medical physics**

11:30	Fluence and spectral neutron field characterization for AB-BNCT	Daniel Santos
12:00	Anthropomorphic phantom for neutron therapy	Lucas Sommer

**12:20 – 13:30**

**Lunchtime**

## Medical physics

13:30	RayStation treatment planning system for BNCT	Elias Coniavitis Lars Glimelius Erik Traneus
14:00	Treatment planning for BNCT: a viewpoint from a radiation oncologist	Lin-Wei Wang
14:30	Medical physics research on accelerator-based BNCT system at Kyoto University	Hiroki Tanaka

15:00 – 15:30

Coffee Break

15:30	Dose concepts in nuclear medicine: Parallels and pitfalls shared with BNCT	Johannes Tran-Gia
16:00	A new proposed methodology for reference dosimetry in BNCT beams	Stuart Green
16:40	Reporting BNCT	Wolfgang Sauerwein

17:10 – 18:00

General Discussion

## Poster

Jonas Kohl:	<i>Compact Laser-Driven Neutron Sources</i>
Paweł Kuświk:	<i>Prototype of a detector for the PGRA-based dose and boron distribution monitoring in BNCT</i>
Alexander Smushkin:	<i>Towards real-time detection of neutron fields and dosimetry</i>

## Faculty

**Sven Bahrke** studied chemistry and earned a Ph.D. in natural product and bioanalytical chemistry. His career soon led him into industry, where he worked as a group leader in instrumental bioanalytics. He continued his research activities for different companies, focusing on developing antibodies. He has extensive expertise in medical chemistry, particularly antibody-drug conjugates, and protein biochemistry, particularly cellular protein production and protein analysis.

**Diana Barakhtii** obtained her Master of Science degree with a scholarship from the Erasmus Mundus Joint Master Program (EMJMD) in Advanced Spectroscopy in Chemistry 2023, studying at the universities of Helsinki, Lille, and Leipzig. She is currently working on her PhD in the frame of a joint program between the Biomolecular Chemistry and Tracers in Molecular Imaging groups at the University of Helsinki (starting in 2024).

**Holger Braunschweig** is head and chair of Inorganic Chemistry at the University of Würzburg. He obtained his PhD and Habilitation with Prof. P. Paetzold (RWTH Aachen). He was post-doc with Prof. M. F. Lappert at Sussex and held a position as Reader at Imperial College, London. He carried out seminal work on metal boron complexes, boron heterocycles, and boron-boron multiple bonds. His work was published in over 590 publications. He was awarded the Gottfried Wilhelm Leibniz Prize (2009), the RSC Main Group Chemistry Award (2014), and received the Arduengo, Steinhöfer, Bruker, and ScotCHEM named visiting lectureships. In 2024, he was awarded with the M. Frederick Hawthorne Award of the American Chemical Society and the Eni Prize for Advanced Environmental Solutions. He is a member of the Bavarian Academy of Sciences, the German National Academy of Sciences (Leopoldina), the North Rhine-Westphalian Academy of Sciences, and the DFG advisory panel for molecular inorganic chemistry.

**Thomas Bruckdorfer** holds a PhD in chemistry and an MBA in “Management and Distribution of Complex Technical Projects and Systems”. He is Chief Scientific Officer & Vice President Business Development at Iris Biotech GmbH since 2002. He is member of several societies including GDCh (German Chemical Society), GBM (German Society of Biochemistry and Molecular Biology), IPS (Indian Peptide Society), DECHEMA and VBU (Association of German Biotechnology Enterprises, DGBNCT, and was visiting professor at the Department of Chemistry and Department of Biotechnology, Goa University, India. He is co-founder of Iris Biotech Laboratories GmbH and B4 PharmaTech GmbH, and Mentor at Biopark Regensburg for start-up companies in the life sciences sector. He has over 25 years of experience in international marketing and sales of fine chemicals and sophisticated chemical technologies.

**Elias Coniavitis** is the Technical Lead for BNCT at RaySearch Laboratories AB (Stockholm). He received a PhD in Experimental Particle Physics from Uppsala University in 2010 and was based at CERN in Geneva for 9 years, working with Higgs-boson physics at the Large Hadron Collider. Since joining RaySearch Laboratories in 2018, he has worked on the development of the treatment planning system RayStation for carbon and helium ions, as well as being the technical lead for BNCT treatment planning since 2021.

**Stuart Green** combines a clinical service role in the National Health Service (NHS) with research, focusing mainly on the development of advanced physics-based techniques for the treatment of cancer patients, including proton and ion radiotherapy and BNCT. In his NHS role, he leads the Medical Physics Department at the University Hospital of Birmingham. Key services provided by the department include the physics aspects of the specialist radiotherapy service for the West Midlands of England, as well as nuclear medicine and PET imaging services for the population of Birmingham. Alongside this service activity, Stuart has been an active researcher working closely with colleagues in the School of Physics and Astronomy at the University of Birmingham on topics such as BNCT, where his focus has been on physical dosimetry and radiation biology, and proton radiotherapy, where his focus has been on dosimetry and proton CT imaging. In recent years, Stuart has been the coordinator of the new UK Code of Practice for Proton Dosimetry, which offers the potential for reduced uncertainties in the calibration of high energy proton beams used for cancer treatment. In the area of BNCT, one focus is the development of a code of practice for dosimetry of BNCT beams. Some of the underpinning science for this will be provided by the new intense neutron source for physics research recently installed at the University of Birmingham. He is now a co-leader of the Birmingham Radiation Research Centre of Excellence, one of 6 centers in a network established by Cancer Research UK.

**Ivan Hlavacek** studied at the University of Chemical Technology in Prague and received his PhD in organic technology in 1993. He has been with Interpharma Praha since 1992 and currently serves as COO and Head of R&D.

**Holger Höltermann** studied physics at the Institute for Applied Physics at Goethe University Frankfurt and graduated in 1999. From 2000 to 2009, he was the technical director, director of European services, and a member of the management board at Publicis Groupe for General Motors. In 2004, he co-founded BEVATECH, a company that develops linear accelerators and vacuum technology. From 2010 to 2012, he was the head of multichannel data services for Germany and Poland at Acxiom and a member of the management board. Since 2012, he has been the managing director of BEVATECH GmbH.

**Hanna Koivunoro, Ph.D.** is Chief Medical Physicist at Neutron Therapeutics Inc. (USA) and Neutron Therapeutics Finland Oy. She has over 25 years of experience in Boron Neutron Capture Therapy (BNCT), spanning physics, dosimetry, treatment planning, clinical trials, and accelerator-based BNCT system development. She earned her M.Sc. in Theoretical Physics and her Ph.D. in Physics (Medical Physics) from the University of Helsinki, with studies also at UC Berkeley and Aalto University, and is a Qualified Medical Physicist. Her professional background includes roles as Software Quality Engineer at Varian Medical Systems, Medical Physicist at Helsinki University Hospital, Research Scientist at Boneca Corporation for BNCT clinical trials, and Visiting Researcher at Lawrence Berkeley National Laboratory. In her current role, she participates in BNCT system development and validation, and international training for clinical and research users. She has supervised and reviewed academic theses and contributed extensively to BNCT education worldwide. She is an active member of the global BNCT community, serving on the Executive Board of the International Society for Neutron Capture Therapy (ISNCT) as Technical Chair for Physics, Co-chair of the PTCOG BNCT Sub-Committee, and Topic Editor for *Frontiers in Oncology*. She is also on the editorial board of *Applied Radiation and Isotopes*.

**Andrés J. Kreiner** is currently professor of physics at the National University of San Martin and superior investigator at Comisión Nacional de Energía Atómica (CNEA) and the National Research Council of Argentina. He graduated in Physics at the Universidad de Buenos Aires and obtained a Ph.D. in Natural Sciences at the TU München. In the early 70s he joined CNEA, where he is currently Head of the Accelerator Technology and Applications Department. He started his career with the study of nuclear structure physics using charged-particle induced nuclear reactions. In the 90s he organized the interdisciplinary School of Science and Technology at the National University of San Martin and served as its first elected dean. Also in the mid 90s, he began to devote himself to BNCT, with special focus on accelerator-based BNCT. For about 15 years now he and his group decided to pursue the ambitious goal of developing locally accelerator technology for BNCT and other applications, and the installation of an AB-BNCT Center in Buenos Aires. This effort led to the transfer to the Korean Institute of Radiological and Medical Sciences of an accelerator prototype in 2022. The International Society for Neutron Capture Therapy recognized his work with the Hatanaka award at the 2024 Krakow Conference, granted in particular for the development of accelerator technology for BNCT.

**Lisa Licitra** is board-certified in medical oncology, with special expertise in the treatment of head and neck cancers. Her main interest is clinical and translational research in head and neck neoplasms, evidence-based medicine and clinical methodology in oncology, quality of life and data-driven research, omics. She leads the Medical Oncology Head and Neck Cancer Department at the Istituto Nazionale Tumori in Milan, Italy. She is Associate Professor at University of Milan, Italy. She is PI of several clinical trials including academic studies with original translational research. She has been recognised several prizes for her research activity, as Honorary Membership Award of the ESTRO, 2008, Honorary Award “Guido Venosta”, 2010, Honorary Membership Award from the Israeli Society of Head and Neck Surgery and Oncology, 2010, the “Hubertus Wald Award” prize of University Cancer Center Hamburg, 2015, ESMO Award 2021. She is founding member, and board member of the European Head and Neck Society. She has been chairing the EORTC Head and Neck group and Vice President of EORTC and the QAC committee. She has been chair of the education committee for head and neck cancer of ESMO and President of AIOCC Italian Head and Neck Society. She is leader of G7 domain within EURACAN (a European Reference Network) for head and neck cancer. Since March 2024 she is Scientific Coordinator of the Italian Health Ministry agency Alleanza Contro il Cancro. Since March 2019, she is Scientific Director of Fondazione CNAO.

**Mitsuko Masutani** PhD is Professor at the Department of Molecular and Genomic Biomedicine, Center for Bioinformatics and Molecular Medicine of the Nagasaki University Graduate School of Biomedical Sciences and Vice Dean, School of Medicine, Nagasaki University. She graduated from Okayama University and got PhD on Pharmaceutical Sciences at Graduate School of University of Tokyo in 1988 and worked there as JSPS Research Fellow until 1989. She moved to the National Cancer Center Research Institute, where she became Chief of the Biochemistry Division in 2007. She served as organizing committee member of the 53<sup>rd</sup> Fujihara International Seminar, and the 40<sup>th</sup> International Symposium of the Princess Takamatsu Cancer Research Fund. As Specially Appointed Chief (Radiation Oncology) and a member of Division of BNCT, Exploratory Oncology Research and Clinical Trial Center, she worked to support preclinical research on accelerator-based BNCT in National Cancer Center. In 2015 she was appointed as Professor at the Nagasaki University Graduate School of Biomedical Sciences. A core area of her research includes radiation biology of BNCT and cancer research. She also serves as Visiting Scientist at the National Cancer Center Research Institute. She is Executive Board Member of the Japanese Society of Neutron Capture Therapy, Councilor to the Japanese Cancer Association. She organized the 21<sup>st</sup> Congress of Neutron Capture Therapy of Japanese Society of Neutron Capture Therapy on July 2025 in Nagasaki.



**Eiji Matsuura** graduated from Okayama University's Graduate School of Pharmaceutical Sciences and received his Ph.D. from Okayama University's Graduate School of Medicine. He then worked at the National Jewish Center for Immunology and Respiratory Medicine in Denver, Colorado, as a research associate from 1986 to 1988; at Yamasa Corporation's Diagnostics Division in Choshi, Japan, as a senior research scientist from 1988 to 1995; and at the Hokkaido University School of Medicine's Department of Biochemistry in Sapporo, Japan, as a research associate from 1995 to 1997. In 1997, he returned to Okayama University Medical School. He was a professor at the Neutron Therapy Research Center and the Graduate School of Medicine, Dentistry, and Pharmaceutical Sciences until his retirement this year. His primary scientific interests are: 1) the pathophysiology of cancer and autoimmune diseases; 2) drug delivery systems (DDS) for BNCT; and 3) molecular imaging and theranostics using antibody variants. He is also the co-founder and managing director of Cardiovascular Solutions and Innovations, LLC (CSI) in South Bend, Indiana.

**PierLuigi Mauri** is the acting director of the Institute for Endotypes in Oncology, Metabolism and Immunology at the National Research Council (IEOMI-CNR). Since 2010, he is Director of Research at ITB-CNR. Since 2020, he has been leading the Italian proteomics community in the ELIXIR infrastructure and is PI of the proteomics activities for the infrastructure project Elixir NextGenIT PNRR. He has established a proteomics laboratory based on gel- and label-free approaches, including computer-aided proteomics tools for the characterization of biomarkers and related signaling pathways intended for the diagnosis and prediction of therapeutic success (responders vs. non-responders), including BNCT. In addition, in-house software programs for proteomics and systems biology have been developed. His scientific work is on the one hand translational research focused on the discovery of biomarkers for diagnosis, phenotyping and therapy monitoring and on the other hand basic research encompassing the elucidation of molecular mechanisms (endotypes) associated with diseases and their therapies.

**Pawel Olko** graduated in physics from AGH University of Science and Technology, Krakow, Poland. Between 1986-1989 he was a fellow at the Institute for Medicine Nuclear Research Centre KFA Juelich, Germany. He received a Ph.D. in physics from the Institute of Nuclear Physics Krakow in 1990, habilitation in 2003 and the Polish state professorship title in 2010. In 1998-1999 he worked at Dosimetry and Medical Physics Section at IAEA in Vienna. Between 2005 and 2016 he was a scientific director at the Institute of Nuclear Physics Polish Academy of Sciences (IFJPAN) and between 2012-2016 director of the Bronowice Cyclotron Centre, the first proton therapy center in Poland. Since 2016 he is the head of the Division of Applied Physics at IFJPAN. He was and still is involved in activities of numerous national and international committees and organizations. Between 2004-2007 he was the Chair of the International Solid State Dosimetry Organization (ISSDO). Since 2002 he is a member of the EURADOS Council and since 2005 a member of the Article 31 Group of Experts, EC, Luxembourg. Dr. Olko was elected to the International Commission of Radiation Units and Measurements (ICRU) in 2016. In 2016, Dr. Olko was elected to the International Commission of Radiation Units and Measurements (ICRU), in which he currently serves as treasurer.

**Jason Parsons** acquired his BSc and PhD in Medical Biochemistry from University of Birmingham. He had postdoctoral research experience at the Cancer Research UK Paterson Institute for Cancer Research in Manchester, at the MRC Radiation and Genome Stability Unit in Harwell, and worked as a Senior Investigator Scientist at Cancer Research UK/MRC Gray Institute for Radiation Oncology and Biology at University of Oxford. He began his independent research at the University of Liverpool in 2012, moving to the University of Birmingham in 2023 as Chair of Radiobiology. The Parsons Group



focuses on analyzing the molecular and cellular impact of different sources of radiotherapy (photons/protons/ ions) with increasing LET on tumor models, particularly head and neck squamous cell carcinoma and glioblastoma. There is a specific focus on analyzing the effects of protons and high-LET radiation, particularly helium ions and boron neutron capture therapy (BNCT), on DNA damage and the repair pathways responsive to this, with the goal of identifying protein targets and strategies using combinatorial drugs/inhibitors leading to optimal radiotherapy efficacy. Other interests include mechanisms and overcoming of hypoxia-induced radioresistance, plus analyzing the radiobiology of FLASH radiotherapy. Research is enabled through the unique radiation sources present at the University of Birmingham, including the MC-40 cyclotron and the high-flux accelerator driven neutron source (for BNCT). Jason is Director of Cancer Research UK RadNet Birmingham, and Chair of the Association for Radiation Research (ARR).

**Liisa Porra** is an Associate Professor of Physics at the University of Helsinki, Finland, and serves as the Deputy Chief Medical Physicist at the Comprehensive Cancer Center of Helsinki University Hospital, Finland. She completed her PhD in 2006 at the University of Helsinki, where her research focused on functional imaging with synchrotron radiation. This work laid the foundation for her continued interest in applying advanced radiation technologies to medical treatments. Following her PhD, Dr. Porra worked as a postdoctoral researcher at the European Synchrotron Radiation Facility, where she specialized in the medical applications of accelerator-based radiation sources. Since 2014, Dr. Porra has been working at Helsinki University Hospital as a Medical Physicist, with a focus on external radiotherapy, dosimetry and radiation protection. Her current work involves the commissioning of the Boron Neutron Capture Therapy (BNCT) facility for patient treatments. Dr. Porra's role in this project includes overseeing the facility's development and ensuring its integration into clinical practice to benefit cancer patients.

**Sandro Rossi** obtained his degree in Physics at the University of Milan. Initial career (1989-1992) at CERN working at calorimeters and detectors development for high energy physics experiments. Subsequently specialized in accelerator physics, member of the Proton-Ion Medical Machine study held at CERN from 1996 to 1999 and Technical Director of TERA Foundation till 2003. From 2003 to 2008 Technical Director and since 2008 Director General of the National Centre for Oncological Hadrontherapy (CNAO) in Pavia, created and financed by the Italian Ministry of Health. He coordinated the design, construction and operation of the accelerators and the medical devices for the treatment of patients. CNAO treated so far more than 5500 patients and beamtime is also devoted to research activities with groups coming from all over the world. An expansion project is ongoing and two new facilities will be soon operational: a treatment room with synchrotron and gantry for protontherapy; a compact accelerator-based neutron source devoted to Boron Neutron Capture Therapy (BNCT). Since April 2021, Sandro Rossi is Coordinator of the international project HITRIP<sub>plus</sub> (Heavy Ion Therapy Research Integration plus) approved and financed by EU commission. HITRIP<sub>plus</sub>, a consortium composed of 23 Institutes from 14 European countries, is a multidisciplinary collaborative project aiming to integrate and advance biophysics and medical research in cancer treatment with heavy ions and in parallel jointly developing innovative technologies for the next generation tools.

**Lucie Sancey** is Director of Research of the French CRNS at the Institute for Advanced Biosciences, in Grenoble. She is the correspondent of the CNRS in Grenoble for the thematic areas "Innovation and Europe" and "International Relations". She is a member of Scientific Steering Committee of the Cancéropôle Lyon Auvergne Rhône-Alpes, for "Innovations Technology for Health". Her research activities focus on the development and evaluation of innovative compounds for cancer imaging and treatment, including the development of nano-agents, in particular for BNCT, as well as new multimodal optical contrast agents and new imaging techniques for biological tissues such

as fluorophores for image-guided surgery. She was responsible for translational activities to bring a theranostic nanoparticle from the lab to the bedside to improve radiation therapy (Currently investigated in 8 clinical trials). She is author of more than 100 scientific communications and participated in 2 start-up and 3 patents. She obtained the French award of « scientific excellence » (PEDR) from 2016-2019 and 2021-2024. She is member of the German BNCT Society (DGBNCT), vice-president of the French Society of Nanomedicine, co-director of the French research group “Nuclear Methods and Tools against Cancer”, and member of the committee “Nanomaterials and nanotechnologies for products of the future” of the French National Research Agency (ANR).

**Daniel Santos** is a CNRS(France)-emeritus research director with an international activity on directional dark matter detection and neutrons for science and society. The neutrons and neutrinos are the particles producing the same nuclear recoils as those particles belonging to dark matter. Only the directionality of the nuclear recoils could discriminate such rare events produced by the dark matter and relate them to the galactic halo. The ionization produced by such recoils depends strongly on their energy. He has developed a new 3D-directional detector which can be used as a neutron spectrometer based on detecting 3D nuclear recoil tracks and correcting them by the ionization quenching factor. In addition, a new neutron field monitor (NFM) able to cope with high fluences has been developed by his team. He has more than 200 papers and supervised 14 PhD theses on nuclear physics, astroparticle and cosmology, medical applications (AB-BNCT), and radioprotection.

**Wolfgang Sauerwein** studied medicine in Limoges (France) and Essen (Germany). He is a board-certified radiologist and radiation oncologist. He is a retired professor at the University of Duisburg-Essen, a specially appointed professor at the Neutron Therapy Research Center of Okayama University, head of ocular particle therapy at MedAustron, and president of the German Society for BNCT. One of his research interests is the use of particles in cancer therapy: protons, neutrons, carbon ions, and boron neutron capture therapy (BNCT). He was founding member of the PTCOG BNCT Sub Committee and until 2023 co-chair of this Group. In 2021, he initiated the foundation of the company "BNCT Global GmbH", which aims to establish BNCT as a treatment reimbursed by national health systems. Other areas of his scientific work include Monte Carlo simulations of medical linacs and the resulting dose distributions in patients. A core area of his clinical work is international collaboration in treating patients with particles in large and expensive facilities around the world. He has authored and co-authored more than 350 scientific publications and has organized a number of national and international scientific congresses and workshops. In 2020, he was awarded the "Order of the Rising Sun, Gold Rays with Neck Ribbon" (旭日中綬章) by the Imperial House of Japan.

**Michał Silarski** is an assistant professor at the Faculty of Physics, Astronomy, and Applied Computer Science at Jagiellonian University. His research interests include testing the conservation of fundamental symmetries in elementary particle physics, specifically in K meson decays, as well as the applied research of using fast neutrons for the non-invasive detection and identification of hazardous substances underwater. Dr. Silarski is also involved in developing boron neutron capture therapy (BNCT), particularly methods for monitoring boron distribution in patients by recording secondary radiation generated during therapy.

**Lucas Sommer** is a postdoctoral researcher at the Research Neutron Source Heinz Maier-Leibnitz (FRM II) in Garching, operated by the Technical University of Munich. In his doctoral thesis at the TUM

University Hospital, he focused on dose calculation for fast neutron therapy, modeling the relative biological effectiveness of fast neutrons, and mixed-field dosimetry. This work was conducted in close collaboration with the team of the medical applications instrument MEDAPP for FNT using fast fission neutrons at FRM II. In addition, he gained experience in clinical routine with conventional photon radiotherapy. After completing his doctoral project in 2022, he transitioned to FRM II. Since then, his research has focused on the development of an anthropomorphic phantom for neutron dosimetry and the implementation of an imaging system for patient positioning control during FNT at MEDAPP.

**Johannes Tran-Gia** is a medical physicist and professor of Multimodal Imaging and Theranostics, specializing in quantitative imaging and dosimetry. After completing his physics studies at the University of Würzburg and Heriot-Watt University in Edinburgh, he earned his PhD in quantitative MRI in 2015 at University Hospital Würzburg, supported by the German Excellence Initiative. He later gained certification as a medical physics expert while advancing research in molecular radiotherapy dosimetry. Johannes is known for pioneering 3D-printed anthropomorphic phantoms for validating SPECT/CT imaging technologies and driving harmonization and standardization efforts in targeted radionuclide therapy dosimetry through EU projects like "MRTDosimetry" and "AlphaMet." His work also focuses on AI-based imaging enhancement and bone marrow dosimetry. An active member of international committees, including the EANM Dosimetry Committee and Scientific Programme Council, Johannes plays a leading role in advancing quantitative imaging and theranostics.

**Lin-Wei Wang** is a senior radiation oncologist specialized in head and neck cancer and colorectal cancer. He obtained his MD degree at National Yang-Ming Medical School, Taipei, Taiwan. He received resident training at Cancer Center of Taipei Veterans General Hospital and became an attending physician there since 1996. In 2009, he joined the BNCT program sponsored by National Tsing Hua University in Taiwan and drafted the first clinical trial utilizing BNCT for recurrent head and neck cancer. In total, 2 BNCT clinical trials were completed at Tsing Hua Open Pool Reactor (THOR) and published. Since 2018, he began to perform compassionate BNCT for recurrent head and neck cancer at THOR. Since 2024, the first accelerator-based BNCT was started in Taiwan and he is now the principal investigator of a new BNCT trial using this facility for head and neck cancer.

**Andrea Wittig-Sauerwein** is professor and chair of radiation oncology at Julius-Maximilians-University Würzburg and head of the department of radiation oncology at the university hospital Würzburg. As expert in radiosurgery and stereotactic radiotherapy, she focuses on integrating advanced imaging and biological response modifiers to develop adaptive strategies in high-precision radiotherapy. She is dedicated to improving personalized treatment, minimizing side effects, and preserving patients' long-term quality of life. She was involved in the BNCT project at Brookhaven National Laboratory and was PI for some of the EORTC BNCT trials at the HFR in Petten. She studied medicine at the University of Duisburg-Essen, where she earned her Ph.D. with highest distinction in 2002 and her habilitation in radiation oncology in 2010. She held leading positions in Marburg and Gießen before accepting the chair of radiation oncology at Friedrich Schiller University Jena, prior to her appointment in Würzburg. She holds several honorary positions, including membership on the boards of directors of the Comprehensive Cancer Center Mainfranken and the Bavarian Cancer Research Center (BZKF). She actively contributes to national and international committees, including the German Society for Radiation Oncology (DEGRO), the German Cancer Society (DKG), and the National Center for Tumor Diseases (NCT).

## VENUE:

**Institute for Sustainable Chemistry & Catalysis with Boron**

**Building C2, Hubland Süd**

**Directions from the train station to Hubland:**

Take

- Streetcar in the direction of “Stadtmitte” to “Sanderring”
- Bus no. 10 to “Äußeres Hubland”
- 5 minutes on foot.

or

- Bus no. 14 to “Äußeres Hubland”
- 10 min. walk

**By car:** use parking close to chemistry buildings: Coming from Zeppelinstrasse turn right on “Am Hubland” and then turn left into Theodor-Boveri-Weg. Take the first or second parking on your left.

<https://wueaddress.uni-wuerzburg.de/search/map/3313>



Geb. C2, Hubland Süd





**Würzburg is a very touristic city. Please have a look for more information and important highlights: <https://www.wuerzburg.de/tourismus/>**

