

Welcome

Dear colleagues,
we want to welcome you to the 10th meeting of the international society of intraoperative radiotherapy **ISIORT**.

The historical Congress Center “Rosengarten” is located in the heart of the city of Mannheim and the metropolitan region Rhine-Neckar in the south-west of Germany only about 30 min South from Frankfurt Airport. Mannheim, a city of culture and science, is historically well known for the invention of the bicycle and the car and is today the home of outstanding innovative institutes and companies, as well as a number of renowned cultural institutions and castles.

Intraoperative radiotherapy **IORT** has evolved from an orphan method to an indispensable tool to fight cancer in more than 300 clinical centers worldwide. A rapid technological development of the radiation devices, integration of image guidance, navigation and robotic assistance and solid clinical evidence from well-designed prospective studies have moved **IORT** into the spotlight.

The **ISIORT** meeting will provide the platform for scientists and clinicians from all over the world to present newest research, developments and clinical data. Experienced **IORT** experts will share their knowledge and new or prospective users will ask the important questions to stimulate scientific and clinical exchange. A mix of Key Note lectures, scientific symposia, sessions with proffered papers, scientific debate and poster presentations will cover all aspects of **IORT**.

Together with our team, I am looking forward to welcome you to Mannheim.



Prof. Frederik Wenz

President ISIORT - Chairman Department of Radiation Oncology
University Medical Center Mannheim, University of Heidelberg



Friday, 06. July 2018

10:00 - 12:00	Session A Oral presentations breast
12:15 - 13:15	Industry Symposium: A glance insight Diagnostic imaging and treatment of neurooncologic Tumors
13:30 - 15:30	Opening & Keynote Lecture
15:30 - 16:00	Coffee Break & Poster & Industry Exhibition
16:00 - 17:30	Session B Physics and Biology Session C practical medical aspects & research
17:45 - 18:00	General Assembly (ISIORT members only)
18:00 - 20:00	Get Together

Session A – Oral presentations breast

Gustav Mahler 2, 10:00 - 12:00

Chairs: G. Fastner (Salzburg / AT), F. Calvo (Madrid / ES)

- 10:00** **Multicenter Phase II study of Intraoperative radiation therapy in early breast cancer in Japan**
Gunma / JP: T. Miyamoto
- 10:10** **The implementation of INTRABEAM at our Hospital**
Barcelona / ES: E. Martinez Perez
- 10:20** **The effect of accelerated partial breast irradiation using intraoperative and external beam radiotherapy on quality of life of breast cancer patients.**
Leiden / NL: D. Jacobs
- 10:30** **Acute toxicity after intraoperative electron radiotherapy (IOERT) followed by whole breast irradiation for early stage breast cancer – a retrospective analysis of 134 cases**
Heidelberg / DE: L. König
- 10:40** **Targeted intraoperative Radiotherapy for breast cancer the experience of Institut IMOR**
Barcelona / ES: I. García-Zamora
- 10:50** **ELIOT-BOOST Phase II trial for breast cancer: Preliminary results from a single center**
Bergamo / IT: S. Takanen
- 11:00** **Intraoperative Electron (IOERT) boost as current clinical practice in breast cancer patients: The italian multi-centric experience**
Roma / IT: A. Ciabattoni
- 11:10** **Targeted intraoperative radiotherapy (TARGIT IORT) during breast conserving surgery for early breast cancer in patient after breast augmentation with implants**
Bottrop / DE: H. Kolberg

- 11:20** **Targeted intraoperative radiotherapy for the management of Ductal Carcinoma In-Situ of the breast**

Los Angeles, CA / US: D. Holmes

- 11:30** **Long-term outcome of DCIS of the breast treated with intraoperative radiotherapy with electrons: experience of the European Institute of Oncology**

Milan / IT: M. Leonardi

- 11:40** **Intraoperative radiotherapy in post-neoadjuvant chemotherapy breast conserving surgery in triple negative and her-2 positive patients at Instituto Nacional de Enfermedades Neoplásicas from 2014 to 2016**

Surquillo, Lima / PE : F. Robles

Industry Symposium

A glance insight: Diagnostic imaging and treatment of neurooncologic Tumors

Gustav Mahler I, 12:15 – 13:15

Carl Zeiss Meditec AG



- 12:15** **IORT in Brain cancer: Imaging challenges ahead**

Mannheim / DE: F. Giordano

- 12:35** **State of the art in neuro imaging**

Los Angeles / US: W.D. Pope

Gustav Mahler 1, 13:30 - 15:30
Chairs: F. Wenz (Mannheim / DE), F. Sedlmayer (Salzburg / AT)

- 13:30** **Introduction and Welcome to 10th ISIORT conference**
Mannheim / DE: **F. Wenz**
- 13:40** **HIOB-trial: Preliminary results**
Salzburg / AT: **G. Fastner**
- 14:05** **Risk-adapted TARGIT-IORT for breast cancer – interesting observations from the TARGIT trials**
London / GB: **J. Vaidya**
- 14:30** **Intraoperative radiotherapy for primary brain tumors and brain metastases**
Mannheim / DE: **F. Giordano**
- 14:55** **An overview on the ESTRO IORT Task Force recommendations for performing intraoperative radiotherapy using electrons or low-energy x-rays for breast cancer**
Milan / IT: **M. Leonardi**
- 15:20** **Conclusion of ILEXIUM**
Mannheim / DE: **F. Wenz**

Session B – Oral presentations Dosimetry & Treatment Planning

Gustav Mahler 1, 16:00 - 17:30
Chairs: J. Bazan (Columbus / US), F. Hensley (Heidelberg / DE)

- 16:00** **Should in vivo dosimetry with GAFCHROMIC films during IORT for Accelerated Partial Breast Irradiation be performed for each treatment?**
Leidschendam / NL: **A. Petoukhova**
- 16:12** **Skin dose measurements in intraoperative breast treatments with radiochromic film. An update.**
Hospitalet de Llobregat / ES: **P. Saldaña**
- 16:24** **Real-time dosimetry for IORT procedures**
Wilrijk / BE: **P. Stevens**
- 16:36** **Robust ¹⁹²Ir HDR IORT treatment planning & irradiation using the Freiburg flap**
Freiburg / DE: **M. Gainey**
- 16:48** **Real-time dose computation algorithm for INTRABEAM**
Madrid / ES: **P. Ibáñez**
- 17:00** **Total dose evaluation of a combined treatment of intraoperative and external radiotherapy.**
Castellón de la Plana / ES: **P. Monasor Denia**

Session C – practical medical aspects and research

Gustav Mahler 2, 16:00 - 17:30
Chairs: A. Ciabattoni (Roma / IT), H. Flyger (Herlev / DK)

Saturday, 07. July 2018

08:00 - 09:30	Session D Oral presentations Physics & Biology
09:30 - 10:00	Coffee Break & Poster & Industry Exhibition
10:00 - 11:30	Forum Debate - The most important IORT topic for the future
11:30 - 12:30	IORT - Past - Present - Future
12:30 - 13:30	Poster Viewing, Coffee Break & Industry Exhibition
13:30 - 15:30	Session E Oral presentations various tumor sites
15:30 - 16:00	Coffee Break & Poster & Industry Exhibition
16:00 - 17:30	Session F Clinical Trials
17:30	Closing remarks

- 16:00** **Indications and clinical implications for the use of ¹⁹²Ir flap - IORT or IOERT**
Freiburg / DE: **K. Henne**
- 16:12** **Post Operative Complication After Lumpectomy with Intra Operative Radiation Therapy**
Yavne / IL: **H. Kadar**
- 16:24** **Interim Update of the Targeted Intraoperative Radiotherapy United States (TARGIT-U.S.) Phase IV Registry Trial**
Los Angeles, CA / US: **D. Holmes**
- 16:36** **Feasibility of Intrabeam in Oncoplastic procedures in breast cancer surgery**
Barcelona / ES: **M. Pla Farnos**
- 16:48** **Cosmetic results using oncoplastic surgical techniques to facilitate single dose electron based IORT.**
Sioux Falls / US: **J. Reiland**
- 17:00** **Use of electrons intraoperative radiotherapy in peripheral breast tumors through round block oncoplastic technique**
Caracas / VE: **N. Aranaga**
- 17:12** **Oncoplastic surgery and intraoperative radiotherapy as a joint treatment in patients with breast cancer between the years 2014 - 2018 at the National Institute of Neoplastic Diseases Peru**
Lima / PE: **J. Galarreta**

Session D – Oral presentations Physics & Biology

Gustav Mahler 1, 08:00 - 09:30
Chairs: **J. Grecula** (Columbus, OH / US)

I. Linares (Barcelona / ES)

- 08:00** **Influence of intra-operative radiotherapy (IORT) on tumor bed protein composition of exosome in breast cancer patients**
Tehran / IR: **H. Zali**
- 08:12** **The induction of radiation-induced subcutaneous fibrosis after intraoperative radiotherapy in breast cancer patients associates with epigenetic dysregulation**
Mannheim / DE: **M. Veldwijk**
- 08:24** **Investigation of cellular and molecular effects of intra operative X-Ray and Electron beam treated-wound fluid in breast cancer patients**
Tehran / IR: **J. Shakeri**
- 08:36** **Investigation of IORT- treated tumor bed modification in breast cancer via inducing biological pathways by new comprehensive approaches; Transcriptomic & Proteomic**
Tehran / IR: **M. Shahani**
- 08:48** **IORT dedicated linac radiation protection - new methods for an innovative approach**
Aprilia LT / IT: **G. Felici**
- 09:00** **Clinical Implementation of pelvic intra-operative radiotherapy with flat applicators: dosimetric characterisation and clinical methodology**
London / GB: **S. Stevens**
- 09:12** **A new design for IORT filter to minimize backscatter and transmission dose in IORT**
Trento / IT: **S. Yuksel**

Forum Debate - The most promising IORT topic for the future

Gustav Mahler 1, 10:00 - 11:30
Chairs: R. Krempien (Berlin-Buch / DE),
F. Giordano (Mannheim / DE)

10:00

The **ESTRO** recognized that the **IORT** community is growing rapidly. Thus, they will support the **ISIOR**T with 300.000 virtual Euros to fund the most promising innovative project in **IORT**. And best of all, the community is allowed to vote which project should be funded. To help you in your decision we invited the leading experts to debate the most important topics. So join the session, probe the debater and vote your favorite.

Novel indicationsNovara / IT: **M. Krengli****New biology**Chicago / US: **B. Emami****Augmented reality and robotics**Mannheim / DE: **S. Clausen****Treatment planning & image guidance**Madrid / ES: **J. Pascau**

Past - Present - Future

Gustav Mahler 1, 11:30 - 12:30
Chairs: F. Sedlmayer (Salzburg / AT)

11:30

...of IORT with electronsMadrid / ES: **F. Calvo**

12:00

...of IORT with low energy x-raysMannheim / DE: **F. Wenz**

Poster Viewing

Foyer, 12:30 - 13:30

Poster authors will be present for questions.

Intra-operative radiotherapy (IORT) for treatment of locally advanced esophageal cancer: preliminary results in a series of 17 patients.

Novara / IT: L. Turri

Intraoperative radiotherapy optimizes conservative treatment of breast cancer with advantages in quality of life and work resumption

Pavia / IT: G. Ivaldi

Our intraoperative radiotherapy experience

Istanbul / TR: S. Günay

Quality assurance and organ at risk dosimetry during low energy x-ray in IORT treated breast cancer

Tehran / IR: M. Akbari

Intraoperative radiotherapy for breast cancer: A monocentric experience

Rionero in Vulture / IT: A. Bianculli

Intraoperative Electron Radiotherapy (IOERT) in breast cancer: We analyze the toxicity and efficacy results in our institution.

Barcelona / ES: G. Oses

Experience of intraoperative radiotherapy (IORT) in an oncological institute of Peru: National Institute of Neoplastic Diseases (INEN) 2014 - 2018

Lima / PE: J. Galarreta

First Case Report of the Use of the da Vinci Robotic System as an Assistant in Intraoperative High Dose Rate Remote Brachytherapy (IOHDR).

Columbus, OH / US: A. Wolfe

In vivo Dosimetry of Intraoperative Radiotherapy of breast Cancer by Radiochromic Films with Comparative Dosimetry by Monte Carlo Method.

Kaohsiung / TW: Y. Kao

In vivo radiobiological analysis of prostate carcinoma treated with 12 Gy single-shot IORT.

Novara / IT: C. Pisani

Outcomes and toxicity of electronic superficial Brachytherapy for Non-melanoma Skin cancer in Taiwan

Kaohsiung City / TW: Y. Lin

Relationship Between Local Recurrence and the Size of Ballon Applicators in Intraoperative Radiotherapy for Early Breast Cancer

Kaohsiung City / TW: M. Huang

Investigation of IORT-treated tumor bed modification in breast cancer via inducing biological pathways by new comprehensive approaches; Transcriptomic & Proteomic

Tehran / IR: J. Shakeri

Investigation of cellular and molecular effects of intra operative X-Ray and Electron beam treated-wound fluid in Breast cancer patients

Tehran / IR: **M. Shahani**

Single shot intraoperative radiotherapy for breast cancer, Foligno City Hospital experience

Spoletto / IT: **F. Fusconi**

Comparison between VMAT boost after whole breast irradiation and targit as a boost in the management of breast cancer

Barcelona / ES: **I. García-Zamora**

Frequency of whole breast irradiation (WBRT) after intraoperative radiotherapy (IORT)

Córdoba / ES: **M. Moreno-Manzanaro Moreno**

Institutional Evaluation on the Use of Intraoperative Radiotherapy in Gynecologica Cancers

Cleveland / US: **E. Balagamwala**

Session E – Oral presentations various tumor sites

Gustav Mahler 1, 13:30 - 15:30

Chairs: D. Blakaj (Columbus OH / US),

F. Röder (München / DE)

Intraoperative radiation therapy (IORT) in pancreatic cancer

Berlin-Buch / DE: **R. Krempien**

Combination of perioperative chemotherapy and intraoperative radiotherapy for the treatment of resectable intrahepatic cholangiocarcinoma

Moscow / RU: **A. Shabunin**

Intraoperative high-dose-rate brachytherapy using the Freiburg flap

Madrid / ES: **R. Hernanz de Lucas**

Local tumor control and long-term overall survival in 47 patients with anterior skull base tumors treated with intraoperative radiotherapy

Salzburg / AT: **M. Kopp**

Feasibility of Dose Escalation Using Intraoperative Radiotherapy Following Resection of Large Brain Metastases Compared to Post-operative SRS

Morgantown / US: **C. Cifarelli**

IOERT in locally recurrent high grade RPS: a retrospective single center analysis of 83 cases

Munich / DE: **L. Saleh-Ebrahimi**

IOERT in primary retroperitoneal sarcoma: a retrospective single center analysis of 69 cases

Munich / DE: **F. Roeder**

Intraoperative Radiotherapy (IORT) in the multimodality treatment of locally advanced prostate cancer

Novara / IT: **M. Krengli**

Pase I/II trial of surface kilovoltage Brachytherapy in ocular conjuntival carcinoma: Preliminary results

Lima / PE: **C. M. Cabrera**

IORT in Recurrent Salivary and Cervical Cancers

Beirut / LB: **Y. Zeidan**

Session F – Clinical Trials

Gustav Mahler 1, 16:00 - 17:30

Chairs: M. Haddock (Rochester / US), M. Krengli (Novara / IT)

- 16:00** **IORT for sarcoma – ongoing and future research**
München / DE: F. Röder
- 16:15** **Intraoperative electron beam radiotherapy (IOERT) for locoregional persistent or recurrent head & neck carcinomas**
Columbus, OH / US: D. Blakaj
- 16:30** **V-IORT: technical aspects. The experience at the European Institute of Oncology**
Milan / IT: R. Lazzari
- 16:45** **HIOB-trial: Updated results**
Salzburg / AT: G. Fastner
- 17:00** **Latest update on current guidelines in breast cancer Mannheim study results**
Mannheim / DE: E. Sperk
- 17:15** **ISORT pooled analysis 2018: characteristics of intra-operative radiotherapy in 12,678 patients**
Novara / IT: M. Krengli
- 17:30** **Closing remarks**
Mannheim / DE: F. Wenz

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TRANSPARENCY

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Travelling

– by car

From the A6 or A5 at the Mannheim or Heidelberg motorway intersection, continue towards „Mannheim-Mitte“. You will reach the Rosengarten and the Dorint Congress Hotel via the Augustaanlage.

– by train & urban train

Mannheim is an ICE / IC junction station. There is a direct ICE connection from Mannheim to Basel, Berlin, Cologne, Düsseldorf, Frankfurt am Main, Frankfurt am Main Airport, Freiburg, Hamburg, Munich, Paris, Stuttgart and many other cities. You can reach the Rosengarten by taking the following tram routes:

Route 3:

travelling towards to Sandhofen,
„Wasserturm“ stop

Route 4:

travelling towards Käfertal / Heddesheim,
„Wasserturm“ stop

Route 5:

OEG travelling towards Viernheim /
Weinheim, „Rosengarten“ stop

– by bus

Route 60:

travelling towards Mannheim,
Lanzvilla, „Wasserturm“ stop

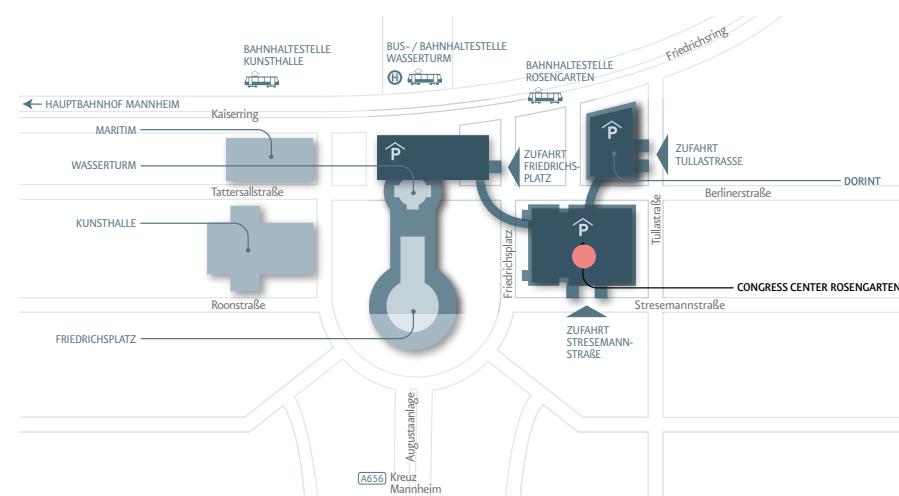
Route 63:

travelling towards Lindenhof, Pfalzplatz,
„Wasserturm“ stop

Route 64:

travelling towards Käfertal
OEG Station, „Wasserturm“ stop

Getting to the congress centrum



– by plane

From Frankfurt Airport, a Lufthansa bus runs every hour to the Lufthansa Terminal. Mannheim is an ICE / IC junction station. There is a direct ICE connection from Mannheim to Basel Berlin, Cologne, Düsseldorf, Frankfurt am Main, Frankfurt am Main Airport, Freiburg, Hamburg, Munich, Paris, Stuttgart & many other cities. The Rosengarten is a five minute walk (walking towards the city centre) from the main railway station. Rhein-Neckar-Air offers several daily round-trip flights between Mannheim and Berlin. Free parking & short distances within Mannheim city makes your arrival relaxed and easy.

