

ESHO 2018

PROGRAMME

In scientific
collaboration with



32nd

ANNUAL
MEETING of the

EUROPEAN SOCIETY FOR
HYPERTHERMIC ONCOLOGY
16-19 MAY 2018 | BERLIN

ANNOUNCEMENT

ESHO 2019

May 22–24 2019, Warsaw/PL



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ESHO Board, together with the already constituted ESHO 2019 Organizing Committee and its polish partner, the PTHO (Polish Society for Hyperthermic Oncology) are pleased to announce that the next ESHO Annual Meeting will take place in Warsaw in 2019.

Please save the date

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ORGANISATION AND IMPRINT

Venues

16–18 May 2018 (ESHO scientific programme)
Langenbeck-Virchow-Haus
Luisenstraße 58/59
10117 Berlin (DE)

19 May 2018 (Hyperthermia patient day)

Charité – Universitätsmedizin Berlin
Campus Charité Mitte | Hörsaal Innere Medizin
Virchowweg 9
10117 Berlin (DE)

Congress website

www.esho2018.eu

Hosting societies

European Society for Hyperthermic Oncology (ESHO)

In scientific collaboration with

European Society for Radiotherapy & Oncology (ESTRO)

Congress chairs

President

Prof. Dr. med. Dr. h. c. Volker Budach
Charité – Universitätsmedizin Berlin | Berlin (DE)

Co-Presidents

Prof. Dr. med. Peter Wust
Charité – Universitätsmedizin Berlin | Berlin (DE)

Prof. Dr. rer. nat. Thoralf Niendorf

Max-Delbrueck Center for Molecular Medicine in the Helmholtz Association | Berlin (DE)

Secretary

PD Dr. med. Pirus Ghadjar
Charité – Universitätsmedizin Berlin | Berlin (DE)



Endorsements

Deutsche Gesellschaft für Radioonkologie (DEGRO)
German Society of Radiation Oncology



Deutsche Gesellschaft für Chirurgie (DGCH)
German Society of Surgery



Deutsche Gesellschaft für Medizinische Physik (DGMP)
German Society of Medical Physics

Deutsche Gesellschaft für Hyperthermie e.V.

DGHT

Deutsche Gesellschaft für Hyperthermie (DGHT)
German Society of Hyperthermia



Deutsche Krebsgesellschaft e. V. (DKG)
German Cancer Society



European CanCer Organisation (ECCO)



The European Society of Surgical Oncology (ESSO)

Professional congress organiser

Conventus Congressmanagement & Marketing GmbH

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WELCOME NOTE BY THE CONGRESS CHAIRS

Dear colleagues,

On behalf of the European Society of Hyperthermic Oncology (ESHO) it is our privilege and great pleasure to welcome you to the 32nd Annual Meeting of the European Society for Hyperthermic Oncology (ESHO 2018).

Berlin is the capital of Germany as well as its largest city and a popular destination for professionals as well as tourists. The city is known for its distinctive history, modern economy, diverse architecture and high quality of living. As the ESHO 2018 meeting takes place during early summer, the city will be alive with a cosmopolitan mix of people and events.

The scientific focus of the ESHO 2018 meeting will be „multimodal treatment of abdominal tumors involving thermal therapy – potential and caveats.“ A line-up of world class speakers as well as interdisciplinary congress sessions contribute to attract clinicians from various oncological specialties and from around the world.

We hope very much, you will enjoy the days of scientific presentations, discussions and networking in Berlin!



Volker Budach



Peter Wust



Thoralf Niendorff



Pirus Ghadjar

WELCOME NOTE BY THE CHAIRMAN OF THE CHARITÉ – UNIVERSITÄTSMEDIZIN BERLIN

Dear ESHO 2018 participants,

Hyperthermia is a key therapy option for the treatment of solid tumors involving both the destruction of neoplastic cells via thermal ablation as well as the use of moderate temperatures to improve effectiveness of both radiation and chemotherapy.

Research and clinical application of hyperthermia techniques have been widely employed at the Charité – Universitätsmedizin Berlin for over three decades with the current Charité Hyperthermia Unit based at the Department of Radiation Oncology at our Virchow Campus.

The Charité thus serves as a highly active hyperthermia-center, successfully securing substantial third-party funding whilst maintaining high scientific output. In addition, the establishment of national and international interdisciplinary collaborations within the fields of physics and biology as well as in numerous further clinical disciplines including gynecology, radiology and pediatric oncology is one of our foremost strengths.

Current scientific activity focuses on technological, biological and translational research as well as the conduction of innovative clinical trials. Such exploration is essential in order to achieve greater understanding of the underlying biological mechanisms involved in using hyperthermia for cancer treatment. Furthermore, research results generate additional evidence, which will inevitably lead to indication range extension for further tumor entities. This is particularly relevant in cases where standard treatments have proven unsatisfactory (e. g. abdominal tumors).

It is therefore with great pleasure that we welcome the world's leading hyperthermia experts to Berlin for the ESHO 2018. The conference has been organised in cooperation with the European Society for Radiotherapy & Oncology (ESTRO) and is endorsed by relevant national organisations as well as the European Cancer Organisation (ECCO) and the European Society of Surgical Oncology (ESSO).

I am confident that the ESHO 2018 will serve as an excellent scientific exchange platform thus facilitating the advancement of hyperthermia research and improved clinical treatment.

Yours sincerely,

Karl Einhäupl
Chairman
Charité – Universitätsmedizin Berlin

WELCOME NOTE BY THE CHIEF FINANCIAL OFFICER OF THE BERLIN HEALTH INSTITUTE

Dear ladies and gentlemen,

To foster innovations and to advance the speed of translation of those innovations to medical practice are core elements of the mission of the Berlin Institute of Health (BIH).

We encourage the clinical and basic research community in Berlin to join forces to tackle this goal in an interdisciplinary and systemic approach.

And – by establishing Berlin Health Innovations, the joint technology transfer initiative of BIH and Charité – we support inventors to deliver their ideas and concepts to markets and patients.

ESHO and ESTRO are both societies with a translational mission very similar to the BIH mission. I am very happy that both societies choose Berlin for their annual meeting in 2018 and I wish the organisers and all attendees exciting days full of scientific interaction within their respective research communities and the local faculties.

Enjoy your annual meeting and
all the best,

Rolf Zettl
Chief Financial Officer
Berlin Health Institute

WELCOME NOTE BY THE GOVERNING MAYOR OF BERLIN

A warm welcome to all of the participants in the 32nd Annual Meeting of the European Society for Hyperthermic Oncology!

Your annual meeting is focused on a cutting-edge method used to treat cancer. Because this treatment can lead to significant improvements in quality of life and the chance of recovery, many patients are pinning their hopes on the use of hyperthermia. That makes it all the more important that great effort continue to be expended on researching and applying this promising treatment method in the fight against cancer. Regular international exchange of the kind you cultivate at the ESHO meetings is absolutely essential to this endeavor.

I am delighted that leading experts in this field are meeting here in Berlin this time to discuss new findings and hands-on experience with hyperthermia.

With its many renowned research and treatment institutions and its eminent university medical facilities, the health capital Berlin offers you an ideal setting for a successful annual meeting. Your host, Charité-Universitätsmedizin Berlin, has many years of experience with hyperthermia, for instance, and its clinic for radiation oncology and radiation therapy is one of today's foremost hyperthermia centers worldwide. As a result, I am confident that you will feel at home here in Berlin.

With this in mind, I would like to wish you a very productive 2018 ESHO annual meeting. I hope that those of you coming from outside Germany's capital city will have a very pleasant stay that is a source of new inspiration when you return home. My thanks go to the European Society for Hyperthermic Oncology and the European Society for Radiotherapy and Oncology for choosing Berlin as the venue for this prestigious gathering.

Michael Müller
Governing mayor of Berlin

PROGRAMME OVERVIEW

Wednesday – 16 May		Thursday – 17 May
Lecture hall	Room Virchow	Lecture hall
		08:15–08:45 Session 3 – Whole body hyperthermia p. 16
		08:45–10:00 Session 4 – Clinical hyperthermia session
09:00–09:45 Refresher I – Biology p. 14		
09:45–10:30 Refresher II – Treatment planning p. 14		10:00–10:30 Session 5 – Capacitive hyperthermia p. 17
10:30–11:00 Coffee break		10:30–11:00 Coffee break
11:00–11:45 Refresher III – Evidence based hyperthermia p. 14		11:00–12:30 Session 6 – MR-guided thermal therapies and applications
11:45–12:30 Refresher IV – HIPEC & HITHOC p. 14		
12:30–13:15 Refresher V – Immunity and hyperthermia p. 14		12:30–13:00 Session 7 – SBRT and brachytherapy combined with hyperthermia p. 18
13:30–15:00 ESHO board meeting		13:00–14:30 Lunch break
		13:30–14:15 Industry-sponsored symposium 1 p. 34
15:00–16:30 ESHO technical committee meeting p. 12	15:00–16:30 International Journal of Hyperthermia: Editorial board meeting p. 12	14:30–16:00 Session 8 – Abdominal tumors p. 12
16:30–17:00 Opening p. 15		16:00–17:30 Session 9 – Clinical trials session p. 18
17:00–18:00 Session 1 – Nanotechnology p. 15		
18:00–19:00 Session 2 – Hyperthermia induced physiological alterations p. 15	18:15–18:45 ESHO general assembly p. 12	17:30–18:00 Coffee break 18:00–18:55 Best poster "Flash" presentation p. 20
19:00–20:00 Get-together within the industrial exhibition p. 35		from 20:00 Conference dinner p. 35

PROGRAMME OVERVIEW

Friday – 18 May		Saturday – 19 May
Lecture hall	Room Virchow	Charité
08:30–09:15		
Session 10 – Thermoablative therapy		
p. 22	09:00–15:20	
09:15–10:30	Nurse symposium	
Session 11 – Biology session	Radiation therapist symposium	
p. 23		
10:30–11:00		
Coffee break		
11:00–12:15		
Session 12 – Immune effects of hyperthermia and novel drug combinations		
p. 24		
12:15–13:15		
Session 13 – Medical physics in hyperthermia		
p. 24		
13:15–14:45		
Lunch break		
13:45–14:30		
Industry-sponsored symposium 2		
p. 34		
14:45–16:15		
Session 14 – SAR pattern control by multi-antenna systems, potentials and limitations		
p. 25		
16:15–16:45		
Coffee break		
16:45–17:45		
Session 15 – Atzelsberg circle		
p. 26		
17:45–18:45		
ESHO Awards, presentation of ESHO 2019 and closing remarks		
p. 26		
		10:30–12:30
		ESHO/Hyperthermia patient day
		p. 26
		12:30–13:30
		Get-together
		p. 26

OVERVIEW OF FURTHER MEETINGS

Wednesday, 16 May

13.30–15.00 ESHO board meeting

Room Virchow

15.00–16.30 ESHO technical committee meeting

Lecture hall

15.00–16.30 International Journal of Hyperthermia – Editorial board meeting

Room Virchow

18.15–18.45 ESHO general assembly

Room Virchow

Friday, 18 May

16.00–18.00 DGHT general assembly

Room Virchow

Deutsche Gesellschaft für Hyperthermie e.V.



Save the date

**IX.
HYPERTHERMIE-
KONGRESS**

20.09. – 21.09.

2 0 1 9

**Holiday Inn Berlin Airport
Hans-Grade-Allee 5, 12529 Berlin**

Wünschen Sie über alle Neuigkeiten des IX. Hyperthermie-Kongresses

informiert zu werden, melden Sie sich bitte bei uns:

Tel.: +49(0)441-9365458 0, Fax: +49(0)441-9365458 1

E-Mail: info@dght-ev.de, www.hyperthermie-kongress.de

Weitere Informationen

www.hyperthermie-kongress.de

SCIENTIFIC PROGRAMME I WEDNESDAY, 16 MAY

09.00–20.00 Self study ePoster
(please refer to page 27)

09.00–09.45 Refresher I – Biology
Room Virchow

R 01 Mechanisms of immunomodulation by hyperthermia in combination with radiotherapy
U. Gaipl (Erlangen/DE)

09.45–10.30 Refresher II – Treatment planning
Room Virchow

R 02 The role of treatment planning in present hyperthermia systems
H. Dobšíček Trefná (Gothenburg/SE)

10.30–11.00 Coffee break

11.00–11.45 Refresher III – Evidence based hyperthermia
Room Virchow

R 03 Evidence based hyperthermia
S. Zschaack (Berlin/DE)

11.45–12.30 Refresher IV – HIPEC & HITHOC
Room Virchow

R 04 Cytoreduction and hyperthermic intraperitoneal chemotherapy in peritoneal metastasis
B. Rau (Berlin/DE)

12.30–13.15 Refresher V – Immunity and hyperthermia
Room Virchow

R 05 Defining the mechanism by which hyperthermia can improve anti-tumor immunity
E. Repasky (Buffalo, NY/US)

SCIENTIFIC PROGRAMME I WEDNESDAY, 16 MAY

16.30–17.00 Lecture hall	Opening ceremony V. Budach (Berlin/DE), G. C. van Rhoon (Rotterdam/NL), P. Wust P. Ghadjar (Berlin/DE)
17.00–18.00 Lecture hall Chairs	Session 1 – Nanotechnology A. Jordan (Berlin/DE), T. ten Hagen (Rotterdam/NL)
17.00 OP 01	A numerical analysis of magnetic nanoparticle induced hyperthermia using the finite volume method <u>G. Singh, N. Kumar (Patiala/IN)</u>
17.15 OP 02	Chemotherapy with hyperthermia steered nano-sized carriers: Are we there? T. ten Hagen (Rotterdam/NL)
17.30 OP 03	Mechanistic investigation of thermosensitive liposome composition in relation to blood component interactions and circulation time <u>W. Lokerse (Munich/DE), A. Ghazaryan, V. Mailänder (Mainz/DE)</u> L. Lindner (Munich/DE)
17.45 OP 04	Neoadjuvant treatment of locally advanced soft tissue sarcoma with doxorubicin-containing thermosensitive liposomes – results from a proof of concept study in spontaneous feline fibrosarcoma <u>L. Lindner (Munich/DE), J. Hirschberger, S. Baer, C. Ratzlaff, M. Peller</u> A. Brühschwein, K. Zimmermann, K. Troedson, T. Knösel, R. Doerfelt G. Wess, M. Schwaiger, C. Baumgartner, A. Meyer-Lindenberg (Munich/DE) M. Hossann (Munich; Martinsried/DE)
18.00–19.00 Lecture hall Chairs	Session 2 – Hyperthermia induced physiological alterations M. W. Dewhirst (Durham, NC/US), A. Radlach Pries (Berlin/DE)
18.00 OP 05	How hyperthermia affects tumor metabolism M. W. Dewhirst (Durham, NC/US)
18.30 OP 06	Hyperthermic effects on perfusion A. Radlach Pries (Berlin/DE)
19.00–20.00	Get-together within the industrial exhibition (please refer to page 35)

SCIENTIFIC PROGRAMME I THURSDAY, 17 MAY

08.15–18.55	Self study ePoster (please refer to page 27)
08.15–08.45 Lecture hall Chairs	Session 3 – Whole body hyperthermia E. Repasky (Buffalo, NY/US), H. Wehner (Wilhelmshaven/DE)
08.15 OP 07	Extreme whole-body hyperthermia – a prospective data capture for oncological use <u>H. Wehner</u> , C. Wehner (Wilhelmshaven/DE)
08.30 OP 08	The successful antibiotic augmented thermal eradication of chronic lyme disease F. R. Douwes (Bad Aibling/DE)
08.45–10.00 Lecture hall Chairs	Session 4 – Clinical hyperthermia session J. van der Zee (Rotterdam/NL), R. Wessalowski (Düsseldorf/DE)
08.45 OP 09	Reirradiation + hyperthermia after surgery for recurrent breast cancer: 70% 5-year local control <u>S. Oldenborg</u> , C. R. N. Rasch, Y. Kusumanto, R. van Os (Amsterdam/NL), B. Oei J. Venselaar (Tilburg/NL), P. zum Vörde Sive Vörding, H. Crezee G. van Tienhoven (Amsterdam/NL)
09.00 OP 10	Is the classification of local extensions an appropriate tool in the treatment of pre-irradiated locally recurrent breast cancers using re-RT and HT? <u>M. Notter</u> (Bern/CH), P. Vaupel (Munich/DE)
09.15 OP 11	Feasibility of re-irradiation plus hyperthermia for recurrent pediatric sarcoma – an in silico study <u>H. Kok</u> , I. W. E. M. van Dijk, K. F. Crama, N. A. P. Franken C. R. N. Rasch (Amsterdam/NL), J. H. M. Merks (Utrecht, Amsterdam/NL) J. Crezee, B. V. Balgobind, A. Bel (Amsterdam/NL)
09.30 OP 12	Re-irradiation combined with capacitive hyperthermia in the treatment of irresectable recurrent breast cancer – report from the first center in Portugal implementing this treatment association in their clinical radiotherapy practice <u>P. Costa</u> , G. Fonseca, C. Fardilha, C. Calcada, J. Conde, M. Pinto F. Rodrigues, F. Ponte, J. Vale, P. Genesio, A. Costa (Porto/PT)

SCIENTIFIC PROGRAMME I THURSDAY, 17 MAY

09.45 OP 42	Regional hyperthermia for treating localised high-risk soft tissue sarcomas in childhood R. Wessalowski, A.-L. Müschenich (Düsseldorf/DE) T. Dantonello (Stuttgart/DE), R. Issels (Munich/DE), O. Mils, R. Willers G. Fürst, C. Matuschek, M. Santos, I. Leuschner (Düsseldorf/DE) E. Koscielniak (Stuttgart/DE)
10.00–10.30 Lecture hall Chairs	Session 5 – Capacitive hyperthermia H. Sahinbas (Bochum/DE), W.-P. Brockmann (Hamburg/DE)
10.00 OP 13	Survival of cervical cancer patients with or without associated HIV infection and treated with modulated electro-hyperthermia combined with chemo-radiotherapy C. Minnaar (Parktown/ZA), A. Baeyens (Parktown/ZA; Ghent/BE), J. Kotzen M.-D.-T. Vangu (Parktown/ZA)
10.15 OP 14	Hyperthermia combined with radiotherapy and chemotherapy in the locally advanced, recurrent or metastatic disease S. Maluta (Verona/IT)
10.30–11.00	Coffee break
11.00–12.30 Lecture hall Chairs	Session 6 – MR-guided thermal therapies and applications T. Niendorf, L. Winter (Berlin/DE)
11.00 IL 01	MR guided hyperthermia – accuracy through integration M. Paulides (Rotterdam/NL)
11.30 IL 02	Theory and applications of MR thermometry H. Odeon (Salt Lake City, UT/US)
12.00 IL 03	Thermal magnetic resonance – from imaging to therapy L. Winter (Berlin/DE)

SCIENTIFIC PROGRAMME I THURSDAY, 17 MAY

12.30–13.00 Lecture hall Chairs	Session 7 – SBRT and brachytherapy combined with hyperthermia A. Kukiełka (Zamość/PL), W. Włodarczyk (Berlin/DE)
12.30 OP 15	Salvage HDR/PDR brachytherapy combined with interstitial hyperthermia in locally recurrent prostate adenocarcinoma after previous irradiation actual status of multicenter phase II study <u>A. Kukiełka</u> (Zamość/PL), V. Strnad (Erlangen/DE) M. Dąbkowski (Erlangen/DE; Warszawa/PL)
12.45 OP 16	Combination of capacitive thoracic hyperthermia and immunotherapy by dendritic cells and cyber knife without inconvenient side effects, leading to a persistent full remission of pulmonary metastases after resection of the primary in a case of a malignant pleural mesothelioma W.-P. Brockmann (Hamburg/DE)
13.00–14.30	Lunch break
13.30–14.15 Lecture hall	Industry-sponsored symposium 1 (please refer to page 34)
14.30–16.00 Lecture hall Chairs	Session 8 – Abdominal tumors V. Budach (Berlin/DE), R. Issels (Munich/DE)
14.30 IL 04	State of the art treatment for liver cancer M. Anwar (San Francisco, CA/US)
15.00 IL 05	Ablative radiation for liver and pancreatic tumors C. H. Crane (New York, NY/US)
15.30 IL 06	Use of hyperthermia for pancreatic cancer and liver tumors P. Wust (Berlin/DE)
16.00–17.30 Lecture hall Chairs	Session 9 – Clinical trials session V. Kouloulias (Athens/GR), S. Bodis (Aarau/CH)
16.00 OP 17	Preoperative radiochemotherapy combined with deep regional hyperthermia for locally advanced rectal cancer – results from a prospective phase II trial <u>C. Gani</u> , U. Lamprecht, M. Bitzer (Tübingen/DE), J. Gellermann (Berlin/DE) O. Voigt (Tübingen/DE), A. Ziegler (Esslingen/DE), M. Moll, A. Königsrainer D. Zips (Tübingen/DE)

SCIENTIFIC PROGRAMME I THURSDAY, 17 MAY

- 16.15 Does hyperthermia with radiotherapy/chemoradiotherapy offer a therapeutic advantage in inoperable locally advanced cancer cervix?: a systematic review and network meta-analysis
N. R. Datta, E. Stutz, S. Gomez, S. Bodis (Aarau/CH)
- 16.30 Gemcitabine and cisplatin combined with regional hyperthermia as salvage therapy for patients with recurrent pancreatic cancer after adjuvant gemcitabine chemotherapy
K. Tschoep-Lechner, C. Salat (Munich/DE), B. Weber (Oberaudorf/DE)
N. Dieterle, S. Abdel-Rahman, F. Berger, L. Lindner, S. Boeck
R. Issels (Munich/DE)
- 16.45 Combination treatment with transarterial chemoembolisation, radiotherapy, and hyperthermia (Capacitative Hyperthermia with 13,56 MHz) (CERT) for hepatocellular carcinoma with portal vein tumor thrombosis: final results of a prospective phase II trial
H. Sahinbas (Seoul/KR)
- 17.00 The role of regional hyperthermia in the treatment of soft tissue sarcoma
L. Lindner, G. Schuebbe, V. Bücklein, F. Roeder (Munich/DE)
M. Hossann (Munich, Martinsried/DE), R. Issels, D. Di Gioia (Munich/DE)
- 17.15 Interval cytoreductive surgery with Hyperthermic Intraperitoneal Chemotherapy (HIPEC) for stage III ovarian cancer:
a randomized phase 3 trial
S. Koole, W. J. van Driel, K. Sikorska (Amsterdam/NL)
J. H. Schagen van Leeuwen (Nieuwegein/NL)
H. W. R. Schreuder (Utrecht/NL), R. H. M. Hermans
I. H. J. T. de Hingh (Eindhoven/NL), J. van der Velden (Amsterdam/NL)
H. J. Arts (Groningen/NL), L. F. A. G. Massuger (Nijmegen/NL)
A. G. J. Aalbers (Amsterdam/NL), V. J. Verwaal (Aarhus/DK)
J. M. Kieffer, K. K. Van de Vijver, H. van Tinteren
N. K. Aaronson, G. S. Sonke (Amsterdam/NL)
- 17.30–18.00 Coffee break

SCIENTIFIC PROGRAMME I THURSDAY, 17 MAY

18.00–18.55	Best poster “Flash” presentation
Lecture hall	
Chairs	L. Lindner (Munich/DE), A. Herzog (Bad Salzhausen/DE)
18.00 P 01	Hyperthermia combined with proton therapy in inoperable sacral chordomas – first clinical experience and early results <u>E. Puric</u> (Aarau/CH), M. Walser (Villigen/CH), N. R. Datta (Aarau/CH) B. Bachtiai, R. Schneider (Villigen/CH), O. Timm, D. Marder (Aarau/CH) U. Kliebsch (Villigen/CH), B. Seddon (London/GB), S. Bodis (Aarau/CH) D. C. Weber (Villigen/CH)
18.05 P 02	CHIPOR (Hyperthermic Intraperitoneal Chemotherapy (HIPEC)): a promising treatment for relapsed intraperitoneal ovarian cancer: chipor an ongoing phase III, European multicentric randomized trial: unicancer – FEDEGYN 02 J.-M. Classe, I. Jaffré, I. Campion (St. Herblain Nantes/FR), P. Meeus (Lyon/FR) E. Leblanc (Lille/FR), G. Houvenaeghel (Marseille/FR), S. Gouy (Paris/FR) F. Marchal (Nancy/FR), F. Lecuru, M. Pocard (Paris/FR), F. Guyon (Bordeaux/FR) S. Durand Fontaine (Limoges/FR), J. J. Torrent (Barcelona/ES) C. Jouffroy (Paris/FR), G. Ferron (Toulouse/FR), O. Glehen (Lyon/FR)
18.10 P 03	Ultrasound-induced hyperthermia – radiosensitisation in glioblastoma, prostate and head and neck cancer – preliminary studies <u>X. Zhang</u> , L. Landgraf, I. Patties, S. Hu (Leipzig/DE), D. McLeod (Dresden/DE) M. Fournelle, S. Tretbar (St. Ingbert/DE), T. Neumuth A. Melzer (Leipzig/DE)
18.15 P 04	U-251 human glioblastoma cell line model to study hyperthermia as radiosensitiser <u>C. Patrono</u> , V. Lopresto, M. Balduzzi, G. Leter, P. Piccirillo, A. Testa V. Palma, C. Marino (Rome/IT)
18.20 P 05	Contraindication for radiative deep regional hyperthermia for patients with large carbon implants <u>D. Marder</u> (Aarau/CH), R. Poel (Villigen/CH), A. Gisep (Altstätten/CH) G. van Stam, O. Timm, E. Puric, N. R. Datta, G. Lutters (Aarau/CH)

SCIENTIFIC PROGRAMME I THURSDAY, 17 MAY

18.25 P 06	Dual mode microwave ablation applicator <u>C. Reimann</u> , S. Schmidt, M. Schüßler (Darmstadt/DE) T. Vogl (Darmstadt; Frankfurt/DE), R. Jakoby (Darmstadt/DE)
18.30 P 07	Fast clinically feasible MR sequences to map electrical tissue conductivity for improved accuracy in hyperthermia treatment planning (HTP) <u>S. Gavazzi</u> , S. Mandija, C. A. T. van den Berg, Y. Shcherbakova (Utrecht/NL) M. Bennis (Amsterdam/NL), J. J. Lagendijk (Utrecht/NL), L. Stalpers H. Crezee (Amsterdam/NL), A. van Lier (Utrecht/NL)
18.35 P 08	Fast and efficient generation of patient models for hyperthermia based on radiation therapy contours <u>J. Nadobny</u> , M. Weihrauch, S. Zschaeck, A. Lim, M. Beck, B. C. Chrzon E. Herz, P. Wust, P. Ghadjar (Berlin/DE)
18.40 P 09	SAR profiles generated with a capacitive hyperthermia system in a porcine phantom <u>M. Beck</u> , B. Chrzon, A. Lim, E. Herz, S. Zschaeck, J. Nadobny M. Weihrauch, V. Budach, P. Wust, P. Ghadjar (Berlin/DE)
18.45 P 10	Temperature shift measurement technique of high-frequency hyperthermia sessions in heterogeneous brain dummy with high grade tumor <u>E. Choyznzonov</u> , I. <u>Miloichikova</u> , Z. Startseva, N. Turgunova, A. Ryabova O. Gribova, V. Novikov, A. Krasnykh, Y. Cherepennikov S. Stuchebrov (Tomsk/RU)
18.50 P 11	3D-electric field and SAR distributions of two hyperthermia applicators: single-spiral antenna (SA-115) and multi-dipole antenna-pairs (Sigma-60) <u>O. Voigt</u> (Tübingen/DE), J. Gellermann (Berlin/DE) U. Lamprecht (Tübingen/DE), G. Gaborit (Le Bourget-Du-Lac/FR) D. Zips (Tübingen/DE)
20.00–00.00	Conference dinner (please refer to page 35)

SCIENTIFIC PROGRAMME I FRIDAY, 18 MAY

08.30–18.30	Self study ePoster (please refer to page 27)
08.30–09.15 Lecture hall Chairs	Session 10 – Thermoablative therapy B. Gebauer (Berlin/DE), G. Mauri (Milan/IT)
08.30 OP 23	A clinically-oriented computer model for radiofrequency hepatic ablation with internally cooled wet electrode <u>E. Ewertowska</u> (Valencia/ES), R. Quesada, A. Radosevic, A. Andaluz X. Moll (Barcelona/ES), E. Berjano (Valencia/ES), F. Burdio (Barcelona/ES) M. Trujillo (Valencia/ES)
08.45 OP 24	Systematic review of computational models of irreversible electroporation P. Agnass, E. van Veldhuisen, K. P. van Lienden, T. M. van Gulik M. G. Besselink, H. Kok, J. Crezee (Amsterdam/NL)
09.00 OP 25	Hyperthermic ablation with focused ultrasound (FUS-HIFU) in liver and pancreatic cancer. Results of a seven-year observational comparative study of retrospective cohorts in pancreatic tumors <u>J. Vidal-Jove</u> , A. Jaen, M. Paraira, M. Velat, E. Perich (Barcelona/ES)
09.00–15.20 Room Virchow	Nurse symposium/Radiation therapist symposium 
09.00	Begrüßung
09.05	Pflegerische Besonderheiten bei abdominellen Tumoren A. Biallas (Berlin/DE)
09.45	Planung, Vorbereitung und Durchführung durch die Physik B. C. Chrzon (Berlin/DE)
10.25–11.00	Kaffeepause
11.00	Evidenzbasierte Anwendung der Hyperthermie in der Behandlung onkologischer Erkrankungen M. Beck (Berlin/DE)
11.40	Therapie mit kapazitiver Hyperthermie – Patientenlagerung, Therapieüberwachung, Fallstricke, Risiken etc. im Alltag H. Sahinbas (Bochum/DE)
12.20	Interstitielle Hyperthermie J. Hendel (Erlangen/DE)

13.00–14.00 Mittagspause

14.00 Thermoregulatorischer Stress und dessen Bewältigung bei ‘fever-range’: Ganzkörperhyperthermie in zwei differenten Systemen
S. Heckel-Reusser (Esslingen/DE), A. von Ardenne (Dresden/DE)

14.40 Akute Nebenwirkungen und deren Management
M. Hans (Berlin/DE)

09.15–10.30 Session 11 – Biology session

Lecture hall
Chairs M. R. Horsman (Aarhus/DK), I. Tinhofer-Keilholz (Berlin/DE)

09.15 In vitro testing of antitumor efficacy of modulated electro-hyperthermia in
OP 26 C26 colorectal adenocarcinoma model
T. Vancsik, E. Kiss, G. Forika, A. Balogh, T. Krenacs (Budapest/HU)

09.30 Malignant cell survival – comparing hyperthermia via incubator with
OP 27 hyperthermia via EM fields: exciting at first – disappointing at last
M. Roesch (Eschweiler/DE), F. Wosegen (Heidelberg/DE)

09.45 Temperature dependent effectiveness of chemotherapeutic agents in
OP 28 colorectal cancer cell lines
F. Helderman, H. Roddermond, D. Löke, M. IJff, H. Kok, P. Tanis, N. A. P. Franken
J. Crezee (Amsterdam/NL)

10.00 Analysis and simulation of the response of 3D tumour spheroids to
OP 29 combination treatments of radiation and hyperthermia
S. C. Brüningk, I. Rivens, S. Nill, U. Oelfke, G. ter Haar (Sutton/GB)

10.15 Hyperthermia and low LET radiation has equivalent in vivo anti-tumor
OP 30 activity as high LET radiation
P. B. Elming, B. S. Sørensen, J. Overgaard, M. R. Horsman (Aarhus/DK)

10.30–11.00 Coffee break

SCIENTIFIC PROGRAMME I FRIDAY, 18 MAY

11.00–12.15	Session 12 – Immune effects of hyperthermia and novel drug combinations
Lecture hall	
Chairs	R. Issels (Munich/DE), S. Zschaeck (Berlin/DE)
11.00 <u>OP 31</u>	Regional hyperthermia and immuno-oncology <u>R. Issels</u> , L. Lindner, V. Büklein, G. Multhoff, C. Salat, M. von Bergwelt E. Noessner (Munich/DE)
11.15 <u>OP 32</u>	From cold to hot – increasing tumor immunogenicity by combining checkpoint inhibitors with hyperthermia <u>P. B. Elming</u> , T. R. Wittenborn, M. R. Horsman (Aarhus/DK)
11.30 <u>OP 33</u>	Hyperthermia as part of multimodal immunotherapy for children with DIPG <u>S. van Gool</u> , J. Makalowski, V. Schirrmacher, W. Stuecker (Köln/DE)
11.45 <u>OP 34</u>	Hyperthermia induced synthetic lethality in cervical cancer <u>M. IJff</u> , A. Oei, B. van Oorschot, F. Helderman, H. Kok, P. Krawczyk H. Rodermond, L. Stalpers, J. Crezee, N. A. P. Franken (Amsterdam/NL)
12.00 <u>OP 41</u>	Enhancing the abscopal effect of local thermo-radiotherapy by immune checkpoint inhibitors <u>A. L. Oei</u> (Baltimore, MD/US; Amsterdam/NL), P. Korangath, M. Helenius J. Stewart, B. Simons (Baltimore, MD/US), C. R. N. Rasch, J. Crezee L. Stalpers, H. P. Kok, N. A. P. Franken (Amsterdam/NL) R. Ivkov (Baltimore, MD/US)
12.15–13.15	Session 13 – Medical physics in hyperthermia
Lecture hall	
Chairs	G. C. van Rhoon (Amsterdam/NL), J. Nadobny (Berlin/DE)
12.15 <u>OP 35</u>	Analysis of the required number of sensors for adequate monitoring of skin temperature distribution during superficial microwave hyperthermia treatment A. Bakker, R. Holman (Amsterdam/NL), D. B. Rodrigues (Philadelphia, PA/US) H. Dobšíček Trefná (Gothenburg/SE), P. R. Stauffer (Philadelphia, PA/US) G. van Tienhoven, C. R. N. Rasch, <u>H. Crezee</u> (Amsterdam/NL)
12.30 <u>OP 36</u>	On the experimental validation of deep hyperthermia devices – study of representative phantoms I. Toseroni, S. Ciampa, <u>M. Cavagnaro</u> (Rome/IT)

12.45 Application in the clinical practice of hyperthermia of 3 quality indicators:
OP 37 the experience of candiolo cancer institute

A. Di Dia, G. Cattari, C. Bracco, S. Bresciani, A. Maggio
A. Miranti (Candiolo; Torino/IT), D. Gabriele (Sassari/IT), E. Garibaldi
P. Gabriele, M. Stasi (Candiolo, Torino/IT)

13.00 Multi-institution quality assurance evaluation of MR-guided deep
OP 38 hyperthermia systems

S. Curto, T. Mulder (Rotterdam/NL), B. Aklan (Munich/DE)
O. Mils (Düsseldorf/DE), M. Schmidt (Erlangen/DE), U. Lamprecht (Tübingen/DE)
M. Peller (Munich/DE), R. Wessalowski (Düsseldorf/DE), L. Lindner (Munich/DE)
R. Fietkau (Erlangen/DE), D. Zips (Tübingen/DE), M. Paulides, M. Franckena
G. C. van Rhoon (Rotterdam/NL)

13.15–14.45 **Lunch break**

13.45–14.30 **Industry-sponsored symposium 2**

Lecture hall (please refer to page 34)

14.45–16.15 **Session 14 – SAR pattern control by multi-antenna systems, potentials and limitations**

Lecture hall H. Crezee (Amsterdam/NL), H. Dobšíček Trefná (Gothenburg/SE)

Chairs 14.45 High intensity focused ultrasound – State-of-the-Art

IL 07 C. Moonen (Utrecht/NL)

15.15 Towards MR based hyperthermia treatment for patients with glioblastoma
IL 08 multiforme – combining RF heating, MR imaging and MR thermometry at
298 MHz

E. Oberacker (Berlin/DE)

15.45 SAR distribution created by combination of external and interstitial
OP 39 applicator

J. Vrba, J. Cumana (Prague/CZ), O. Fiser (Kladno/CZ)

I. Merunka (Prague/CZ)

16.00 Verification of self-calibration algorithms for phased array applicator

OP 40 M. Zanolli, H. Dobšíček Trefná (Gothenburg/SE)

16.15– 16.45 **Coffee break**

SCIENTIFIC PROGRAMME I FRIDAY, 18 MAY

16.45–17.45 Session 15 – Atzelsberg circle

Lecture hall

Chair

R. Fietkau (Erlangen/DE), R. Issels (Munich/DE)

Historical development

R. Fietkau (Erlangen/DE)

Influence of the Atzelsberg Circle on the design trials on radiotherapy/hyperthermia

O. Ott (Erlangen/DE)

Influence of the Atzelsberg Circle on the design trials on chemotherapy/

hyperthermia

L. Lindner (Munich/DE)

Quality evolution of hyperthermia treatment

H. Dobšíček Trefná (Gothenburg/SE)

Evolution of trials in the Netherlands

H. Crezee (Amsterdam/NL)

Which studies are necessary for hyperthermia in the future

All participants

17.45–18.45 ESHO Awards, presentation of ESHO 2019 and closing remarks

Lecture hall

V. Budach, P. Wust, T. Niendorf (Berlin/DE)

B. Michalski (Katowice/PL)

SCIENTIFIC PROGRAMME I SATURDAY, 19 MAY

10.30–12.30 ESHO/Hyperthermia patient day

Charité



10.30 Hyperthermie als Wirkungsverstärkung von Chemotherapie
IL 09 L. Lindner (Munich/DE)

11.00 Hyperthermie als Wirkungsverstärkung von Radiotherapie
IL 10 S. Bodis (Aarau/CH)

11.30 Hyperthermie in der Krebsbehandlung bei Kindern und Jugendlichen
IL 11 G. Seifert (Berlin/DE)

12.00 Hyperthermie in der Praxis – Ansätze der kapazitiven und
Ganzkörperhyperthermie
IL 12 H. Wehner (Wilhelmshaven/DE)

12.30–13.30 Get-together in der Industrieausstellung

- P 01 Hyperthermia combined with proton therapy in inoperable sacral chordomas – first clinical experience and early results
E. Puric (Aarau/CH), M. Walser (Villigen/CH), N. R. Datta (Aarau/CH), B. Bachtiai
R. Schneider (Villigen/CH), O. Timm, D. Marder (Aarau/CH), U. Kliebsch (Villigen/CH)
B. Seddon (London/GB), S. Bodis (Aarau/CH), D. C. Weber (Villigen/CH)
- P 02 CHIPOR (Hyperthermic Intraperitoneal Chemotherapy (HIPEC)) – a promising treatment for relapsed intraperitoneal ovarian cancer. Chipor an ongoing phase III, European multi centric randomised trial – unicancer – FEDEGYN 02
J.-M. Classe, I. Jaffré, I. Campion (St. Herblain Nantes/FR), P. Meeus (Lyon/FR)
E. Leblanc (Lille/FR), G. Houvenaeghel (Marseille/FR), S. Gouy (Paris/FR)
F. Marchal (Nancy/FR), F. Lecuru, M. Pocard (Paris/FR), F. Guyon (Bordeaux/FR)
S. Durand Fontainer (Limoges/FR), J. J. Torrent (Barcelona/ES), C. Jouffroy (Paris/FR)
G. Ferron (Toulouse/FR), O. Glehen (Lyon/FR)
- P 03 Ultrasound-induced hyperthermia – radiosensitisation in glioblastoma, prostate and head and neck cancer – preliminary studies
X. Zhang, L. Landgraf, I. Patties, S. Hu (Leipzig/DE), D. McLeod (Dresden/DE), M. Fournelle
S. Tretbar (St. Ingbert/DE), T. Neumuth, A. Melzer (Leipzig/DE)
- P 04 U-251 human glioblastoma cell line model to study hyperthermia as radiosensitiser
C. Patrono, V. Lopresto, M. Balduzzi, G. Leter, P. Piccirillo, A. Testa, V. Palma, C. Marino (Rome/IT)
- P 05 Contraindication for radiative deep regional hyperthermia for patients with large carbon implants
D. Marder (Aarau/CH), R. Poel (Villigen/CH), A. Gisep (Altstätten/CH), G. van Stam, O. Timm
E. Puric, N. R. Datta, G. Lutters (Aarau/CH)
- P 06 Dual mode microwave ablation applicator
C. Reimann, S. Schmidt, M. Schüßler (Darmstadt/DE), T. Vogl (Darmstadt; Frankfurt/DE)
R. Jakoby (Darmstadt/DE)
- P 07 Fast clinically feasible MR sequences to map electrical tissue conductivity for improved accuracy in hyperthermia treatment planning (HTP)
S. Gavazzi, S. Mandija, C. A. T. van den Berg, Y. Shcherbakova (Utrecht/NL)
M. Bennis (Amsterdam/NL), J. J. Lagendijk (Utrecht/NL), L. Stalpers,
H. Crezee (Amsterdam/NL), A. van Lier (Utrecht/NL)
- P 08 Fast and efficient generation of patient models for hyperthermia based on radiation therapy contours
J. Nadobny, M. Weihrauch, S. Zschaeck, A. Lim, M. Beck, B. C. Chrzon, E. Herz, P. Wust, P. Ghadjar (Berlin/DE)
- P 09 SAR profiles generated with a capacitive hyperthermia system in a porcine phantom
M. Beck, B. Chrzon, A. Lim, E. Herz, S. Zschaeck, J. Nadobny, M. Weihrauch, V. Budach, P. Wust, P. Ghadjar (Berlin/DE)

SELF STUDY ePOSTER PRESENTATIONS

- P 10 Temperature shift measurement technique of high-frequency hyperthermia sessions in heterogeneous brain dummy with high grade tumor
E. Choyznov, I. Miloichikova, Z. Startseva, N. Turgunova, A. Ryabova, O. Gribova
V. Novikov, A. Krasnykh, Y. Cherepennikov, S. Stuchebrov (Tomsk/RU)
- P 11 3D-electric field and SAR distributions of two hyperthermia applicators – single-spiral antenna (SA-115) and multi-dipole antenna-pairs (Sigma-60)
O. Voigt (Tübingen/DE), J. Gellermann (Berlin/DE), U. Lamprecht (Tübingen/DE)
G. Gaborit (Le Bourget-Du-Lac/FR), D. Zips (Tübingen/DE)
- P 12 14 years fever-range whole body hyperthermia in adjuvant recurrence prophylaxis of breast cancer
S. Wey (Lauf/DE)
- P 13 Secondary and tertiary recurrence prevention with fever range whole-body hyperthermia in (metastatic) malignant melanoma
S. Wey (Lauf/DE)
- P 15 Clonogenic survival as well as motility of malignant cells is reduced by hyperthermia alone or in combination with irradiation
H. Sahinbas, H. Bühler (Bochum/DE)
- P 16 In vitro and vivo temperature measurements invasively and minimal invasively in capacitative hyperthermia at 13,56 MHz
H. Sahinbas (Bochum/DE)
- P 17 The Moscow-Berlin hyperthermia treatment planning system
D. Sullivan, J. Houle (Moscow, Idaho/US), J. Nadobny, B. Chrzon, M. Weihrauch, P. Ghadjar
P. Wust (Berlin/DE)
- P 18 The agarose cup – a new tool for ex vivo cultivation of skin microbiopsies to assess effects of hyperthermia
A. R. Thomsen (Freiburg; Heidelberg/DE), C. Aldrian (Freiburg/DE)
G. Niedermann (Freiburg; Heidelberg/DE), A. L. Grosu (Heidelberg; Freiburg/DE)
P. G. Lund (Freiburg; Offenburg/DE)
- P 19 Relationship between energy dosage and apoptotic cell death by modulated electro-hyperthermia
S. Y. Wang, Y.-W. Tsang, C.-C. Huang, W.-T. Li, K.-H. Chi (Taipei/TW)
- P 20 Immunogenic cell death during maintenance chemotherapy and subsequent multimodal immunotherapy for GBM
S. van Gool, J. Makalowski, V. Schirrmacher, W. Stuecker (Köln/DE)

- P 21 Feasibility of tumor vasculature targeting – comparative study of different cationic and anionic thermosensitive liposomes
M. Petrini, W. Lokerse (Munich/DE), M. Hossann (Planegg/DE), O. Merkel, L. Lindner (Munich/DE)
- P 22 Identification of suitable electromagnetic and thermal models for patient specific hyperthermia planning for SIGMA30 applicator using direct temperature measurements
J. Nadobny (Berlin/DE), D. Sullivan (Moscow, ID/US), P. Wust, S. Zschaack, A. Lim, M. Weihrauch B. C. Chrzon, E. Herz, M. Beck, P. Ghadjar (Berlin/DE)
- P 24 Establishing selected foundations of hyperthermic oncology
G. Westerkamp (Hamburg/DE), D. Michelsen (Birmingham/GB)
- P 25 Modulated electro-hyperthermia in pancreatic cancer patients – initial experience and clinicopathologic evaluation
A. M. Szasz, E. Borbenyi, R. Mohacsi, M. Kvasnika, T. Garay, L. Torgyik, M. Dank (Budapest/HU)
- P 26 Clinical studies of oncotherapy
A. Szasz (Budaors/HU)
- P 27 Modulated electro-hyperthermia treatment of pancreas ductal adenocarcinoma in vitro
G. Forika, T. Vancsik, Z. Benyo, T. Krenacs (Budapest/HU)
- P 28 New possibilities for magnetic hyperthermia – design of cluster topology to improve heating power
G. Goya, B. Sanz, T. E. Torres, M. R. Ibarra (Zaragoza/ES), E. Lima Jr., E. De Biasi R. Zysler (S.C. de Bariloche/AR)
- P 29 Definitive outcome of hyperthermia-radiotherapy association for superficial recurrent tumors
G. Cattari, A. Di Dia, M. Gatti, A. Salatino, G. Belli, E. Delmastro, P. Gabriele (Candiolo/IT)
- P 30 Pitfalls in acoustic transducer modeling for focused ultrasound (FUS)
C. Pasquinelli (Kongens Lyngby/DK), H. Montanaro, E. Neufeld, R. Poni, N. Kuster (Zurich/CH) A. Thielscher (Kongens Lyngby/DK)
- P 31 Optimisation of microwave hyperthermia waveguide applicator for head and neck region
O. Fiser (Kladno/CZ), I. Merunka, J. Vrba (Prague/CZ)
- P 32 Regional deep hyperthermia – comparison of intratumoral invasive thermometry and thermal numeric simulations in patients
B. Aklan, B. Zilles, P. Paprottka, S. Abdel-Rahman, M. Santl, L. Lindner (Munich/DE)
- P 33 Implementation of a new MRI-hyperthermia-hybrid system into clinical routine
B. Aklan, M. Peller, B. Zilles, S. Abdel-Rahman, M. Santl, L. Lindner (Munich/DE)

SELF STUDY ePOSTER PRESENTATIONS

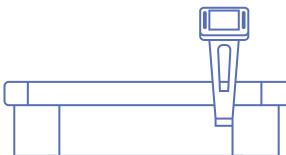
- P 34 Extracting information about cellular repair processes after hyperthermia – radio-therapy by model-based data analysis – Ambiguities in survival prediction as a challenge?
M. S. Weyland (Winterthur/CH), P. Thumser-Henner, K. J. Nytko, C. Rohrer Bley (Zurich/CH)
R. M. Füchslin (Winterthur/CH), S. Scheidegger (Winterthur; Aarau/CH)
- P 35 Exogenous and endogenous hyperthermia combining low-dose checkpoint inhibitors with interleukin-2 (IL-2) and fever range whole body and local regional hyperthermia in stage IV cancer
R. Kleef (Vienna/AT), H. Bojar (Düsseldorf/DE), R. Moss (Lemont, IL/US), A. Stix, A. Bohdjalian V. Bacher, R. Nagy, D. McKee (Vienna/AT)
- P 36 Do SAR quality indicators predict temperature? – a verification study in head and neck hyperthermia
G. G. Bellizzi (Reggio Calabria, Napoli/IT), T. Drizdal, G. C. van Rhoon (Rotterdam/NL)
L. Crocco (Napoli/IT), T. Isernia (Napoli; Reggio Calabria/IT), M. M. Paulides (Rotterdam/NL)
- P 37 Thermoresponsive and light-to-heat converting nanogels for biomedical applications
S. Wedepohl, M. Molina Soler, M. Asadian-Birjand, L. Fechner, E. Glitscher J. Bergueiro Álvarez, M. Calderón (Berlin/DE)
- P 38 Fever-range whole body hyperthermia with concomitant capecitabine in third line therapy for BRCA mutated metastatic breast cancer
J. Pinto (Lisboa/PT), A. Ferreira, C. Ferreira, A. Cruz, M. Pinto (Porto/PT)
- P 39 Oncologic deep local Hyperthermia in advanced cancer patients. Feasibility study
J. Vidal-Jove, M. Velat, E. Deltor, P. Del Castillo (Barcelona/ES)
- P 40 Review – whole-body-thermochemotherapy – A treatment passing into silence?
A. Herzog (Bad Salzhausen/DE)
- P 41 Hyperthermic intravesical chemotherapy for BCG-unresponsive non-muscle invasive bladder cancer
J. J. de Jong (Rotterdam/NL), K. Hendrickson (Amsterdam/NL), H. Mostafid (Guildford/GB)
M. Rosier, J. L. Boormans (Rotterdam/NL)
- P 42 Hyperthermic temperatures in body coil bird cage of 3.0 T in pigs
C.-H. Cho, C. Grosse-Siestrup (Berlin/DE), G. Brinker (Munich/DE), P. Wust (Berlin/DE)

THE ONCOTHERMIA METHOD & DEVICES ▾

- Oncothermia is based on the classical method of Hyperthermia, one of the oldest cancer treatment methods. Unlike conventional Hyperthermia, Oncothermia does more than simply warm up deep layers of tissue. It combines such warming with a modulated electric field, with a carrier frequency of 13.56 MHz, which is generated by two active electrodes.

➤ EHY-2030

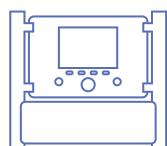
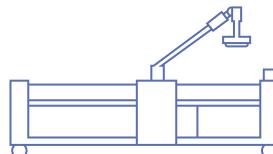
The EHY-2030 is our latest development in the treatment of loco-regional (including deep and surface) tumors. The newly designed device includes the Smart Electrode System (SES), the plug-in Patient Management System (PMS-100) and a user-friendly touch screen display with full system control. The new RF generator with increased power has been developed with a new intelligently controlled step motor tuning system for rapid impedance matching to achieve faster tuning times.



➤ EHY-2000plus

The EHY-2000plus is a widely accepted system for loco-regional deep mEHT applications. This model has been used for treatment worldwide for more than 20 years. Popular, versatile device, applicable for a range of solid tumors and improved over the years through feedback from our doctors and experts and the requirements of patients and the people treating them. The EHY-2000plus is an easy to use and highly reliable device.

The EHY-3010 is designed for the simultaneous multi-local treatment of advanced, metastatically disseminated, malignant, solid tumors. Within the range of Oncothermia systems, it is the pioneering breakthrough in the field of multi-local tumor therapy. Instead of a bolus electrode, this system uses textile electrodes, which are even more flexible to better adjust to the treatment area.



The EHY-1020 is specifically designed to treat prostate diseases. Both malignant and benign tumors (BPH) can be treated using this system. It uses a catheter with built-in electronics and counter electrode. The EHY-1020 system is compact and easy to use. The method has been successfully used by our customers since 2010 with high success rates and minimal side effect.

➤ EHY-1020 ▶

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Andromedic Srl. (Velletri/IT)	5
ArminLabs GmbH (Augsburg/DE)	8
BioMed-Klinik (Bad Bergzabern/DE)	4
Celsius42 GmbH (Eschweiler/DE)	7
Dr. Sennewald Medizintechnik GmbH (Munich/DE)	1
heckel medizintechnik GmbH (Esslingen/DE)	11
MagForce AG (Berlin/DE)	12
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Sensius BV (Rotterdam/NL)	6
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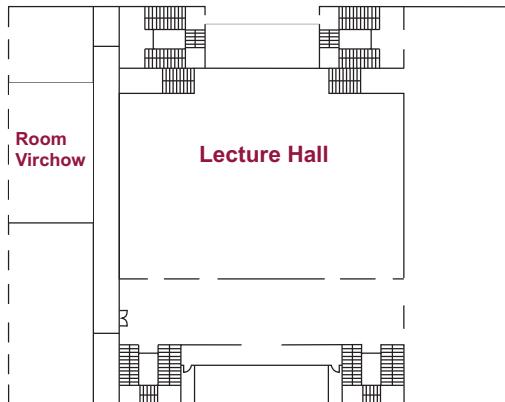
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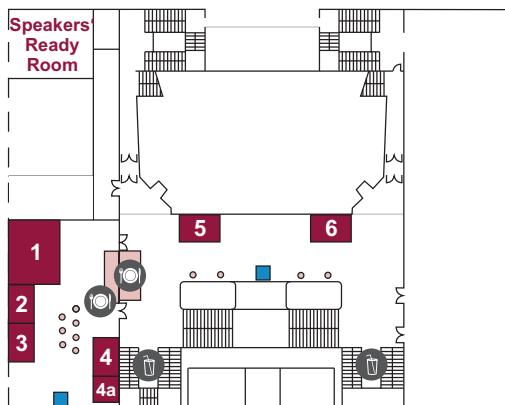
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PLAN OF EXHIBITION AREA

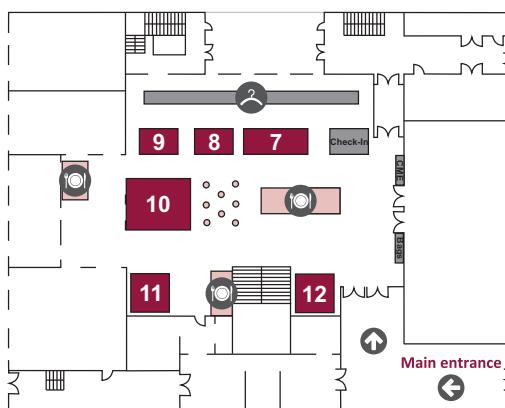
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Foyer



Catering
 ePoster (eP)

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INDUSTRY-SPONSORED SYMPOSIA

Thursday, 17 May

13.30–14.15 Industry-sponsored symposium 1
Lecture hall Dr. Sennewald Medizintechnik GmbH

DR. SENNEWALD 
medizintechnik gmbh

Chairs M. Falkowski (Salt Lake City, UT/US), G. Sennewald (Munich/DE)

Introduction
M. Falkowski (Salt Lake City, UT/US)

Sigma 30 MR Applicator for pediatric and extremity use
J. Ellsworth (Salt Lake City, UT/US)

The Crown Applicator – a milestone in radiative hyperthermia
P. Turner, J. Ellsworth (Salt Lake City, UT/US)

Discussion and closing remarks
G. Sennewald (Munich/DE)

Friday, 18 May

13.45–14.30 Industry-sponsored symposium 2
Lecture hall Oncotherm Kft.



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O. Szasz (Budaörs/HU)

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Social programme

Get-together | Wednesday, 16 May

"In the end it is always our relationships with people that make our lives worth living." (Wilhelm von Humboldt)

After the first conference day, we would like to invite you to our Get-together with some typical drinks and snacks in the industrial exhibition areas of the Langenbeck-Virchow-Haus.

The Get-together is included in the registration fee.

Time 19.00–20.00

Location Langenbeck-Virchow-Haus

Luisenstraße 58/59 | 10117 Berlin (DE)



Conference dinner | Thursday, 17 May

We would like to invite you to our social evening, which will be held at the "Soho House Berlin".

This beautiful location captures the charme of Berlin with a long and versatile history. Enjoy your evening with colleagues and friends, establish new contacts in a relaxing surrounding and discuss the experiences of the congress.

Time 20.00–00.00

Location Soho House Berlin

Torstraße 1 | 10117 Berlin (DE)

Prize 75 EURO

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GENERAL INFORMATION



Abstracts

All abstracts will be available as a pdf-file on the congress website www.esho2018.eu. Furthermore, the abstracts are published in the journal "Strahlentherapie und Onkologie" of the publisher Springer.



Awards

There will be awards for the best oral presentations and best posters. The award ceremony takes place on 18 May at 17.45 hrs. in the lecture hall.



Catering

Tea, coffee, refreshments and snacks will be available free of charge during all programme breaks within the industrial exhibition areas.

The Get-together takes place on Wednesday, 18 May 19.00–20.00 hrs. within the industrial exhibition and will be sponsored by the company Dr. Sennewald Medizintechnik GmbH. The lunch break on Friday, 18 May will be sponsored by the company Oncotherm.



Cloakroom

You have the opportunity to leave your luggage at the cloakroom on-site. Please note that we assume no liability.

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GENERAL INFORMATION



Education credits and certification

The ESHO congress is accredited with 18 European CME Credits (ECMEC) by the European Accreditation Council for Continuing Medical Education (EACCME). The EACCME is an institution of the European Union of Medical Specialists (UEMS, www.uems.net). The American Medical Association (AMA) recognises EACCME credits as valid CME credits towards the Physician's Recognition Award (PRA). To convert EACCME credits into AMA PRA category 1 credits, please contact the AMA. To obtain your CME credits for the ESHO congress 2018, please provide daily proof of presence by scanning your name badge at the provided counter. You will afterwards receive a certificate of attendance indicating the amount of CME credits obtained. Later requests are discouraged.

The certification of the conference for German Physicians is applied by the “Medical Chamber of Berlin” (Landesärztekammer Berlin):

16 May	Category B	6 Points
17 May	Category B	6 Points
18 May	Category B	6 Points
19 May	Category B	3 Points

For certification all attendants are required to scan the QR-code on their name badge daily.

Certificates of attendance may be picked up upon leaving the conference at the check-in.

Zertifizierung der Registrierung beruflich Pflegender (RbP)

Die Veranstaltung ist durch die Registrierung beruflich Pflegender (RbP) mit 16 Punkten zertifiziert.



General terms and conditions

Please find our general terms and conditions at www.esho2018.eu.



Internet

A wireless internet access (Wi-Fi) is available free of charge in the building.



Language

The conference language is English. No simultaneous translation will be provided.



Opening hours

	Check-in	Industrial exhibition	Speakers' ready room
Wednesday	08.00–20.00	15.00–20.00	15.00–18.00
Thursday	07.30–18.00	10.30–18.00	07.30–18.00
Friday	08.00–17.00	10.30–16.45	08.00–18.00



Registration fees

ESHO/ESTRO-Members*	450 EUR
DGHT-Members*	450 EUR
Non-Members	600 EUR
Student*	150 EUR
Industry	1,000 EUR
Nurse symposium, 18 May	25 EUR
Day Ticket	130 EUR
Get-Together, 16 May	included
Conference dinner, 17 May	75 EUR

*Confirmation of status is required.



Travel within Berlin/Public transportation

For detailed information about the public transport in Berlin, please refer to the BVG
Berliner Verkehrsbetriebe (Berlin public transport company) via www.bvg.de/en.



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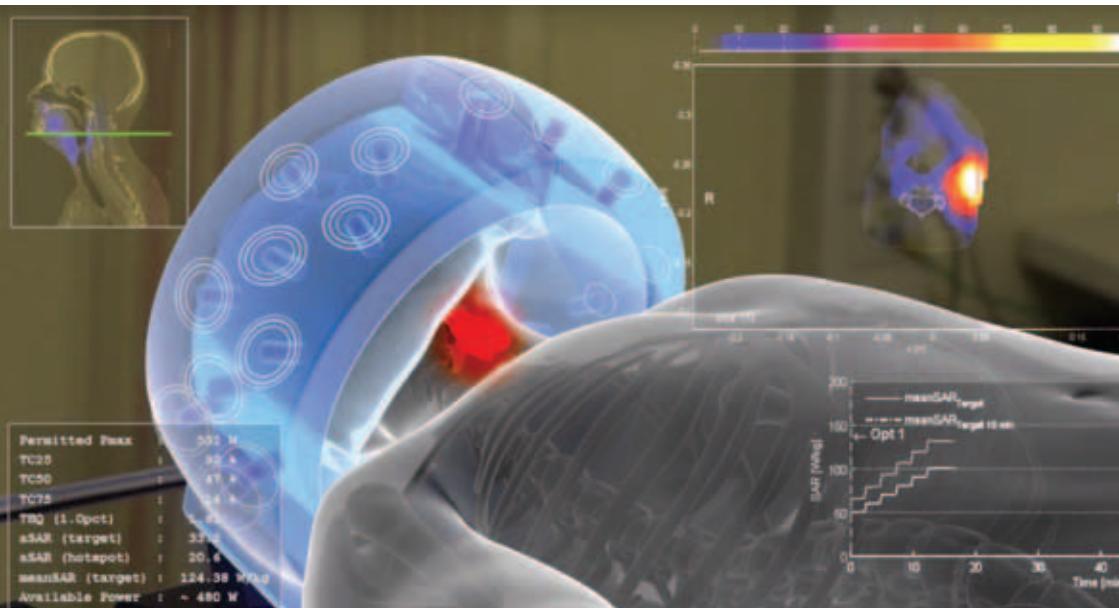
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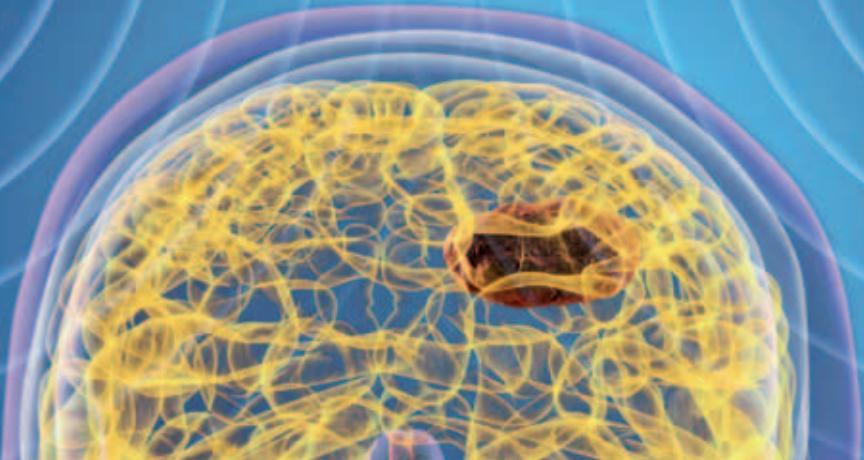
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