

PROGRAM

# ESHO 2019

33<sup>RD</sup> ANNUAL MEETING OF  
THE EUROPEAN SOCIETY  
FOR HYPERTHERMIC ONCOLOGY

22<sup>nd</sup>-25<sup>th</sup> May 2019  
WARSAW

ESHO 2019  
Congress Chairs

President  
dr hab. n. med. prof. nadzw.  
Lucjan Wyrwicz

Co-president  
prof. dr hab. n. med.  
Piotr Rutkowski

Secretary  
dr n. med.  
Andrzej Kukiełka



**ESTRO**



With support of PTHO as local partner

**SympoMed**

Professional organizer

# FRAMEWORK PROGRAM

33<sup>rd</sup> ANNUAL MEETING OF THE EUROPEAN  
SOCIETY FOR HYPERTHERMIC ONCOLOGY

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## Wednesday 22<sup>nd</sup> May 2019

**08:45-10:45** Educational Day – part 1

**10:45-11:15** **Coffee**

**11:15-12:15** Educational Day – part 2

**12:15-13:15** **Lunch**

**13:15-15:15** Educational Day – part 3

**15:15-15:45** **Coffee**

**15:45-16:45** Educational Day – part 4

**17:00-17:35** Opening Ceremony

**17:35-18:55** Plenary Session

**19:00-20:30** **Cocktail / Exhibitors Area**

**Welcoming Coctail under the patronage of Dr. Sennewald Medizintechnik GmbH**

**12.30-13.30** Int. J. of Hyperthermia meeting  
PIK ROOM

**14.00-16.30** ESHO Board meeting  
PIK ROOM

**15.00-16.45** PTHO General Meeting  
KIER ROOM

## Thursday 23<sup>th</sup> May 2019

**08:15-10:15** Session 1  
Hyperthermia Quality Assurance

**10:15-10:45** **Coffee**

**10:45-12:15** Session 2  
Hyperthermia and immunotherapy

**12:15-13:30** **Lunch**

**12:30-13:05** **Lunch Session**

**13:30-15:00** Session 3  
Tumor biology

**15:00-15:30** **Coffee**

**15:30-17:00** Session 4  
Chemo-radiosensitization

**17:00-18:30** Award Session  
Int. J. Hyperthermia Award  
ESHO young investigator Awards  
ESHO/Pyrexar Awards introduction  
ESHO/Pyrexar Award winner presentation

**18.30-19.30** ESHO General Assembly  
PIK ROOM

**20:00-00:30** **Gala Dinner under the patronage of Dr. Sennewald Medizintechnik GmbH**

## Friday 24<sup>th</sup> May 2019

- 08:45-10:40** Session 5  
Ongoing Clinical Studies
- 10:40-11:00** **Coffee**
- 11:00-12:30** Session 6  
FLASH poster presentations
- 12:30-13:45** **Lunch**
- 12:45-13:20** **Lunch Session**
- 13:45-15:25** Session 7  
Recent clinical trials
- 15:25-16:00** **Coffee**
- 16:00-17:40** Session 8  
MR-based hyperthermia
- 17:40-18:10** Closing Ceremony
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## WORKSHOPS

### Saturday 25<sup>th</sup> May 2019

- 09:00-11:45** Clinical application of hyperthermia with Celsius TCS device  
H. Sahinbas
- 11:45-12:00** Coffee break
- 12:00-13:00** Local hyperthermia with microwave antennae systems – superficial and deep heating  
T. Jasiurkowski and D. Droś
- 13:00-13:30** Treatment protocols for hyperthermia actually used in Warsaw Marie Curie Memorial Cancer Institute  
B. Lindner
- 13:30-14:30** Tour of specific hyperthermia labs: BSD-500, BSD-2000 and Celsius TCS

Workshops in Warsaw Marie Curie Memorial Cancer Institute

## DETAILED PROGRAM

33<sup>rd</sup> ANNUAL MEETING OF THE EUROPEAN  
SOCIETY FOR HYPERTHERMIC ONCOLOGY

Wednesday 22<sup>nd</sup> May 2019

### EDUCATIONAL DAY

**08:45-09:45** **Meta-analysis of clinical trials with hyperthermia**

*N.R. Datta*

**09:45-10:45** **Hyperthermia heating devices**

*J. Crezee*

**10:45-11:15** **COFFEE**

**11:15-12:15** **Opportunities of HIFU for thermal therapy**

*H. Gröll*

**12:15-13:15** **LUNCH**

**13:15-14:15** **Magnetic fluid hyperthermia: Advances and challenges for its translation to the clinic**

*T. Samaras*

**14:15-15:15** **Modelling HT-RT: BED and transient biological dose equivalent TBDE**

*S. Scheidegger*

**15:15-15:45** **COFFEE**

**15:45-16:45** **Molecular effects of hyperthermia**

*R. Kanaar*

**17:00-17:35**    **OPENING CEREMONY**

**Speech of congress president**

dr hab. n. med. prof. nadzw. Lucjan Wyrwicz

**Speech of congress v-president**

prof. dr hab. n. med. Piotr Rutkowski

**Speech of congress secretary**

dr n. med. Andrzej Kukiełka

**Speech of ESHO president**

prof. EMV&H Gerard van Rhooen

**17:35-18:55**    **PLENARY SESSION**

**17:35-18:15**    **Protons and hyperthermia: early clinical results**

*Z. Vujaskovic*

**18:15-18:55**    **Building an international forum to boost hyperthermia research**

*S. Bodis*

**19:00-20:30**    **COCKTAIL / EXHIBITORS AREA**

Welcoming Coctail under the patronage  
of Dr. Sennewald Medizintechnik GmbH

Thursday 23<sup>rd</sup> May 2019

**08:15-10:15** **SESSION 1: HYPERTHERMIA QUALITY ASSURANCE**  
CHAIRS: S. CURTO, H. DOBSICEK TREFNA

**08:15-08:35** **Quality assurance guidelines for hyperthermia**  
*H. Dobsicek Trefna*

**08:37- 08:47** **ESHO Quality Assurance guidelines for Interstitial Hyperthermia**  
*J. Crezee*

**08:49-08:59** **Quality assurance assessment: are commercial MR-guided deep-pelvic hyperthermia devices ready for a large clinical trial?**  
*S. Curto*

**09:01-09:11** **QA techniques for radiative deep hyperthermia systems: benefits and limitations of 1D, 2D and 3D techniques.**  
*G. van Rhoon*

**09:13-09:23** **Optimized Helmet Applicator Design for Child Brain-Tumor Hyperthermia**  
*M. Zanoli*

**09:25-09:35** **Comparison of electro-quasistatic and FDTD calculation methods for modeling of capacitive hyperthermia**  
*T. Paessler*

**09:37-09:47** **Inverse source method for element position optimization in modular systems for deep regional hyperthermia**  
*R. Poni*

**09:49-09:59** **SAR or temperature-based treatment planning as predictor for temperature changes after phase-amplitude steering during locoregional hyperthermia**  
*P. Kok*

**10:01-10:11** **Standardization by a Universal Deep Hyperthermia Treatment Planning System**  
*T. Drizdal*

**10:15-10:45** **COFFEE**

10:45-12:15

**SESSION 2: HYPERTHERMIA AND IMMUNOTHERAPY**

CHAIRS: U. GAIPL, L. LINDNER

10:45-11:05

**Immunomodulation by hyperthermia in combination with radiotherapy**

*U. Gaipl*

11:06-11:18

**Immunomonitoring of patients with anal carcinoma treated with deep regional hyperthermia in combination with standard radiochemotherapy – first results of the HYCAN trial**

*A-J. Donaubauer*

*M. Hader*

11:19-11:31

**Immune-effects with local hyperthermia**

*A. Szasz*

11:32-11:44

**The reduction of the neutrophil / lymphocyte ratio (NLR) is associated with a complete response and disease-free survival in patients with non-invasive bladder cancer treated with intravesical neoadjuvant chemohyperthermia**

*D. Sousa*

11:45-11:57

**The effect of hyperthermia on Iscador-treated macrophages**

*H. M. Kozłowski*

11:58-12:10

**Can we monitor Immunogenic Cell Death (ICD) induced with modulated electrohyperthermia and oncolytic virus injections ?**

*S. Van Gool*

12:15-13:30

**LUNCH**

12:30-13:05

**LUNCH SESSION**

**Deep RF Hyperthermia – Technical Historical Review**

*Paul Turner, Pyrexar Medical*

CHAIRS:

*Mark Falkowski, CEO Pyrexar Medical*

*Gerhard Sennewald, CEO Dr. Sennewald Medizintechnik GmbH*

13:30-15:00

**SESSION 3: TUMOR BIOLOGY**

CHAIRS: M. Horsman, T.L.M ten Hagen

- 13:30-13:50**    **Hyperthermia: the optimal treatment to overcome tumor hypoxia**  
*M. Horsman*
- 13:51-14:03**    **Differential effects of modulated electro-hyperthermia on slow and fast progressing triple negative breast cancers and the effects of treatment protocol**  
*P. Hamar*
- 14:04-14:16**    **Co-evolving model parameter search using cell survival and time-resolved comet data: A holistic view on the synergistic effect of hyperthermia and radiotherapy**  
*M. Weyland*
- 14:17-14:29**    **Hyperthermia combined with PARP1-inhibition as radiosensitizer in cervical cancer cells by affecting two DNA DSB repair pathways**  
*M. IJff*
- 14:30-14:42**    **Thinking out of the nanoparticle: Externally triggered smart drug delivery systems demand chemotherapeutics with kinetics superior for local delivery**  
*T. L. M. ten Hagen*
- 14:43-14:55**    **Does hyperthermia clinically alter the  $\alpha/\beta$ ? Insights from thermoradiotherapy vs. radiotherapy trials**  
*N. R. Datta*

15:00-15:30

**COFFEE**



**15:30-17:00**

**SESSION 4: CHEMO-RADIOSENSITIZATION**

*CHAIRS: R. FIETKAU, A. KUKIELKA*

**15:30-15:50**

**Combined interstitial radiotherapy with interstitial hyperthermia**

*A. Kukielka*

**15:51-16:03**

**Molecular basis of modulated electro-hyperthermia combination with radio- and chemo-therapies**

*O. Szasz*

**16:04-16:16**

**Improving Hyperthermia-Based Anti-Cancer Treatments by Modulation of the Heat Shock Response**

*E. Scutigliani*

**16:17-16:29**

**Elevated apoptosis and tumor stem cell destruction in a radioresistant pancreatic adenocarcinoma cell line when radiotherapy is combined with modulated electro-hyperthermia**

*G. Fórika*

**16:30-16:42**

**Institutional variations in Hyperthermic Intraperitoneal Chemotherapy**

*R. Helderman*

**16:43-16:55**

**Can the combination of hyperthermia with low LET radiation have an equivalent anti-tumor effect as seen with high LET radiation alone?**

*P. Elming*

**17:00-18:30**

**AWARD SESSION**

Int. J. Hyperthermia Awards by G.C. van Rhoon  
ESHO young investigator Awards by G.C. van Rhoon  
ESHO/Pyrexar Awards introduction by J. Crezee  
ESHO/Pyrexar Awards winner presentation

**20:00**

**GALA DINNER**

Gala Dinner under the patronage  
of Dr. Sennewald Medizintechnik GmbH

08:45-10:40

**SESSION 5: ONGOING CLINICAL STUDIES**

CHAIRS: R. WESSALOWSKI, L. WYRWICZ

8:45-9:05

**Hyperthermia in Poland***L. Wyrwicz*

9:06-9:18

**Focused ultrasound-induced hyperthermia as radiosensitizer for glioblastoma, prostate cancer and head and neck cancer cell lines***X. Zhang*

9:19-9:31

**Radiotherapy combined with Hyperthermia in the treatment of recurrent cancer of the head and neck region. Impact in early response and quality of life***M. A. Costa*

9:32-9:44

**Correlation between thermal dose and tumor control/ hyperthermia associated toxicity in recurrent breast cancer treated with thermoradiation***A. Bakker, J. Crezee*

9:45-9:57

**Feasibility study of the hyperthermia treatment planning software Hyperplan™ on the new BSD-2000 3D / MRI in a patient with high-risk soft tissue sarcoma of the lower extremity***B. Zilles*

9:58-10:10

**Evolution of Local-Regional and Whole-Body Hyperthermia in Portugal***J. Moreira-Pinto*

10:11-10:23

**The level of evidence for the medical indications of Whole-body hyperthermia (WBH) - Guideline for mild and fever-range WBH***H. Sahinbas*

10:24-10:36

**Susceptibility to hyperthermia treatment through CTCs study***P. Apostolou*

10:40-11:00

**COFFEE**

11:00-12:30

**SESSION 6: FLASH POSTER PRESENTATIONS**

CHAIRS: A. BAKKER, P. WUST

12:30-13:45

LUNCH

12:45-13:20

**LUNCH SESSION**

**Present and Future Hyperthermia Technology Evolution**

*Paul Turner, Pyrexar Medical*

Chairs:

*Mark Falkowski, CEO Pyrexar Medical*

*Gerhard Sennewald, CEO Dr. Sennewald Medizintechnik GmbH*

13:45-15:25

**SESSION 7: RECENT CLINICAL TRIALS**

CHAIRS: M. FRANCKENA, P. RUTKOWSKI

13:45-14:05

**Erlangen University: Results of RT+HT clinical trials**

*R. Fietkau*

14:06-14:18

**Proton therapy and hyperthermia in bulky, treatment-resistant extra-abdominal desmoid tumours**

*E. Stutz*

14:19-14:31

**Combined wIRA-hyperthermia and repeat re-irradiation (re-re-RT) in the management of re-recurrences of locally recurrent breast cancer**

*M. Notter*

14:32-14:44

**Effects of modulated electro-hyperthermia on disease control and 3 year disease-free survival in locally advanced cervical cancer patients: Preliminary results**

*C. Minnaar*

14:45-14:57

**Hyperthermia and radiation for locally advanced cervical carcinoma: temperature matters**

*M. Franckena*

14:58-15:10

**Thermochemoradiotherapy for locally advanced pancreatic cancers: A pilot study**

*N. R. Datta*

15:11-15:23

**Radiotherapy in combination with regional Hyperthermia for Salvage Treatment in refractory Childhood Cancer**

*R. Wessalowski*

15:25-16:00

COFFEE

16:00-17:45

**SESSION 8: MR-BASED HYPERTHERMIA**

CHAIRS: N.R. DATTA, T. NIENDORF

16:00-16:20

**Progress of MR-guided thermal intervention for brain tumors**

*T. Niendorf*

16:21-16:33

**Potential impact of MR-only treatment planning for MR guided deep pelvic hyperthermia**

*I. V. Boas-Ribeiro*

16:34-16:46

**Thermal Therapy of the Porcine Pancreas in-vivo using MR-Guided HIFU**

*L. Sebeke*

16:47-16:59

**Design and validation of the MRcollar: the first clinical grade MR-guided head and neck applicator**

*G. G. Bellizzi*

17:00-17:12

**MR thermometry validation and modeling of a 915 MHz annular phased-array in brain phantoms**

*P.F. Turner*

17:13-17:25

**Physical rationale and empirical data about mEHT as a low resource setting to treat brain tumors**

*P. Wust*

17:26-17:38

**Hyperthermia and radiation induced MR diffusion changes in brain glioma tumour treatment**

*L. Khalafi*

17:40-18:10

**CLOSING CEREMONY**



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