



2020 Society for Thermal Medicine Scholar-In-Training Symposium

Virtual Event, November 10, 2020

1200-1320 EST – Biology and Medicine Tracks

12:00 Seunghyun Jung

Photothermal response induced by nanoparticle-based extracellular matrix promotes neural stem cell differentiation.

12:05 Debbie K. Ledezma

An interstitial photothermal therapy to treat neuroblastoma.

12:10 Jing Hao

Sex-specific differences in response to hyperthermia and radiotherapy in a mouse model of glioblastoma.

12:15 Preethi Bala Balakrishnan

Nanoimmunotherapy using agonistic aCD137 combined with prussian blue nanoparticle-based photothermal therapy as novel treatment strategy for aPD-1 non-responders in melanoma.

12:20 Maryam Siddiqui

Localized Mild Hyperthermia Using MRI Guided High Intensity Focused Ultrasound in Tumour-Bearing Mice for Potential Cancer Therapies.

12:25 Maximilian Regenold

From in vitro formulation characteristics to first in vivo performance assessment: development of a thermosensitive liposome formulation of vinorelbine.

12:30 Zahraa Alali

Hyperthermic Intraperitoneal Chemotherapy Alters Tumor-Infiltrating Immune Cells and Attenuates Tumor Development in Epithelial Ovarian Cancer (EOC) Mouse.

12:35 A. Colleen Crouch

Mass spectrometry imaging of thermochemical ablation and laser ablation in rabbit VX2 tumors.

12:40 Juliana Lis Mendes de Brito

Development of an efficient non-surgical spaying method for male animals using testicular magnetohyperthermia mediated by magnetic nanoparticles.

12:45 Shaina A. Yates

Polymer Nanoparticle Photothermal Ablation and Combination Antibacterial Treatment for Mitigation of *S. aureus* Biofilms.

12:50 Qi Wang

Employing alternating magnetic fields (AMF) to improve the activity of antibiotics on infected metal implants.

12:55 Sumbul Shaikh

Using high temperatures to eradicate prosthetic joint associated biofilms on metal implants using alternating magnetic field: efficacy & safety implications.

13:00-13:20

Questions for presenters

13:20-14:25 EST – Engineering Track

13:20 Varun Sadaphal

Development of a system for generating alternating magnetic field exposures for biofilm eradication in a large animal model of metal implant infection.

13:25 Bibin Prasad

Factors influencing the therapeutic index for the non-invasive treatment of metal implant infections with alternating magnetic fields.

13:30 Fredrik Lorentzon

Development of fat phantom for characterization of hyperthermia applicator performance.

13:35 Arka Bhowmik

Development of a quality assurance phantom for deep hyperthermia therapy.

13:40 Theresa V. Feddersen

Comparative study of different Gradient-Echo sequences for PRFS MR Thermometry.

13:45 Kemal Sumser

Enabling MR Thermometry Guided Hyperthermia Treatment in the Head and Neck.

13:50 Bingbing Cheng

Non-invasive localized brain mild hyperthermia with transcranial MR-guided focused ultrasound: a feasibility study in rodents.

13:55 Kisoo Kim

Sonication strategies for delivery of MRI guided volumetric ultrasound hyperthermia using the ExAblate body array.

14:00 Daan R. Loke

Demonstration of treatment planning software for hyperthermic intraperitoneal chemotherapy in a rat model.

14:05 Roxan F.C.P.A. Helderma

A 4-inflow construction to enhance a stable thermal homogeneous flow during Hyperthermic Intraperitoneal Chemotherapy (HIPEC) in rats.

14:10-14:25

Questions for presenters

14:25 EST

Recognition of Awardees

14:30 EST

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