



Program

September 5 (Fri.) Room 1

- 8:45 **Opening Remarks**
 President of the 6th ACHO & the 31st JCTM
 Kanji Katayama
- 9:00 – 11:00 **Symposium 2**
Impact of HSPs – Revisit & Perspective –
 Chairs: Kenzo Ohtsuka, S.V. Chiplunkar
- S2-1**
 Different cytotoxic effect from different hyperthermia devices. Comparison of the oncotherm-labeby and the thermotron RF-8 in an *in vitro* model
 Yu-Shan Wang
- S2-2**
 Heat shock proteins and gamma delta T cell immunity in oral cancer
 S. V. Chiplunkar
- S2-3**
 Inhibiting heat shock transcription factor 1 and its related genes for novel hyperthermia therapy
 Yoshiaki Tabuchi
- S2-4**
 Pifithrin- μ , an inhibitor of HSP70, can increase the antitumor effects of hyperthermia against human prostate cancer cells
 Mamoru Harada
- S2-5**
 Constitutively active stress-responsive signals and stress proteins are novel targets for cancer stem cell/cancer-initiating cell-targeted therapy
 Toshihiko Torigoe
- 11:00 – 12:00 **Congress Lecture**
 Chair: Takeo Ohnishi
 Past, present and future of hyperthermia in the war against cancer
 Chang W. Song
- Sponsored by YAMAMOTO VINITA CO., LTD.*
- 12:00 – 13:00 **Luncheon Seminar 1**
Clinical Practice and Studies on Oncothermia Therapy
 Chairs: Andras Szasz, Yasunori Akutsu
- LS1-1**
 Oncothermia in clinical practice
 Andras Szasz
- LS1-2 (no abstract)**
 A phase I / II study of EHY-2000 oncothermia therapy for advanced esophageal cancer
 Yasunori Akutsu

LS1-3 (no abstract)

Preliminary report of the prospective randomized controlled trials: Evaluating a new modality of locally advanced breast cancers treatment and advanced stage hepatocellular carcinoma (HCC) by loco-regional hyperthermia

Thanasitthichai Somchai

LS1-4 (no abstract)

Current status of oncothermia therapy in Korea

Joon H. Kim

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13:15 – 14:00 **JSTM General Meeting with Award Ceremony** (*Japanese*)

日本ハイパーサーミア学会 活動報告会および授賞式

14:00 – 15:00 **JSTM Educational Lecture** (*Japanese*)

日本ハイパーサーミア学会 教育講演

座長：加藤 博和

EL-1

子宮頸癌の放射線温熱療法の臨床

播磨 洋子

EL-2

ハイパーサーミアの生物作用：温熱誘導分子損傷

高橋 昭久

EL-3

ハイパーサーミアにおける物理・工学の基礎

伊藤 公一

15:00 – 17:00 **Workshop 2**

Development of the New Modality in Hyperthermic Cancer Therapy

Chairs: Kagayaki Kuroda, Tzyy-Leng Horng

WS2-1

Combination therapy with low dose chemotherapy and regional hyperthermia for the treatment of progressive renal pelvis carcinoma

Kosuke Ueda

WS2-2

rAd-p53 hepatic arterial infusion (HAI) with thermo-chemotherapy for unresectable liver carcinoma

Shan-wen Zhang

WS2-3

Spiruchoustatin-B, a novel histone deacetylase inhibitor enhanced apoptosis induced by hyperthermia

Mati Ur Rehman



WS2-4

Enhancement of hyperthermia-induced cancer cell killing by withaferin A,
— Implication for cancer therapy —

Zheng-Guo Cui

WS2-5

Effect of administering bevacizumab combined with mild temperature hyperthermia in neutron capture therapy on local tumor control and lung metastasis

Shin-ichiro Masunaga

WS2-6

Magnetically-engineered superparamagnetic nano-theranostic agents with exceptionally high AC heat induction and r2-relaxivity

Bae Seongtae

WS2-7

Investigations towards the role of controllable therapeutic parameters for nanoparticle assisted thermal therapy for cancer

Sanjeev Soni

WS2-8

Signal processing for noninvasive temperature imaging of fat using spin-lattice relaxation time of proton magnetic resonance

Shuhei Morita

WS2-9

Numerical analysis of coupled effects of pulsatile blood flow and thermal relaxation time during thermal therapy

Tzyy-Leng Horng

WS2-10

Effects of effective tissue thermal conductivity and pulsatile blood flow in large vessels on thermal dose distributions during thermal therapy

Tzu-Ching Shih

17:00 – 18:15

Award Lecture

The ASHO Award

Chair: Hiroyuki Kuwano

The present state of hyperthermia in Japan, and by what kind of way should we progress from now on?

Satoshi Kokura

The JSTM Award

Chair: Koichi Ito

Hyperthermia for oral cancer — Basic principles and clinical applications —

Iwai Tohnai

The Young Investigator Award of JSTM

Chair: Koichi Ito

Study on practical application of microwave antenna for treatment of bile duct carcinoma

Kazuyuki Saito

Excellent Paper Award

Chair: Akihisa Takahashi

Novel strategy for ultrasound diagnostics and therapeutics using micro/nanobubbles
— Development of hyperthermia for cancer with liposomal nanobubbles —

Ryo Suzuki

September 5 (Fri.) Room 2

12:00 – 14:00 **Thermotron Users' Meeting (Japanese)**
サーモトロンユーザーズミーティング

座長: 今田 肇

りんくう出島クリニックでの温熱療法ハイパーサーミアの取組みと工夫

大木 幸治

温熱療法室における取組み及び技術的工夫

佐藤 光幸

ハイパーサーミア治療における心理学的側面の応用について

森 信二

新札幌恵愛会病院におけるハイパーサーミアの現状

諸澤 英之

戸畑共立病院のハイパーサーミアについて

大田 真

Sponsored by YAMAMOTO VINITA CO., LTD.

15:00 – 17:00 **Workshop 3**
Future Activities regarding NHI Point of Hyperthermia (Japanese)
ハイパーサーミア診療報酬の現状と問題点
— その改定に関する経緯と今後の活動について —

座長: 田中 良明

WS3-1

社会医療診療行為別調査からみる日本のハイパーサーミアの現状

黒崎 弘正

WS3-2

我が国のハイパーサーミアと診療報酬の現状

寺嶋 廣美

WS3-3

保険適応後に蓄積されたハイパーサーミアの臨床試験から得られたエビデンス

大栗 隆行

WS3-4

松山西病院における温熱療法治療の現状

俊野 昭彦



WS3-5

術中温熱腹膜還流 hyperthermic intraoperative intraperitoneal chemotherapy (HIPEC) の有効性のエビデンスと世界の保険支払いの状況

米村 豊

September 6 (Sat.) Room 1

9:00 – 10:00 **Workshop 1-1**

Hyperthermia: Up to Date in Asia – Oncothermia –

Chairs: Takashi Kondo, Taesig Jeung

WS1-1-1

Modulated electro-hyperthermia applied as monotherapy for various cases having no other options

Taesig Jeung

WS1-1-2

Modulated electro-hyperthermia therapy combined with gold-standard therapies for primary, recurrent and metastatic sarcomas

Ji Hoon Choi

WS1-1-3

Can modulated electro-hyperthermia (mEHT) elicit immune reaction? – From basic and clinical research –

Yasunori Akutsu

WS1-1-4

Dialectics of hyperthermia and oncothermia: development through negation

Sergey Roussakow

WS1-1-5

Suppression of human cancer cell growth in *vitro* by oncothermia

Hee Bum Yang

10:00 – 12:00 **Workshop 1-2**

Hyperthermia: Up to Date in Asia – Clinical Case Reports and Biology –

Chairs: Hideyuki Sakurai, Takayuki Asao

WS1-2-1

Multidisciplinary treatment for border line unresectable pancreatic body cancer

Makoto Murakami

WS1-2-2

Hyperthermia in locally advanced head & Neck Cancer – A retrospective analysis

Nagraj G. Huilgol

WS1-2-3

Long-term results of second-look operation following radio-hyperthermo-chemotherapy for unplanned excision of soft tissue sarcoma

Katsuhiko Hayashi

WS1-2-4

Impact on histologic effect of neo-thermo-chemoradiotherapy for rectal cancer

Hisanori Shoji

WS1-2-5

A phase III clinical trial: combination of radiotherapy and chemotherapy with vs. without hyperthermia for patients with advanced cervical cancer

Yoko Harima

WS1-2-6

Gastric cancer surgery and hyperthermic intraperitoneal chemotherapy (HIPEC) for scirrhus gastric cancer

Satoshi Murata

WS1-2-7

Usefulness of an operation under laparoscopy as neoadjuvant chemotherapy to appendix origin pseudomyxoma peritonei

Kousuke Noguchi

WS1-2-8

Clinical study of intraperitoneal hyperthermic perfusion chemotherapy in combination with intravenous chemotherapy for the treatment of advanced-stage gastric carcinoma

Shenglin Ma

WS1-2-9

The immunologic hyperthermia to the advanced gastric cancer patient who refused the standard chemotherapy

Satoshi Kokura

WS1-2-10

Heat-sensitization of human cancer cells by HR inhibitor B02 but not NHEJ inhibitor NU7026

Akihisa Takahashi

12:15 – 13:15 **Luncheon Seminar 2**

The Latest Therapy for Peritoneal Metastasis

Chair: Kanji Katayama

LS-2

The latest therapy for peritoneal metastasis

Yutaka Yonemura

Sponsored by SEIREN CO., LTD.

13:30 – 15:30 **Symposium 1**

Hyperthermic Effects of HIPEC on Peritoneal Surface Malignancies

Chairs: Yutaka Yonemura, Yan Li, Mao-Chih Hsieh

S1-1

Cytoreductive surgery and hipec experience for peritoneal metastases in Turkey after education for peritoneal malignancies in Japan

Emel Canbay

S1-2

Laparoscopic hyperthermic intraperitoneal chemotherapy for advanced gastric cancer with peritoneal carcinomatosis



Masumi Ichinose

S1-3

Laparoscopic hyperthermic intraperitoneal chemotherapy (LHIPEC) for stomach cancer patients with peritoneal carcinomatosis

Chai Young Lee

S1-4

CRS + HIPEC improves survival for patients with colorectal peritoneal carcinomatosis: A phase II study from a Chinese center

Chao-Qun Huang

S1-5

HIPEC is effective for peritoneal dissemination of colon cancer and MUC2 protein expression status is a useful indicator

Takanori Goi

S1-6

Cytoreductive surgery combined hyperthermic intraperitoneal chemotherapy for pseudomyxoma peritonei treatment- experience in Taiwan

Chang-Yun Lu

S1-7

Hyperthermic intraperitoneal chemotherapy for patients with pseudomyxoma peritonei undergoing incomplete cytoreductive surgery

Yang Liu

S1-8

Cytoreductive surgery combined hyperthermic intraperitoneal chemotherapy for peritoneal superficial malignancy- experience in Thailand.

Thawatchai Akaraviputh

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15:30 – 15:45 **Closing Ceremony**

16:00 – 17:30 **Extension Course of Hyperthermia for General Public** (*Japanese*)

市民公開講座

「温熱療法（ハイパーサーミア）は、がん治療の鍵」

司会：阿部 光幸

1. 残されたがんの治療 —安心・安全なハイパーサーミアの応用

寺嶋 廣美

2. ハイパーサーミアがん治療法のしくみ

大西 武雄

3. 福井県におけるがん温熱療法の実際

片山 寛次

September 6 (Sat.) Room 2

9:00 – 12:15 **Poster/Short-Oral Presentation**

GSE1-43 (*English*) and **GSJ1-6** (*Japanese*)

GSE1

Mechanism of hyperthermia in magnetic nanoparticles

G. Vallejo-Fernandez

GSE2

Development of combination therapy with cisplatin and hyperthermia generated with ferucarbotran (Resovist) in an alternating magnetic field for oral cancer

Itaru Sato

GSE3

A Combination therapy with hyperthermia and IL-13 cytotoxin for human oral cancer cells

Makiko Okubo

GSE4

Carcinostatic activities of L-ascorbic acid and its derivatives combined with a capacitive-resistive electric transfer (CRet) hyperthermic apparatus

Ryoko Asada

GSE5

Molecular mechanisms of hyperthermia-induced apoptosis enhanced by romidepsin (FK228)

Paras Jawaid

GSE6

Short-time focused ultrasound hyperthermia enhances liposomal doxorubicin delivery and anti-tumor efficacy for brain metastasis of breast cancer

Sheng-Kai Wu

GSE7

Heating properties of coaxial needle applicator made of SMA for brain tumor hyperthermia treatment with 3-D anatomical human head model

Kazutoshi Shibafuji

GSE8

Resonant cavity applicator with ultrasound monitoring system

Keito Nakamura

GSE9

Heating properties of resonant cavity applicator for treating osteoarthritis

Takuma Matsushita

GSE10

Does the success of hyperthermia depend on the heating-method?

Andras Szasz

GSE11

Thermal lesion deflection of blood vessel on the thermal lesion formation during radio-frequency ablation for liver tumors

Huang-Wen Huang



GSE12

A fast adaptive power scheme using Sentinel Convergence Value, based on temperature and convergence value for optimal hyperthermia treatment

Huang-Wen Huang

GSE13

Pulsed RF heating using MRI

Yoshio Nikawa

GSE14

Microwave focusing using metamaterials

Yoshio Nikawa

GSE15

Temperature distributions with blood perfusion inside artery and vein during hyperthermia treatment

Junichi Nagasawa

GSE16

MRI-compatible testing of dual-curvature high-intensity focused ultrasound phased array transducer

Gin-Shin Chen

GSE17

Oncothermia treatment induced immunogenic cancer cell death - New possibilities for therapeutic cancer vaccine

Gabor Andocs

GSE18

In what kind of advanced or recurrent cancer do immunotherapy and/or hyperthermia show effect?

Tsutomu Takeda

GSE19

The systemic efficacy of combined immunotherapy with oncothermia and intratumoral injection of dendritic cells

Yu-Shan Wang

GSE20

Challenges and perspectives of hyperthermia in oncology

Oliver Szasz

GSE21

Effect of local hypothermia combined with highly active anti-retroviral therapy on the immunologic function of patients with AIDS

Daoke Yang

GSE22

Enhancement of heat sensitivity by depression of homologous recombination repair

Atsuhisa Kajihara

GSE23

Hyperthermia enhances the therapeutic efficacy of cetuximab in human oral squamous cell carcinoma

Tomohiro Iisaka

GSE24

Cytoreductive surgery with hyperthermic intraperitoneal chemotherapy: a case report
Masato Okigami

GSE25

Definitive radiotherapy plus regional hyperthermia for high-risk and very high-risk prostate carcinoma: Thermal parameters correlated with biochemical relapse-free survival

Takayuki Ohguri

GSE26

Peritoneal perfusion of rAd-p53 combined with thermo-chemotherapy for peritoneal carcinomatosis model of advanced cancer (a report of forty-one cases)

Yong-heng Li

GSE27

Effect of hyperthermic intraperitoneal perfusion chemotherapy in combination with intravenous chemotherapy as postoperative adjuvant therapy for advanced gastric cancer

Zhibing Wu

GSE28

Seven cases of pancreatic cancer treated with chemo proton beam therapy and hyperthermia

Takashi Saito

GSE29

A case of long-term survival after intrathoracic perfusion hyperthermo-chemotherapy for pleural dissemination of non-small cell lung cancer

Akitoshi Okada

GSE30

The outcomes of oncothermia with chemotherapy for far advanced lung cancer

Doo Yun Lee

GSE31

Clinical evaluation of thermochemoradiotherapy using retrograde superselective intra-arterial infusion for advanced oral squamous cell carcinoma with cervical lymph node metastases

Masaki Iida

GSE32

Thermochemoradiotherapy using superselective intra-arterial infusion for N3 cervical lymph node metastases of tongue squamous cell cancer

Kenji Mitsudo

GSE33

Successful treatment of N3 cervical lymph node recurrence from oropharyngeal cancer with thermochemoradiotherapy: A case report

Yuta Sekino

GSE34

Preoperative thermochemoradiotherapy using retrograde superselective intra-arterial infusion for locally advanced oral cancer with cervical lymph node metastases

Toshiyuki Koizumi



GSE35

Locally advanced unresected uterine leiomyosarcoma with triple-modality treatment combining radiotherapy, chemotherapy and hyperthermia

Akiko Shinagawa

GSE36

Conversion of chemo-sensitivity by adding electro-hyperthermia in recurrent endometrial cancer: A case report

Yun Hwan Kim

GSE37

Clinical effectiveness of recombinant adenovirus-p53 combined with hyperthermia in advanced soft tissue sarcoma (a report of 30 cases)

Shao-wen Xiao

GSE38

Effects of a shower bathing or whole body bathing on HSP70 induction of the bathing after that

Youko Itoh

GSE39

Mixed response to TS-1 and oncothermia in an esophageal cancer patient with lung metastases: Case report

Joon H Kim

GSE40

Analysis of respiratory-induced deformation and translation of liver using branching structure of portal vein observed by MR imaging for HIFU

Tatsuhiko Matsumoto

GSE41

Feasibility of noninvasive magnetic resonance thermometry of the knee joint under thermal therapy

Atsushi Shiina

GSE42

Enhancement of hyperthermia-induced apoptosis by isofraxidin in human lymphoma U937 cells

Peng Li

GSE43

P53 gene therapy combined with whole body hyperthermia and local hyperthermia

Akira Takeuchi

GSJ1

Anti-tumor and anti-invasive effects of diverse delta- and gamma-lactones and the combined hyperthermia

Kazuki Hara

GSJ2

Trial of treatment-standardization; similar quality of treatment of hyperthermia by "Thermotron RF-8"

Koji Sugawara

GSJ3

Correlation between complications induced by [Thermotron RF-8] and physical status

Kazuki Jinbo

GSJ4

Trial of prevention for complications induced during "Thermotron RF-8" treatment

Satoshi Suda

GSJ5

Evaluation on heating characteristics of multiple coaxial-slot antenna as a feeding probe of metallic stent for bile duct carcinoma

Erika Yashima

GSJ6

Effects of laser radiation on HeLa cells using diode laser (ADL-20)

Kouki Tadai

13:30 – 15:30 **Poster/Short-Oral Presentation**

GSJ7-35 (*Japanese*)

GSJ7

Capacitive coupling-type hyperthermia treatment method combined with wireless energy transmission system; Measurement of temperature with transmission power of 1 W

Kenji Shiba

GSJ8

Hyperthermia-induced tumor-specific T-cell immunity and its role in the therapeutic efficacy of hyperthermia

Ken Ando

GSJ9

Treatment of advanced castration resistant prostate cancer with multiple metastases by regional hyperthermia under thermosensitization with Parthenolide: A case report

Hisaya Shiozaki

GSJ10

Retrospective analysis of hyperthermia therapy in 47 case of unresectable pancreatic cancer

Yoshiyuki Yanai

GSJ11

The effect and benefit of hyperthermia therapy combined with chemotherapy and/or hormonal therapy for breast cancer patients with liver metastasis

Rika Fukui

GSJ12

Treatment with hyperthermic intraperitoneal chemotherapy for pseudomyxoma peritonei arising from appendix, Report of 3 cases

Tsuyoshi Yamaguchi



GSJ13

Colon cancer with peritoneal dissemination and lung metastasis, survived for 22months received multidisciplinary treatment: A case report

Mitsuhiro Morikawa

GSJ14

Two cases of rectal cancer with urinary bladder invasion treated with chemo-hyperthermia and radiotherapy surviving with complete response (CR)

Yuko Higuchi

GSJ15

Chemo-hyperthermia with hyperbaric oxygen therapy for stage IVb pancreatic cancer

Tomoaki Morioka

GSJ16

Preliminary result of hyperthermochemoradiotherapy using IMRT and capecitabine for advanced low-rectal cancer

Yosuke Takakusagi

GSJ17

Combination therapy combining low dose chemotherapy and regional hyperthermia for the treatment of castration-resistant prostate carcinoma

Kosuke Ueda

GSJ18

Two cases of small cell lung cancer (SCLC) treated with multidisciplinary treatment surviving with good disease control

Shin Ohta

GSJ19

Long-term outcomes of hyperthermic treatment combined with chemotherapy for patients with residual or recurrent esophageal cancer after definitive chemoradiotherapy

Sho Nishimura

GSJ20

Sequential boost HCRT using IMRT after conventional 3DCRT for cervical esophageal squamous cell carcinoma: Pilot experience in 6 patients

Makoto Sakai

GSJ21

Re-irradiation with hyperthermia in patients with recurrent tumor

Hiromasa Kurosaki

GSJ22

Two cases of myxofibrosarcoma treated with radiohyperthermochemotherapy (RHC)

Satoshi Yamada

GSJ23

Chemoradiotherapy combined with hyperthermia and hyperbaric oxygen therapy for three cases of malignant fibrous histiocytoma (MFH)

Yoshinori Tomoda

GSJ24

A fundamental study for the mechanism of cell death by special effects of microwave

Mamiko Asano

GSJ25

Change of QOL and stage of cancer progression for patients getting long-term hyperthermia treatment

Hideyuki Morosawa

GSJ26

Usefulness of pat and jelly in hyperthermia

Mai Ito

GSJ27

Hyperthermia as an effective alternative treatment for advanced cancers refractory to conventional therapies

Hiroshi Terunuma

GSJ28

Numerical evaluation on heating characteristics of microwave forceps with cutting blade

Yuta Endo

GSJ29

Evaluation on heating performances of microwave forceps for biological tissue coagulation

Kazuyuki Saito

GSJ30

Hyperthermia and team medical treatment

Keishi Takeda

GSJ31

Improvement of heating methods of hyperthermia under daily clinical practice by team medical care

Rumiko Yamada

GSJ32

Investigation of thermal efficiency in measures of hot spot with hyperthermia

Kaname Oka

GSJ33

Noninvasive temperature measurement during acupuncture treatment using MRI

Suguru Nakamura

GSJ34

BAG3 acts protectively against hyperthermia-induced apoptosis through modulation of nuclear factor kappa B activity in human retinoblastoma Y79 cells

Tatsuya Yunoki

GSJ35

Effects of whole-body heat treatment on T cell-mediated immune response in cancer patients

Yusuke Ito



15:45 – 17:45 **HIPEC Training Course** (*Japanese*)
HIPEC トレーニングコース

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|----------------------------|-------|
| 1. Thermal Dose と輸液管理 | 片山 寛次 |
| 2. 腹腔鏡の役割 | 平野 正満 |
| 3. LHIPEC の方法 | 一瀬 真澄 |
| 4. 術後合併症十対策 | 水本 明良 |
| 5. 温熱療法の適応 | 米村 豊 |
| 6. 腹膜播種に対する包括的治療を立ち上げる際の要点 | 鍛 利幸 |
| 7. HIPEC と CRS に有用な手術機器 | 寺下 義一 |