



Winter Issue - 2020

# NEWSLETTER



**Indian Association for Hyperthermic Oncology and Medicine - IAHOM**

**Editor: Dr. Gopal Pemmaraju**

**Dr. Ramesh Billimagga**  
**President's Note**

## A ROAD LESS TRAVELLED



My memory takes me to the days, when I was working as Registrar in Radiology in 1980's. At that time there was a conference at Madras (now Chennai) and organizers had arranged education tour for delegates. We were taken to Adyar Cancer Centre, Madras. For the first time I saw a Hyperthermia machine which was used for treating cancer patients. This is was my first introduction to Hyperthermia in Cancer. Since then, for the past 30-40 its progress in user of hyperthermia is very tardy. Even today we have only 2 centers in India using this machine.

I was wondering why is it? Not that Hyperthermia does not work in cancer. There are good numbers of scientific material available to show its efficacy. Still, it remains as an orphan child. Kudos to Dr. Nagraj Huligol from Nanavati Hospital who kept this science alive all these years in India.

To give a proper structure Hyperthermic Society was formed by few like-minded oncologists and scientists and started conducting biennial conferences in the recent past. The society got registered recently and carrying out its said objectives. Last year I was elected as President for this society. Because of the unprecedented COVID-19 Pandemic, no activities were carried out thereafter. This year we have an ambitious plan of giving this science a new life and make it known among practicing oncologists.

Few plans envisaged are starting of website and digital new letter of our society. Preparing treatment guidelines and protocol for using hyperthermia. Approaching various Oncology institutions to start hyperthermia section in their center. Requesting various Insurance providers to recognize and re-embrace the hyperthermia treatment charges. Request various Govt scheme to include hyperthermia in their tariff list. Request our parent body AROI to have one session on hyperthermia during their national conference. Finally, to conduct CME's to propagate the use of Hyperthermia.

The first step in this direction is starting of this newsletter. I wish the editor Dr. Gopal Pemmaraju & the editorial committee good luck in starting their newsletter.

Prof. Ramesh S Bilimagga, President, IAHOM

Welcome to the winter session issue of Indian association of Hyperthermic Oncology and Medicine (IAHOM). I express my gratitude to all the participants for making Eleventh Biennial Conference of the IAHOM held in Mumbai on 15th & 16th February 2020 a great success. It was very exciting to have a glimpse of extensive research being carried out in the field of Hyperthermia and Medicine during the conference.

There is a wide scope for research and practice of hyperthermia in the treatment of a broad range of diseases. Integration of engineering expertise and molecular biology into hyperthermia gives a ray of hope in the management of many clinical conditions which have been thought to be incurable. Though historically hyperthermia yielded good results in the treatment of many diseases, there is a boundless room for new strategies to be inculcated into this field. Research in hyperthermia has always been challenging and inputs from multidisciplinary scientists would help in attaining greater heights.

With the mammoth work done by great scholars, IAHOM has achieved global appreciation. I thank all the dignitaries for taking forward hyperthermia as a mode of treatment and encouraging research. I wish all the members and researchers take active participation and make insight knowledge of hyperthermia useful to mankind.

**11<sup>th</sup> Biennial Conference of IAHOM (15<sup>TH</sup> & 16<sup>TH</sup> February 2020)**



**Sponsors**

**varian**



## REPORT OF 11<sup>TH</sup> BIENNIAL CONFERENCE OF IAHOM HELD IN MUMBAI, 2020

The eleventh biennial conference of Indian Association of Hyperthermic Oncology and Medicine was organized in Mumbai between 15th and 16th February 2020. It was co-sponsored by Society for Cancer Research and Communication besides Nanavati Super Specialty Hospital. In the past conference have been organized in Puri, Patna, Bangalore and Nepal. The main objective has been to promote the idea of hyperthermic Oncology in India. India has travelled some distance since the first RF based Thermatron, was established in Chennai in the late eighties. There were efforts to bring in the technology by enterprising vendors like Mr. Mayur Amin from Mumbai and physicist of eminence Mr. Bhudata Paliwal and Mr. Srivastava of USA also did their best for establishing hyperthermia in India. Lack of easy access to technology has been a main challenge since the inception. Not much has changed since then. Strangely, manufacturers of equipment's for Hyperthermia have not set up shops here in India a country which now boasts of 'Proton', facilities and high-end linear accelerators even in small towns. IAHOM has been involved in keeping the hope of propagating hyperthermic oncology alive in India.

The meeting which was held between 15th and 16th February 2020 in the auditorium of Nanavati Hospital was well attended. The orations were scheduled on the first day. Both the days were well attended. Topics included clinical trials, instrumentation, HIPEC, HT in Veterinary practice, and thermal biology. India was well represented from IIT Madras, BARC, and Nanavati Hospital.

Dr. Nagraj G. Huilgol

### Sponsors



### ORATIONS





## ORATIONS

### **Prof.T.Sughara Oration**

Dr. Sanket Mehta delivered the oration.

Dr.Avinash Deo handing over the citation



### **Prof. Milton Yatwin memorial Oration**

Dr. Vujaskovic Zeljko delivered the oration.

Dr. Sanjay Dudhat handing over the citation.



### **Dr. B. B. Singh Oration**

Prof. Andras Szasz delivered the oration.

Dr. Gopal Pemmaraju handing over the  
citation

## PRESENTATIONS

### **Texrad an oracle for prognosis of cancer.**

Dr. Nagraj G. Huilgol, Chief Radiation Oncologist, Nanavati Super Specialty Hospital, Mumbai, India

### **Modulated Electro- Hyperthermia towards the Immunogenic hyperthermic action.**

Andras Szasz, Department of Biotechnics, St. Istvan University, Hungary, Chief Science Officer (CSO), Oncotherm GmbH/Kft., Hungary/Germany.

### **Evolution of magnetic hyperthermia for cancer therapy: past, present and future prospective.**

Ruby Gupta and Deepika Sharma, Research Scholar, Institute of Nano Science and Technology, Mohali, India.

### **Iron oxide based magnetic nano- formulations for improvement of cancer radiotherapy.**

Neena G. Shetake, Amit Kumar and B. N. Pandey, Radiation Biology and Health Sciences Division, Bhabha Atomic Research Centre, Mumbai, India.

### **On the development of 434 MHz phased array applicator for hyperthermia treatment of locally advanced breast cancer.**

Divya Baskaran and Kavitha Arunachalam, Department of Engineering Design, Indian Institute of Technology Madras, Chennai, India.

### **Report on the addition of modulated electro- hyperthermia to chemoradiotherapy for HIV- positive/ negative cervical cancer patients in South Africa.**

CA Minnaar, JA Kotzen, A Baeyens, University of the Witwatersrand, Department of Radiobiology, South Africa, Wits Donald Gordon Academic Hospital, South Africa, University of Ghent, Department of Human of Structure and Repair, Corneel Heymanslaan ,Belgium.

### **Experimental feasibility of ultrasound guided microwave hyperthermia treatment delivery.**

Divya Baskaran, Ali Arshad Kothawala, Arun Kumar Thittai and Kavitha Arunachalam, Department of Engineering Design, Department of Applied Mechanics, Indian Institute of Technology Madras, Chennai, India.

### **Intracavitary tandem applicator for sequential delivery of microwave hyperthermia and HDR brachytherapy.**

Shabeeb Ahamed KP and Kavitha Arunachalam, Department of Biotechnology, Department of Engineering Design, Indian Institute of Technology Madras, Chennai, India.

### **Role of focused Ultrasound heating in nanoparticle - based cancer chemo immunotherapy.**

Ashish Ranjan, Associate Professor and Endowed Chair, Centre for Veterinary Health Sciences, Oklahoma State University, 90 SU

### **Chemoradiation with hyperthermia in the treatment of head and neck Cancer.**

Gopal Pemmaraju, Department of Advanced center for Radiation Oncology, Nanavati Super Specialty Hospital, Mumbai. India.

### **Hif-1 $\alpha$ : Key promotor of malignant progression, central driver of metabolic reprogramming, and putative role in hyperthermia treatment.**

P. Vaupel, Department of Radiation Oncology, Medical Center, University of Freiburg, Germany.



## **The evidence so far, An appraisal of clinical trials.**

Jigna Bhattacharya, Radiation Oncologist, Ex-Gujarat Cancer and Research Institute, Ahmedabad, India

## **Current clinical status and future direction of hyperthermia in Japan.**

Takayuki Ohguri, Department of Therapeutic Radiology, University Hospital of Occupational and Environmental Health, Japan.

## **Comparative evaluation of heating technologies currently available in the clinic.**

H. Crezee and H.P. Kok, Department of radiation Oncology, Amsterdam University Medical Center, University of Amsterdam, Cancer Center, Amsterdam, The Netherlands.

## **High Intensity Focused Ultrasound (Hifu) for Prostate Cancer – Current status and future directions.**

Vivek Venkat, Consultant Urosurgeon, Nanavati Super Specialty Hospital, Mumbai. India.

## **Hypercollar for hyperthermia in head and neck cancer.**

G.C. van Rhoon, G.G. Bellizzi, K. Sumser, T. Drizdal, J.A. Hernandez-Tamames, M.M. Paulides, Erasmus MC Cancer Institute, Rotterdam, The Netherlands

## **Results OF randomized trials comparing treatments with or without hyperthermia.**

J. van der Zee and O.K. Kurpeshev, Erasmus MC Cancer Institute, Rotterdam, The Netherlands Tsyb Medical Radiological Research Center, Obninsk, and Siberian Scientific Research Institute of Hyperthermia, Novosibirsk region, Russia.

## **Potential of Low Dose Re – irradiation combined with preceding water - filtered infrared hyperthermia: Even repetition is possible.**

M. Notter, A.R. Thomsen, P. Vaupel, Department of Radiation Oncology, Lindenhofspital Bern, Bern, Switzerland  
Department of Radiation Oncology, Medical Center, University of Freiburg, Freiburg, Germany ,German Cancer Consortium (DKTK), Partner Site Freiburg and German Cancer Research Center (DKFZ), Heidelberg, Germany

## **Hyperthermia's benefits in the portfolio of Cancer Therapies with the focus on enhancing immunological therapies (Including Checkpoint Inhibitors / CarT).**

Martin Roesch, University Mannheim, Germany.

## **Alba hyperthermia technologies: New era of Hyperthermia in cancer treatment.**

P. Pavoni. Oly, Alba, Italy.

## **Integration of pencil beam scanning proton therapy and hyperthermia: The University of Maryland clinical experience.**

Z. Vujaskovic, D.B. Rodrigues, E. Nichols, J.W. Snider, J.K. Molitoris, Department of Radiation Oncology, University of Maryland School of Medicine, Baltimore, MD, USA.

**Forthcoming Events:** IEHO 2021. 13th International Congress of Hyperthermic Oncology, 6th – 9th October 2021.

### **Who to Contact**

Conventus Congressmanagement & Marketing GmbH  
Carl-Pulfrich-Straße 1  
07745 Jena, Germany  
[www.conventus.de](http://www.conventus.de)

Registration  
Mandy Wagner  
Phone +49 3641 31 16-160  
[registrierung@conventus.de](mailto:registrierung@conventus.de)

Project Manager  
Phone +49 3641 31 16-319  
Fax +49 3641 31 16-243 / [icho@conventus.de](mailto:icho@conventus.de)

Abstracts  
Stefan Regge  
Phone +49 3641 31 16-161  
[abstract@conventus.de](mailto:abstract@conventus.de)

## Indian Association of Hyperthermic Oncology and Medicine 2020 to 2021

### Office Bearers

1	President	Dr. Ramesh Billimagga	Bangalore	9845365315	<a href="mailto:billimaga@gmail.com">billimaga@gmail.com</a>
2	President Elect	Dr. J.K.Singh	Patna	94310 21001	<a href="mailto:drjksingh.onco@gmail.com">drjksingh.onco@gmail.com</a>
3	Secretary	Dr. Jigna Bhattachar ya	Ahmedabad	09431077531 08002226696	<a href="mailto:jignabhattacharya@gmail.com">jignabhattacharya@gmail.com</a>
4	Editor	Dr. Gopal Pemmaraju	Mumbai	77150 47069	<a href="mailto:drgpsubha@gmail.com">drgpsubha@gmail.com</a>
5	Treasurer	Mr. Anand Parab	Mumbai	9619532352	<a href="mailto:anand.parab@nanavatihospital.org">anand.parab@nanavatihospital.org</a>
6	Joint Secretary	Dr. Sapna Gupta	Varanasi	9453552070	<a href="mailto:drsapna@18yahoo.co.in">drsapna@18yahoo.co.in</a>

### EC Members

1	Dr. Digpal Dharkar	Indore	9826050022	<a href="mailto:digpaldharkar@gmail.com">digpaldharkar@gmail.com</a>
2	Dr. Shyam K Srivastava	Mumbai	9821054779	<a href="mailto:shyamshrivastava@gmail.com">shyamshrivastava@gmail.com</a>
3	Dr. B.N.Pandey	Mumbai	9869872243	<a href="mailto:bnp@barc.gov.in">bnp@barc.gov.in</a>
4	Dr. Kavita Arunachalam	Chennai	-	<a href="mailto:akavitha@iitm.ac.in">akavitha@iitm.ac.in</a>
5	Dr. P. S.Sridhar	Bangalore	9886554972	<a href="mailto:docsridharps@gmail.com">docsridharps@gmail.com</a>

1	Patron	Dr. Nagraj G Huilgol	9820450969	<a href="mailto:nagrajhuilgol@gmail.com">nagrajhuilgol@gmail.com</a>
---	--------	----------------------	------------	--

### Past Presidents

1	Dr. Nagraj G Huilgol	9820450969	<a href="mailto:nagrajhuilgol@gmail.com">nagrajhuilgol@gmail.com</a>
2	Dr. Shyam K Srivastava	9821054779	<a href="mailto:shyamshrivastava@gmail.com">shyamshrivastava@gmail.com</a>
3	Dr. J.K.Singh	94310 21001	<a href="mailto:drjksingh.onco@gmail.com">drjksingh.onco@gmail.com</a>
4	Dr. Ramesh Billimagga	9845365315	<a href="mailto:billimaga@gmail.com">billimaga@gmail.com</a>
5	Dr. Rakesh. K. Vyas	9898284498	<a href="mailto:Vyas.rk@gmail.com">Vyas.rk@gmail.com</a>



## MEMBERSHIP FORM

Indian Association for Hyperthermic Oncology and Medicine

**Name:-**

**Sex:-**

**Affiliation:-**

**Specialty:-** 1. Doctor 2. Physicist 3. Engineer 4. Biologists 5. Trade

**Email:-**

**Address:-**

**Postal:-**

**Permanent:-**

**Phone No:-**

**Office No:-**

**Type of Membership fees;**

**Full -** ₹ 4000 - Life Membership and  
₹ 1200 - Annual Membership

**Associate -** ₹ 3000 - Life Membership

**Trade -** ₹ 6000 Annual Membership

**Please mail your application to with a crossed cheque in favor of 'Indian Association of Hyperthermic Oncology and Medicine'. or transfer to this account.**

**Central Bank of India,**

**TMC hospital branch,**

**Parel,**

**Mumbai**

**IFSC code: CBIN0284241,**

**account #: 1002418587,**

**Office:**

Dr. Nagraj Huilgol, Chief, Radiation Oncologist

Centre for Hyperthermic Oncology & Medicine, Dr. Balabhai Nanavati Hospital, SV Road,  
Vile Parle, West, Mumbai - 400 056

Tel: 022/ 26267692

Email of correspondence: [nagrajhuilgol@gmail.com](mailto:nagrajhuilgol@gmail.com)