Editors’ awardees for 2022

Editor in Chief’s comments

Each year, the Editors of the Journal examine papers that were nominated for The Editors’ Awards. These prestigious awards come with a cash prize (approximately $750) plus an award certificate and official recognition in the Journal for their scientific contribution. We had 50 nominations this year, which speaks to the continuing interest in publishing in the Journal.

This year, we selected Editors to review the manuscripts for the Editors’ Awards, based on the broad subjects of the papers. We asked Editors to consider novelty and impact as the main criteria to base their prioritization on. Scores from participating Editors were averaged to obtain the final ranking. Thanks to the following Editors, who gave of their time to provide us with assessments of the papers: Drs. Inman, LeBlang, Filippiadis, Ziemlewicz, Wust, Oghuri, Haemmerich, Stauffer, Diederich, Prakash, Kuroda, Repasky, and Dewhirst.

Eligibility: Any first or senior author who is less than 35 years of age at the time of the manuscript submission is eligible to nominate themselves for this award. This is done during the on-line manuscript submission process.

Winner in Physics/Engineering

Lukas Sebeke, PhD. Visualization of Thermal Washout due to Spatiotemporally Heterogenous Perfusion in the Application of a Model-based Control Algorithm for MR-HIFU Mediated Hyperthermia; DOI: 10.1080/02656736.2021.1933616

Lukas Sebeke received his master’s degree in physics in 2015 from the University of Stuttgart in Stuttgart, Germany. Soon after, he started his career in biomedical engineering as a PhD candidate at the Eindhoven University of Technology, Eindhoven, the Netherlands. Under the guidance of Dr. Edwin Heijman and Dr. Holger Grull, Lukas worked toward the clinical translation of combination therapies of hyperthermia-mediated drug delivery and thermal ablation for therapy-resistant pancreatic tumors. This entailed a feasibility study of thermal ablation in the porcine pancreas using Magnetic Resonance-guided High Intensity Focused Ultrasound (MR-HIFU) (doi: 10.1080/02656736.2020.1782999), the development and in-vivo validation of a model-predictive control algorithm for MR-HIFU hyperthermia treatments (doi: 10.1080/02656736.2019.1668065 and 10.1080/02656736.2021.1933616), and a drug delivery study in pigs using liposomal doxorubicin and the aforementioned model-based control algorithm (doi: 10.1016/j.jconrel.2022.02.003).

Lukas obtained his PhD in October 2020 and is currently working as a postdoc in the Experimental Imaging and Image-guided Therapy research group of Dr. Holger Grull at the University Hospital of Cologne in Cologne, Germany. The most important results of his research thus far are an analysis of different factors that influence the success of HIFU ablation in the porcine pancreas, the visualization of the thermal washout by individual blood vessels during MR-HIFU hyperthermia treatments, and a model-based analysis of the correlation between the exposure of tissue to locally released doxorubicin and doxorubicin accumulation in tissue during local drug delivery treatments. His current research further focuses on the clinical translation of MR-HIFU treatments for pancreatic cancer as well as MR-HIFU hyperthermia-mediated drug delivery. Perspectives for the future involve the acquisition of funding for the pursuit of promising MR-HIFU hyperthermia-related research avenues that Lukas identified during his PhD candidacy as well as facilitating closer collaboration of the research group with industrial partners to accelerate the clinical adoption of MR-HIFU treatments for new indications.

Winner in Medicine

Houyu Ju, MD. A multicenter randomized phase II trial of hyperthermia combined with TPF induction chemotherapy compared with TPF induction chemotherapy in locally advanced resectable oral squamous cell carcinoma: DOI: 10.1080/02656736.2021.1937714

Dr. Ju completed his MD at Shanghai Jiao Tong University of Medicine. During his MD training, Dr. Ju collaborated with Shanghai Med-X Engineering Center for Medical Equipment and Technology affiliated to Shanghai Jiao Tong University to help in developing an ultrasound thermotherapy system that was suitable for head and neck cancer. He is currently working as an attending
physician at Department of Oral Maxillofacial-Head and Neck Oncology, Shanghai Ninth People’s Hospital affiliated to Shanghai Jiao Tong University School of Medicine. Since working at Shanghai Ninth People’s Hospital, he has been devoted to basic and clinical research of ultrasound hyperthermia in advanced head and neck malignancies. His current research interest is uncovering the underlying mechanisms of immune microenvironment alterations caused by ultrasound hyperthermia. He anticipates successful combinations of ultrasound hyperthermia and immune checkpoint inhibitors in treatment of head and neck cancer.

Winners in Biology

We had a tie for the best paper in Biology this year. Thus, we have two recipients who will share the monetary prize.

Yan Peng, MD. Insufficient Ablation Promotes the Metastasis of Residual Non-Small Cell Lung Cancer (NSCLC) Cells via Upregulating Carboxypeptidase A4; DOI: 10.1080/02656736.2021.1947530

Yan Peng earned his MD from Shandong University. He is currently working in the Oncology Department of Jinan Central Hospital, Shandong Firt Medical University, Jinan, Shandong, China. He has been practicing in tumor hyperthermia therapy for more than 10 years. He is a member of palliative care of Beijing Cancer Prevention and Treatment Society, the Shandong Province Gerontology and Geriatric Cancer Professional Society, and Secretary of Jinan Medical Association Tumor Intervention Society.

He worked with a visiting fellow, Miyuki Sone, an interventional oncologist in the National Cancer Center, Japan. They pursued research interest in mechanism and prevention of inflammatory reaction caused by tumor hyperthermia. His research is funded by Shandong Provincial Health Commission and Jinan Science and Technology Bureau. He recently won a prize of Jinan Science and technology progress.

Raniv D. Rojo, MD. Combinatorial effect of radium-223 and irreversible electroporation on prostate cancer bone metastasis in mice; 10.1080/02656736.2021.1914873

Dr. Raniv D. Rojo is training to be a physician scientist with broad interests in translational oncologic research. He received his bachelor’s degree in biology from the University of the Philippines Manila in 2011. He is among the initial scholars of a pioneering joint MD-PhD training program in the Philippines that is based in the same university. This program aims to strengthen basic and applied biomedical research for health in the country. Throughout his doctoral training, Raniv has been involved in several fields of medical research including works in infectious diseases, immunology, oncology, and public health.

Dr. Rojo was awarded a grant to pursue training at the University of Texas MD Anderson Cancer Center (Texas, USA) under the supervision of Dr. Marites P. Melancon. The group specializes on utilizing nanoparticles and ablation systems toward a “seek and treat” strategy in the development of targeted imaging/therapeutic agents for tumors. For his doctoral dissertation, Raniv was primarily involved in the development of murine models of prostate cancer bone metastasis and their application as treatment models for combination therapies involving ablation modalities such as irreversible electroporation.

Since returning to the Philippines, Dr. Rojo continues to be involved in a variety of research engagements and is a member of the National Research Council of the Philippines. While finalizing his doctoral thesis, Raniv is also preparing to pursue further medical training in radiation oncology. His exposure to the role of hyperthermia, radiation, and its controlled application in the modulation of the tumor microenvironment has piqued Raniv’s interest in pursuing related research questions in this field.

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