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**Barjor Gimi
Andrzej Krol**
Editors

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- 9 Cancer
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- 10 Imaging Agents
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- 11 Bone and Musculoskeletal
Axel Wismüller, University of Rochester Medical Center (United States)

Introduction

The 2018 SPIE Biomedical Applications in Molecular, Structural, and Functional Imaging conference was held 11–13 February 2018, at the Marriott Marquis Houston, Houston, Texas, United States. We maintained the high participation we saw last year, both in the number of abstracts submitted and in the conference attendees over previous years. Conference Chair Andrzej Krol welcomed Professor Martin Pomper, The John Hopkins Univ. School of Medicine (United States), who delivered an outstanding, insightful keynote address entitled "Imaging biomarkers in precision medicine" that provided an in-depth review on recent advances in in vivo molecular imaging, including a review of imaging biomarkers and precisely targeted theranostic agents for precision medicine.

The diverse sessions included MRI and fMRI, Keynote and Emerging Trends, Neurological Imaging, Cardiovascular Imaging, Novel Imaging Techniques and Applications, Innovations in Image Processing, Optical, Cancer, Imaging Agents, and Bone and Musculoskeletal.

We are grateful to the chairs of sessions: Ciprian N. Ionita, Vikram Kodibagkar, Changqing Li, Armando Manduca, Nicholas J. Tustison, Baohong Yuan, and Axel Wismüller

The poster session was comprised of vibrant discussions. A panel of judges selected "SLIC robust (SLICR) processing for fast, robust CT myocardial blood flow quantification" by Hao Wu, et al., Case Western Reserve Univ. (United States) for the Cum Laude award. The poster "Heart chamber segmentation from CT using convolutional neural networks" by James D. Dormer et al., Emory Univ. (United States), was selected as an Honorable Mention.

Titinunt Kitrungrotsakul, Ritsumeikan Univ. (Japan), was awarded the conference fee waiver for an outstanding paper entitled "Multi-pathways CNN for robust vascular segmentation".

**Barjor Gimi
Andrzej Krol**

2018 Medical Imaging Award Recipients

Robert F. Wagner Best Student Paper Award

Robert F. Wagner was an active scientist in the SPIE Medical Imaging meeting, starting with the first meeting in 1972 and continuing throughout his career. He ensured that the BRH, and subsequently the CDRH, was a sponsor for the early and subsequent Medical Imaging meetings, helping to launch and ensure the historical success of the meeting. The Robert F. Wagner All-Conference Best Student Paper Award (established 2014) is acknowledgment of his many important contributions to the Medical Imaging meeting and his many important advances to the field of medical imaging.



This award is co-sponsored by:



The Medical Image Perception Society

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2018 Recipients:

First Place: **Dynamic beam filtering for miscentered patients** (10573-29)

Andrew Mao, William Shyr, Grace J. Gang, J. Webster Stayman, Johns Hopkins Univ. (United States)

Second Place: **Tumor margin classification of head and neck cancer using hyperspectral imaging and convolutional neural networks** (10576-4)

Martin Halicek, Georgia Institute of Technology (United States) and Augusta Univ. (United States); James V. Little, Xu Wang, Emory Univ. School of Medicine (United States); Mihir Patel, Emory Univ. School of Medicine (United States) and The Winship Cancer Institute of Emory Univ. (United States); Christopher C. Griffith, Emory Univ. School of Medicine (United States); Amy Y. Chen, Emory Univ. School of Medicine (United States) and The Winship Cancer Institute of Emory Univ. (United States); Baowei Fei, Georgia Institute of Technology & Emory Univ. (United States) and The Winship Cancer Institute of Emory Univ. (United States)

