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Barjor Gimi
Robert C. Molthen
Editors

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- 2 Innovations in Image Processing
Armando Manduca, Mayo Clinic College of Medicine (United States)
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- 3 Novel MR Techniques and Applications
Barjor Gimi, Geisel School of Medicine at Dartmouth (United States)
Vikram D. Kodibagkar, Arizona State University (United States)
- 4 Keynote and Neurological Imaging
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- 5 fMRI
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- 6 Optical
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- 7 Fluids and Cardiovascular
Armando Manduca, Mayo Clinic College of Medicine (United States)
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- 8 Cancer Imaging
Vikram D. Kodibagkar, Arizona State University (United States)
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- 9 Lung
Robert C. Molthen, GE Healthcare (United States), Marquette University (United States), and Medical College of Wisconsin (United States)
- 10 Bone
Axel Wismüller, University of Rochester Medical Center (United States)
Robert C. Molthen, GE Healthcare (United States), Marquette University (United States), and Medical College of Wisconsin (United States)

Introduction

The Biomedical Applications in Molecular, Structural, and Functional Imaging conference held at Renaissance Orlando at SeaWorld in Orlando, Florida was a tremendous success. There was a tremendous boost in the number of abstracts submitted and conference attendees over previous years. Chairs Barjor Gimi and Robert Molthen welcomed Daniel Sodickson from New York University, who delivered a visionary and inspiring talk on the renaissance in rapid imaging. The talk highlighted developments in hardware, image acquisition, and reconstruction that spanned multiple modalities and convincingly presented why the medical imaging field was poised for a quantum leap in the area of rapid imaging.

The diverse sessions included Novel Imaging Techniques and Applications; Innovations in Image Processing; Novel MR Techniques and Applications; Neurological Imaging; fMRI; Optical; Fluids and Cardiovascular; Cancer Imaging; Lung; and Bone, along with pleasant lunches and productive coffee breaks. The poster session was lively with numerous posters presenting very high-quality work. The judges selected *Treatment planning for image-guided neuro-vascular interventions using patient-specific 3D printed phantoms* by Megan K. Russ from The University at Buffalo for the poster prize, with honorable mentions for *Simplified correction of B_1 inhomogeneity for chemical exchange saturation transfer (CEST) MRI measurement with surface transceiver coil* by Phillip Zhe Sun of Massachusetts General Hospital, *Investigating the use of mutual information and non-metric clustering for functional connectivity analysis on resting-state functional MRI* by XiXi Wang of University of Rochester Medical Center, and *Automated pipeline to analyze non-contact infrared images of the paraventricular nucleus specific leptin receptor knock-out mouse model* by Myriam Diaz Martinez of Vanderbilt University Medical Center.

Barjor Gimi
Robert C. Molthen

2015 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 cosponsored by:

The Medical Image Perception Society

2015 Recipients:

First Place: **Automatic discrimination of color retinal images using the bag of words approach** (9414-54)

I. Sadek, D. Sidibé, F. Meriaudeau, Univ. of Burgundy (France)

Second Place: **Automated pulmonary lobar ventilation measurements using volume-matched thoracic CT and MRI** (9417-42)

F. Guo, S. Senningsen, E. Bluemke, M. Rajchl, J. Yuan, A. Fenster, G. Parraga, The Univ. of Western Ontario (Canada)

Conference Awards

2015 Recipients:

Cum Laude Poster Award: **Treatment planning for image-guided neuro-vascular interventions using patient-specific 3D printed phantoms** [9417-79]

Megan K. Russ, Ryan P. O'Hara, Swetadri Vasan Setlur Nagesh, Maxim Mokin, Carlos Jimenez, Adnan H. Siddiqui, Daniel R. Bednarek, Stephen Rudin, Ciprian N. Ionita, Univ. at Buffalo (United States)