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Digital Pathology

Metin N. Gurcan
Anant Madabhushi
Editors

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Anant Madabhushi, Case Western Reserve University (United States)

2 Detection, Segmentation
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Brandon D. Gallas, U.S. Food and Drug Administration (United States)

Introduction

This year, 2013, saw the introduction of a new conference on Digital Pathology at the SPIE Medical Imaging Symposium in Lake Buena Vista, FL. Encouraged by the success of a special session on digital pathology which was held in conjunction with the three other conferences at the SPIE Medical Imaging Symposium in 2012, the symposium chairs Drs. Nico Karssemeijer and Joseph Reinhardt approached us to initiate an independent conference on Digital Pathology for the 2013 symposium. We have been organizing several meetings annually since 2007 on this topic in North America and Europe, usually held in conjunction with other conferences and we thought that SPIE Medical Imaging would be a good home for our ongoing meetings. Thus, Digital Pathology became the ninth conference to be included within the SPIE Medial Imaging Symposium. When we reached out to the leading scientists/researchers in this area in academia, government, and industry, they enthusiastically supported this effort. We had 23 people in our program committee.

Although this was the inaugural meeting, we received a relatively large (50) number of submissions to be presented as poster or oral presentations. Each submission was rigorously evaluated for possible inclusion by at least two experienced reviewers from within the program committee. Following the review phase, a total of 36 submissions were accepted (representing an overall acceptance rate of 72%) for inclusion in the conference as either an oral or poster presentation. Based on the reviewer scores assigned to the individual papers, the top 20 were included as oral talks and an additional 16 were selected as poster presentations.

The Digital Pathology conference took place on February 10th and February 11th and began with a keynote presentation by Dr. Akira Saito from NEC Corp. Japan entitled "*Dawn of the digital diagnosis assisting system, can it open a new age for pathology?*". The presentation was very enthusiastically received by a packed audience in attendance. The conference over the course of the two days was heavily attended. The keynote session saw 182 registered participants in in attendance (third highest among all 9 conferences at the symposium). The presented papers covered such diverse topics as color standardization, detection/segmentation, IHC analysis, personalized medicine, computer aided diagnosis, and multimodal image registration with histopathology. The best poster award in the DP conference was awarded to Angel Cruz Roa, Eduardo Romero Castro, and Fabio González Osorio from Univ. Nacional de Colombia (Colombia). The posters by Wei-Chung Cheng, U.S. Food and Drug Administration (United States); Tyler Keay, Neil O'Flaherty, Joel Wang, Adam Ivansky, U.S. Food and Drug Administration (United States); Marios A. Gavrielides, Brandon D. Gallas, Aldo Badano, U.S. Food and Drug Administration (United States); and Masahiro

Ishikawa, Sercan Taha Ahi, Yuri Murakami, Fumikazu Kimura, Masahiro Yamaguchi, Tokyo Institute of Technology (Japan); Tokiya Abe, Akinori Hashiguchi M.D., Michiie Sakamoto M.D., Keio Univ. (Japan), received honorable mention awards. Of particular note was the fact that Asha Singanamally for her paper entitled "Identifying in vivo DCE MRI parameters correlated with ex vivo quantitative microvessel architecture: A radiohistomorphometric approach" was awarded the runner up prize for the Michael Merrickel Best Student Paper award.

The success of the new DP conference was in no small part due to the outstanding efforts of the program committee who carefully constructed the program and SPIE Conference Chairs Drs. Nico Karssemeijer and Ehsan Samei and SPIE staff, who kindly guided us through all the steps of the program organization.

Next year, the Digital Pathology conference at SPIE Medical Imaging will take place in San Diego, CA. We look forward to seeing you there for another successful conference.

Metin Gurcan
Anant Madabhushi