Preface

On behalf of the entire conference committee, we welcome you to the Inaugural IEEE International Conference on Healthcare Informatics, Imaging and Systems Biology in the scenic hills of Almaden at the IBM Almaden Research Labs in San Jose, California. The field of healthcare is undergoing a revolution with scientific and engineering advancements seen simultaneously at all informatics levels. The HISB conference was conceived to foster an integrative approach to healthcare by bringing together leading researchers in healthcare informatics, medical imaging, and systems biology. They will not only present the state-of-the-art research in their fields but also create synergies among the community to close the loop in the biological causal analysis of diseases, their detection through advanced imaging and the analysis of their relationships with treatments and outcomes.

The conference program has been assembled after a rigorous double-blind review process consisting of over 72 program committee members divided along three tracks of informatics, imaging and systems biology. To better mingle the communities and allow cross-fertilization of ideas, a single track conference format was adopted. The final selected papers included 29 oral papers and 23 posters keeping the acceptance rate reasonably selective (less than 20% orals). All papers were allotted the same number of eight pages in the proceedings. Overall, we were impressed with the thoroughness of the reviews and the diligence shown by reviewers. Each paper was decided on after examination by at least three reviewers. The accepted papers reflect state-of-the-art research in healthcare informatics, imaging and systems biology. In this set, we hope you will find interesting theoretical contributions as well as attempts to turn them into practical systems.

To jumpstart the interest in this inter-disciplinary field, we augmented the peer-reviewed sessions with invited plenary talks, tutorials, special lecture sessions and panels composed of eminent researchers and practitioners including a plenary talk by Nobel Laureate, Prof. Andrew Fire from Stanford University. Another first was the venue site of the conference as an industrial research lab to signify the role of industry in this important emerging field.

We wish to thank the authors of all the submitted papers for their interest in the conference. We also wish to thank the members of the program committee and the auxiliary reviewers who assisted them, for reviewing the papers and providing valuable comments and recommendations to authors. Thanks to Hayit Greenspan and Zeeshan Syed for handling the tutorial sessions and demos, Aidong Zhang for publicizing the conference. Thanks to our technical sponsors, IEEE Computer Society and its technical committee on Computational Life Sciences, and Americal Medical Informatics Association (AMIA).

Thanks to our sponsorship chair, Jayashree Kalapathy-Kramer who secured us our funding and our funding sponsors Oregon Health University, and IBM. Thanks to our site sponsor Almaden Research Labs of IBM for hosting the conference and providing a team of people for local event planning and coordination that worked hard to make the conference happen. From IBM, we thank David Beymer who did the local arrangements, banners and advertising, Fei Wang who did website setup and update, and Wendy Fredde for all event planning including negotiating hotel contracts, and event arrangement with local food catering and decoration. Finally, thanks to the registration site team from IEEE and logo designs by Naveed Hashmi.

As the inaugural conference, we hope HISB 2011 will be a successful start of this new field with many such annual conferences to follow in future years. We also hope the conference program with its peer-review sessions, plenaries, tutorials and panels we have assembled will be an exciting and enriching experience that meets your expectations, and we look forward to seeing you in San Jose.

Tanveer Syeda-Mahmood  
Xue-wen Chen  
HISB 2011 General Co-chairs

Aziz Boxwala  
James S. Duncan  
Satoru Miyano  
HISB 2011 Program Co-chairs