

Preface

Celebrating the 20th anniversary of the IPCAT series, the 10th International Conference on Information Processing in Cells and Tissues took place during September 14–16, 2015, at the Embassy Suites, downtown San Diego, CA. The IPCAT series of conferences began in Liverpool in 1995 as a venue to bring together multidisciplinary scientists interested in modelling the processes that take place within biological cells and tissues. This was followed by events held in Sheffield, Indianapolis, Brussels, Lausanne, York, Oxford, Ascona, and Cambridge. Over the years, the conference has been organized by biologists, mathematicians, computer scientists, and electronic engineers, but has always aimed to attract a diverse and multidisciplinary group of delegates. As noted by Ray Paton and Mike Holcombe in the foreword to the first IPCAT workshop, “One of the key motivations underlying the first IPCAT Workshop was to attempt to provide a common ground for dialogue and reporting research without emphasising one particular research constituency or way of modelling or singular issue in this area.”

For IPCAT 2015, we addressed the diversity of the IPCAT audience by assembling Organizing and Program Committees comprising people with backgrounds in biology, medicine, mathematics, computer science, the natural sciences, and engineering. To reflect the differing publication norms in diverse fields, we gave authors the option of submitting either an extended abstract or a full paper, treating these equally during the review and ranking process. To complement the technical program, we invited four renowned scientists to give keynote presentations. These each addressed particular aspects of information processing in biological cells and tissues:

- Lee Altenberg (Konrad Lorenz Institute, Austria), “How Might Evolutionary Theory Inform Research on Information Processing in Cells and Tissues?”
- Kwang-Hyun Cho (KAIST, South Korea), “Unraveling the Information Processing Machinery Within a Living Cell”
- Terry Gaasterland (UCSD, USA), “Genome Variation in Regulatory Regions and Impact on Human Diseases”
- Marco Salemi (University of Florida, USA), “Phylodynamic Analysis of Viral and Bacterial Pathogens in the Genomics Era”

We would like to thank all the people involved in the organization and realization of IPCAT 2015, especially the authors, the invited speakers, and the members of the Program Committee, whose time and effort were central to the conference’s success. We would also like to take this opportunity to remember Ray Paton, whose dedication and enthusiasm were central to the success of the IPCAT series.

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