

## PACIFIC SYMPOSIUM ON BIOCOMPUTING 2012

2012 marks the 17th Pacific Symposium on Biocomputing. The proceedings and sessions over the last 17 years are available online at <http://psb.stanford.edu/prevmeet.html>. It is remarkable to watch how the field and the meeting topics evolve. The PSB proceedings have published more than 800 articles, all of which are listed in PubMed (the PSB meeting is abbreviated **Pac Symp Biocomput**).

We would like to thank our keynote speakers. Dr. Elaine Mardis, Professor of Genetics, Washington University St. Louis will talk about recent progress in genome sequencing for clinical applications. Our keynote in the area of Ethical, Legal and Social Implications of Technology will be James Heywood, Co-Founder and Chairman of Patientslikeme.com.

PSB provides sessions focusing on emerging areas in biomedical computation. These sessions are often conceived at the previous PSB meeting as people discuss the opportunities for new and exciting sessions. The efforts of a dedicated group of leaders has produced an outstanding set of sessions, with associated introductory tutorials. These organizers provide the scientific core of PSB and their sessions are as follows:

### **Identification of Aberrant Pathway and Network Activity from High-Throughput Data**

Rachel Karchin, Michael Ochs, Josh Stuart, Joel Bader

### **Intrinsically Disordered Proteins: Analysis, Prediction, Simulation, and Biology**

Jianhan Chen, Jianlin Cheng, Keith Dunker

### **Microbiome studies: Analytical Tools and Techniques**

James A. Foster, Jason Moore, Jack Gilbert, John Bunge

### **Modeling host-pathogen interactions: Computational biology and bioinformatics for infectious disease research**

Jason McDermott, Pascal Braun, Daniel Hyduke, Richard Bonneau

### **Personalized Medicine: from genotypes and molecular phenotypes towards computed therapy**

Jennifer Listgarten, Oliver Stegle, Fritz Roth, Quaid Morris

### **Text and knowledge mining for pharmacogenomics: Genotype-phenotype-drug relationships**

Kevin Bretonnel Cohen, Yael Garten, Nigham Shah, Udo Hahn

We are also pleased to present three workshops in which investigators with a common interest come together to exchange results and new ideas in a format that is more informal than the peer-reviewed sessions. For this year, the workshops and their organizers are:

### **The structure and function of chromatin and chromosomes**

William Stafford Noble, C. Anthony Blau, Job Dekker, Zhi-jun Duan, Eric Garcia

## **Law, Bioethics and the Current Status of Ownership, Privacy, Informed Consent in the Genomic Age**

Greg Hampikian, Eric M. Meslin

## **Systems Pharmacogenomics -- Bridging the Gap**

Marylyn Ritchie, Nancy Cox, Cheng Cheng, Scott Weiss, Teri Klein, Russ Altman

The Systems Pharmacogenomics workshop is jointly sponsored by the NIH Pharmacogenomics Research Network (PGRN) Statistical Analysis Resource (P-STAR) and Systems Biology Group, as well as the PharmGKB.

Tiffany Murray manages the peer review process and assembly of the proceedings, and also plays a key role in many other aspects of the meeting. We also want to give a special thanks to the assistance of Blanca Pineda this year in helping with the manuscript review and notification process. We also thank the National Institutes of Health and the International Society for Computational Biology (ISCB) for travel grant support. We are particularly grateful to BJ McKay-Morrison at ISCB for her assistance. We also acknowledge the many busy researchers who reviewed the submitted manuscripts on a very tight schedule. The partial list following this preface does not include many who wished to remain anonymous, and of course we apologize to any who may have been left out by mistake.

We look forward to a great meeting once again.

Aloha!

Pacific Symposium on Biocomputing Co-Chairs,  
October 14, 2011

### **Russ B. Altman**

*Departments of Bioengineering, Genetics & Medicine, Stanford University*

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### **Lawrence Hunter**

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### **Teri E. Klein**

*Department of Genetics, Stanford University*

## Thanks to the reviewers...

Finally, we wish to thank the scores of reviewers. PSB aims for every paper in this volume be reviewed by three independent referees. Since there is a large volume of submitted papers, paper reviews require a great deal of work from many people. We are grateful to all of you listed below and to anyone whose name we may have accidentally omitted or who wished to remain anonymous.

Alexander Alekseyenko	Jianfeng He	Frances Pearl
Gokmen Altay	Douglas Hill	Sampo Pyysalo
Michael Bada	Ryan Hoffman	Gerald Quon
Chris Baker	Jeremy Horst	Predreg Radivojac
Elisar Barbar	Wolfgang Huber	Habtom Ressom
Olivier Bodenreider	Daniel Hyduke	Fabio Rinaldi
Sarah Bondos	Takashi Ishida	Thomas Rindflesch
Richard Bonneau	Junji Iwahara	Andrey Rzhetsky
Karsten Borgwardt	Nebojsa Jojic	Uwe Sauer
Pascal Braun	David Jones	Neethu Shah
Celeste Brown	Lars Kangas	Kana Shimizu
Patrick Cai	Carl Kingsford	Larry Smith
Mauro Castro	Suzanne Komili	Tobin Sosnic
Jianhan Chen	Christina Leslie	Alfred Spormann
Jianlin Cheng	Jilong Li	Adam Szalkowski
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Sampsa Hautaniemi	Pankaj Pasricha	