

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Wednesday, January 2, 2013

Registration

5:00-7:00pm Registration

Ballroom Prefunction

Thursday, January 3, 2013

Registration

7:30-9:30am Registration

Ballroom Prefunction

12:00-2:00pm Registration

Ballroom Prefunction

6:00-7:30pm Registration

Ballroom Prefunction

Tutorials

Plaza Ballroom

9:00-9:50: Identification of Aberrant Pathway and Network Activity from High-Throughput Data

10:00-10:50: Computational Drug Repositioning

11:00-11:50: Epigenomics

Workshop

Salon 2&3

9:00-12:00 Computational Biology in the Cloud: Methods and New Insights from Computing at Scale

Break

12:00-1:00 Lunch on own

Tutorials

Plaza Ballroom

1:00-1:50 Personalized Medicine: From Genotypes and Molecular Phenotypes Towards Therapy

2:00-2:50 Phylogenomics and Population Genomics: Models, Algorithms, and Analytical Tools

3:00-3:50 Post-NGS: Interpretation and Analysis of Next Generation Sequencing Data for Basic and Translational Science

4:00-4:50 Text and Data Mining for Biomedical Discovery

Workshop

Salon 2&3

1:00-4:00 Modeling Cell Heterogeneity: From Single-Cell Variations to Mixed Cells Populations

Break

4:00-6:30 Dinner on own

Reception

Salon 1 & Ballroom Courtyard

6:30-7:30 Opening Reception with Drinks and Desserts (Posters to remain up for duration of conference.)

Workshop

Salon 2&3

7:30-10:30 Computational Challenges of Mass Phenotyping

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Friday, January 4, 2013

Registration

7:30-9:00	Registration	Ballroom Prefunction
10:15-11:00	Registration	Ballroom Prefunction
1:30-2:30	Registration	Ballroom Prefunction

Breakfast

7:30-8:30	PSB Breakfast	Ballroom Courtyard
-----------	---------------	--------------------

Welcome

8:30-8:40	Welcome – Teri Klein	Salon 2&3
-----------	----------------------	-----------

Session 1: Personalized Medicine: From Genotypes and Molecular Phenotypes Towards Therapy

		Salon 2&3
8:40-8:50	Introduction	
8:50-9:05	Invited talk: Atul Butte, Stanford University	
9:05-9:20	<i>Systematic Identification of Risk Factors for Alzheimer's Disease Through Shared Genetic Architecture and Electronic Medical Records</i> Li Li, David Ruau, Rong Chen, Susan Weber, Atul J. Butte	
9:20-9:35	<i>Characterization of the MetaboChip in Diverse Populations from the International HapMap Project in the Epidemiologic Architecture for Genes Linked to Environment (EAGLE) Project</i> Dana C. Crawford, Robert Goodloe, Kristin Brown-Gentry, Sarah Wilson, Jamie Roberson, Niloufar B. Gillani, Marylyn D. Ritchie, Holli H. Dilks, William S. Bush	
9:35-9:50	<i>AMP: Assembly Matching Pursuit</i> Surojit Biswas, Vladimir Jojic	
9:50-10:05	<i>Spectral Clustering Strategies for Heterogeneous Disease Data</i> Grace T. Huang, Kathryn I. Cunningham, Panayiotis V. Benos, Chakra S. Chennubhotla	
10:05-10:20	<i>Insights into Diseases of Human Telomerase from Dynamical Modeling</i> Samuel Coulbourn Flores, Christina Waldsich	

Break

10:20-10:50	Break	
-------------	-------	--

Keynote

10:50-12:00	Dan Roden, Vanderbilt University, with introduction by Russ Altman	Salon 2&3
-------------	--	-----------

Lunch

12:00-1:30	PSB Lunch	Orchid Court
------------	-----------	--------------

Session 2: Computational Drug Repositioning

		Salon 2&3
1:30-1:40	Introduction	
1:40-1:55	<i>Drug Target Predictions Based on Heterogeneous Graph Inference</i> Wenhui Wang, Sen Yang, Jing Li	
1:55-2:10	<i>Protein-chemical Interaction Prediction via Kernelized Sparse Learning SVM</i> Yi Shi, Xinhua Zhang, Xiaoping Liao, Guohui Lin, Dale Schuurmans	

Please wear your PSB name tag for admission to all events and hosted meals.

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Friday, January 4, 2013 (continued)

Session 2:	Computational Drug Repositioning (continued)	Salon 2&3
2:10-2:25	<i>A Novel Multi-Modal Drug Repurposing Approach for Identification of Potent ACK1 Inhibitors</i> Sharangdhar S. Phatak, Shuxing Zhang	
2:25-2:40	<i>Evaluation of Analytical Methods for Connectivity Map Data</i> Jie Cheng, Qing Xie, Vinod Kumar, Mark Hurle, Johannes M. Freudenberg, Lun Yang, Pankaj Agarwal	
Discussion		Salon 2&3
3:00-4:00	Computational drug repositioning	
Discussion		Salon 2&3
4:00-5:00	Personalized medicine: from genotypes and molecular phenotypes towards therapy	
Meeting		Salon 2&3
5:00-5:30	International Society for Computational Biology (ISCB) Open Meeting	
Break		
5:30 –	Dinner and evening on own	

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Saturday, January 5, 2013

Registration		
7:30-9:00	Registration	Ballroom Prefunction
12:00-2:00	Registration	Ballroom Prefunction
Breakfast		Ballroom Courtyard
7:30-8:30	PSB Breakfast	
Announcements		Salon 2&3
8:30-8:40	Morning Announcements -- Russ Altman	
Session 3: Post-NGS: Interpretation and Analysis of Next Generation Sequencing Data for Basic and Translational Science		Salon 2&3
8:40-8:50	Introduction	
8:50-9:05	Invited Talk: Jason Moore, Dartmouth University	
9:05-9:20	<i>ChIPModule: Systematic Discovery of Transcription Factors and Their Cofactors from ChIP-seq Data</i>	
	Jun Ding, Xiaohui Cai, Ying Wang, Haiyan Hu, Xiaoman Li	
9:20-9:35	<i>LSHPlace: Fast Phylogenetic Placement Using Locality-Sensitive Hashing</i>	
	Daniel G. Brown, Jakub Truszkowski	
9:35-9:50	<i>Detecting Highly Differentiated Copy-Number Variants from Pooled Population Sequencing</i>	
	Daniel R. Schrider, David J. Begun, Matthew W. Hahn	
Break		
9:50-10:10	Break	
Session 4: Epigenomics		Salon 2&3
10:10-10:15	Introduction	
10:15-10:35	Invited Speaker: Frank Pugh, Penn State University	
10:35-10:50	<i>Using DNase Digestion Data to Accurately Identify Transcription Factor Binding Sites</i>	
	Kaixuan Luo, Alexander J. Hartemink	
10:50-11:05	<i>Epigenomic Model of Cardiac Enhancers with Application to Genome Wide Association Studies</i>	
	Avinash Das Sahu, Radhouane Aniba, Yen-Pei Christy Chang, Sridhar Hannenhalli	
Discussion		Salon 2&3
11:05-12:05	Epigenomics with talk by Michael Snyder, Stanford University	
Poster Session Lunch		Salon 1 & Ballroom Courtyard
12:30-2:30	Poster Session with Lunch (A-L, last name of the first author presents from 12:30-1:30) (M-Z, last name of the first author presents from 1:30-2:30)	
Workshop		Salon 2&3
2:30-5:30	The Future of Genome-Based Medicine	

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Saturday, January 5, 2013 (continued)

Discussion

Plaza Ballroom

4:30-5:30 Post-NGS: Interpretation and Analysis of Next Generation Sequencing
Data for Basic and Translational Science

Break

5:30 – Dinner and evening on own

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Sunday, January 6, 2013

Breakfast		Ballroom Courtyard
7:30-8:30	PSB Breakfast	
Announcements		Salon 2&3
8:30-8:40	Morning Announcements -- Keith Dunker	
Session 5:	Text and Data Mining for Biomedical Discovery	Salon 2&3
8:40-8:50	Introduction	
8:50-9:05	Invited Talk: Lawrence Hunter, University of Colorado, Denver	
9:05-9:20	<i>ATHENA: A Tool for Meta-Dimensional Analysis Applied to Genotypes and Gene Expression Data to Predict HDL Cholesterol Levels</i> Emily R Holzinger, Scott M. Dudek, Alex T. Frase, Ronald M. Krauss, Marisa W. Medina, Marylyn D. Ritchie	
9:20-9:35	<i>Statistical Epistasis Networks Reduce the Computational Complexity of Searching Three-Locus Genetic Models</i> Ting Hu, Angeline S. Andrew, Margaret R. Karagas, Jason H. Moore	
9:35-9:50	<i>Evaluation of Linear Classifiers on Articles Containing Pharmacokinetic Evidence of Drug-Drug Interactions</i> Artemy Kolchinsky, Analia Lourenco, Lang Li, Luis M. Rocha	
9:50-10:05	<i>Detection of Protein Catalytic Sites in the Biomedical Literature</i> Karin Verspoor, Andrew MacKinlay, Judith D. Cohn, Michael E. Wall	
Break		
10:05-10:15	Break	
Session 6:	Identification of Aberrant Pathway and Network Activity from High-Throughput Data	Salon 2&3
10:15-10:30	Introduction	
10:30-10:45	Invited Talk: Nathan Price, Institute for Systems Biology	
10:45-11:00	<i>Module Cover - A New Approach to Genotype-Phenotype Studies</i> Yoo-Ah Kim, Raheleh Salari, Stefan Wuchty, Teresa M. Przytycka	
11:00-11:15	<i>Identifying Master Regulators of Cancer and Their Downstream Targets by Integrating Genomic and Epigenomic Features</i> Olivier Gevaert, Sylvia Plevritis	
11:15-11:30	<i>Interpreting Personal Transcriptomes: Personalized Mechanism-Scale Profiling of RNA-seq Data</i> Alan Perez-Rathke, Haiquan Li, Yves A. Lussier	
Discussion		Salon 2&3
11:30-12:30	Identification of Aberrant Pathway and Network Activity from High-Throughput Data	
Discussion		Plaza Ballroom
11:30-12:30	Text and Data Mining for Biomedical Discovery	

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Sunday, January 6, 2013 (continued)

Break

12:30 – 5:30 Afternoon Free

Dinner

5:30-7:15 Dinner Party

Croquet Lawn

Keynote:

7:30-8:45 David Ewing Duncan with introduction by Larry Hunter

Salon 2&3

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012

Pacific Symposium on Biocomputing (PSB) 2013 Schedule

January 3-7, 2013, Big Island of Hawaii

Monday, January 7, 2013

Breakfast		Ballroom Courtyard
7:30-8:30	Breakfast	
Closing		Salon 2&3
8:30-8:40	Closing -- Larry Hunter	
Session 7:	Phylogenomics and Population Genomics: Models, Algorithms, and Analytical Tools	Salon 2&3
8:40-8:50	Introduction	
8:50-9:05	<i>Evaluating Variations on the STAR Algorithm for Relative Efficiency and Sample Sizes Needed to Reconstruct Species Trees</i> James H. Degnan	
9:05-9:20	<i>An Analytical Comparison of Multilocus Methods Under the Multispecies Coalescent: The Three-Taxon Case</i> Sebastien Roch	
9:20-9:35	<i>Maximum Likelihood Phylogenetic Reconstruction from High-Resolution Whole-Genome Data and a Tree of 68 Eukaryotes</i> Yu Lin, Fei Hu, Jijun Tang, Bernard M.E. Moret	
9:35-9:50	<i>The Behavior of Admixed Populations in Neighbor-Joining Inference of Population Trees</i> Naama M. Kopelman, Lewi Stone, Olivier Gascuel, Noah A. Rosenberg	
Discussion		Salon 2&3
9:50-10:50	Phylogenomics and Population Genomics: Models, Algorithms, and Analytical Tools	

PSB over--see you next year!

Please wear your PSB name tag for admission to all events and hosted meals.

December 20, 2012