CSBio 2012 Technical Program (tentative)

Tuesday, October 2, 2012 – Pre-Conference Workshops at Thailand Science Park (pre-registration only)

07:30 – 8:30   Transfer from Centara Grand at Central Plaza Ladprao Bangkok to Sirindhorn Science Home, Thailand Science Park, Pathumthani
08:30 – 9:00   *Registration* [Foyer, Sirindhorn Science Home]
09:00 – 12:00   **Workshop I** [Lecture 1, Sirindhorn Science Home]
                Bairong Shen (Director, Center for Systems Biology, Soochow University, China),
                Systems biology with R
09:00 – 12:00   **Workshop II** [Lecture 2, Sirindhorn Science Home]
                Hon Wai Leong (Department of Computer Science, National University of Singapore, Singapore),
                Sriganesh Srihari (Department of Computer Science, National University of Singapore, Singapore),
                *Computational method*s *for detecting protein complexes from whole-genome PPI networks*
09:00 – 12:00   **Workshop III** [Auditorium, Sirindhorn Science Home]
                Gaurav Chopra (Department of Microbiology, University of Washington, USA),
                Atomic modeling of complex biological systems
12:00 – 13:00   Lunch at canteen
13:00 – 14:00   Transfer to Centara Grand at Central Plaza Ladprao Bangkok
                (for those not attending the afternoon session)
13:00 – 16:00   **Workshop IV** [Auditorium, Sirindhorn Science Home]
                Yang Cheng (Roche Diagnostics, China),
                Whole genome sequencing data analysis (using Roche 454 GS data analysis software)
16:00 – 17:00   Transfer to Centara Grand at Central Plaza Ladprao Bangkok

Wednesday, October 3, 2012

08:15 – 15:30   *Registration* [Ballroom Foyer, Centara Grand]
09:00 – 9:30   **Opening Ceremony and Welcome Speeches** [Ballroom B, Centara Grand]
                Dr. Sakarindr Bhumiratana/ Dr. Shoba Ranganathan/ Dr. Thaweesak Koanantakool
09:30 – 10:15   **Keynote Talk 1** [Ballroom B, Centara Grand]
                Jurg Ott (Professor Emeritus, Rockefeller University, New York, USA), *Statistical approaches to testing and estimating the number of functional variants in complex disease*
                Chair by Prasit Palittapongarnpim
10:15 – 10:45   Coffee Break
10:45 – 11:30   **Keynote Talk 2** [Ballroom B, Centara Grand]
                Tatsuhiko Tsunoda (Director, Research Group for Medical Informatics, RIKEN Center for Genomic Medicine, Japan), *Genomic medicine's milestones and future*
                Chair by Sissades Tongsima
11:30 – 12:00   Asia Pacific Bioinformatics Network (APBioNet) 2012 report [Ballroom B, Centara Grand]
12:00 – 12:15   Corporate presentation 1 [Ballroom B, Centara Grand]
                Yang Cheng, Roche
                Whole genome sequencing data analysis
12:15 – 13:15   Lunch [Ballroom A, Centara Grand]
13:15 – 14:00   **INNS Keynote Talk 1** [Rungsit 1, Centara Grand]
                Fredric Ham (Professor, Florida Institute of Technology, USA),
                A neurocomputing approach for monitoring plinian volcanic eruptions and other natural phenomena using infrasound
                Chair by Irwin King
14:00 – 14:45   **INNS Keynote Talk 2** [Rungsit 1, Centara Grand]
                Irwin King (Professor, Chinese University of Hong Kong, China),
                Social computing in the e-era
                Chair by Fredric Ham
14:50 – 15:40   **Technical Session: CSBio1**
     CSBio1:   **Biological Design and Analysis** [Rungsit 2 & 3, Centara Grand]
                Chair by Asawin Meechai
14:55 – 15:15   Design and analysis of genetically encoded combinatorial counters
                Pakpoom Subsoontorn and Drew Eddy
15:15 – 15:35   Conceptual design of RNA-RNA interaction based devices
                Jittrawan Thaiprasit, Supapon Cheevadhanarak, Dujduan Waraho and Asawin Meechai

15:40 – 16:00	Coffee Break
16:00 – 17:00	**Technical Session: CSBio2**
CSBio2:	**Biological Modeling** [Rungsit 2 & 3, Centara Grand]
	Chair by Wanwipa Vongsangnak
16:00 – 16:20	Predicting the Evolution of Gene ura3 in the Yeast Saccharomyces Cerevisiae
	Jacques M. Bahi, Christophe Guyeux and Antoine Perasso
16:20 – 16:40	Analysis of metabolic network of synthetic Escherichia coli producing linalool using constraint-based modeling
	Iyarest Tawornsamretkit, Asawin Meechai, Rattana Thanasomboon, Jittrawan Thaiprasit, Dujduan Waraho and Supapon Cheevadhanarak
16:40 – 17:00	Simplified models for the mammalian circadian clock
	Jean-Paul Comet, Gilles Bernot, Aparna Das and Francine Diener
17:00 – 18:15	**Technical Session: CSBio3**
CSBio3:	**Posters Session** [Ballroom Foyer, Centara Grand]
-	Construction of synthetic Escherichia coli producing s-linalool
	Ratana Thanasomboon, Dujduan Waraho, Supapon Cheevadhanarak and Asawin Meechai
-	Identify Predictive SNP groups in GWAS: A Sparse Learning Approach
	Zhuo Zhang, Yanwu Xu, Jiang Liu and Chee Keong Kwoh
-	Identification and Characterization of Burkholderia pseudomallei Serine and Metallopeptidases
	Noraslinda Muhamad Bunnori and Rahmah Mohamed
-	On the use of wavelet neural networks in the task of epileptic seizure detection from electroencephalography signals
	Zarita Zainuddin, Kee Huong Lai and Pauline Ong
-	Exploring the Solution Space of Sorting by Translocations
	Amritanjali, Shivani Anand and G Sahoo
-	Structural Bioinformatics and Molecular Dynamics Simulations Studies of Cathepsins as a Potential Target for Drug Discovery
	Surapong Pinitglang, Ratchanee Saiprajong, Tossaporn Dussadee and Khanok Ratanakhanokchai

Thursday, October 4, 2012

08:15 – 15:30	*Registration* [Ballroom Foyer, Centara Grand]
09:00 – 9:45	**Keynote Talk 3** [Ballroom B, Centara Grand]
	Yongyuth Yuthavong (Professor Emeritus, Mahidol University, Thailand), *Bioinformatics within and beyond biology*
	Chair by Suthat Fucharoen
09:45 – 10:15	**Plenary Talk 1** [Ballroom B, Centara Grand]
	Ram Samudrala (Professor, University of Washington, Seatle, USA), *Computational analysis of novel drug opportunities (CANDO)*
	Chair by Wasun Chantratita
10:15 – 10:45	Coffee Break
10:45 – 11:15	**Plenary Talk 2** [Ballroom B, Centara Grand]
	Yutaka Yasui (University of Alberta, Canada), *Epistasis exploration as a key element in GWAS data analysis*
	Chair by Wasun Chantratita
11:15 – 11:45	**Plenary Talk 3** [Ballroom B, Centara Grand]
	Richard Wintle (Assistant Director, The Centre for Applied Genomics, Sick Children Hospital, Canada), *Old disorders, new approaches: genomic variability in autism spectrum disorder*
	Chair by Jonathan Chan
11:45 – 12:15	Corporate presentation 2 [Ballroom B, Centara Grand]
	Robert Fassett, Oracle
	Addressing big data challenges to accelerate personalized medicine initiatives
12:15 – 13:15	Lunch [Ballroom A, Centara Grand]
13:20 – 14:50	**Tutorial** [Rungsit 2 & 3, Centara Grand]
	Richard Wintle (Assistant Director, The Centre for Applied Genomics, Sick Children Hospital, Canada), *Structural variation of the human genome – how do we find it, and what do we do with it?*
14:50 – 15:40	**Technical Session: CSBio4**

CSBio4:	**Biological Data and Sequence Analysis** [Rungsit 2 & 3, Centara Grand]
	Chair by Chee Keong Kwoh
14:55 – 15:15	The Generalized Feed-Forward Loop Motif: Definition, Detection and Statistical Significance
	Tobias Berka
15:15 – 15:35	Classification of real and pseudo pre-miRNAs in plant species
	Worrawat Engchuan and Jonathan Chan
15:40 – 16:00	Coffee Break
16:00 – 17:00	**Technical Session: CSBio5**
CSBio5:	**Systems Biology & Structural Bioinformatics** [Rungsit 2 & 3, Centara Grand]
	Chair by Jean-Paul Comet
16:00 – 16:20	Comparison of structure-based tools for the prediction of ligand binding site residues in apo-structures
	Ali Ezzat and Kwoh Chee Keong
16:20 – 16:40	Transcriptomic data integration inferring the dominance of starch biosynthesis in carbon utilization of developing cassava roots
	Wanatsanan Siriwat, Saowalak Kalapanulak, Malinee Suksangpanomrung, Supatcharee Netrphan, Asawin Meechai and Treenut Saithong
16:40 – 17:00	Bibliome mining platform and application for building metabolic interaction network
	Preecha Patumchareonpol, Jonathan Chan, Asawin Meechai, Bairong Shen and Wanwipa Vongsangnak
17:00 – 18:00	**Technical Session: CSBio6 & INNS-WC6**
CSBio6:	**Demonstration and Competitions** [Rungsit 1, Centara Grand]
	Chair by Jonathan Chan
17:10 – 17:55	Gustavo Stolovitzky – via videoconferencing
	(Manager, Functional Genomics and Systems Biology, IBM Computational Biology Center)
	IMPROVER diagnostic signature challenge and results + DREAM challenges
18:00 – 20:30	Conference dinner [Ballroom A, Centara Grand]

Friday, October 5, 2012

08:15 – 12:00	*Registration* [Ballroom Foyer, Centara Grand]
09:00 – 9:45	**Keynote Talk 4** [Ballroom B, Centara Grand]
	Sandra Baldauf (Professor, Uppsala University, Sweden), *Comparative genomics of microbial eukaryotes*
	Chair by Prasit Palittapongarnpim
09:45 – 10:15	**Plenary Talk 4** [Ballroom B, Centara Grand]
	David Ussery (Center for Biological Sequence Analysis, Technical University of Denmark, Denmark), *From bacterial genome sequence to taxonomy-progress and problems*
	Chair by Asawin Meechai
10:15 – 10:45	Coffee Break
10:45 – 11:15	**Plenary Talk 5** [Ballroom B, Centara Grand]
	Juncai Ma (Director, Information Center, Institute of Microbiology, Chinese Academy of Sciences, China), *Toward the global cooperation: WFCC global catalog of microorganisms*
	Chair by Tin Wee Tan
11:15 – 11:45	Forum discussion on bioinformatics resources for teaching, training and research [Ballroom B, Centara Grand]
	Chair by APBioNet
11:45 – 12:00	Corporate presentation 3 [Ballroom B, Centara Grand]
	Shu Qi Zhao, IBM
	IBM's IT solutions for life sciences: speeding up your research
12:00 – 13:00	Lunch [Ballroom A, Centara Grand]
13:00 – 15:30	End of CSBio2012 – delegates are free to join the InCoB2012 technical sessions
15:30 – 16:30	Closing session of InCoB2012 [Ballroom B, Centara Grand]