"Bioinformatics, Systems Biology, Translational Medicine"

Presented by

Cathy H. Wu, PhD

Edward G. Jefferson Professor of Bioinformatics & Computational Biology
University of Delaware, Newark, DE and
Professor, Department of Biochemistry and Molecular & Cellular Biology
Director, Protein Information Resource
Georgetown University Medical Center, Washington, DC

"A Systematic Framework of Genome Screening Seeking a Predictive Genomic Composite Biomarker for Potential Treatment Individualization"

Presented by

Su Jane Wang, PhD

Associate Director, Pharmacogenomics and Adaptive Design
Office of Biostatistics, Office of Translational Sciences
Center for Drug Evaluation and Review (CDER), FDA and

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Johns Hopkins University, Maryland

May 7, 2009 (Thursday) Evening

6:00 PM – Networking and Pizza and soft drink with a door prize

6:20 - 9:00 PM – Program

9:00 – 9:15 PM – Door-prize drawing and networking

Open and free to the public

Location:

Kelly's Deli Conference Center, 7519 Standish Place, Rockville, MD 20855

Driving directions: From **I-270** (N or S bound):   Take Exit 9A and exit from the first right exit.

Turn left (east) onto Shady Grove Dr.
Turn right (south) onto Rockville Pike (**Route 355**).
Turn left (east) onto East Gude Dr.
Turn left (north) immediately onto Crabb's Branch Dr.
Turn left (west) immediately onto Standish Place.
(The first building on your right side is 7519 Standish Place; open parking)

The conference room is on the first floor with its entrance opposite to the left side of building main entrance.

For headcount purpose, please register by *Thursday noon, May 7, 2009.*

Registration Website: http://www.asq509.org/ht/d/DoSurvey/i/35817

For registration problems or further information contact **Dr. George Chang**, Co-Chair of Biomed/Biotech SIG, at gchang2008@yahoo.com or call **240-793-8425**.

Abstract
Unlocking the secrets of the human genetic code, the Human Genome Project has opened an entirely new scientific horizon, rich with opportunities to expand our understanding of the interplay between environment, biology, and pathology. Such knowledge is central to the successful translation of genomic information into tangible benefits for human health. It is, however, a problem of substantial complexity that requires multidisciplinary collaborations among computational, mathematical, biological and clinical expertise. Bioinformatics and computational biology is an emerging field where biological and computational disciplines converge. With systems integration becoming the driving force for 21st century biology, researchers are systematically tackling gene functions and complex regulatory processes by studying organisms at different levels of organization, from genomes and proteomes to metabolomes and interactomes. An integrative bioinformatics approach in the systems biology context allows researchers to gain fundamental understanding of biological and disease processes, facilitates drug discovery and disease diagnosis, and translates "bench" knowledge into "bedside" benefits. Systemic genomic screening for biomarkers and related personalized medicine will also be discussed.

Bioinformatics, Systems Biology and Translational Medicine

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With background and experience in both biology and computer science, Dr. Cathy H. Wu has conducted bioinformatics and computational biology research for 20 years. Since 1999 she has led the development of PIR as a major public bioinformatics resource. Dr. Wu has served on several scientific advisory boards, including the NIGMS Protein Structure Initiative Advisory Committee, NIH (National Institutes of Health), the TeraGrid User Advisory Committee, NSF (National Science Foundation), and the Board on Research Data and Information, NRC (National Research Council). She has also served on numerous program committees for international bioinformatics and proteomics conferences and workshops. She has published about 140 peer-reviewed papers and three books, and given more than 100 invited lectures.

A systematic framework of genome screening seeking a predictive genomic composite biomarker for potential treatment individualization

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Dr. Sue-Jane Wang is presently Associate Director of Office of Biostatistics, Office of Translational Sciences, CDER, FDA. Her research interest in recent years has been focusing on pharmacogenomics (PG), development of biomarker classifier, adaptive designs, multi-regional trials, and noninferiority design methods. Her collaborative research has resulted in more than 80 peer reviewed publications in statistical journals, PG/bioinformatics journals and medical/genetic journals in addition to book chapters. Dr. Wang gave invited conference keynotes, short courses, served as conference co-chairs, invited discussants, invited panelists, and invited speakers in PG/bioinformatics and clinical trial conferences. She is Guest Editor for Pharmaceutical Statistics, an Associate Editor for Statistics in Medicine and for Statistics in BioSciences, and, an elected member of the International Statistics Institute.