ASBMB

ASBMB Thematic Meeting on **Systems Biology**

ASBMB 2012 Annual Meeting, held in conjunction with Experimental Biology 2012
April 21-25, 2012, San Diego, CA

Abstract submission deadline - November 8, 2011!

Organizers: **Steven Altschuler,** UT Southwestern Med. Ctr. at Dallas and

                         Alexander Hoffman, UC, San Diego

Dear Colleague,

We welcome you to join us in San Diego, CA, next April for a series of symposia on **Systems Biology** we've organized for the ASBMB 2012 Annual Meeting.

With DNA sequencing costs falling faster than Moore's law, the challenge is less to discover what is in the genome but how the biological molecules interact to produce biological function. Molecular interactions are often multi-valent to produce complex networks. Biochemical networks operate in time to determine cellular responses to environmental change, and in space within and across boundaries and organelles; and they are subject to the physical laws that apply to all molecules including the fundamental stochasticity of molecular interactions and chemical reactions. Given data quantities and the potential for complexity that exceed even well-honed intuitive reasoning, a hallmark of the Systems Biology approach is to combine experiment and modeling to formulate and test hypotheses. The sessions below are designed to highlight approaches that derive and understand behaviors of complex networks on molecular, time, and distance scales.

In addition to the 12 invited talks below, we will select 12 short talks from the volunteered abstracts. We strongly encourage you, your postdocs, graduate students, and/or undergraduates to submit abstracts for consideration. This is also a great opportunity for young investigators to present their work and be considered for one of two Best Poster Honors, with cash awards. We will announce the winners during our Wednesday session.

A thematic reception for all attendees is also planned to further stimulate the scientific discussion and encourage networking. Scheduling of this event will be posted on the ASBMB website and in the meeting program.

Travel awards are available and we ask you to encourage your students and postdocs to apply.**

** A successfully submitted abstract submission to an ASBMB topic category **(#2000-2432)** is required. For a full list of application criteria, visit www.asbmb.org/meeting2012.

Important deadlines coming up this fall:

Abstract Submissions: **November 8, 2011**
ASBMB Travel Award Applications: **November 8, 2011, 5:00 PM, EST****

For more information, including invited speaker details visit:
http://www.asbmb.org/Meetings_01/2012mtg/2012AnnlMtgProgInfo.aspx

Thank you for your time and we look forward to seeing you in San Diego!

Systems Biology Program

Constructing Networks
Sunday, April 22, 2012
9:55 am – 12:10 pm
Chair: **Peter Sorger**, Harvard Med. Sch.

        Genetic Networks in DNA Damage
        Trey Ideker, UC San Diego

        Physical Host-Pathogen Networks
        Nevan J. Krogan, UC San Francisco

        DNA Binding Specifities and Transcriptional Control
        Martha L. Bulyk, Harvard Med. Sch.

Networks and Time
Monday, April 23, 2012
3:45 pm – 6:00 pm
Chair: **Martha L. Bulyk**, Harvard Med. Sch.

        Stress Response Networks
        Peter Sorger, Harvard Med. Sch.

        NFkB Regulation
        Alexander Hoffmann, UC San Diego

        Integrating Transcription Elongation and pre-mRNA Splicing Rates on Chromatin
        Karla Neugebauer, Max Planck Inst. of Molecular Cell Biology and Genetics

Networks and Space
Tuesday, April 24, 2012
9:55 am – 12:10 pm
Chair: **Steven Altschuler**, UT Southwestern Med. Ctr. at Dallas

Cell Polarization
Lani Wu, UT Southwestern Med. Ctr. at Dallas

Neutrophil Motility
Orion D. Weiner, UC San Francisco

Spatial Organization of Signaling in Bacterial Chemotaxis
Victor Sourjik, ZMBH, Univ. of Heidelberg

Networks and Noise
Wednesday, April 25, 2012
1:45 pm – 4:00 pm
Chair: **Alexander Hoffman**, UC San Diego

Phenotypic Variation of Cancer Cells
Steven Altschuler, UT Southwestern Med. Ctr. at Dallas

Dynamic Control and Cellular Cooperation
Jeff Hasty, UC San Diego

Synthetic Cellular Computation
Chris Voigt, UC San Francisco