6th International Conference on

**STRUCTURAL BIOLOGY**

August 22-23, 2016   New Orleans, USA

Scientific Program
### Keynote Forum

#### Introduction
**Title:** Comprehensive prediction of drug-protein interactions and side effects for the human proteome  
*Jeffrey Skolnick, Georgia Institute of Technology, USA*

#### Symposium on “New technologies in structural studies by cryoEM”

**Session Chair:** Qiu-Xing Jiang, University of Florida, USA  
**Session Co-Chair:** Kenneth A Taylor, Florida State University, USA

<table>
<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>09:40</td>
<td>Title: The structure of Zika virus</td>
<td>Michael G Rossmann, Purdue U, USA</td>
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<tr>
<td>10:05</td>
<td>Title: Random spherically constrained (RSC) single particle cryo-EM for structures of membrane proteins in a membrane environment</td>
<td>Liguo Wang, U of Washington, USA</td>
</tr>
<tr>
<td>10:30</td>
<td>Title: ChemiC: Chemically functionalized nanometer-thick carbon films for cryo-EM studies of biological complexes</td>
<td>Qiu-Xing Jiang, U of Florida, USA</td>
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#### Group Photo

**Network & Refreshments 10:55-11:15**

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<thead>
<tr>
<th>Time</th>
<th>Title</th>
<th>Speaker</th>
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<tbody>
<tr>
<td>11:15</td>
<td>Title: Deciphering intermolecular interactions in complex heterogeneous systems</td>
<td>Kenneth A Taylor, FSU, USA</td>
</tr>
<tr>
<td>11:40</td>
<td>Title: Breathing life into static images: Combining electron cryotomography and coarse-grained simulations to explore mechanisms of eukaryotic cell division machinery in vivo</td>
<td>Matthew T Swulius, Cal Tech, USA</td>
</tr>
<tr>
<td>12:05</td>
<td>Title: Advanced machine-learning algorithms for improving high-performance cryo-EM data analysis</td>
<td>Youdong Jack Mao, Harvard Med, USA</td>
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#### Lunch 12:30-13:15

### Keynote Forum

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<tbody>
<tr>
<td>13:15</td>
<td>Title: A personal history of structural virology</td>
<td>Michael G Rossmann, Purdue U, USA</td>
</tr>
</tbody>
</table>

#### Sessions: Structural Biology | 3D Structure Prediction | Computational Approaches

**Session Chair:** Fumio Hirata, Toyota P & C Research Inst, Japan  
**Session Co-Chair:** John H Miller, Victoria U of Wellington, NZ

<table>
<thead>
<tr>
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<th>Speaker</th>
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<tbody>
<tr>
<td>13:55</td>
<td>Title: Tubulin structural interactions with small molecule microtubule-stabilizing agents</td>
<td>John H Miller, VUW, NZ</td>
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<tr>
<td>14:15</td>
<td>Title: Molecular behavior of a higher-order complex of multiple transcription factors on enhancer site upon phosphorylation</td>
<td>Kazuhiro Ogata, Yokohama City U</td>
</tr>
<tr>
<td>14:35</td>
<td>Title: Structure, fluctuation, and function of biomolecules in solution explored by the 3D-RISM/RISM theory</td>
<td>Fumio Hirata, Toyota P &amp; C Inst, Japan</td>
</tr>
<tr>
<td>14:55</td>
<td>Title: Discovery of a GTP sensor using a structural reverse genetic approach</td>
<td>Toshiya Senda, KEK, Japan</td>
</tr>
<tr>
<td>15:15</td>
<td>Title: Structural and synthetic biology of aminoacyl-tRNA synthesis and translation</td>
<td>Shigeyuki Yokoyama, RIKEN Lab, Japan</td>
</tr>
</tbody>
</table>
Networking & Refreshments 15:35-15:50

Session: Signalling Biology | Drug Designing | Sequencing

Session Chair: Takeshi Kikuchi, Ritsumeikan University, Japan
Session Co-Chair: Elizabeth J Goldsmith, University of Texas Southwestern Medical Center at Dallas, USA

15:50-16:10

Title: Development of anti-HIV double variable domain antibodies that bind both gp120 and gp41 on the envelope protein

Seth Pincus, Children's Hospital and Louisiana State University School of Medicine, USA

16:10-16:30

Elizabeth J Goldsmith, University of Texas Southwestern Medical Center at Dallas, USA

Title: The excursion model for MAP kinase signaling in health and disease

16:30-16:50

Takeshi Kikuchi, Ritsumeikan University, Japan

Title: Sequence analysis on the information of folding nuclei in proteins with interesting 3D properties

16:50-17:10

Barry K Hurlburt, United States Department of Agriculture, USA

Title: Genomes repetitive sequences in progressive evolution

17:10-17:30

Olga I Podgornaya, Far Eastern Federal University, Russia

Title: Ligand binding preferences of pathogenesis-related class 10 (pr-10) allergens

17:30-18:00

Title: Prediction of protein-protein interaction in the twilight zone of low homology for the modulation of an ion channel: An analogy approach

Thomas Scior & Ángel Islas, Benemérita Universidad Autónoma de Puebla, Mexico

Panel Discussions

Day 2  August 23, 2016

Hall C

Keynote Forum

09:00-09:40

Title: The use of soft X-ray diffraction for native-SAD and for chromatic exploration of uncharted aspects of metals in macromolecules: A new pilot program at the APS

Bi-Cheng Wang, University of Georgia and Advanced Photon Source, USA

09:40-10:20

Title: How do voltage sensors in trans-membrane channels work?

Robert Stroud, University of California, San Francisco, USA

Special Session on “Modularity and metastability: Structural aspects of nanomedicine”

Session Chair: R Holland Cheng, University of California, Davis, USA
Session Co-Chair: Toshiya Senda, High Energy Accelerator Research Organization (KEK), Japan

10:20-10:40

Title: Modularity and metastability: Structural aspects of nanomedicine

R Holland Cheng, University of California, Davis, USA

10:40-11:00

Title: Structure and function of the C-terminal ID region of onco-protein CagA

Toshiya Senda, High Energy Accelerator Research Organization (KEK), Japan

Networking & Refreshments 11:00-11:20

11:20-11:40

Title: Talin - Insights into mechanosignalling and integrin activation

Vesa P Hytonen, University of Tampere, Finland

11:40-12:00

Title: Individual-Particle Electron Tomography (IPET): An approach to study flexible protein structure and dynamics

Gang Ren, Lawrence Berkeley National Laboratory, USA

12:00-12:20

Title: Integrated methods enable re-engineering of transcription factors allowing cell fate modification

Prasanna R Kolatkar, Hamad bin Khalifa University, Qatar

12:20-12:40

Title: A comprehensive strategy to obtain high quality crystals

Miki Senda, High Energy Accelerator Research Organization (KEK), Japan

12:40-13:00

Title: Symmetry ambiguity and its implications to the molecular functions of the MAVS prion-like filaments

Qiu-Xing Jiang, University of Florida, USA

Lunch 13:00-13:40

13:40-14:00

Title: Crystal structure of a human Fab in complex with a dominant antigen from Neisseria meningitidis

Jacinto López-Sagaseta, GlaxoSmithKline Vaccines S.r.l., Italy
14:00-14:20
Title: The atomic structures of Dragon grouper nervous necrosis virus from cryo-em in comparing with x-ray diffractions
Chan-Shing Lin, National Sun Yat-sen University, Taiwan

Sessions: Molecular Modelling | Complexity Arenas in Structural Biology | Structural Biology in Cancer
Session Introduction

Session Chair: Irena Roterman-Konieczna, Jagiellonian University, Poland
Session Co-Chair: Jyh-Yeuan Lee, University of Texas Southwestern Medical Center at Dallas, USA

14:20-14:40
Title: Impact of the water environment on protein folding
Irena Roterman-Konieczna, Jagiellonian University, Poland

14:40-15:00
Title: ABCG5/ABCG8: Structural role in ABC transporter-mediated sterol transport
Jyh-Yeuan Lee, University of Texas Southwestern Medical Center at Dallas, USA

15:00-15:20
Title: The molecular effects of processing on the peanut allergens
Soheila J Maleki, United States Department of Agriculture, USA

15:20-15:40
Title: Structural analysis of PTPN3-p38γ interactions by chemical cross-linking coupled with mass spectrometry
Tzu-Ching Meng, Academia Sinica, Taiwan

Networking & Refreshments 15:40-16:00

16:00-16:20
Title: Predicting the binding free energy of the inclusion process of Cyclodextrin derivatives and small molecules by means of MM/3D-RISM method
Masatake Sugita, Ritsumeikan University, Japan

16:20-16:40
Title: Is molecular docking the holy grail of computational modelling?
Ihosvany Camps, Federal University of Alfenas, Brazil

16:40-17:00
Title: Proton tunneling accelerates ATP hydrolysis in Eg5 kinesin
Sunyoung Kim, Louisiana State University School of Medicine & Health Sciences Center, USA

17:00-17:20
Title: Molecular docking of potent inhibitors of oncoproteins using Swiss dock and visualization by UCSF chimera
Mohammed Ahmed Mohammed Mansour, Tanta University, Egypt

Poster Presentations from 17:20-18:00

P01
Title: In silico development of new acetylcholinesterase inhibitors
Ihosvany Camps, Federal University of Alfenas, Brazil

P02
Title: Cation roles in the structure of a fish nodavirus observed in Electron Cryo-Microscopy and X-Ray diffraction
Chan-Shing Lin, National Sun Yat-sen University, Taiwan

P03
Title: Estimation of binding free energy based on the MM/3D-RISM method for the Pim1-ligand system
Takeshi Haesegawa, Ritsumeikan University, Japan

P04
Title: Motor domain β-sheet motifs contribute to diversification of kinesin-microtubule interactions
Jessica Richard, Louisiana State University School of Medicine & Health Sciences Center, USA

P05
Title: SATB2 suppresses invadopodia formation in colorectal cancer cells via palladin inhibition
Mohammed Ahmed Mohammed Mansour, Tanta University faculty of Science, Egypt

P06
Title: Folding region predictions by amino acid analysis of lysozyme superfamily proteins
Takuto Nakashima, Ritsumeikan University, Japan

P07
Title: Small spatial motifs within a surface-exposed loop in kinesin motor proteins codes for mechanochemical coupling
Rebecca Buckley, Louisiana State University School of Medicine & Health Sciences Center, USA

Panel Discussion and Certificate Distribution

Bookmark Your Dates

9th International Conference on Structural Biology

September 18-19, 2017   Zurich, Switzerland

Website: www.structuralbiology.conferenceseries.com   E-mail: structuralbiology@insightconferences.com