

**ANNUAL CONFERENCE
of the
SOCIETY FOR GLYCOBIOLOGY**

November 7 – 10, 2010

TradeWinds Island Grand Resort, St. Pete Beach, FL

Robert S. Haltiwanger, *Program Chair and President*
Stony Brook University, Stony Brook, NY

PRELIMINARY PROGRAM

Friday and Saturday November 5 and 6		<p>ASMS Fall Workshop at the adjacent Tradewinds Sandpiper Resort Glycomics and Glycoconjugate Analysis Organized by Joseph Zaia, <i>Boston University, Boston, MA</i> and Lance Wells, <i>CCRC/UGA, Athens, GA</i> Registration is \$400 for ASMS members and \$600 for non members Go to www.asms.org for details</p>
Sunday, November 7	<p>8:30 am – 1:00 pm</p> <p>8:00 am – 5:30 pm</p> <p>7:00 – 7:10 pm</p> <p>7:10 – 8:30 pm</p> <p>8:30 – 9:00 pm</p> <p>9:00 – 10:00 pm</p>	<p>Satellite Symposium: Advances in Glycoprotein Technologies Organized by Qun Zhou, <i>Genzyme Corp, Cambridge, MA</i> and Samnang Tep, <i>Biogen Idec, Cambridge, MA, \$40</i></p> <p>Satellite Meeting: Glycans in Cell Communication Annual meeting of the Consortium for Functional Glycomics Participating Investigators Attendance is <i>free of charge</i> and open to all interested scientists, if attending notify Anna Crie (annacrie@scripps.edu) by October 1</p> <p>Conference Opening Opening Remarks: Robert S. Haltiwanger, <i>President, Society for Glycobiology</i></p> <p>Session I: Glycomics Kornfeld Award and Lecture 2010 recipients: Harry Schachter & Jeremiah Silbert</p> <p>Welcome Reception</p>
Monday, November 8	<p>8:30 – 10:00 am</p> <p>10:30 am – 12:20 pm</p> <p>2:00 – 4:00 pm</p> <p>4:00 – 5:50 pm</p>	<p>Session II: Glycobiology of the Nervous System</p> <p>Session III: Sialobiology</p> <p>Posters and Exhibits</p> <p>Session IV: Cytoplasmic Glycosylation/Signaling</p>
Tuesday, November 9	<p>8:30 – 10:00 am</p> <p>10:30 am – 12:20 pm</p> <p>2:00 – 4:00 pm</p> <p>4:00 – 4:30 pm</p> <p>4:45 – 5:30 pm</p> <p>7:00 – 9:30 pm</p>	<p>Session V: Developmental Glycobiology</p> <p>Session VI: Glycosylation and Human Disease</p> <p>Posters and Exhibits</p> <p>Business Meeting</p> <p>Karl Meyer Award and Lecture 2010 recipient: Steven Rosen, <i>University of California, San Francisco</i></p> <p>Banquet. Nominal fee. Extra tickets for guests may be ordered.</p>
Wednesday, November 10	<p>8:30 – 10:00 am</p> <p>10:30 am – 12:20 pm</p> <p>2:00 – 4:00 pm</p> <p>4:00 – 5:40 pm</p> <p>5:40 – 6:00 pm</p>	<p>Session VII: Structure, Function, and Biosynthesis of Glycans</p> <p>Session VIII: Glycobiology of the Immune System</p> <p>Posters and Exhibits</p> <p>Session IX: Glycobiology of Host-Pathogen Interactions</p> <p>Closing Remarks</p>

NOVEMBER 5 – 6, 2010*preceding the Annual Conference of the Society for Glycobiology***ASMS FALL WORKSHOP****GLYCOPROTEOMICS AND GLYCOMICS**

Program Organizers: Joseph Zaia, *Boston University* and Lance Wells, *University of Georgia*
Tradewinds Sandpiper Resort, St Pete Beach, Florida

Glycan expression is required for normal development and for functioning of all physiological systems. Mass spectrometry methods are emerging as the most effective means for glycan identification, structural determination and quantification. Effective uses of mass spectrometry underlie basic studies of glycoconjugate function, drug target identification, biomarker identification, and glycoprotein drug product development.

The Fall Workshop will occur in conjunction with the 2010 Annual Meeting of the Society for Glycobiology. The Workshop program will begin with an introduction to the roles of glycosylation in biology followed by a summary of general glyco-analytical and emerging chemical biology methods in glycomics. The presentations will emphasize the chemical and biochemical principles behind the effective uses of mass spectrometry for characterization of glycosylated molecules.

Attendees of this workshop will learn to apply modern biomolecular mass spectrometry techniques to glycosylated compounds. The most effective methods for tandem MS of glycans will be covered, including how to interpret glycan tandem mass spectra. Lectures will focus on glycoproteomics, and glycomics of β -*O*-GlcNAc, *N*-glycans, *O*-glycans, glycolipids, and glycosaminoglycans.

Preliminary List of Instructors and Topics

go to www.asms.org for updates and more details.

1. Introduction to Glycobiology
Lance Wells, *University of Georgia*
2. Introduction to Glycoanalytical Methods
Joseph Zaia, *Boston University*
3. Chemical Biology Methods in Glycomics
Linda Hsieh-Wilson, *California Institute of Technology*
4. Glycoprotein/Biological Drug Product Characterization
Parastoo Azadi, *University of Georgia*
5. MALDI MS Based Glycomics
Stuart Haslam, *Imperial College*
6. LC/MS based Glycomics
Steve Lavery, *University of Copenhagen*
7. Glycan Tandem MS
Vern Reinhold, *University of New Hampshire*
8. Software Tools for Glycoproteomics and Glycomics
Stuart Haslam, *Imperial College*
9. Glycan Site Mapping
Lance Wells, *University of Georgia*
10. Glycomics of *N*- and *O*-Glycans, Quantitative Methods
Ron Orlando, *University of Georgia*
11. Heparin and Glycosaminoglycan Methods
Joseph Zaia, *Boston University*
12. Glycomics of Glycolipids
Steve Lavery, *University of Copenhagen*
13. Summary and wrap-up

SUNDAY, NOVEMBER 7
SATELLITE SYMPOSIUM: ADVANCES IN GLYCOPROTEIN TECHNOLOGIES

Program Organizers: Qun Zhou, *Genzyme Corp, Cambridge, MA*

and Samnang Tep, *Biogen Idec, Cambridge, MA, \$40*

8:30 am – 1:30 pm

TradeWinds Island Grand Resort, St. Pete Beach, FL

Preliminary Program

Each talk is 20 minutes

High Throughput N-Glycan Analysis on Microchip CE in Support of Cell Line Screening,
Samnang Tep, *Biogen Idec*

Facile Glycoprofiling of Monoclonal Antibodies Using Chip-LC Platform with mAb-Glyco-Chip,
Tomasz Baginski, *Roche*

Biotherapeutic Protein Glycosylation Analysis Using UPLC/FLR/QToF MS, Ying Qing Yu,
Waters Corporation

Rapid Sample Prep for N-Glycan Analysis Using High Throughput Micro-chromatography,
Craig Nishida, *Prozyme*

Biosimilars, Elizabeth Higgins, *Glycosolutions*

Currents Analytical Techniques for Structural Elucidation of Proteoglycans, Parastoo Azadi,
University of Georgia, Complex Carbohydrate Research Center

10 minute break

Probing the Role of Structure of Oligosaccharides Containing Terminal Mannose-6 phosphate
Groups on Improving the Uptake of Acid α -glucosidase in Pompe Mice, Luis Avila, *Genzyme*

Sugar Engineered Antibody (SEA) Technology: A Novel Strategy for Enhancing Antibody
Effector Function, Steve Alley, *Seattle Genetics*

Glycosylation Remodeling of IgG-Fc, Lai-Xi Wang, *University of Maryland School of Medicine*

TBD: Cellular Uptake Affected by Glycosylation, Brian Lentricchia, *Shire*

Characterization of Oligosaccharides in Recombinant Tissue Plasminogen Activator Produced in
Chinese Hamster Ovary Cells: Two Decades of Analytical Technology Development., Oleg
Borisov, *Genentech*

SUNDAY, NOVEMBER 7
CFG WORKSHOP / ANNUAL PARTICIPATING INVESTIGATORS MEETING

Program Organizer: James C. Paulson, *The Scripps Research Institute, La Jolla, CA*

8:30 am to 5:00 pm

Glycans in Cell Communication

This meeting will cover a broad scope of topics involving the roles of glycans in cell communication, including host-pathogen interactions, functions of mammalian glycan-binding proteins, analytical glycomics, and glycoinformatics. The program includes a workshop, a poster session, and subgroup breakout sessions in the afternoon.

Downstream Consequences of Glycan Binding by Viruses

Hosted by: Gillian Air, *University of Oklahoma Health Sciences Center*

Leader of CFG Subgroup 1 Microorganism Recognition of Host Glycans

The Workshop will be focused on extending our knowledge of how glycan binding triggers virus entry. We anticipate that for most viruses there is a shortage of data, so the Workshop is designed to discuss ways in which the gaps in knowledge might be filled. The Workshop will focus on the CFG viral Paradigms, but will also use other viruses as examples of how to approach the questions:

- How important is glycan binding to a successful infection?
- What signals are transmitted to the host cell when a virus engages a surface glycan?
- How does the initial binding event trigger internalization?
- What second receptors are used, and why?
- Is variation in receptor specificity a cause or effect of antigenic escape from antibodies?

Confirmed Speakers:

Robert L. Atmar, *Baylor College of Medicine*
 Terence S. Dermody, *Vanderbilt University School of Medicine*
 Ari Helenius, *ETH Zurich - Institute of Biochemistry*
 Kathryn Holmes, *University of Colorado Denver*
 Tom Kirchhausen, *Harvard Medical School*
 Mavis A. Mckenna, *University of Florida*
 Colin Parrish, *Cornell University*
 Jim Paulson, *The Scripps Research Institute*
 Andrew Pekosz, *The Johns Hopkins University*
 B.V.Venkataram Prasad, *Baylor College of Medicine*
 Thilo Stehle, *University of Tuebingen*
 Gary Whittaker, *Cornell University*
 Ian Wilson, *The Scripps Research Institute*

Subgroup Meetings

1:30 – 5:00 pm

Discussions topics include:

- Progress on the Paradigms
 - Identifying knowledge gaps that need to be filled
1. Microorganism recognition of host glycans, Leader: **Gillian Air**
 2. Immune recognition of glycans, Leader: **Yvette van Kooyk**
 3. Glycans in immune cell communication, Leader: **Paul Crocker**
 4. Glycans in development and physiology, Leader: **John Hanover**
 5. Glycans in cancer biology, Leader: **Joy Burchell** c/o **Joyce Taylor-Papadimitriou**
 6. Glycans in protein conformation and function, Leader: **James Prestegard**
 7. Analytical glycomics, Leader: **Michael Tiemeyer**
 8. Chemical synthesis and glycan microarrays, Leader: **M.G. Finn**
 9. 3-D Structural glycobiology, Leader: **Robert Woods**
 10. Bioinformatics, Leader: **Will York**