

*Annual Meeting of the*  
**SOCIETY for**  
**Glycobiology**

*40th  
Anniversary*

**November 17-20, 2013**

Vinoy Renaissance St.  
Petersburg Resort & Golf Club  
St. Petersburg, Florida

# Meeting Program

[www.glycobiology.org](http://www.glycobiology.org)

# Thank you to our sponsors

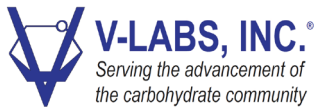
## GOLD



## SILVER



## BRONZE



## PARTNER



# Sunday, November 17th

7:30 am - 7:00 pm

## Registration Desk

Location: Vinoy Foyer

8:30 am - 6:00 pm

## Exhibit Set-up

Location: Palm Court Ballroom/foyer

8:00 am - 5:00 pm

## New! Junior Scientist Pre-Conference

(SFG Networking and Career Mentoring Pre-Conference)

Location: Plaza Ballroom A

Registration: \$50

Chairs: Richard and Heather Steet, University of Georgia CCRC

Open to Graduate Students and Post-Docs (0-5 Years experience) in GlycoScience

In an effort to bring young scientists together to discuss their current research, build informal networks with their peers and gain career mentorship, the Society for Glycobiology hosts this 1-day pre-conference. Organized and supported by a faculty of eight leading scientists from the Society, this pre-conference will be centered around scientific talks and poster presentations chosen from conference abstracts submitted by graduate students and post-docs. In addition, prospective talks will be given by glycoscientists working in diverse areas of clinical and basic research to provide a platform for discussing the many career paths and opportunities available to emerging Ph.D. scientists.

8:30 am - 5:30 pm

## Satellite Symposium I: Glycoprotein Technologies

Location: Plaza Ballroom B

Registration: \$50

Chairs: Wesley Wang, Amgen; Sam Tep, Biogenidec

The scope of this session encompasses all areas of glycoprotein technologies, ranging from bioprocess control through downstream analytical/characterization techniques. Functional studies and Structure-Activity-Relationship (SAR) studies, efforts regarding the challenges in the production of biosimilars and follow-on biologics, as well as efforts in the characterization and analysis of O-glycosylation, are all included.

9:00AM - 4:00PM

## Satellite Symposium II: Consortium for Functional Glycomics (CFG): Development and Application of Transformative Technologies in Glycobiology

Location: Vinoy Grand Ballroom

Registration: \$50

Chairs: Brian A. Cobb, Case Western Reserve Univ. College of Medicine; Christine Szymanski, Alberta Glycomics Centre, Univ. of Alberta

This satellite symposium is focused upon recent technological advances in glycomics, and how these novel tools have been successfully applied to better understand critical biological processes and diseases. Upon the completion of this symposium, attendees will be aware of these emerging technologies as well as collaborative and service-based opportunities to apply them to their particular research interests.

7:00 - 7:10 pm

## Conference Opening Remarks

Location: Vinoy Grand Ballroom

Christopher M. West, President, Society for Glycobiology

7:10 - 8:25 pm

## Keynote Lecture/Session I: Glycoproteomics, Polysaccharides, and Glycomics

Location: Vinoy Grand Ballroom

Chair: Anne Dell, Imperial College London

**Abstract** Oral Presentation

- #1 **7:10:** The importance of electron transfer mass spectrometry in advancing our understanding of structural glycobiology; **Al Burlingame**; *University of California San Francisco.*  
**\*Keynote Lecture sponsored by MCP/ASBMB**
- #2 **7:35:** NextGen sequencing for the identification of glycosyltransferases involved in plant cell wall polysaccharide biosynthesis; **Markus Pauly**<sup>1</sup>, Alex Schultink<sup>1</sup>, Jacob Jensen<sup>2</sup>; <sup>1</sup>UC Berkeley; <sup>2</sup>Michigan State University
- #3 **8:00:** Glycomics and glycoproteomics-providing new biological insights; **Stuart Haslam**, Maria Panico, Howard Morris, Anne Dell; *Imperial College London*

8:25 - 9:05 pm

### Rosalind Kornfeld Award for Lifetime Achievement in Glycobiology Award Presentation

Location: Vinoy Grand Ballroom/Foyer

Chair: Naoyuki Taniguchi, RIKEN

Introduction: Patricia Berninsone;  
University of Nevada, Reno2013 Recipient: Carlos Hirschberg; Boston  
University Goldman School of Dental Medicine

9:05 - 10:05 pm

### Welcome Reception

Location: Palm Court Ballroom

## Monday, November 18th

7:30 am - 4:00 pm

### Registration Desk

Location: Vinoy Foyer

### Speaker Ready Room

Location: Taylor Room

7:30 - 8:30 am

### Continental Breakfast

Sponsored by: Promega Corporation

Location: Palm Court Ballroom

8:30 - 10:00 am

### Session II: Developmental Glycobiology

Location: Vinoy Grand Ballroom

Chair: Michael Tiemeyer, Univ. of Georgia CCRC

Abstract	Oral Presentation										
#4	<b>8:30:</b> Role of O-glucose glycans in animal development; <b>Hamed Jafar-Nejad</b> <sup>2</sup> , Amanda R. Haltom <sup>1</sup> , Tom V. Lee <sup>2</sup> , Beth Harvey <sup>3</sup> , Jessica Leonardi <sup>2</sup> , Robert S. Haltiwanger <sup>3</sup> ; <sup>1</sup> University of Texas Health Science Center; <sup>2</sup> Baylor College of Medicine; <sup>3</sup> Stony Brook University										
#5	<b>8:55:</b> The in vivo function of Drosophila CMP-sialic acid synthetase; <b>Hilary Scott</b> , Rafique Islam, Courtney Caster, Mark J. Zoran, Vladislav M. Panin; <i>Texas A&amp;M University</i> <i>*selected talk-poster #48</i>										
#6	<b>9:00:</b> O-fucosylation and development; <b>Robert Haltiwanger</b> , Deepika Vasudevan, Christina Leonhard-Melief; <i>Stony Brook Univ.</i>										
#7	<b>9:25:</b> Glycosyltransferases as systemic regulators of blood cell development; <b>Joseph Lau</b> ; <i>Roswell Park Cancer Institute</i>										
#8	<b>9:50:</b> Possible role of cathepsin-mediated growth factor activation in the pathogenesis of mucopolidosis II; <b>Megan Aarnio</b> , Heather Flanagan-Steet, Aaron Petrey, Richard Steet; <i>CCRC University of Georgia</i> <i>*selected talk-poster #188</i>										
#9	<b>9:55:</b> A murine knockout of the human diabetes susceptibility locus Oga contributes to acute and chronic nutrient sensing defects; <b>Dona Love</b> , Chithra Keembiyehetty, Oksana Gavrilova, Marcy Comly, Katryn Harwood, John Hanover; <i>NIDDK, NIH</i> <i>*selected talk-poster #108</i>										
10:00 - 10:30 am											
<b>Coffee Break</b>											
Location: Tea Garden											
10:30 am - 12:25 pm											
<b>Session III: Glycosylation, the Secretory Pathway, and Biosynthesis</b>											
Location: Vinoy Grand Ballroom											
Chair: Richard Cummings, Emory University											
<table border="1"> <thead> <tr> <th>Abstract</th> <th>Oral Presentation</th> </tr> </thead> <tbody> <tr> <td>#10</td> <td><b>10:30:</b> Synthesis and membrane translocation of cellulose; <b>Jochen Zimmer</b>, <i>University of Virginia</i></td> </tr> <tr> <td>#11</td> <td><b>10:55:</b> Identification of a GlcA transferase involved in biosynthesis of glycosyl inositol phosphorylceramide sphingolipids in plants; <b>Henrik Scheller</b><sup>1</sup>, Emilie Rennie<sup>1</sup>, Joshua Heazlewood<sup>1</sup>, Solomon Stonebloom<sup>2</sup>, Tsan-Yu Chiu<sup>1</sup>, Katy Christiansen<sup>1</sup>, Godfrey Miles<sup>3</sup>, Paul Dupree<sup>3</sup>; <sup>1</sup>Lawrence Berkeley National Laboratory; <sup>2</sup>University of Copenhagen, Denmark; <sup>3</sup>University of Cambridge, UK <i>*selected talk-poster #49</i></td> </tr> <tr> <td>#12</td> <td><b>11:00:</b> GDP-Mannose transport in <i>Cryptococcus neoformans</i> is mediated by two distinct proteins and is dispensable for viability; <b>Zhuo Wang</b>, Matthew Williams, Tamara Doering; <i>Washington University School of Medicine</i> <i>*selected talk-poster #126</i></td> </tr> <tr> <td>#13</td> <td><b>11:05:</b> Genetic analysis of Mannosylphosphoryltransferases required for the synthesis of the <i>Leishmania</i> surface glycocalyx; <b>Stephen M. Beverley</b><sup>1</sup>, Hongjie Guo<sup>1</sup>, Fong-Fu Hsu<sup>1</sup>, Megan Philips<sup>2</sup>, Salvatore Turco<sup>2</sup>; <sup>1</sup>Washington University School of Medicine; <sup>2</sup>University of Kentucky Medical Center <i>*selected talk-poster #127</i></td> </tr> </tbody> </table>		Abstract	Oral Presentation	#10	<b>10:30:</b> Synthesis and membrane translocation of cellulose; <b>Jochen Zimmer</b> , <i>University of Virginia</i>	#11	<b>10:55:</b> Identification of a GlcA transferase involved in biosynthesis of glycosyl inositol phosphorylceramide sphingolipids in plants; <b>Henrik Scheller</b> <sup>1</sup> , Emilie Rennie <sup>1</sup> , Joshua Heazlewood <sup>1</sup> , Solomon Stonebloom <sup>2</sup> , Tsan-Yu Chiu <sup>1</sup> , Katy Christiansen <sup>1</sup> , Godfrey Miles <sup>3</sup> , Paul Dupree <sup>3</sup> ; <sup>1</sup> Lawrence Berkeley National Laboratory; <sup>2</sup> University of Copenhagen, Denmark; <sup>3</sup> University of Cambridge, UK <i>*selected talk-poster #49</i>	#12	<b>11:00:</b> GDP-Mannose transport in <i>Cryptococcus neoformans</i> is mediated by two distinct proteins and is dispensable for viability; <b>Zhuo Wang</b> , Matthew Williams, Tamara Doering; <i>Washington University School of Medicine</i> <i>*selected talk-poster #126</i>	#13	<b>11:05:</b> Genetic analysis of Mannosylphosphoryltransferases required for the synthesis of the <i>Leishmania</i> surface glycocalyx; <b>Stephen M. Beverley</b> <sup>1</sup> , Hongjie Guo <sup>1</sup> , Fong-Fu Hsu <sup>1</sup> , Megan Philips <sup>2</sup> , Salvatore Turco <sup>2</sup> ; <sup>1</sup> Washington University School of Medicine; <sup>2</sup> University of Kentucky Medical Center <i>*selected talk-poster #127</i>
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#14 **11:10:** Signaling by free mannose-6-phosphate; **Mark Lehrman**; *UT Southwestern Medical Center*

#15 **11:35:** Mucin-type O-glycosylation is required for polarized secretion in the *Drosophila* digestive system; **Kelly G. Ten Hagen**, Liping Zhang; *National Institute of Dental and Craniofacial Research, NIH*  
\*selected talk-poster #50

#16 **11:40:** Characterizing a missense mutation in O-GlcNAc transferase that segregates with disease in a family with X-linked Intellectual Disability; **Krithika Vaidyanathan**<sup>1</sup>, Tejasvi Niranjani<sup>2</sup>, Melanie May<sup>3</sup>, Rebecca Rose<sup>2</sup>, Chin Fen Teo<sup>1</sup>, Sindhu Prabakaran<sup>1</sup>, Robert Bridger<sup>1</sup>, Emil Alexov<sup>4</sup>, Tao Wang<sup>2</sup>, Charles Schwartz<sup>3</sup>, Lance Wells<sup>1</sup>; <sup>1</sup>CCRC, *University of Georgia*; <sup>2</sup>Johns Hopkins-McKusick-Nathans *Institute of Genetic Medicine*; <sup>3</sup>Greenwood *Genetic Center*; <sup>4</sup>Clemson *University*  
\*selected talk-poster #109

#17 **11:50:** Laminin-binding glycosylation on alpha-dystroglycan and its biosynthetic pathway; **Takako Yoshida-Moriguchi**, Tobias Willer, Mary Anderson, David Venzke, Liping Yu, Kevin Campbell; *University of Iowa Roy J. and Lucille A. Carver College of Medicine*  
\*Young Investigator Award sponsored by BBA General Subjects

#18 **12:15:** Differential Golgi targeting of  $\beta$ galactoside: $\alpha$ 2-3sialyltransferase-1 and core 2 N-acetylglucosaminyltransferase-L/1 in advanced prostate cancer cells; **Pi Wan Cheng**, Armen Petrosyan; *VA Nebraska Western Iowa Health Care System and University of Nebraska Medical Center*  
\*selected talk-poster #51

#19 **12:20:** Pathways and regulation of IgA1 O-glycosylation in an autoimmune disease, IgA nephropathy; **Jan Novak**<sup>1</sup>, Kazuo Takahashi<sup>1</sup>, Hitoshi Suzuki<sup>1</sup>, Milan Raska<sup>1</sup>, Tyler Stewart<sup>1</sup>, Koshi Yamada<sup>1</sup>, Colin Reily<sup>1</sup>, Hiroyuki Ueda<sup>1</sup>, Zhi-Qiang Huang<sup>1</sup>, Audra Hargett<sup>1</sup>, Stacy Hall<sup>1</sup>, Milada Stuchlova Horynova<sup>1</sup>, Zina Moldoveanu<sup>1</sup>, Jiri Mestecky<sup>1</sup>, Bruce A. Julian<sup>1</sup>, Ali G. Gharavi<sup>2</sup>, Krzysztof Kiryluk<sup>2</sup>, Mathew B. Renfrow<sup>1</sup>; <sup>1</sup>University of Alabama at Birmingham; <sup>2</sup>Columbia Univ.  
\*selected talk-poster #150

#20 **12:25:** GOLPH3 regulates integrin-mediated biological functions via up-regulation of sialylation; **Jianguo Gu**, Tomoya Isaji, Sanghun Im, Tomohiko Fukuda; *Tohoku Pharmaceutical University*  
\*selected talk-poster #165

12:30 - 2:00 pm

## Glycobiology Editorial Board Meeting Lunch (Invitees only)

Location: Thomasson Room

2:00 - 4:00 pm

## Poster Session I and Exhibits

Coffee break provided

Location: Palm Court Ballroom

4:00 - 6:00 pm

## Session IV: Metabolism, Recognition, and Signaling

Location: Vinoy Grand Ballroom

Chair: **Gerald Hart**, Johns Hopkins University

Abstract Oral Presentation

- #21 **4:00:** Non-lysosomal degradation pathway for N-glycans; cases in yeast and mammalian cells; **Tadashi Suzuki**, Rachel Kubiak, James Thoden; *RIKEN Global Research Cluster, Japan*
- #22 **4:25:** Structural insights into novel deoxysugar biosynthesis in bacteria; **Hazel Holden**, *University of Wisconsin- Madison*
- #23 **4:50:** Discovery of novel toxin binding partners using photocrosslinking sialic acid; **Jennifer Kohler**, Amberlyn M.Wands, Akiko Fujita, Janet E. McCombs; *University of Texas Southwestern Medical Ctr.*
- #24 **5:15:** Further characterization of endogenous mouse lung proteins bearing glycan counter-receptors for Siglec-F; **Toshihiko Katoh**<sup>1</sup>, Takumi Kiwamoto<sup>2</sup>, Christopher Evans<sup>3</sup>, Mary Brummet<sup>2</sup>, Sherry Hudson<sup>2</sup>, Zhou Zhu<sup>2</sup>, Bruce Bochner<sup>2</sup>, Michael Tiemeyer<sup>1</sup>; <sup>1</sup>CCRC, *Univ. of Georgia*; <sup>2</sup>Johns Hopkins Univ. School of Medicine; <sup>3</sup>Univ. of Colorado School of Medicine  
\*selected talk-poster #151
- #25 **5:20:** Context dependent glycan recognition through the next generation of glycan microarray; **Geert-Jan Boons**, *Univ. of Georgia CCRC*
- #26 **5:45:** Reductionist model systems to probe biological and molecular mechanisms of O-GlcNAc signalling; **Daniel van Aalten**, *Univ. of Dundee*  
\*selected talk-poster #110
- #27 **5:50:** O-GlcNAc regulated arginine methylation: a novel paradigm in survival signaling; **Natasha Zachara**, Albert Lee, Kamau Fahie, Roger Henry, Devin Miller; *Johns Hopkins University School of Medicine*  
\*selected talk-poster #77
- #28 **5:55:** Increased O-GlcNAcylation of Mitochondrial Proteins Directly Contributes to ROS Production in Diabetes; **Junfeng Ma**, Ting Liu, Brain O'Rourke, Gerald Hart; *Johns Hopkins University*  
\*selected talk-poster #111

12:30 - 2:00 pm

## Lunch on Your Own

# Tuesday, November 19th

7:30 am - 4:00 pm

## Registration Desk

Location: Vinoy Foyer

## Speaker Ready Room

Location: Taylor Room

7:30AM - 8:30AM

## Continental Breakfast

Sponsored by: Galen Laboratory Supplies & Iduron

Location: Palm Court Ballroom

8:30AM - 10:00AM

## Session V: Inhibitors

Location: Vinoy Grand Ballroom

Chair: Ole Hindsgaul, Carlsberg Laboratory

**Abstract** **Oral Presentation**

- #29 **8:30:** From carbohydrates to glycomimetics - is there a general recipe?; **Beat Ernst**, *University of Basel*
- #30 **8:55:** Sweet Contacts - Guiding inhibition of carbohydrate-protein interactions with NMR; **Thomas Peters**; *University of Luebeck*
- #31 **9:20:** Rivipansel (GMI-1070), a glycomimetic pan-selectin antagonist, inhibits activation and thrombosis in animal models as well as functional biomarkers in sickle cell patients; **John Magnani**<sup>1</sup>, John Patton<sup>1</sup>, Henry Flanner<sup>1</sup>, Daniel Myers<sup>2</sup>, TedWun<sup>4</sup>, Helen Thackray<sup>1</sup>, Scott Simon<sup>3</sup>; <sup>1</sup>*GlycoMimetics, Inc*; <sup>2</sup>*Univ. of Michigan*; <sup>3</sup>*Univ. of California Davis*; <sup>4</sup>*Univ. of California Davis School of Medicine*  
\*selected talk-poster #122
- #32 **9:25:** Glycan based inhibitors of receptors and enzymes; **Bernd Meyer**, Katrin Schaefer, Felix Niemeyer, Wei Nien Liao, Moritz Waldmann, Dennis Wilhelm, Miriam Koetzler, Patrizia Leccese; *University of Hamburg*  
\*selected talk-poster #123
- #33 **9:30:** Metabolic inhibitors of glycosyltransferases as tools for glycobiology; **David Voadlo**, Scott Yuzwa, Xiaoyang Shan, Nevena Cekic, Lehua Deng, Julia Heinonen, Keith Stubbs, Tracey Gloster, Yanping Zhu; *Simon Fraser University*
- #34 **9:55:** Detection of glycosyltransferase activities with homogenous bioluminescent UDP detection assay; **Hicham Zegzouti**, Laurie Engel, Gediminas Vidugiris, Said Goueli; *Promega Corporation*  
\*selected talk-poster #19

10:00 - 10:30 am

## Coffee Break

Location: Mezzanine Terrace

10:30 am - 12:30 pm

## Session VI: Glycobiology of Infectious Diseases

Location: Vinoy Grand Ballroom

Chair: Anant Menon, Weill Cornell Medical College

**Abstract** **Oral Presentation**

- #35 **10:30:** The expanding world of bacterial protein O-linked glycosylation; **Mario Feldman**, *Alberta Glycomics Centre-University of Alberta*
- #36 **10:55:** N-Glycan biosynthesis and utilization in African trypanosomes; **James Bangs**, *University at Buffalo School of Medicine*
- #37 **11:20:** The oocyst walls of Toxoplasma have an inner layer of  $\beta$ -1,3-glucan (like fungi) and an outer layer of acid-fast lipids (like mycobacteria); **Edwin M. Motari**<sup>1</sup>, G. Guy Bushkin<sup>2</sup>, Jitender P. Dubey<sup>3</sup>, Catherine E. Costello<sup>4</sup>, Phillips W. Robbins<sup>1</sup>, John Samuelson<sup>1</sup>; <sup>1</sup>*Boston Univ. School of Dental Medicine*; <sup>2</sup>*Massachusetts Institute of Technology*; <sup>3</sup>*United States Department of Agriculture*; <sup>4</sup>*Boston Univ. School of Medicine*  
\*selected talk-poster #128
- #38 **11:25:** Galectin-3 is a damage-associated molecular pattern molecule, which facilitates neutrophil recruitment as an innate immune response to a parasitic protozoa cutaneous infection; **Sachiko Sato**, Pampa Bhaumik, Guillaume St-Pierre, Valérie Milot, Julie-Christine Levesque, Christian St-Pierre; *Laval University*  
\*selected talk-poster #129
- #39 **11:30:** Immune regulation by glycans; **Brian Cobb**, Jenny L. Johnson, Mark B. Jones; *Case Western Reserve Univ. School of Medicine*
- #40 **11:55:** Fungal chitin and the immunological end game; **Neil A. R. Gow**<sup>1</sup>, Jeanette Wagener<sup>1</sup>, R.K.S. Malireddi<sup>2</sup>, Megan D. Lenardon<sup>1</sup>, Martin Koberle<sup>3</sup>, Simon Vautier<sup>1</sup>, Donna M. MacCallum<sup>1</sup>, F.J. Alvarez<sup>1</sup>, Tilo Biedermann<sup>3</sup>, Martin Schaller<sup>3</sup>, Mihai G. Netea<sup>4</sup>, T.D. Kanneganti<sup>2</sup>, Gordon D. Brown<sup>1</sup>, Alistair J.P. Brown<sup>1</sup>; <sup>1</sup>*University of Aberdeen, Aberdeen Fungal Group*; <sup>2</sup>*St. Jude Children's Research Hospital*; <sup>3</sup>*Eberhard Karls University Tübingen*; <sup>4</sup>*Radboud University Nijmegen Medical Center*
- #41 **12:20:** Zebrafish galectins bind to the infectious hematopoietic necrosis virus (IHNV) glycoprotein and modulate adhesion to the host cell surface; **Mihai Nita-Lazar**<sup>1</sup>, Chinnarajan Ravindran<sup>2</sup>, Barbara Giomarelli<sup>1</sup>,



Marta Pasek<sup>1</sup>, Shawn Jackson<sup>1</sup>, Ana de las Heras Sanchez<sup>1</sup>, Hafiz Ahmed<sup>1</sup>, Arun Ammayappan<sup>3</sup>, Vikram Vakharia<sup>3</sup>, Anne Dell<sup>4</sup>, Stuart M. Haslam<sup>4</sup>, Gang Wu<sup>4</sup>, Chiguang Feng<sup>1</sup>, Gerardo R. Vasta<sup>1</sup>; <sup>1</sup>University of Maryland School of Medicine, Institute of Marine and Environmental Technology; <sup>2</sup>National Institute of Oceanography (CSIR); <sup>3</sup>University of Maryland Baltimore County; <sup>4</sup>Imperial College

\*selected talk-poster #130

#42 **12:25:** Human milk glycans are potential receptor decoys during neonatal rotavirus infection; **Ying Yu<sup>1</sup>**, Yi Lasanajak<sup>1</sup>, Xuezheng Song<sup>1</sup>, Liya Hu<sup>2</sup>, Sasirekha Ramani<sup>2</sup>, David J. Ashline<sup>3</sup>, B.V. Venkataram Prasad<sup>2</sup>, Mary K. Estes<sup>2</sup>, Vernon N. Reinhold<sup>3</sup>, Richard D. Cummings<sup>1</sup>, David F. Smith<sup>1</sup>; <sup>1</sup>Emory University School of Medicine; <sup>2</sup>Baylor College of Medicine; <sup>3</sup>University of New Hampshire

\*selected talk-poster #131

12:30 - 2:00 pm

### Lunch on Your Own

12:30 - 2:00 pm

### SFG Board Meeting Lunch (Invitees only)

Location: Thomasson Room

2:00 - 4:00 pm

### Poster Session II and Exhibits

Coffee break provided

Location: Palm Court Ballroom

3:30 - 4:00 pm

### Optional: Grant Funding Agency Workshop

(Representatives from NIH, NSF, and more)

Location: Vinoy Grand Ballroom

4:00 - 4:30 pm

### Business Meeting (open to all attendees)

Location: Vinoy Grand Ballroom

4:45 - 5:30 pm

### Karl Meyer Award Lecture

Location: Vinoy Grand Ballroom

Chair: Naoyuki Taniguchi, RIKEN

Introduction: Thierry Hennet; University of Zurich

2013 recipient: Markus Aebi; Swiss Federal Institute of Technology

6:30 - 7:00 pm

### Pre-Banquet Social Gathering

Location: Vinoy Grand Ballroom Foyer

7:00 - 11:00 pm

### Banquet & Entertainment (Music for a Cause)

Location: Vinoy Grand Ballroom

\*There is a nominal fee for this event and tickets must be purchased prior to Nov 18th at 2:00 pm.

## Wednesday, November 20th

7:30 am - 4:00 pm

### Registration Desk

Location: Vinoy Foyer

### Speaker Ready Room

Location: Taylor Room

7:30 - 8:30 am

### Continental Breakfast

Sponsored by: Galen Laboratory Supplies & Iduron

Location: Palm Court Ballroom

8:30 - 10:00 am

### Session VII: IGO Guest Session: Cancer Glycobiology

Location: Vinoy Grand Ballroom

Chair: Jianing Zhang, Dalian Univ. of Technology

Abstract   Oral Presentation

#43 **8:30:** Roles of heparan sulfate in normal and cancer stem cells of intestine; **Minoru Fukuda**; Sanford-Burnham Medical Research Institute

#44 **8:50:** Intratumoral hypoxia induces sialyl-Tn antigen expression and facilitates tumor metastasis; **Kazuaki Ohtsubo**; Kumamoto Univ.

#45 **9:10:** Harnessing novel biomarkers of human embryonic stem cells for cancer diagnosis and therapy; **John Yu**; Chang Gung Memorial Hospital at Linkou, Taoyuan

#46 **9:30:** Heparan sulfate is required for prostate cancer initiation and progression; **Lianchun Wang<sup>1</sup>**, Xuanyang Li<sup>1</sup>, Alison Nairn<sup>1</sup>, Tamas Nagy<sup>2</sup>, Fen Wang<sup>3</sup>, Yu Yamaguchi<sup>4</sup>, Kelley Moremen<sup>1</sup>; <sup>1</sup>Complex Carbohydrate Research Center and University of Georgia; <sup>2</sup>University of Georgia; <sup>3</sup>Texas A&M Health Science Center; <sup>4</sup>Sanford-Burnham Institute for Medical Research

- #47 **9:45:** O-GlcNAc modification of ribosomal RACK1 enhances hypoxia-induced epithelial-mesenchymal transition in hepatocellular carcinoma; **Yuanyuan Ruan**, Jianxin Gu; *Fudan University*

10:00 – 10:30 am

### Coffee Break

Location: **Palm Court Ballroom**

10:30 am – 12:30 pm

### Session VIII: Vascular Glycobiology

Location: **Vinoy Grand Ballroom**

Chair: **Jeff Esko**, Univ. of California, San Diego

**Abstract** Oral Presentation

- #48 **10:30:** Syndecan-coupled receptor kinase signaling in angiogenesis; **Alan Rapraeger**, *University of Wisconsin- Madison*
- #49 **10:55:** Glycosylation in the metabolic origins of common grievous disease; **Jamey Marth**, Won Ho Yang, Peter Aziz, Javier Ochoa-Reparaz; *Univ. of California, Santa Barbara*
- #50 **11:20:** Galectin-3 disruption impaired melanoma associated angiogenesis and reduced VEGF secretion from macrophages stimulated by TGF $\beta$ 1; **Roger Chammas**<sup>1,2</sup>, Camila Machado<sup>1</sup>, Luciana Sousa Andrade<sup>2</sup>, Verônica Teixeira<sup>1</sup>, Fabrício Costa<sup>3</sup>, Camila Melo<sup>1</sup>, Sofia dos Santos<sup>1</sup>, Suely Nonogaki<sup>4</sup>, Fu-Tong Liu<sup>5</sup>, Emerson Bernardes<sup>2</sup>, Anamaria Camargo<sup>6</sup>; <sup>1</sup>*Faculdade de Medicina da Universidade de São Paulo*; <sup>2</sup>*Instituto do Câncer do Estado de São Paulo*; <sup>3</sup>*Northwestern University's Feinberg School of Medicine*; <sup>4</sup>*Instituto Adolfo Lutz, São Paulo*; <sup>5</sup>*Academia Sinica*; <sup>6</sup>*Ludwig Institute for Cancer Research, São Paulo Branch*  
\*selected talk-poster #166
- #51 **11:25:** The role of glycansynthesis and degradation in platelet birth and death; **Karin Hoffmeister**; *Brigham and Women's Hospital/Harvard Medical School*
- #52 **11:50:** Heparosan polysaccharide for drug delivery: a biosuperior alternative to PEGylation; **Paul DeAngelis**; *University of Oklahoma Health Sciences Center*
- #53 **12:15:** Ovarian tumor cell survival mechanisms regulated by ST6Gal-I sialyltransferase; **Susan L. Bellis**, Matthew Schultz, Charles N. Landen; *University of Alabama at Birmingham*  
\*selected talk-poster #167
- #54 **12:20:** A novel neu1 sialidase and matrix metalloproteinase-9 crosstalk regulates epidermal growth factor receptor and its targeted translation in pancreatic cancer;

**Myron Szewczuk**, Alanna M. Gilmour, Samar Abdulkhalek, Timothy S.W. Cheng, Farah Alghamdi, Preethi Jayanth, Leah K. O'Shea, Olivia Geen, Luis A. Arvizu; *Queen's Univ.*  
\*selected talk-poster #168

- #55 **12:25:** Mucin-type O-glycoprotein podoplanin is essential for maintaining high endothelial venule integrity by interacting with platelet CLEC-2; **Lijun Xia**<sup>1,2</sup>, Jianxin Fu<sup>1,2</sup>, Brett H. Herzog<sup>1,2</sup>; <sup>1</sup>*Oklahoma Medical Research Foundation*; <sup>2</sup>*University of Oklahoma Health Sciences Center*  
\*selected talk-poster #180

12:30 – 2:00 pm

### Lunch on Your Own

2:00 – 4:00 pm

### Poster Session III and Exhibits

Coffee break provided

Location: **Palm Court Ballroom**

4:00 – 5:40 pm

### Session IX: Human Disease

Location: **Vinoy Grand Ballroom**

Chair: **Linda Baum**, UCLA

**Abstract** Oral Presentation

- #56 **4:00:** Insight into UDP-GlcNAc : lysosomal enzyme N-acetylglucosamine-1-phosphotransferase function/localization via analysis of mutations in Mucopolipidosis II/III; **Stuart Kornfeld**; *Washington University School of Medicine*
- #57 **4:25:** The Big Bang: an expanding universe of human glycosylation disorders; **Hudson Freeze**; *Sanford-Burnham Medical Research Institute*
- #58 **4:50:** The colon mucus system and the interaction of the MUC2 mucin O-glycans with the microbiota in relation to evolution and colitis; **Gunnar Hansson**; *University of Gothenberg*
- #59 **5:15:** Inhibitory and stimulatory glycans that alter Dendritic cell induced immune responses; **Yvette Van Kooyk**; *VU University Medical Center, Amsterdam*

5:40 – 5:45 pm

### Closing Remarks

Location: **Vinoy Grand Ballroom**

**Christopher M. West**, President, Society for Glycobiology

