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## DAY 1: Saturday, Nov 2, 2019

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- 08:00AM – 06:00PM**     **Registration**  
Ballroom Foyer
- 09:00AM – 05:00PM**     **Satellite 1: Tools in Glycoscience**  
**Session chairs: Richard Cummings (Harvard Medical School) & Robert Woods (CCRC)**  
**Maricopa Room**
- 09:00AM – 01:00PM**     **Satellite 2: Glyco in Biotechnology**  
**Session chair: Parastoo Azadi (University of Georgia, CCRC)**  
**Pima Room**
- 12:00PM – 04:00PM     Board of Directors Meeting (*by invitation only*)  
Gila Room
- 05:30PM – 07:15PM**     **Opening Meyer and Kornfeld Awards Lectures**  
**North Ballroom**
- 5:30PM - 5:45PM     Conference Opening Remarks
- 5:45PM - 6:30PM     Karl Meyer Award Lecture: **Robert Linhardt** (Rensselaer Polytechnic Institute)
- 6:30PM - 7:15PM     Rosalind Kornfeld Award Lecture: **Nancy Dahms** (Medical College of Wisconsin)
- 07:30PM – 09:30PM**     **Welcome Reception & Exhibits**  
**Pueblo Ballroom**

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## DAY 2: Sunday, Nov 3, 2019

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- 07:30AM – 02:00PM**     **Registration**  
Ballroom Foyer
- 07:30AM – 08:30AM**     **Continental Breakfast**  
Ballroom Foyer
- 08:30AM – 10:10AM**     **Session 1: Glycans and Evolution**  
**Session chair: Christopher West (University of Georgia, BCMB)**  
**North Ballroom**
- 08:30AM – 08:55AM     **Pascal Gagneux** (UC San Diego)– *The Runaway Self* – Changing while remaining the same. #1
- 08:55AM – 09:20AM     **Marco Sardiello** (Baylor College of Medicine) – *A Stepwise Mechanism for ER-to-Golgi Transport of Lysosomal Enzymes*. #2
- 09:20AM – 09:45AM     **Jerry Eichler** (Ben Gurion University of the Negev, Israel) – *N-glycosylation in Archaea: Extremely creative*. #3
- Poster Talks**
- 09:45AM – 09:50AM     **Rahil Taujale** (University of Georgia) – *Understanding the sequence-structure-function relationships through a comprehensive evolutionary analysis of GT-A fold glycosyltransferases*. #4/B001

- 09:50AM – 09:55AM **Alan John** (University of Melbourne) – *Deciphering the molecular functions of tryptophan C-mannosylation.* #5/B002
- 09:55AM – 10:00AM **Ishita Chandel** (Texas A&M University) – *Functional players of Protein O-mannosyltransferases 1/2 – mediated regulation of sensory neuron connectivity in Drosophila.* #6/B003
- 10:00AM – 10:05AM **Camilo Perez** (University of Basel, Biozentrum) – *Structure and mechanism of a pH sensing lipoteichoic-acid-anchor flippase.* #7/B004
- 10:05AM – 10:10AM **Sudeshna Saha** (University of California San Diego) – *Exploring Evolutionary Origins of Human-Specific CD33/Siglec-3 Alleles that Protect against Late Onset Alzheimer's Disease: Prior Selection by Uniquely Human Pathogens?* #8/B005

**10:10AM – 10:30AM** **Coffee Break**  
**Ballroom Foyer**

**10:30AM – 12:10PM** **Session 2: Glycobiology of the Microbiome**  
**Session chair: Christine Szymanski (University of Georgia, MB)**  
**North Ballroom**

- 10:30AM – 10:55AM **David Gerlach** (University of Tübingen, Germany) – *Staphylococcus aureus remodels surface glycopolymers to shape colonization and invasion capacities.* #9
- 10:55AM – 11:20AM **Thierry Henet** (University of Zurich, Switzerland) – *Prebiotic action of dietary and mucosal carbohydrates on the gut microbiota.* #10
- 11:20AM – 11:45AM **Katharina Ribbeck** (Massachusetts Institute of Technology) – *Mucin glycans attenuate microbial virulence.* #11

**Poster Talks**

- 11:45AM – 11:50AM **Atossa C. Ghorashi** (University of Texas Southwestern Medical Center) – *Characterizing the role of host fucose in cholera toxin action.* #12/B006
- 11:50AM – 11:55AM **Anna Blenda and Nourine Kamili** (USC School of Medicine Greenville and Emory University School of Medicine) – *Distinct antimicrobial properties of the N- and C- terminal domains of the human protein galectin-9.* #13/B007
- 11:55AM – 12:00PM **Joanna Coker** (University of California San Diego) – *Bacterial community manipulation through glycan-lectin interactions.* #14/B008
- 12:00PM – 12:05PM **Sun-Mi Choi** (University of California San Diego) – *Staphylococcus Aureus Exacerbates Epithelial Barrier Dysfunction in Chronic Rhinosinusitis.* #15/B009
- 12:05PM – 12:10PM **Mathias Braun** (University of Natural Resources and Life Sciences, Vienna) – *A conserved glycosyltransferase from the general protein O-glycosylation pathway of Bacteroidetes.* #16/B010
- 12:10PM – 12:15PM **Sohyoung Lee** (Cornell University) – *Host adaptations of the Salmonella Typhi typhoid toxin and its orthologue from a nontyphoidal Salmonella.* #17/B011

**12:15PM – 01:30PM** **Lunch on your own**

**12:15PM – 01:30PM** **Glycobiology Editorial Board Meeting (by invitation only)**  
**Salons 7 & 8**

**01:30PM – 04:00PM** **Poster Session I and Exhibits**  
**Pueblo Ballroom**

**04:00PM – 05:45PM** **Session 3: Glycotechnology, a translational perspective**  
**Session chair: Parastoo Azadi (University of Georgia CCRC)**  
**North Ballroom**

- 04:00PM – 04:25PM **Max Crispin** (University of Southampton) – *Glycosylation of enveloped viruses: structure and immunogen design.* #18

04:25PM – 04:50PM **Laurence Mulard** (Institut Pasteur, France) – *Synthetic oligosaccharide-based conjugate vaccines against shigellosis: from concept and design to first-in-human study.* #19

04:50PM – 05:15PM **Fredrik Zetterberg** (Galecto Biotech, Denmark) – *Translational aspects of drug discovery and development: TD139 case story, a small molecule Galectin 3 inhibitor in phase 2b trials against IPF.* #20

#### Poster Talks

05:15PM – 05:20PM **Stacy A. Malaker** (Stanford University) – *Enzyme toolkit for selective enrichment and analysis of mucin-domain glycoproteins.* #21/B012

05:20PM – 05:25PM **Uriel Ortega-Rodriguez** (University of Texas at El Paso) – *Structural characterization of T. cruzi Epimastigote Glycosylphosphatidylinositol-Mucin sialoglycans.* #22/B013

05:25PM – 05:30PM **Sriram Neelamegham** (State University of New York- Buffalo) – *Tuning metabolic decoy efficacy by modifying the linkage between carbohydrate and aglycone.* #23/B014

05:30PM – 05:35PM **Manuela Mally** (LimmaTech Biologics AG, Switzerland) – *CustomGlycan: A novel platform for production of therapeutics.* #24/B015

05:35PM – 05:40PM **Jonathon E. Mohl** (University of Texas El Paso) – *Identification and design of transferase specific mucin-type O-glycosylation peptides using ISOGLYP's selective peptide function.* #25/B016

05:40PM – 05:45PM **Akshi Singla** (Texas A&M University) – *Glycolipid-based targeted drug delivery system against multidrug resistant Pseudomonas aeruginosa.* #26/B017

#### 05:45PM – 06:45PM Innovator Award Lecture

##### North Ballroom

**Gerald Hart** (Complex Carbohydrate Research Center, UGA)

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## DAY 3: Monday, Nov 4, 2019

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08:00AM – 02:00PM **Registration**  
Ballroom Foyer

07:30AM – 08:30AM **Continental Breakfast**  
Ballroom Foyer

08:30AM – 10:15AM **Session 4: Systems Biology approaches to Glycobiology**  
**Session chair: Thierry Hennet (University of Zurich)**  
**North Ballroom**

08:30AM – 08:55AM **Morten Thaysen-Andersen** (Macquarie University) – *Uncovering New Aspects of Neutrophil Glycobiology using Glyco(proteo)mics.* #27

08:55AM – 09:20AM **Nathan E. Lewis** (UC San Diego) – *The cellular impact of glycoengineering.* #28

09:20AM – 09:45AM **Ryan Weiss** (UC San Diego, Esko-Laboratory) – *Genome-wide Regulation of Heparan Sulfate Assembly.* #29

#### Poster Talks

09:45AM – 09:50AM **Ronghu Wu** (Georgia Institute of Technology) – *Mass Spectrometry-Based Chemical and Enzymatic Methods for Global Analysis of Protein Glycosylation in Complex Biological Samples.* #30/B018

09:50AM – 09:55AM **Benjamin L. Schulz** (The University of Queensland) – *SWATH glycoproteomics to interrogate post-translational modification dynamics in yeast and sparkling wine.* #31/B019

09:55AM – 10:00AM **Yusen Zhou** (University at Buffalo, SUNY) – *Integrating Mass Spectrometry and RNA-Seq data for Glycosylation Pathway Generation and Simulation.* #32/B020

10:00AM – 10:05AM **Steve M. Fernandes** (Johns Hopkins University School of Medicine) – *Comparative sialoglycan microarray analyses of selected human and mouse Siglecs.* #33/B021

10:05AM – 10:10AM **Kiyoko F. Aoki-Kinoshita** (Soka University) – *The GlyCosmos Portal as a part of the GlySpace Alliance: towards an international glyco-data science collaboration environment.* #34/B022

- 10:10AM – 10:15AM **Shu Zhang** (Zhongshan Hospital, Fudan University) – *N-glycopeptide signatures of IgA2 in serum from patients with hepatitis B virus-related liver diseases.* #55/B035
- 10:15AM – 10:30AM** **Coffee Break**  
**Ballroom Foyer**
- 10:30AM – 12:10PM** **Session 5: Regulatory functions of glycans**  
**Session chair: Lance Wells (University of Georgia, BCMB)**  
**North Ballroom**
- 10:30AM – 10:55AM **Jürgen Lassak** (Ludwig-Maximilians University Munich, Germany) – *An odd couple? – Arginine and rhamnose form a novel glycoconjugate to rescue bacterial translation.* #35
- 10:55AM – 11:20AM **John Allan Hanover** (National Institutes of Health) – *Critical roles for O-GlcNAc in Metabolic Signaling, Stem Cell Biology, and DNA damage repair.* #36
- 11:20AM – 11:45AM **Natasha E. Zachara** (Johns Hopkins School of Medicine) – *Decoding the role of intracellular glycosylation in cytoprotection and disease.* #37
- Poster Talks**
- 11:45AM – 11:50AM **Yanzhuang Wang** (University of Michigan) – *GRASP55 senses energy and nutrient deprivation through O-GlcNAcylation to promote autophagosome-lysosome fusion.* #38/B023
- 11:50AM – 11:55AM **Adam J. Kanack** (Medical College of Wisconsin) – *Platelet and myeloid cell phenotypes in a rat model of Fabry disease.* #39/B024
- 11:55AM – 12:00PM **Brett E. Crawford** (BioMarin Pharmaceutical) – *Discovery of novel ceramide galactosyltransferase inhibitors and their therapeutic application to Krabbe disease.* #40/B025
- 12:00PM – 12:05PM **Seung Yeop Han** (Baylor College of Medicine) – *A Conserved Role for N-Glycanase 1 in Regulating Energy Metabolism through AMPK signaling.* #41/B026
- 12:05PM – 12:10PM **Angelica M. Gomes Ueltschy** (Cleveland Clinic) – *Glucose homeostasis is regulated by hyaluronan synthases 1 and 3.* #42/B027
- 12:10PM – 01:30PM** **Lunch on your own**
- 01:30PM – 04:00PM** **Poster Session II and Exhibits**  
**Pueblo Ballroom**
- 04:00PM – 04:45PM** **Society Business Meeting**  
**North Ballroom**
- 04:45PM – 06:15PM** **MCP and Significant Achievement Award Lecture**  
**North Ballroom**  
**Manfred Wuhrer** (Leiden University Medical Center) – MCP Award Lecture  
**Jochen Zimmer** (University of Virginia) – Significant Achievement Award Lecture
- 06:15PM – 07:00PM** **Break**
- 07:00PM – 11:00PM** **Banquet**  
**North Ballroom**

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**DAY 4: Tuesday Nov 5, 2019**

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**08:00AM – 12:00PM** **Registration**

**Ballroom Foyer**

**07:30AM – 08:30AM** Continental Breakfast

**08:30AM – 10:10AM** **Session 6: Glycobiology of Mammalian development and Stem cells**

**Session chair: Jeffrey D. Esko (UC San Diego)**

**North Ballroom**

08:30AM – 08:55AM **Jamey Marth** (UC Santa Barbara) – *Glycoprotein aging and turnover in the pathogenesis of disease*. #43

08:55AM – 09:20AM **Pamela Stanley** (Albert Einstein College of Medicine) – *An Inhibitor of N-glycan Maturation in Mouse Germ Cells*. #44

09:20AM – 09:45AM **Hans Wandall** (University of Copenhagen) – *Contextualized Functions of Glycans in Tissue Formation*. #45

**Poster Talks**

09:45AM – 09:50AM **Ilhan Akan** (National Institute of Health) – *Oga mutants reveal epigenetic, transcriptional and metabolic factors effecting life span and body size in Drosophila*. #46/B028

09:50AM – 09:55AM **Frank Leon** (University of Nebraska Medical Center) – *Role of Immature CD44 O-glycosylation and its Activation of Targets Responsible for Stemness Properties of Pancreatic Cancer*. #47/B029

09:55AM – 10:00AM **Vladislav Panin** (Texas A&M University) – *Role of sialylation in the control of cardiac functions in Drosophila*. #48/B030

10:00AM – 10:05AM **Yang Yang** (Georgetown University) – *SULF2 overexpression affects survival and modulates sulfation of heparan sulfate proteoglycans in Squamous Cell Carcinoma of the Head and Neck*. #49/B031

10:05AM – 10:10AM **Yan Wang** (Cleveland Clinic) – *Enhanced myofibroblast differentiation in Hyaluronan Synthase1/3 double knockout mice is independent of hyaluronan and mediated by a TGFβR/p38MAPK/MRTF pathway*. #50/B032

**10:10AM – 10:30AM** Coffee Break  
Ballroom Foyer

**10:30AM – 11:45AM** **Session 7: Glycobiology of the Immune System**

**Session chair: Richard Cummings (Harvard Medical School)**

**North Ballroom**

10:30AM - 10:55AM **Jim Paulson** (Scripps Research, La Jolla) – *Siglecs as checkpoints in immune cell responses*. #51

10:55AM - 11:20AM **Avery Posey** (University of Pennsylvania) – *Reprogramming T cells to target glycopeptide epitopes and glycolipids for effective cancer therapy*. #52

**Poster Talks**

11:20AM – 11:25AM **Marija Pezer** (Genos Glycoscience Research Laboratory) – *Immunoglobulin G glycosylation changes in diseases and aging*. #53/B033

11:25AM – 11:30AM **Damien Restagno** (University California Santa Barbara) – *Glycoprotein Aging with Increased Mannose Exposure Linked to Cardiovascular Disease through the Macrophage Mannose Receptor (Mrc1)*. #54/B034

11:30AM – 11:35AM **Jiaxuan Chen** (Beth Israel Deaconess Medical Center) – *Resident and Elicited Macrophages Differ in Expression of their Glycomes and Lectins*. #56/B036

11:35AM – 11:40AM **Vivianne I. Otto** (ETH Zurich) – *The particular glycomes of lymph node lymphatic endothelia and their role in localization and activation of Siglec-1+ subcapsular sinus macrophages*. #57/B037

11:40AM – 11:45AM **Melissa M. Lee-Sundlov** (Blood Research Institute, Versiti) – *Megakaryocyte O-glycan sialylation regulates platelet production through interferon-secreting plasmacytoid dendritic cells*. #58/B038

**11:45AM – 01:30PM** Lunch on your own

**01:30PM – 03:10PM** **Session 8: Glycobiology of Cancer**

**Session chair: Pamela Stanley (Albert Einstein College of Medicine)**

**North Ballroom**

- 01:30PM – 01:55PM **Robert Sackstein** (Florida International University) – *E-Selectin Ligands in Human Leukemogenesis*. #59
- 01:55PM – 02:20PM **Susan Bellis** (UAB School of Medicine, Birmingham) – *ST6Gal-I sialyltransferase promotes pancreatic cancer progression through imparting a cancer stem cell phenotype*. #60
- 02:20PM – 02:45PM **Heinz Läubli** (University of Basel, Dep of Biomedicine) – *Targeting the sialoglycan–Siglec axis augments antitumor immunity allowing effective PD-1 and CTLA-4 blockade*. #61

**Poster Talks**

- 02:45PM – 02:50PM **Yasuyuki Matsumoto** (Beth Israel Deaconess Medical Center- Harvard Medical Center) – *Identification of Novel Glycoproteins with Defined anti-Tn IgG and IgM; Applications as Tumor Diagnostic Biomarkers*. #62/B039
- 02:50PM – 02:55PM **Rachel A. Willand-Charnley** (South Dakota State University) – *Modulation of Siglec Binding Via SIAE and CASD1-An Immune Evasion Pathway for Breast and Colon Cancers*. #63/B040
- 02:55PM – 03:00PM **Su-Ryun Kim** (Food and Drug Administration) – *The Role of Core 3  $\beta$ 3-N-Acetylglucosaminyltransferase in Colorectal Cancer*. #64/B041
- 03:00PM – 03:05PM **Kathrin Stavenhagen** (Beth Israel Deaconess Medical Center- Harvard Medical Center) – *Endogenous Ligands of The Mannose Receptor C-Type Lectin Domain in Cancer And Control Tissue*. #65/B041
- 03:05PM – 03:10PM **Ryan N. Porell** (University of California San Diego) – *Reprogramming the Tumor Microenvironment with Macrophage-Targeted Glycopolymers*. #66/B043
- 03:10PM – 03:15PM **Closing Remarks**