

THURSDAY, APRIL 1, 2021

Co-Chairs: Philip Gordts, Department of Medicine & Gulcin Pekkurnaz, Division of Biological Sciences

SESSION I 8:30–10:10AM

- Philip Gordts** *UC San Diego* • Session Chair **Patricia Aguilar** *UC San Diego* • NextGen Moderator
- 8:30–8:35 **Philip Gordts** *UC San Diego*
Opening Remarks
- 8:35–9:00 **Markus Aebi** *ETH Zürich*
N-glycoprotein biogenesis – from the perspective of a process engineer
- 9:00–9:25 **Dannielle Engle** *The Salk Institute*
The glycan CA19-9 as a vulnerability in pancreatic disease
- 9:25–9:40 **Chelsea Painter** *UC San Diego*
Alteration of Neuropilin-1 and Heparan Sulfate Interaction Impairs Angiogenesis-Dependent Tumor Growth
- 9:40–9:55 **Ryan Porell** *UC San Diego*
Proteoglycan Mimetic Materials for Profiling Protein-GAG Interactions
- 9:55–10:10 **Christina Termini** *UC Los Angeles*
Dual role of Syndecan-2 as a marker and regulator of hematopoietic stem cells

~ Break ~

SESSION II 10:15AM–12:45PM

- Gulcin Pekkurnaz** *UC San Diego* • Session Chair **Nina Gao** *UC San Diego* • NextGen Moderator
- 10:15–10:40 **Amanda Lewis** *UC San Diego*
Glycobiology and the vaginal microbiome
- 10:40–11:05 **Carlito Lebrilla** *UC Davis*
Characterizing cell membrane glycosylation for host-microbe interactions
- 11:05–11:20 **Daniel Sandoval** *UC San Diego*
The Prolyl-tRNA Synthetase Inhibitor Halofuginone Inhibits SARS-CoV-2 Infection
- 11:20–11:35 **So Young Kim** *UC San Diego*
Targeting dendritic cell heparan sulfate: novel roles in anti-pathogen cellular immunity
- 11:35–11:50 **Chirag Dhar** *UC San Diego*
Acidosis, Zinc, HMGB1, and sialoglycan recognition in Sepsis: Implications for COVID-19 research
- ~ Break ~
- 11:55–12:20 **Rommie Amaro** *UC San Diego*
Computational Microscopy of SARS-CoV-2
- 12:20–12:45 **Jeffrey Esko** *UC San Diego*
SARS-CoV-2 Infection Depends on Cellular Heparan Sulfate
- 12:45–12:50 **Closing Remarks**

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All talks are off-the-record

FRIDAY, APRIL 2, 2021

Co-Chairs: Philip Gordts, Department of Medicine & Gulcin Pekkurnaz, Division of Biological Sciences

SESSION III 8:30–10:10AM

Gulcin Pekkurnaz *UC San Diego* • Session Chair **Joanna Coker** *UC San Diego* • NextGen Moderator

- 8:30–8:35 **Gulcin Pekkurnaz** *UC San Diego*
Opening Remarks
- 8:35–9:00 **Nathan Lewis** *UC San Diego*
Discovery of glycan function through A.I. and genome editing
- 9:00–9:25 **Carolyn Bertozzi** *Stanford University*
Therapeutic opportunities in glycoscience
- 9:25–9:45 **RISING STAR PRESENTATION: Patricia Aguilar Calvo** *UC San Diego*
Reducing neuronal heparan sulfate sulfation reduces parenchymal prion deposition and drastically slows prion disease progression
- 9:45–10:00 **Phillip Bartels** *UC San Diego*
Targeting neurodegeneration in Gaucher/Parkinson's Disease using a modified form of enzyme replacement therapy
- 10:00–10:15 **Howard Wang** *UC San Diego*
Spatial Organization of Hexokinase 1 via O-GlcNAcylation

~ Break ~

SESSION IV 10:15AM–12:55PM

Philip Gordts *UC San Diego* • Session Chair **Sudeshna Saha** *UC San Diego* • NextGen Moderator

- 10:20–10:30 **A few words from our sponsors**
- 10:30–10:55 **James Paulson** *The Scripps Research Institute*
Sialic acid ligands of CD28 in regulation of T cell activation
- 10:55–11:20 **Christina Sigurdson** *UC San Diego*
The pivotal role of glycans in the fold and trafficking of prions
- 11:20–11:35 **John Thompson** *Caltech*
Networking of OGT interactors and substrates (NOTISE) uncovers both unique and conserved functional communities across tissues
- 11:35–11:50 **Damien Restagno** *Sanford Burnham Prebys Medical Discovery Institute*
The Macrophage Mannose Receptor (Mrc1) in Blood Glycoprotein Turnover Linked to Cardiovascular Diseases

~ Break ~

- 11:55–12:20 **Xi Chen**, *UC Davis*
Sialoglycan microarrays, constructions and applications
- 12:20–12:45 **Kevin Campbell** *University of Iowa*
Regulation of dystroglycan function via LARGE1-mediated elongation of matriglycan
- 12:45–12:50 **Closing Remarks**

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