

**CDMX**  
**MEXICO**  
PALACE OF THE SCHOOL  
OF MEDICINE

**OCTOBER**  
**4 - 7**

**4<sup>th</sup> CONGRESS**

**LATIN AMERICAN  
OF GLYCOBIOLOGY**



SOCIEDAD MEXICANA  
DE INMUNOLOGÍA  
En la lucha contra las enfermedades  
infecciosas, autoinmunes, alergias y el cáncer



**Welcome to the most important event in Latin America related to glycoscience. You will have access to a high quality international scientific program with outstanding speakers, bringing you the latest advances on glycoscience, a thriving and multidisciplinary field that is defining our understanding of carbohydrates known as glycans and their use for the resolution of a wide variety of biological problems including very important health issues such as cancer, diabetes, infectious diseases, immunity, obesity, among others. We aim for the scientific community to fully explore the roles of carbohydrates in their research fields by giving access to state of the art expertise and tools that take the mystery away from glycans and bring interest and discoveries to the benchtop.**

**We invite you and your colleagues to invest your time and knowledge during this event in essential collaborative networking, enhancing your success in funding and development of high quality international projects.**

### **Iván Martínez Duncker**

**President of the Latin American Society for Glycobiology  
Head of the Glycoscience in Health Thematic Network CONACYT**

### **ORGANIZING COMMITTEE**

**Carlos Josué Solórzano Mata, Universidad Autónoma Benito Juárez de Oaxaca  
Ismael Secundino Velázquez, Universidad Nacional Autónoma de México  
Iván Martínez Duncker, Universidad Autónoma del Estado de Morelos  
Juana Elizabeth Reyes Martínez, Universidad de Guanajuato  
Yobana Pérez Cervera, Universidad Autónoma Benito Juárez de Oaxaca**

### **SCIENTIFIC ADVISORY**

**Arturo Edgar Zenteno Galindo, Universidad Nacional Autónoma de México  
Héctor M. Mora-Montes, Universidad de Guanajuato  
Laura Alicia Palomares Aguilera, Universidad Nacional Autónoma de México  
Leila Lopes Bezerra, Universidad do Estado do Rio de Janeiro  
Tony Lefebvre, Universite de Lille 1-Sciences et Technologies  
Verónica Vallejo Ruíz, Instituto Mexicano del Seguro Social**

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# **WEDNESDAY, OCTOBER 4**

**8:00 - 18:00 Pre-meeting course “Fundamentals of Glycobiology”**

<b>8:00-8:30</b>	<b>Registry</b>
<b>8:30-9:30</b>	<b>Glycan chemistry and biology</b> <b>Roberta Salinas Marín</b>
<b>9:30-11:00</b>	<b>N-glycosylation</b> <b>Tania Villanueva Cabello</b>
<b>11:00-12:00</b>	<b>O-glycosylation</b> <b>Kathya Gutiérrez Huante</b>
<b>12:00-12:30</b>	<b>Coffee Break</b>
<b>12:30-14:00</b>	<b>Congenital Disorders of Glycosylation</b> <b>Iván Martínez Duncker</b>
<b>14:00-15:00</b>	<b>Lunch</b>
<b>15:00-16:00</b>	<b>Glycobiology and Cancer</b> <b>Verónica Vallejo Ruíz</b>
<b>16:00-17:00</b>	<b>Glycobiology and Metabolic Disease</b> <b>Yobana Pérez Cervera</b>
<b>17:00-18:00</b>	<b>Structural analysis of glycans</b> <b>Gleysin Cabrera Herrera</b>
<b>14:00-18:00</b>	<b>Registry</b>
<b>19:00-21:00</b>	<b>Cocktail reception</b>

# THURSDAY, OCTOBER 5

**08:30-09:00**

**Inauguration**  
**Iván Martínez Duncker**  
**President of the Latin American Society for Glycobiology**  
**Head of the Glycoscience in Health Thematic Network CONACYT**

## PRESIDIUM

**Germán Fajardo Dolci**  
**Director of the Faculty of Medicine, UNAM**

**Arturo Edgar Zenteno Galindo**  
**Organizing committee, Faculty of Medicine, UNAM**

**Verónica Bunge Vivier**  
**Director of Networks and Scientific Infrastructure -CONACYT**

**Pablo Zazueta Carpinteyro/Alma Delia Pérez Villanueva**  
**Network Program-CONACYT**

**Octavio Tonatiuh Ramirez Reivich**  
**Director of the Institute of Biotechnology , UNAM**

**09:00-10:00**

**OPENING CONFERENCE**  
**Robert Sackstein**  
**Professor, Harvard Medical School, USA**  
**Director, Program of Excellence in Glycosciences**

**10:00-10:30 Coffee Break**

## **Session 1: Glycobiology of pathogens**

**Chair - Everardo López**

<b>10:30-11:00</b>	<b>Keynote: Héctor M. Mora-Montes - Universidad de Guanajuato, Mexico</b> <b>Bringing glycobiology and immunology together, a fungal perspective</b>
<b>11:00-11:20</b>	<b>Gustavo Niño Vega - Universidad de Guanajuato, Mexico</b> <b>Molecular mechanisms of fungal cell wall assembly and remodeling, as potential targets for the design of antifungal strategies</b>
<b>11:20-11:50</b>	<b>Leila Lopes Bezerra - Universidad do Estado do Rio de Janeiro, Brazil</b> <b>The human endothelial cell proteome is modulated by a cell wall polysaccharide of an opportunistic fungal pathogen</b>
<b>11:50-12:20</b>	<b>Keynote: Luis Carlos Castillo Barahona - Universidad La Serena, Chile</b> <b>N and O-Glycosylation are involved in cell wall organization, adhesion and virulence in the ubiquitous plant pathogen <i>Botrytis cinerea</i></b>
<b>12:20-12:40</b>	<b>Poster “Lightning talks”</b>
<b>12:40-14:00</b>	<b>Lunch</b>

## **Session 2: Microbial and pathogen glycobiology**

**Chair - Héctor Mora**

<b>14:00-14:30</b>	<b>Keynote: Gerardo Vasta - University of Maryland, USA</b> <b>Role(s) of galectin-glycan interactions in microbial and parasitic infection</b>
<b>14:30-14:50</b>	<b>Juana Elizabeth Reyes Martínez -</b> <b>Universidad de Guanajuato, Mexico</b> <b>Biocatalysis for the synthesis of complex carbohydrates</b>
<b>14:50-15:20</b>	<b>Coffee Break</b>
<b>15:20-15:50</b>	<b>Keynote: Igor C. Almeida - University of Texas at El Paso, USA</b> <b>Synthetic glycan- and peptide-based vaccines protect against heart inflammation and parasite burden in a nonhuman primate model of Chagas disease</b>
<b>15:50-16:30</b>	<b>Selected oral presentations</b>
<b>16:30-18:30</b>	<b>Poster Session 1</b>

# **FRIDAY, OCTOBER 6**

## **Session 3: Glycobiotechnology**

**Chair - Patricia Gorocica**

**09:00-09:20**

**Gleysin Cabrera Herrera - Centro de Ingeniería Genética y Biotecnología, Cuba**  
**Treatment with Heberprovac changes of O-glycans profile in prostate cancer patients**

**09:20-09:40**

**Asapanalitica**

**09:40-10:00**

**Laura Alicia Palomares Aguilera - Instituto de Biotecnología, UNAM**  
**Redox potential and the N-glycosylation profile of monoclonal antibodies**

**10:00-10:20**

**Octavio Tonatiuh Ramirez Reivich - Instituto de Biotecnología, UNAM**  
**Influence of bioprocessing conditions on the glycosilation profile of recombinant proteins**

**10:20-10:50**

**Keynote: Sabine Flitsch - University of Manchester, UK**  
**Tools for structure-function studies of glycoconjugates**

**10:50-11:30**

**Selected oral presentations**

**11:30-12:30**

**Thematic Network: Challenges and Opportunities**

**12:30-14:30**

**Poster Session 2**

**14:30-16:00**

**Lunch**

**16:00-----**

**Tour at Historical Center of CD.MX.**

# SATURDAY, OCTOBER 7

## Session 4 Metabolic and degenerative disease

Chair - Edgar Zenteno

9:00-9:30

**Keynote: Dulce Papy-García - Universite Heparan sulfate in the Alzheimer brain. Are these glycans involved in the development of the pathology?**

9:30-9:50

**Marie-Ange Krzewinski Reichhi - Université de Lille, France**  
**State of the art of CDG in Europe... and in Lille (France)**

9:50-10:20

**Keynote: Hudson Freeze - Sanford Burnham Prebys Medical Discovery Institute, USA**  
**Congenital Disorders of Glycosylation: Progress and perspectives**

10:20-10:40

**Vanessa Dehennaut Lefebvre - Institut de Biologie de Lille, France**  
**O-GlcNAcylation: a new link between nutrition, epigenetics and colorectal cancer?**

10:40-11:10

**Keynote: Tony Lefebvre - Universite de Lille 1-Sciences et Technologies, France**  
**OGT: an enzyme standing out from usual glycosyltransferases**

11:10-11:30

**Coffee Break**

11:30-12:00

**Keynote: Chihiro Sato - Nagoya University, Japan**  
**Mechanisms that SNPs of the ST8SIA2/STX gene lead to psychiatric disorders**

12:00-14:00

**Lunch**

## **Session 5 Sialic acid in cancer and immunology**

**Chair - Sabine Flitsch**

<b>14:00-14:20</b>	<b>Annick Pierce - Université des Sciences et des Technologies de Lille, France</b> <b>Crosstalk between posttranslational modifications regulates delta-lactoferrin antitumoral activities</b>
<b>14:20-14:50</b>	<b>Keynote: Bo Rueda - Massachusetts General Hospital, USA</b> <b>Targeting the Sialyl-Thomsen-nouveau (STn) antigen to develop treatment strategies for high grade ovarian cancer</b>
<b>14:50-15:10</b>	<b>Verónica Vallejo Ruiz - Centro de Investigación Biomédica de Oriente, Mexico</b> <b>Human papillomavirus oncoproteins modulate glycogene expression profiles</b>
<b>15:10-15:30</b>	<b>Coffee Break</b>
<b>15:30-15:50</b>	<b>Myron R. Szewczuk - Queen's University, Canadá</b> <b>Sialylation facilitates 3D multicellular tumor spheroid formation and cancer initiation</b>
<b>15:50-16:10</b>	<b>Keynote: Ken Kitajima, Nagoya University, Japan</b> <b>Differential fate of medaka fish, Oryzias latipes, with different point-mutations in the CMP-sialic acid synthetase gene</b>

16:10-16:30	<b>Ismael Secundino Velázquez - Instituto de Biotecnología, UNAM, Mexico</b> <b>Erythrocyte sialoglycoproteins bind Siglec-9 to maintain neutrophil quiescence in the bloodstream</b>
16:30-16:50	<b>Tania Villanueva Cabello - Universidad Autónoma del Estado de Morelos, Mexico</b> <b>Novel sialoglycoconjugates in T CD4+ cells</b>
16:50-17:10	<b>Sophie Groux-Degroote - Université de Lille, France</b> <b>Molecular mechanism of TNF-induced sialyl-Lewis<sup>x</sup> expression in human bronchial mucosa and effect on bacterial adhesion</b>
17:10-18:00	<b>CLOSING SESSION</b> <b>Rafael Rubio García, University of Virginia, USA</b> <b>The role of endothelial luminal glycosylated structures and their recognition by lectins in endothelial functions</b>
20:00	<b>DINNER</b>