



# IX LACLS

LATIN AMERICAN COURSE ON  
LYSOSOMAL STORAGE DISEASES

September 14 - 18, 2026

Antigua, Guatemala

## CERTIFICATE

This is to certify that

**Bruno Bordest**

Attended the IX LACLS held in Antigua, Guatemala, on September 14<sup>th</sup> to 18<sup>th</sup>, 2026.  
The event had a total duration of 25 hours (program and details are provided on the back).

Roberto Giugliani  
(Course Chairman)

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## PROGRAM AT A GLANCE

September 14 - 18, 2026  
Antigua, Guatemala

|               | SEP 14 - Monday                                                               | SEP 15 - Tuesday                                                                                                     | SEP 16 - Wednesday                                                                                  | SEP 17 - Thursday                                                                                                                                      | SEP 18 - Friday                                                                                                                                          |
|---------------|-------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
|               |                                                                               | SESSION 2 (Chair: <i>N Gomez-Ospina</i> )                                                                            | SESSION 6 (Chair: <i>H Amartino</i> )                                                               | SESSION 8 (Chair: <i>P Rozenfeld</i> )                                                                                                                 | SESSION 12 (Chair: <i>U Ramaswami</i> )                                                                                                                  |
| 08:00 – 08:40 | Arrivals                                                                      | Clinical Aspects and Management of Gaucher Disease<br><i>Gregory Pastores (UK)</i>                                   | Laboratory Diagnosis of MPS and Related Diseases<br><i>Francyne Kubaski (USA/Brazil)</i>            | Niemann Pick C and other Lysosomal Transport Diseases<br><i>Andrés Klein (Chile)</i>                                                                   | Presentation of selected cases by delegates<br><br><i>Discussion with all faculty members, moderated by Luis Figuera (Mexico) and Uma Ramaswami (UK)</i> |
| 08:40 – 09:20 |                                                                               | Laboratory Diagnosis of Gaucher Disease<br><i>Paula Rozenfeld (Argentina)</i>                                        | Treatment for MPS and Related Diseases<br><i>Joseph Muenzer (USA)</i>                               | GM1 and GM2 Ceroid Lipofuscinoses<br><i>Hernán Amartino (Argentina)</i>                                                                                | SESSION 13 (Chair: <i>G Baldo</i> )                                                                                                                      |
| 09:20 – 10:00 |                                                                               | Acid Sphingomyelinase Deficiency<br><i>Roberto Giugliani (Brazil)</i>                                                | Hematopoietic Stem Cell Transplantation in LDs<br><i>Carmem Bonfim (Brazil)</i>                     | MLD, Krabbe and other Leukodystrophies<br><i>Natalia Gomez-Ospina (USA/Colombia)</i>                                                                   | Gene Therapy for LDs<br><i>Raphael Schiffmann (USA)</i>                                                                                                  |
| 10:00 – 10:30 |                                                                               | Official Picture / Coffee Break                                                                                      | Coffee Break                                                                                        | Coffee Break                                                                                                                                           |                                                                                                                                                          |
| 10:30 – 11:10 |                                                                               | SESSION 3 (Chair: <i>G Pastores</i> )                                                                                | SESSION 7 (Chair: <i>J Muenzer</i> )                                                                | SESSION 9 (Chair: <i>C Prada</i> )                                                                                                                     | Genome Editing for LDs<br><i>Natalia Gomez-Ospina (USA/Colombia)</i>                                                                                     |
| 11:10 – 11:50 |                                                                               | Clinical Aspects and Management of Pompe<br><i>Uma Ramaswami (UK)</i>                                                | Clinical Aspects, Diagnosis and Management of Fabry<br><i>Uma Ramaswami (UK)</i>                    | Inflammation and LDs<br><i>Paula Rozenfeld (Argentina)</i>                                                                                             |                                                                                                                                                          |
| 11:50 – 12:30 |                                                                               | Laboratory Diagnosis of Pompe Disease<br><i>Francyne Kubaski (USA/Brazil)</i>                                        | Key Questions on Gaucher, Fabry and Pompe Disease<br><i>(Discussion led by Gregory Pastores)</i>    | Drug Development Process from Bench to Pharmacy<br><i>Guilherme Baldo (Brazil)</i>                                                                     | Key Takeaways<br>Closure<br><i>Roberto Giugliani (Brazil)</i>                                                                                            |
| 12:30 – 14:00 |                                                                               | Clinical Aspects of MPS and Related Diseases<br><i>Joseph Muenzer (USA)</i>                                          | Use and pitfalls of AI in the diagnosis and treatment of the LDs<br><i>Raphael Schiffmann (USA)</i> | Modifier Genes in Lysosomal Diseases<br><i>Andrés Klein (Chile)</i>                                                                                    | NOTE: Course will adjourn by 11:30 to allow timely transfers to the airport                                                                              |
|               |                                                                               | Lunch at hotel                                                                                                       | Lunch at hotel                                                                                      | Lunch at hotel                                                                                                                                         | Lunch at hotel                                                                                                                                           |
| 14:00 – 14:40 | Secretary Open<br>(from 14:00)                                                | SESSION 4 (Chair: <i>R Schiffmann</i> )                                                                              | Networking<br>Afternoon and<br>Evening                                                              | SESSION 10 (Chair: <i>A Klein</i> )                                                                                                                    | Departures                                                                                                                                               |
| 14:40 – 15:20 | Hotel check-in<br>(from 15:00)                                                | Alpha-Mannosidosis and other Glycoproteinoses<br><i>Carlos Prada (USA/Colombia)</i>                                  |                                                                                                     | Neonatal Screening for LDs<br><i>Carlos Prada (USA/Colombia)</i>                                                                                       |                                                                                                                                                          |
| 15:20 – 16:00 | Welcome Reception<br>(15:30)                                                  | Mechanism of Neurodegeneration in LDs<br><i>Hernán Amartino (Argentina)</i>                                          |                                                                                                     | Diagnosis of LDs in the Multiomic Era<br><i>Filippo Vairo (USA/Brazil)</i>                                                                             |                                                                                                                                                          |
|               |                                                                               | Variant Interpretation Guidelines for LDs<br><i>Filippo Vairo (USA/Brazil)</i>                                       |                                                                                                     | What an Emerging LSD Specialist Should Understand?<br><i>Uma Ramaswami (UK), Gregory Pastores (UK), Raphael Schiffmann (USA), Joseph Muenzer (USA)</i> |                                                                                                                                                          |
| 16:00 – 16:30 | SESSION 1 (Chair: <i>R Giugliani</i> )                                        | Coffee Break                                                                                                         |                                                                                                     | Coffee Break                                                                                                                                           |                                                                                                                                                          |
| 16:30 – 17:10 | Cell Biology and Biochemistry of Lysosomes<br><i>Guilherme Baldo (Brazil)</i> | SESSION 5 (Chair: <i>F Vairo</i> )                                                                                   |                                                                                                     | SESSION 11 (Chair: <i>F Vairo</i> )                                                                                                                    |                                                                                                                                                          |
| 17:10 – 17:50 | Pathophysiology of LDs<br><i>Carlos Prada (USA/Colombia)</i>                  | Group work: Preliminary presentation of cases by delegates in small groups<br><i>(Supervised by faculty members)</i> |                                                                                                     | Group work (cont.): Preliminary presentation of cases by delegates in small groups<br><i>(Supervised by faculty members)</i>                           |                                                                                                                                                          |
| 17:50 – 18:30 | Clinical Overview and Genetic Aspects of LDs<br><i>Luis Figuera (Mexico)</i>  | 20:00 - Dinner at hotel                                                                                              |                                                                                                     | 20:30 - Special Dinner                                                                                                                                 |                                                                                                                                                          |
| Evening       | 19:00 - Dinner at hotel                                                       |                                                                                                                      |                                                                                                     |                                                                                                                                                        |                                                                                                                                                          |