

International Symposium on
Cellular Mechano-transduction
and **Biomimetic Technologies**



November 19–22, 2024

Yelizcalli Auditorium, Faculty of Sciences,
Universidad Nacional Autónoma de México (UNAM),
Mexico City.



The cost of the four practical sessions is
\$3000 mxn for students and \$5000 mxn for teachers.



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Register here

November 19

Day 1: Welcome and Advances in Cellular Adhesion and Mechanics
09:30 AM – 6:30 PM

- 9:30 AM – 10:00 AM: Registration
- 10:00 AM – 10:30 AM: Welcome and Introduction (Mexico)
- 10:30 AM – 11:30 AM: Presentation 1- Dr. Jay Groves (USA, in-person) - Membrane Biophysics and Cellular Signaling
- 11:30 AM – 12:30 PM: Presentation 2 - Dr. Alex Dunn (USA, online) Mechanical forces in development
- 12:30 PM – 1:30 PM: Presentation 3 - Dr. Milica Radisic (Toronto, online) - Tissue Engineering and Regenerative Medicine
- 1:30 PM – 2:30 PM: Lunch Break
- 2:30 PM – 3:30 PM: Poster Presentations by Participants (Yelizcalli)
- 3:30 PM – 6:30 PM: Practical Session 1 - Laboratory (Mexico) 💰

November 20

Day 2: Microfluidics and Mechanotransduction
10:00 AM – 7:00 PM

- 10:00 AM – 11:00 AM: Presentation 4 - Dr. Boyang Zhang (Canada, online) - Microfluidics and Organ-on-a-Chip Systems
- 11:00 AM – 12:00 PM: Presentation 5 - vDr. Daniel Riveline - Symmetry breaking and collective physics in biological physics (France, online)
- 12:00 PM – 1:00 PM: Poster Presentations by Participants (Yelizcalli)
- 1:00 PM – 2:00 PM: Lunch Break
- 2:00 PM – 3:00 PM: Presentation 6 - Edda Sciuto/Nicolás Pérez (Mexico in person) Blood-Brain Barrier-on-a-Chip: A Novel Tool to Study Neuroinflammation.
- 3:00 PM – 4:00 PM: Presentation 7 - Dr. Jorge Luis Menchaca (Mexico in-person) - Mechanotransduction Mechanisms
- 4:00 PM – 7:00 PM: Practical Session 2 - Laboratory (Mexico) 💰



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November 21

Day 3: Innovations in Biomimetic Technologies
10:00 AM – 7:00 PM

- **10:00 AM – 11:00 AM: Presentation 8 – Dr. Julien Husson (France, online) Mechanobiology and Cell Mechanics**
- **11:00 AM – 12:00 PM: Presentation 9 – Dr. Riccardo Levato (Netherlands, online) 3D Bioprinting and Biomaterials**
- **12:00 PM – 1:00 PM: Presentation 10 – Dr. Fabian Díaz (Mexico in-person) Neural Tube Generation via 3D Cultures of Progenitor Cells**
- **1:00 PM – 2:00 PM: Lunch Break**
- **2:00 PM – 3:00 PM: Presentation 11 – “Molecular tuning of cellular immune response” – Dr. Laurent Limozin (France, in person)**
- **3:00 PM – 4:00 PM: Presentation 12 – Diana Velázquez / Amairani Ventura (Mexico in person) characterization of transmigration and effect of cell geometry in the NK activation.**
- **4:00 PM – 7:00 PM: Practical Session 3 – Laboratory (Mexico) 💰**

November 22

Day 4: Molecular Mechanisms and Future Directions
10:00 AM – 6:00 PM

- **10:00 AM – 11:00 AM: Presentation 13 – Dr. Pierre Henry Puech (France, in person) – The Cells Mechanotransduction Across Scales**
- **11:00 AM – 12:00 PM: Presentation 14 – Dr. Mathieu Hautefeuille (France, online) – Microfluidics and Biomimetic Devices**
- **12:00 PM – 1:00 PM: Presentation 15 – Dr. Kheya Sengupta (France, in person) – Molecular Mechanisms in Cellular Microenvironments**
- **1:00 PM – 2:00 PM: Lunch Break**
- **2:00 PM – 3:00 PM: Round Table Discussion on Future Collaborations and Closing Remarks**
- **3:00 PM – 6:00 PM: Practical Session 4 – Laboratory (Mexico) 💰**