



Sociedad Mexicana  
de Bioquímica  
Neurobiología



## PROGRAM

# IV Neurobiology Meeting of the Mexican Society for Biochemistry

*Mision de los Angeles Hotel, Oaxaca City, Oaxaca, México*  
**April 3-7, 2022**

### **Organizing Committee:**

Leonor Pérez Martínez, Instituto de Biotecnología, UNAM in Cuernavaca.  
Yazmín Macotela, Instituto de Neurobiología, UNAM in Queretaro.  
Oscar Galicia, Departamento de Psicología, Universidad Iberoamericana in Mexico City.  
Oscar Zamora , Facultad de Psicología, UNAM in Mexico City.  
Arturo Ortega, Cinvestav, IPN in Mexico City.  
Gustavo Pedraza, Instituto de Biotecnología, UNAM in Cuernavaca.  
Iván Velasco, Instituto de Fisiología Celular, UNAM and Instituto Nacional de Neurología y Neurocirugía in Mexico City.

**SUNDAY, APRIL 3**

### **Pre-Meeting course “Organoids and single-cell sequencing in Neuroscience”**

**Organizers:** Dr. Leonor Pérez-Martínez / Dr. Iván Velasco  
Instituto de Biotecnología, UNAM / Instituto de Fisiología Celular, UNAM and Instituto Nacional de Neurología y Neurocirugía.

**9:00-10: 00**

Dr. Jiaqian Wu / Dr. Raquel Cuevas-Díaz Durán  
The University of Texas Health Science Center at Houston, MD Anderson Cancer Center UTHealth Graduate School of Biomedical Sciences, USA / Tecnológico de Monterrey, Monterrey, México

**10:00-11:00** *Building multilevel atlases one cell at a time using patch-seq technology*  
Dr. Violeta López-Huerta  
Instituto de Fisiología Celular, UNAM, Mexico City

**11:00-11:30** *Coffee break*

**11:30-12:30** *Single-cell sequencing of neurons in the nematode C. elegans*  
Dr. Julián Valdés  
Instituto de Fisiología Celular, UNAM, Mexico City

- 12:30-13:30** *Diversity of astrocytes at single-cell resolution*  
Dr. Shane A. Liddelow  
Neuroscience Institute, NYU Grossman School of Medicine, New York, NY, USA.

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**13:30-14:30**

**Lunch**

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- 14:30-15:30**  
Dr. Yuta Takahashi  
The Salk Institute, San Diego, CA, USA
- 15:30-16:30** *New 3D brain organoids for modeling human brain development and disorders*  
Dr. Guo-Li Ming / Dr. Zhexing Wen  
Perelman School of Medicine at the University of Pennsylvania, Philadelphia,  
PA / Emory University Emory University School of Medicine, Atlanta, GA, USA

SUNDAY, APRIL 3

## Open House for the public / Día de Puertas Abiertas

**Chair:** Dr. Gustavo Pedraza  
Instituto de Biotecnología, UNAM

- 11:00-11:30** *De vacas y vacunas. La historia de cómo los humanos logramos domesticar a las pandemias*  
Dra. Karla F. Meza Sosa  
Instituto de Biotecnología, UNAM
- 11:30-12:00** *¿Cómo puede dañar la COVID-19 a tu cerebro?*  
Dr. Juan Carlos González-Orozco  
Instituto de Fisiología Celular, UNAM
- 12:00-12:30** *Diferentes acercamientos para estudiar la conducta animal*  
Dra. Citlalli Netzahualcoyotzi Piedra  
Instituto de Fisiología Celular, UNAM
- 12:30-13:00** *Generación de nuevas neuronas en el cerebro de adultos ¿Qué son las células troncales neurales?*  
Dra. Itzel Escobedo Avila  
Instituto de Fisiología Celular, UNAM
- 13:00-13:30** *Alexa, ¿van a destruirnos los robots? Presente y futuro de la inteligencia artificial*  
Dr. David Valle García  
Instituto de Biotecnología, UNAM
- 13:30-14:00** *Todo lo que querías saber sobre la marihuana pero temías preguntar*  
Dr. Oscar Galicia  
Universidad Iberoamericana, Ciudad de México
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SUNDAY, APRIL 3

## IV Neurobiology Meeting

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**17:45–18:00** **Welcome ceremony**

**18:00–19:00** **Opening Talk**

*TDB*

Dr. Shane A. Liddelow

Neuroscience Institute, NYU Grossman School of Medicine, New York, NY, USA

**Chair:** Dr. Leonor Pérez-Martínez  
Instituto de Biotecnología, UNAM

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**19:00** **Welcome cocktail**

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MONDAY, APRIL 4

**9:00–11:00** **Symposium I**

### **EPIGENETICS, GENE REGULATION AND NEURODEVELOPMENTAL DISEASES**

**Chair:** Dr. Leonor Pérez-Martínez  
Instituto de Biotecnología, UNAM

Dr. Julián Valdés  
Instituto de Fisiología Celular, UNAM, México

Raquel Cuevas-Díaz Durán  
Tecnológico de Monterrey, Monterrey, México

*In vivo gene editing to study neurodevelopmental disorders*  
Dr. Violeta Lopez-Huerta  
Instituto de Fisiología Celular, UNAM, México

Dr. Zhexing Wen  
Emory University Emory University School of Medicine, Atlanta, GA, USA

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**11:00 – 11:20** *Scientific presentation from sponsors*

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**11:20 – 11:40** **Coffee break**

**11:40 – 12:40**

**Plenary Lecture I**

***Integrative study of gene expression and transcriptional regulation in the CNS***

Dr. Jiaqian Wu

The University of Texas Health Science Center at Houston / MD Anderson Cancer Center,  
Houston, USA

**Chair:** Dr. Iván Velasco

Instituto de Fisiología Celular, UNAM

**12:40–13:40**

**Four oral presentations selected from the abstracts I**

**Chair:** Dr. Oscar Zamora

Facultad de Psicología, UNAM, Mexico City

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**13:40 -15:00**

**Lunch**

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**15:00–17:00**

**Symposium II**

**BEHAVIOR AND PHARMACOLOGY**

**Chair:** Dr. Oscar Galicia

Departamento de Psicología, Universidad Iberoamericana, Mexico City

Dr. Ingrid Fetter-Pruneda

Instituto de Investigaciones Biomédicas, UNAM, Mexico City

Dr. Mario Buenrostro Jauregui

Departamento de Psicología. Universidad Iberoamericana, Mexico City

Dr. Humberto Gutiérrez

Instituto Nacional de Medicina Genómica, Secretaría de Salud, Mexico City

Dr. Jose Rodríguez-Romaguera

The University of North Carolina at Chapel Hill, USA

**17:00 – 17:05**

**1 min talks for poster advertisings**

**Chair:** Dr. Arturo Ortega-Soto

Cinvestav, México City

**17:05 – 19:00**

**Poster Session I (Even numbers)**

**19:00-20:00**

***Having a beer with the speakers***

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**TUESDAY, APRIL 5**

**9:00 – 11:00**

**Symposium III**

**NEUROIMMUNE INTERACTIONS**

**Chair:** Dr. Yazmín Macotela  
Instituto de Neurobiología, UNAM, México

*Maternal microbiome modulation of brain development processes*

Dr. Helen Vuong  
University of California Los Angeles, USA

*Microbiota-gut-brain axis and behavior across the lifespan*

Dr. Livia Hecke Morais  
California Institute of Technology, USA

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**11:00 – 11:20** *Líneas Celulares autenticadas como herramientas para las Neurociencias /*  
*Authenticated Cell Lines as a Tool for Neurosciences Research. Científica Senna.*

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**11:20 – 11:40**

**Coffee break**

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**11.40 – 12:40**

**Plenary Lecture II**

*Microbiota and neuroimmune interactions in gut homeostasis and CNS inflammation*

Dr. Dan R. Littman,  
Skirball Institute, USA

**Chair:** Dr. Gustavo Pedraza

Instituto de Biotecnología, UNAM, México

**12:40–13:40**

**Four oral presentations selected from the abstracts II**

**Chair:** Dr. Oscar Zamora  
Facultad de Psicología, UNAM, Mexico City

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**13:40 - 15:00**

**Lunch**

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**15:00 – 17:00**

**Symposium IV**

**GLIAL CELLS IN HEALTH AND DISEASE**

**Chair:** Dr. Arturo Ortega-Soto  
Cinvestav, México City

*Glutamate transporters: non-traditional roles in CNS myelination*  
Dr. Babette Fuss

Virginia Commonwealth University, USA

*A functional signature in the developing cerebellum: evidence from a preclinical model of autism*

Dr. Daniel Reyes-Haro

Instituto de Neurobiología, UNAM campus Juriquilla, México

*Modulation of Tissue Injury and Repair by Microglia During Autoimmunity*

Dr. Astrid Cardona

University of Texas, San Antonio, TX, USA

*Astrocytes in aging: The case of the aryl hydrocarbon receptor and neurodegeneration*

Dr. Mónica Torres Ramos

Instituto Nacional de Neurología y Neurocirugía, Mexico City

**17:00 – 17:05**

**1 min talks for poster advertisings**

**Chair:** Dr. Oscar Galicia

Departamento de Psicología, Universidad Iberoamericana, Mexico City

**17:05 – 19:00**

**Poster Session II (Odd numbers)**

WEDNESDAY, APRIL 6

**9:00 – 12:00**

**Free time**

**12:00 – 13:00**

**Four oral presentations selected from the abstracts III**

**Chair:** Dr. Yazmín Macotela

Instituto de Neurobiología, Queretaro, Mexico.

**13:00 – 14:00**

**Plenary Lecture III**

***Transgenerational epigenetic inheritance in mammals***

Dr. Yuta Takahashi

The Salk Institute, San Diego, CA, USA

**Chair:** Dr. Leonor Pérez-Martínez  
Instituto de Biotecnología, UNAM, México

**14:00 - 15:30**

**Lunch**

**15:30 – 17:30**

**Symposium V**

**THE SCIENTIFIC LEGACY OF LATE PROFESSOR RICARDO TAPIA**

**Chair:** Dr. Lourdes Massieu / Dr. Clorinda Arias  
Instituto de Fisiología Celular / Instituto de Investigaciones Biomedicas, Mexico City

Dr. Clorinda Arias  
Instituto de Investigaciones Biomedicas, UNAM, Mexico City

Dr. Manuel Covarrubias  
Thomas Jefferson University, Philadelphia, USA.

Dr. Laura Medina-Ceja  
Universidad de Guadalajara, Mexico

**17:30 – 18:30                          Closure Lecture**

***Death after a long journey; how local circuit neurons adjust their numbers***

Dr. Arturo Álvarez-Buylla  
University of California San Francisco, USA

**Chair:** Dr. Yazmín Macotela  
Instituto de Neurobiología, UNAM

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**18:30 - 18:40                          Closing Ceremony**

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**19:00 – 20:00                          Business Meeting**

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**20:30 -                                  Farewell Dinner**

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THURSDAY, APRIL 7

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**9:00 - 11:00                          Breakfast**

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**12:00                                  Departure**

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