



VI NEUROBIOLOGY MEETING
OF THE MEXICAN SOCIETY FOR
BIOCHEMISTRY

Final Program

September 20-24, 2025.

San Luis Potosi, San Luis Potosi, Mexico.



Sociedad Mexicana
de Bioquímica
Neurobiología

SMB  Sociedad Mexicana de
Bioquímica A.C.

Saturday - September 20, 2025

Location *Arquería de la Plaza de Armas
y Ex Palacio Municipal*

10:00 - 12:00 **Mesa redonda**

*"Neurociencias para Todas y Todos:
En conversación con las personas que
hacen la ciencia"*

Chair: Edgar Jiménez Félix, COPOCYT.

Ana María Estrada Sánchez, IPICYT.

Perla Moreno Castilla, CIE, Cinvestav Sur.

Mónica López Hidalgo, ENESJ-UNAM.

Emilio J. Galván Espinosa, CIE, Cinvestav Sur

12:00 - 13:00 **Talleres de divulgación**

"El juego del sueño"

Laboratorio de Fisiología de Ritmos Circadianos,
IPICYT.

"Neurociencia sensorial"

Laboratorio de Neurobiología, IPICYT.

13:00 - 14:00 **Demostración**

"Descubriendo el funcionamiento del cerebro"

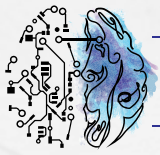
Greg Gage

CEO and Co-fundador de BackyardBrains.

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Sunday - September 21, 2025

Location **Auditorio Rafael Nieto**

09:00 - 14:30
16:00 - 18:00 **Registration**

09:00 - 12:00 **Pre-meeting course**
*"Artificial Intelligence in Neuroscience Research:
Tools and Applications"*

Chair: Violeta López-Huerta

09:00 - 09:45 **Enrique Hernández-Lemus**
*Instituto Nacional de Medicina Genómica
(Secretaría de Salud, México) y Centro de Ciencias
de la Complejidad (UNAM)*
*"Computational learning in neuroscience
modeling"*

09:45 - 10:30 **Luis A. Pineda**
*Instituto de Investigaciones en Matemáticas
Aplicadas y en Sistemas, UNAM.*
"Entropic associative memory"

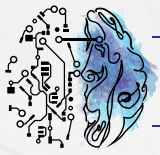
10:30 - 11:15 **Roman Rossi**
Instituto de Fisiología Celular, UNAM.
*"Neuronal circuits, dimensionality, and
brain-machine interfaces"*

11:15 - 12:00 **Q&A and Closing remarks**

12:00 - 12:25 **Coffee break**
*Sala del Instituto Científico
Literario*

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Sunday - September 21, 2025

Location **Auditorio Rafael Nieto**

12:30 - 14:15 **Round table**

"Beyond The Bench: Neuroscience For Education, Entrepreneurship, And Social Change"

Chair: **Mónica López-Hidalgo**

Co-chair: **Violeta López-Huerta**

12:30 - 12:50 **Greg Gage**

CEO and Co-founder of BackyardBrains.

"Democratizing Neuroscience: Low-cost tools that spark discovery"

12:50 - 13:10 **Juan Pablo Robles Álvarez**

Instituto de Neurobiología, UNAM

"Changing the Mindset: From science to business"

13:10 - 13:30 **Roberto Mercadillo**

Instituto Nacional De Psiquiatria, México

"Neuroscience and Culture of Peace: Proposals from Mexico"

13:30 - 14:15 **Round Table Discussion**

14:15 - 14:35 **Angélica Zepeda Rivera**

Instituto de Investigaciones Biomédicas, UNAM.

"Research in Germany supported by the Alexander von Humboldt Foundation"

14:35 - 16:30 **Free time for lunch**

16:30 - 17:00 **Opening ceremony**

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Sunday - September 21, 2025

Location **Auditorio Rafael Nieto**

17:00 - 18:00 **Cultural lecture**

Sergio Alejandro Cañedo Gamboa

Colegio de San Luis, México

*"The historical heritage of San Luis Potosí, a
living legacy"*

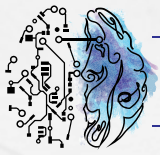
18:00 - 20:00 **Welcome cocktail**

Location: Museo Federico Silva

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Monday - September 22, 2025

Location Auditorio Rafael Nieto

08:50 - 09:05 Ana María Estrada Sánchez
IPICYT
"The International Society for Neurochemistry (ISN)"

**09:05 - 10:35 Symposium I:
Neurodevelopment**

Chair: Violeta López-Huerta,
Co-Chair: Mario Arias-García

09:05 - 09:35 Alberto Camacho-Morales
Universidad Autónoma de Nuevo León
*"Maternal programming of social behavior in the
offspring"*

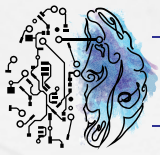
09:35 - 10:05 Alicia Guemez-Gamboa
Feinberg School of Medicine, Northwestern
University
*"Pathogenic mechanisms associated with
Protocadherin variants: Implications for brain
development"*

10:05 - 10:35 Verónica Palma
Universidad de Chile, Chile.
*"Going back to the start: Uncovering
neurovascular uncoupling in schizophrenia
through developmental hiPSC models"*

10:35 - 11:00 Coffee break
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Monday - September 22, 2025

Location **Auditorio Rafael Nieto**

**11:00 - 12:10 Mini-symposium "How to
navigate a neuroscience career"**

Chair: **Mónica López-Hidalgo**

Co-chair: **Ana María Estrada Sánchez**

11:00 - 11:35 Nadia Martínez Villegas

IPICYT

*"Between stories and science: a reflection on
Imposter Syndrome"*

11:35 - 12:10 Alejandra Betanzo de la Rosa

Facultad de Ciencias Políticas, UNAM

"The human side of the scientific mission"

12:10 - 13:10 Keynote Lecture I: Yang Zhou

McGill University, Canada

*"Genetic study of NDDs in model organisms, from
gene function to therapeutic development"*

13:10 - 14:10 Selected talks from abstracts I

Chair: **Roberto Salgado Delgado**

Haley E. Capeci

*Acute amantadine enhances the benefits of delayed
and abbreviated environmental enrichment in a
pediatric traumatic brain injury model*

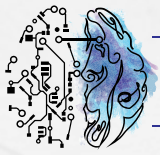
Cristian Geronimo-Olvera

*Exceptional longevity modifying gene APOE2
promotes DNA damage repair and senescence
resilience through nucleolar homeostasis*

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Location **Auditorio Rafael Nieto**

Mayra Martínez Sanchez
Genetic duplication found in strabismus patients
leads to changes in iPSC-derived cortical neurons

Luis Javier Hernández Sierra
Melatonin prevents autistic symptoms in valproic
acid-treated rats

14:10 - 15:30 *Free time for lunch*

15:00 - 15:30 *Coffee time*
Sala del Instituto Científico Literario

15:30 - 17:30 **Symposium II:**
Molecular Neuroscience and Pathology

Chair: Ana María Estrada Sánchez,
Co-Chair: Shahrzad Latifi

15:30 - 16:00 **Elizabeth Pollina**
Washington University School of Medicine, St. Louis.
"Dynamic genome control mechanisms in neuronal
plasticity and aging"

16:00 - 16:30 **Aliesha González Arenas**
Instituto de Investigaciones Biomédicas, UNAM
"Hippocampal neuronal plasticity and its
relationship with microglial activity in a murine
model of autism"

16:30 - 17:00 **Nadia Di Franco**
University of Barcelona, Spain
"CB1R dysfunction at hippocampal inhibitory
synapses drives cognitive decline in Huntington's
disease"

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Location **Auditorio Rafael Nieto**

17:00 - 17:30 **Ana C. Valencia-Olvera**

University of Illinois at Chicago

*"Identifying the mechanism of APOE4-associated
brain endothelial cell dysfunction"*

17:30 - 17:40 **Science in a minute**

Chair: Ruth Gutiérrez Aguilar

Laura del Pilar-Martínez

Maeve O'Brien

Gabriela Cruz Carrillo

María Alejandra Pérez Patiño

Regina Andrea Mejía Ortiz

Rebeca Méndez Hernández

Daniel Garza Guzmán

Nuri Acevedo Garduño

Emely Maqueda-Martínez

Elda Josefina Robles Sierra

17:45 - 18:10 **Official group picture**

Location: front steps, Teatro de la Paz

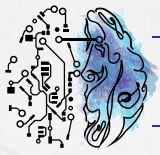
18:30 - 20:10 **Poster session I**

*Location: Centro Cultural Universitario "Caja
Real"*

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Tuesday - September 23, 2025

Location **Auditorio Rafael Nieto**

**09:00 - 11:00 Symposium III:
Brain-body communication**

Chair: **Luis A. Tellez**

Co-Chair: **Ivan E. de Araujo**

09:00 - 9:30 Lucía Mendoza Viveros
IPICYT

*"The astrocytic circadian clock regulates sleep
and energy homeostasis"*

09:30 - 10:00 Rocío Servín Vences
Northwestern University

"Mechanosensory control of gut physiology"

10:00 - 10:30 Anoj Ilanges
Janelia Research Campus

"Neural control of sickness physiology"

10:30 - 11:00 Isaac Obed Pérez
FES-Iztacala, UNAM

*"Beyond expression: Facial movements track
sensory, cognitive, and gustatory processing"*

11:00 - 11:20 Sponsor presentation
Luis Concha Loyola

*Laboratorio Nacional de Imagenología por
Resonancia Magnética, INB-UNAM*

*"Quantitative magnetic resonance imaging:
advantages for research"*

11:20 - 11:35 Coffee break
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11:40 - 12:40 Keynote Lecture II:
Pablo E. Castillo

Albert Einstein College of Medicine

*"Presynaptic local protein synthesis and synaptic
plasticity in the hippocampus"*

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Location **Auditorio Rafael Nieto**

12:40 - 13:00 Sponsor presentation

Ariadna Aparicio Juárez

*Unidad de Edición Genética y
Criopreservación, IFC-UNAM.*

*"Precision Genetics for Complex Questions:
CRISPR Models in Neuroscience"*

13:00 - 14:00 Selected talks from abstracts II

Chair: Lucía Mendoza Viveros

Diego Armando Morales-Carrizales

*Neurotoxic collapse of the microbiota-gut-brain
axis: paraquat induces dual enteric-dopaminergic
neurodegeneration with intestinal remodeling and
dysbiosis*

Jaime Emiliano Rogerio Ríos

*Overlooked transcription factor: Ebf1 and
angiogenesis*

Aída Elizondo García

*The effect of lead (Pb) on the immune response and
working memory of children and adults from
Huatla, Morelos*

Jorge Armando Hughes Cano

*Basal electroretinogram as a tool for non-invasive
diagnosis of diabetic kidney disease*

14:00 - 15:30 Free time for lunch

15:00 - 15:30 Coffee time

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Location **Auditorio Rafael Nieto**

15:30 - 17:30 Symposium IV: Neurophysiology and plasticity

Chair: Emilio J. Galván Espinosa

15:30 - 16:10 J. Alfredo Méndez

Instituto de Física, UASLP

*"Interconnection of electrically excitable cells
using carbon nanotubes"*

16:10 - 16:50 Rafael Gutiérrez

Cinvestav, Sede Sur

"Synaptic plasticity results in circuit plasticity"

16:50 - 17:30 Shahrzad Latifi

West Virginia University

*"Low-frequency TMS-induced neuroplasticity
promotes functional recovery after traumatic
brain injury"*

17:30 - 17:40 Science in a minute

Chair: Ruth Gutiérrez Aguilar

Lourdes Astrid Alarcón Ugalde

Carlos Zavaleta Zamora

Diana Sofía Bernal Vega

Mateo Alberto Herrera Murillo

Consuelo Bernarda Martínez Medina

Xarennny Diaz Zarate

Norma Angélica Rivera-Villaseñor

Rafael Sandoval Rodríguez

Judith Guerrero Zavala

Apolinar Cruz-Sánchez

17:40 - 19:40 Poster session II

Location: Centro Cultural Universitario "Caja Real"

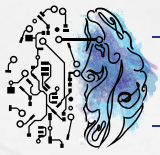
20:00 - 21:30 Having a beer with the speakers

Location: Cara Sucia. Manuel del Conde 240

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Wednesday - September 24, 2025

Location **Auditorio Rafael Nieto**

09:00 - 12:30 *Free time*

12:30 - 13:30 **Selected talks from abstracts III**

Chair: J. Alfredo Méndez

Vani G. Rajendran

*Monkeys have rhythm: Implications for
neurophysiology and neuroplasticity*

Edgar Arturo Díaz Hernández

*Amygdala projections to the dorsomedial striatum
contribute to the balance between positive and
negative reinforcement strategies*

David Roberto Prado Quirarte

*Red light, green light! Striatal activity during a
Go/No-Go task*

Luis Fernando Reséndiz Nava

*Expansion microscopy for the study of
tubulinopathies*

13:30 - 14:30 **Keynote Lecture III, "Ricardo
Tapia"**

Luis Tovar-y-Romo

Instituto de Fisiología Celular, UNAM

*"Extracellular vesicles in stroke recovery:
Harnessing endogenous messengers for brain
repair"*

14:30 - 16:00 *Free time for lunch*

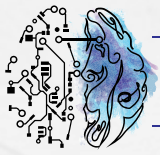
15:30 - 16:00 *Coffee time*

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Wednesday - September 24, 2025

Location **Auditorio Rafael Nieto**

**16:00 - 18:00 Symposium V: Neurobiology
of substance use disorders**

Chair: Marisela Morales

Co-Chair: Perla Moreno-Castilla

16:00 - 16:30 Flavia Barbano

National Institute on Drug Abuse (NIDA-IRP), NIH

*"A subset of Dorsal Raphe glutamatergic neurons
modulates cocaine-seeking behavior"*

16:30 - 17:00 Hugo Tejeda

National Institute of Mental Health (NIMH-IRP),
National Institutes of Health (NIH)

*"Dissociable control of motivation and
reinforcement by distinct ventral striatal
dopamine receptors"*

17:00 - 17:30 Silvia L. Cruz

Cinvestav Sede Sur.

*"Behavioral and pro-inflammatory effects of
adulterated drugs"*

17:30 - 18:00 Eduardo A. Garza Villarreal

Instituto de Neurobiología, UNAM

*"The effect of chronic stress and chronic alcohol
intake on behavior, brain structure, and functional
connectivity In a rat model"*

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Location **Auditorio Rafael Nieto**

18:00 - 19:00 Closing Lecture

Amy Hauck Newman

*Scientific Director, National Institute of Drug
Abuse, Intramural Research Program, NIH.*

*"A D3 Odyssey: from research tools to therapeutic
jewels?"*

19:00 - 19:30 Awards and closing ceremony

19:35 - 20:10 Business meeting

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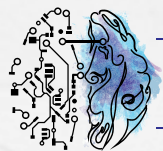
20:00 - 24:00 Farewell dinner

Location: Museo del Ferrocarril

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General Organizing Committee:

Ana María Estrada Sánchez (IPICYT)
Perla Moreno Castilla (CIE-CINVESTAV)
Mónica López Hidalgo (ENESJ-UNAM)
Violeta Gisselle López Huerta (IFC-UNAM)
Emilio J Galván Espinosa (CIE-CINVESTAV)
Luis A. Tellez (INB-UNAM)
Mario Alberto Arias García (FP-UNAM)
Alfredo Varela Echavarría (INB-UNAM)

Local Organizing Committee:

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Lucía Mendoza Viveros (IPICYT)
Victor Ruiz Rodriguez (IPICYT)
Ares Orlando Cuellar Santoyo (IPICYT)
Karen Hernández Balderas (IPICYT)
Roberto Salgado Delgado (UASLP)
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