

Workshop: “Neuroinflammation in Health and Disease” International Symposium and workshop

Organizers: L. Barbeito, P. Cassina, N. Lago, S. Olivera, H. Peluffo
Dates and location April 3rd-10th 2019 Montevideo, IPMont, Fac. Medicina, IIBCE.

Wednesday April 3rd

13:00-14:00: Accreditation

Introductory lectures:

14:00-14:30: Metabolic interaction between neurons and glial cells. (*Patricia Cassina*, Facultad de Medicina UdelaR, Uruguay)

14:30-15:00: Microglia and myeloid cells in the CNS: new methodologies to identify different phenotypes (*Hugo Peluffo*, Facultad de Medicina, IPMont, Uruguay)

15:30-16:00: Neuroinflammation in acute CNS and PNS trauma (Natalia Lago, IPMont, Uruguay)

-----16:00-16:30 Coffee Break-----

16:30-17:00: Glial cells and aberrant glial phenotypes in neurodegeneration (*Luis Barbeito*, IPMont, Uruguay)

17:00-17:30: Oligodendrocytes as vulnerable targets of neuroinflammation. (*Silvia Olivera*, IIBCE, Uruguay)

Thursday April 4th

Session 1: Mediators of neuroinflammation I

Moderator: Hugo Peluffo

9:00-9:40 Alterations in CD300f immunoreceptor are associated with major depressive disorder in mice and humans (Hugo Peluffo, Fmed, IPMont, Uruguay)

9:40-10:20 Aging and neuroinflammation in neurodegenerative diseases (*Rommy von Bernhardt*, PUCC, Chile)

-----10:20-11:00 Coffee Break-----

11:00-11:40 Can we boost CNS repair by stimulating anti-inflammatory macrophages? (Rubèn López-Vales, UAB, España)

11:40-12:20 The role of the immune system in the generation of neuropathic pain. (*Margarita Calvo*, PUCC, Chile).

-----12:20-14:00 Almuerzo-----

Session 2: Mediators of neuroinflammation II

Moderator: Natalia Lago

14:00-14:40 Finding Parkinson's disease related genes studying neuroinflammation (*Fernando Pitossi*, Instituto Leloir, Argentina)

14:40-15:20 Glial cells as main actors in an experimental model of Parkinson disease (*Silvia Olivera*, IIBCE, Uruguay).

15:20-15:50 Pericyte response to glutaric acid and astrocyte-conditioned media (Eugenia Isasi, IIBCE-FMed, Uruguay)

-----15:50-16:30 Coffe break and poster sesión -----

16:30-17:10 The necroptosis machinery mediates axonal degeneration in a model of Parkinson disease (Felipe Court Universidad Mayor, Chile)

17:10-17:40 Potential role of alpha-Synuclein in neuroinflammation (*José Souza*, FMed, Uruguay)

Friday April 5th

Session 3 Neuroinflammation in ALS

Moderator: Luis Barbeito

9:00-9:40: Contrasting role of the immune response in the central and peripheral nervous system in the ALS models. (Caterina Bendotti, IRFMN, Italy)

9:40-10:20 Glial cells and the emerging concept of neuroprogression in ALS. *Luis Barbeito* IPMont, Uruguay

-----10:20-10:50 Coffe break -----

10:50-11:30 Interleukin 37: a novel cytokine that confers protection against ALS. (*Rubèn López-Vales*, UAB, España)

11:30-12:10 Novel lipidomic markers and therapeutic potential of nitro-fatty acids in ALS. (*Homero Rubbo*, Fmed, Uruguay).

12:10-12:40 Significance of peripheral nervous system inflammation in ALS paralysis progression: therapeutic implications (Emiliano Trías, IPMont, Uruguay)

-----12:40-14:00 Almuerzo-----

Session 4 Astrocytes in neuroinflammation

Moderator: Patricia Cassina

14:00-14:40 Astrocytes and the TGF- β 1 Pathway in the Healthy and Diseased Brain: a Double-Edged Sword. (*Flavia Gomes*, UFRJ, Brazil).

14:40-15:20 Astrocytes as active players in brain neuroinflammation: Lessons from ischemia, TBI and epilepsy (Javier Ramos, UBA Argentina)

15:20-15:50 Metabolic modulation of glial cells in ALS models (*Laura Martínez-Palma*, Fmed, Uruguay)

-----15:50-16:30 Coffe break-and Poster session-----

16:30-17:00 Astrocyte neuron communication by extracellular vesicles (Soledad Marton, FMed, Uruguay)

17:00-17:40 Pro-regenerative effect of glial exosomes and its modulation by transcriptional programs (*Felipe Court*, Universidad Mayor, Chile)

17:40-18:30 Concluding remarks

Saturday April 6th

9:00-10:30: 10 min Students presentations

-----10:30-10:50 Coffe break -----

10:50-11:50 10 min Students presentations

11:50-12:15 Hands on groups distribution and seminar instructions

Monday 8th-Tuesday 9th

Hands on 9:00 - 16:00

5 groups of 3-4 students

- 1) Evaluation of metalloprotease activity in the ALS experimental model SOD1G93A rats. (Silvia Olivera/Marta Marco)
- 2) Identification of Inflammatory mediators by qPCR in ALS models (Soledad Marton).
- 3) Analysis of glial reactivity in pain and ALS models (Laura Martinez/ Valentina Lagos/ Ernesto Miquel)
- 4) Identification of different cell populations after Spinal Cord Injury by flow cytometry (Natalia Lago)
- 5) Analysis of peripheral nervous system pathology in a murine model of motor neuron disease. (Sofía Ibarburu)

Wednesday 10th

9:00-10:30 Hands on results and manuscripts presentation by the different student´s groups

Wednesday 10th Round table - Closing