

Extracellular vesicles in neuroscience: a focus on methodology and their applications in neurodegenerative disorders. III Edition

Santander, August 6-7

Day 1

9:30-9:45 Accreditation

9:45-10:00 Welcome ceremony

Session 1: Updates on Extracellular Vesicles and Neurobiology

10:00-10:30 EV overview and updates: a perspective from ISEV and GEIVEX

Prof. Juan Manuel Falcón

CICbioGUNE, Basque Country, Spain

10:30-11:00. Functional implications of astroglial EVs on neurons

Dr. Jimena Baleriola

Centro de Neurociencias Cajal-CSIC

Session 2: Roles of EVs in models of neurodegeneration (I)

11:30-12:00 Dual roles of EVs in neurodegenerative disorders

Dr. Rocío Pérez González

Instituto de Investigación Sanitaria y Biomédica de Alicante (ISABIAL), Spain

12:00-12:30 Functional aspects of extracellular vesicles in Alzheimer's disease pathology: from Amyloid β aggregation to neuronal network dysfunction

Dr. Andreu Matamoros

Institut de Recerca i Innovació en Ciències de la Vida i la Salut a la Catalunya Central (IRIS-CC), Universitat de Vic – Universitat Central de Catalunya (UVic-UCC), Spain

12:30-13:00 EVs in Parkinson's disease (PD)

Dr. Lydia Álvarez Erviti

Molecular Neurobiology at Center for Biomedical Research of La Rioja, Spain

Session 3: Roles of EVs in models of neurodegeneration (II)

15:00-15:30 Vesicular miRNA characterization from muscle cells in Amyotrophic Lateral Sclerosis (ALS)

Dr. Sonia Alonso

IIS Biogipuzkoa, Basque Country, Spain

15:30-16:00 Characterization of EVs in aging and neurodegenerative diseases

Dr. Valle Palomo

IMDEA Nanociencia, Madrid, Spain

16:00-17:00 Q&A session

Day 2

Session 4: EVs for biomarker discovery

9:30-10:00 EV-associated proteins as biomarkers in multiple sclerosis

Dr. Rocío Bravo Miana

IIS Biogipukoa, Basque Country, Spain

10:00-10:30 Small RNAs in plasma extracellular vesicles as biomarkers in neurodegenerative diseases

Dr. Marina Herrero Lorenzo

Universitat de Barcelona, Catalunya, Spain

11:00-11:30 Blood-based biomarkers for frontotemporal dementia through extracellular vesicles.

Dr. Aitana Sogorb Esteve

Reina Sofia Foundation Alzheimer Centre, CIEN Foundation, ISCIII, Spain; UCL Queen Square Institute of Neurology, UCL, U.K.

11:30-13:00 Round table and Q&A session

Jimena Baleriola

Juan Manuel Falcón

Rocío Pérez González

Andreu Matamoros

Sonia Alonso

Valle Palomo

Lydia Álvarez Erviti

Rocío Bravo Miana

Marina Herrero Lorenzo

Aitana Sogorb Esteve

Coordinator: **Dr. Fernando Bartolomé (Instituto de Investigación Hospital 12 de Octubre)**

13:00-13:30 Concluding remarks and closing ceremony.

Jimena Baleriola

Rocío Pérez González

In recent years, extracellular vesicles have emerged as key mediators of cell-to-cell communication in the central nervous system. Furthermore, due to their ability to cross the blood brain barrier they can reach the periphery and serve as a source of biomarkers in neurodegenerative diseases to facilitate diagnosis, prognosis and assessment of interventions targeting the brain.

The course aims to provide students, clinicians, academics and researchers with updated knowledge on extracellular vesicles in the central nervous system, review the roles of extracellular vesicles in neurodegenerative disorders as well as their translational/clinical applications and encourage interactions among researchers and clinicians and promote collaborations.

The course will be based on a series of foundational lectures delivered by experts in the field, ensuring academic rigor and subject-matter depth. In addition, an structured Q&A roundtable session will be incorporated to promote meaningful dialogue between teachers and students, supporting knowledge exchange, clarification of concepts, and active learner engagement.

Code: 6694
Fee: C
ECTS: 1