The Institute of Neurosciences of the University of Barcelona is a frontrunner in international neuroscience research, being one of the few institutes in the world that investigates the brain at every level. Director: Jordi Alberch

This includes research groups in neurobiology, neuropharmacology, pathophysiology, neurology, psychiatry, clinical psychology, neuropsychobiology and cognitive neurosciences.

The Institute has been awarded the María de Maeztu Excellence Unit accreditation, and gathers about 450 researchers from the Faculties of Psychology, Medicine, Pharmacy and Biology, and develops research activities at the University Hospitals located in the multicultural city of Barcelona.

The Institute promotes close collaboration between basic and clinical neuroscientists in all the research areas to tackle the biggest challenges in neurosciences.

We encourage and welcome collaboration with international research groups and organisations to boost the global vision of the Institute.

Institute of Neurosciences of the University of Barcelona

Campuses

Mundet Campus
Passeig de la Vall d’Hebron, 171
08035 Barcelona

Barcelona Knowledge Campus
Diagonal, 643
08028 Barcelona

Medicine Campus-Hospital Clinic August Pi i Sunyer
Casanova, 143
08036 Barcelona

Bellvitge Health Sciences Campus
Ferra Llarga, s/n
08907 L’Hospitalet de Llobregat

ANNUAL REPORT 2019
Institute of Neurosciences of the University of Barcelona
Research Areas

Pathophysiology of Nervous System Diseases
Research in this area focuses on defining the pathophysiological mechanisms involved in the loss of normal and neuronal plasticity related to these diseases. A deeper understanding of neuronal connectivity and dynamics, signaling molecules, cell-cell interaction and epigenetics in the nervous system will enable us to devise new pharmacological targets for therapeutic strategies to prevent or delay nervous system diseases.

Cognitive and Behavioural Neuroscience
This research area addresses the cerebral circuits, networks, processes and computational mechanisms that underpin a plethora of functions, such as perception, attention, memory, language, decision making, emotion and the control of action.

Mental Health
Under a multidisciplinary approach, the Institute actively embraces the challenge of advancing mental health knowledge around underlying neurobiological mechanisms, cognitive and daily life functioning, and new treatments and therapies in psychotic and affective disorders in childhood, adolescence and adulthood.

Experimental Neurology
This area is focused on the study of the nervous system in normal conditions and during neurologic disorders. This includes studies about the correlation between genetic markers, cerebrospinal fluid biomarkers and structural, functional and molecular imaging in patients with movement disorders, dementia, autoimmune synaptic disorders and other neurological disorders.

Outstanding Research in 2019


Outstanding Projects Ongoing in 2019

2,199,318€ Moments in Time in Immersive Virtual Environments (MoTIVE) ERC-2016-ADG- 742989, European Union Melyvin Slater

763,002€ Modulation of Tau seeding and pathology in tauopathies by BBB-nanocarriers, epitope selective vaccination and eotoPrP Tau receptor bodies (STOPtauPATHO) HR18-00454, Fundació Caixa de Pensions ‘La Caixa’ Isido Ferrer, Jose Antonio Del Rio

556,820€ A translational model of autoimmune synaptopathy: symptoms, brain networks, and the link to human memory PE15/00014, Instituto de Salud Carlos III Josefa Castro


459,800€ Nuevos enfoques para entender la patogénesis y la terapéutica de la Enfermedad de Alzheimer SAF2016-76340-R, Spanish Ministry of Economy, Industry and Competitiveness Eduardo Soto

435,028€ Healthy minds from 0-100 years: Optimising the use of European brain imaging cohorts (Lifebrain) H2020-SI-2016-2017-736591, European Union David Barbes-Paz

326,700€ Modulación de la dinámica de las redes neuronales como estrategia terapéutica para recuperar la disfunción de los ganglios basales en las enfermedades del movimiento SAF2017-88076-R, Spanish Ministry of Economy, Industry and Competitiveness Jordi Alberich

271,040€ Nuevas aproximaciones para entender las funciones de la PrPC y miembros secretables de semaforinas durante el desarrollo del hipocampo y en neurotransmisión RTI2018-099773-B-I00, Spanish Ministry of Economy, Industry and Competitiveness Jose Antonio del Rio