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Prof. Dierssen (MD, PhD) is medical doctor (1985) and obtained her PhD in Neurobiology from the University of Cantabria in 1989. She heads the Cellular and Systems Neurobiology group of the Systems Biology program at the Centre for Genomic Regulation (CRG) in Barcelona. The overall goal of Prof. Dierssen research is to understand cognition and behavior as emergent properties of the neuronal networks and how genetic perturbation in mental disorders modifies the way the brain integrates information to produce behavior. She is a world expert in the field of neurobiology and pharmacology and her contributions have been published in more than 130 peer-reviewed papers.

Prof. Dierssen has received several awards for her work including Ramón Trias Fargas, Jaime Blanco or Sislej-Lejeune awards and the National Science Culture Award from the Generalitat de Catalunya. Prof. Dierssen is president of the Spanish Society of Neuroscience, past president of the International Behavioral and Neural Genetics Society, and executive committee member of the Federation of European Neuroscience Societies (FENS). She is also member of Editorial Boards (Genes Brain and Behavior, Frontiers in Behavioral Neuroscience, Amino Acids, Frontiers in Genetics among other). Prof. Dierssen is also very active in disseminating science to broad audiences and organizing symposia and different activities for the public. She acts as evaluator of different Scientific Committees and Boards such as the National Evaluation Agency, Spanish Ministry of Education, or Panel Expert for EU. She is member of the Academia Europaea and of the European DANA Alliance for the Brain. She was associated professor of the University of Cantabria and the University Ramon Llull in Barcelona, and has organized a large number of courses and international research conferences.

Brain disorders therapy: The need for shifting the paradigm

Brain disorders, including both mental and neurological disorders, are an enormous burden on individuals, families and societies. Conditions such as depression, stroke, dementia, intellectual disability, schizophrenia or anxiety will affect at least one in three citizens during their lifetime. These diseases raise specific challenges, such as the lack of physical or visible symptoms, complex biological factors, a prolonged latent course, and poor understanding of their causes and mechanisms. However, only half of people with a severe mental disorder, and far less with a mild-to-moderate mental disorder, receive treatment, and there are almost no interventions to prevent brain disorders.

Besides, there is no standard by which to measure, diagnose, and study the presence of mental health that is portrayed as the absence of psychopathology. This situation requires a paradigm shift and the adoption of intertwined principles, to close the “treatment-gap”, including patient-centric multidimensional care, increased and more efficient (and realistic) application of basic knowledge, together with societal awareness and knowledge about mental health, and societal changes to prevent the onset of disease. More research evidence and incorporation to the health system of the unprecedented advances in the Neurosciences definitely are a key resource for the success as a knowledge-based society, to achieve strategic social and economic objectives and to promote and protect the well-being of its population in economic and socially challenging times.