Short CV

I graduated in developmental psychology and obtained a PhD in psychobiology and Psychopharmacology at "La Sapienza", in Rome. I specialized in behavioral cognitive therapy and then devoted to research into the field of neuropsychopharmacology in animal models of complex human disorders. One of my major contributions is the identification of the role of dopamine-glutamate interaction in cortical and subcortical regions in normal cognitive functions and in neurodegenerative disorders, such as Parkinson' disease.

In 2007, I joined the Telethon Institute of Genetics and Medicine (TIGEM) to participate in pre-clinical international studies aimed at identifying the disease' mechanisms associated to gene mutations, and to find novel genetic and pharmacological therapeutic approaches for human genetic disorders. Within this context I became expert in lysosomal storage disorders. The results of some of these studies I contributed are currently being translated into clinical trials for the treatment of mucopolysaccharidosis in humans. In 2010 I have got an appointment as group leader at the National Research Council (CNR), to lead my own Neuropsychopharmacology research group, with a joint appointment as Faculty and Head of the behavioural core at TIGEM.

Research projects currently going on in my lab perfectly integrated my expertise and competence in the field of lysosomal storage disorder with that in the field of neuropsychopharmacology of learning and memory. We aim at identifying early behavioural and disease' mechanisms in animal models of neuropsychiatric and neurodegenerative disorders, with the ultimate goal of testing novel and old therapeutic strategies to prevent behavioral dysfunctions occurring in these pathologies. We combine different approaches, namely behavioral, biochemical, molecular, genetics, in vivo optogenetics and electrophysiology performed in my lab or in collaboration with outstanding groups in the field.

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Selected publications (total peer-reviewed 5)

1. Giordano NC*, Iemolo A*, Mancini M, Cacace F, De Risi M, Latagliata EC, Ghiglieri V, Bellenchi GC, Puglisi-Allegra S, Calabresi P, Picconi B, **De Leonibus E**. Dopamine active transporter mediates learning-induced shift in striatal plasticity: relevance for Parkinson's disease**. Brain** 2018
2. Sambri I, D'Alessio R, Ezhova Y, Sorrentino NC, Nusco E, De Risi M, Cataldi M, Annunziato L, **De Leonibus E**, Fraldi A. Re-establishing presynaptic function via cysteine string protein-α prevents neurodegeneration in lysosomal storage disorders. **EMBO Mol Med.** 2017 Jan;9(1):112-132
3. Flore G, Di Ruberto G, Sannino S, Russo F, Illingworth E, Studer M, **De Leonibus E.** Gradient COUP-TFI Expression is Required for Proper Functional Organization of the Hippocampal Septo-Temporal Longitudinal Axis. **Cerebral Cortex** 2016
4. Saccone P, Cotugno G, Russo F, Mastrogiacomo R, Tessitore A, Auricchio A, **De Leonibus E**. Behavioural characterization of an animal model of Maroteaux-Lamy syndrome (or Mucopolysaccharidosis VI). **Scientific Reports** 2014 Jan 10;4:3644.
5. **De Leonibus E**, Managò F, Giordani F, Petrosino F, Lopez S, Oliverio A, Amalric M, Mele A. Metabotropic glutamate receptors 5 blockade reverses spatial memory deficits in a mouse model of Parkinson disease. **Neuropsychopharmacology** 2009; 34(3):729-38.