



Press release
Paris, May 2010

NRJ FOUNDATION – INSTITUT DE FRANCE
A Prize for research on Alzheimer's disease

The NRJ Foundation – Institut de France 2010 Scientific Prize
has been awarded to both

Dr. JOSÉ A. ESTEBAN

Associate Professor at the "Severo Ochoa" Center
for Molecular Biology
CSIC - Consejo Superior de Investigaciones
Científicas

Prof. BRUNO DUBOIS

Head of the Inserm team "Cognition, neuroimaging
and brain diseases" UMR 975, Salpêtrière University
Hospital, Paris



For over a decade, the NRJ Foundation – Institut de France has been committed to supporting neuroscience research. The theme of NRJ's 2010 Scientific Prize (100,000 euros) was "Alzheimer's disease".

Based on the proposal of a jury composed of members of the Académie des sciences, the Foundation's executive committee has decided to award the prize to both Dr. José A. Esteban and Prof. Bruno Dubois for their work on Alzheimer's disease.

The award will be presented under the dome of the Institut de France on

Wednesday, June 9, 2010 at 3 p.m.

**alongside the scientific and cultural Grand Prizes of the following Institut de France
Foundations:**

Mérieux, Louis D., Lefoulon-Delalande and Simone and Cino del Duca Foundations

Dr. JOSÉ ANTONIO ESTEBAN

After completing a PhD in science (University of Madrid) in 1992, Dr. José A. Esteban joined the laboratory of Prof. Roberto Malinow, Cold Spring Harbor Laboratory (New York, USA), in 1997. He began researching **synaptic plasticity** by combining techniques from the fields of virology, molecular biology and genetics. He is the first researcher to associate the surface expression of AMPA neuro-receptors with the reactivation of silent synapses. From 2002 to 2008, as an Assistant Professor at the University of Michigan, he and his team successfully identified the role of the HSP90 chaperone protein in the recycling of receptors at synapses, and demonstrated the role of the Rab5 protein in the endocytosis of AMPA receptors. After returning to Madrid in 2008, he was appointed Associate Professor at the **"Severo Ochoa" Center for Molecular Biology (Consejo Superior de Investigaciones Científicas) in Madrid**. His work has led to numerous publications in journals such as *PNAS (Proceedings of the National Academy of Sciences, USA)*, *Journal of Neuroscience*, *Journal of molecular biology*, *Neuron* and *Nature Neuroscience*.



NRJ prize and research project

Dr. Esteban's current research focuses more specifically on the **role of PIP3** (phosphatidylinositol-3,4,5-trisphosphate) **in synaptic plasticity** and is clearly geared towards understanding the synaptic mechanisms behind **cognitive losses in Alzheimer's disease**. His work is led by a 3-pronged approach:

- 1) Analyzing whether the PIP3 signaling pathways are modified through post-mortem studies of the brains of Alzheimer's patients
- 2) Investigating whether the activation of PIP3 pathways can improve synaptic plasticity which is impaired in neurons expressing a mutant form of the "APP" protein
- 3) Analyzing the role of PIP3 pathways on the cognitive functions of mutant mice modeling Alzheimer's disease.

The long term goal is to find therapeutic solutions to fight against the cognitive impairment brought about by Alzheimer's.

Prof. BRUNO DUBOIS

Born in 1952 in Boulogne, France, Bruno Dubois has been a Professor of Medicine in the Pitié Salpêtrière Faculty of Medicine since 1990. He heads the **Inserm team "Cognition, neuroimaging and brain diseases"**, UMR 975, and is also Director of the Center for Cognitive and Behavioral Diseases and the Institute of Memory and Alzheimer's Disease (IM2A) at Salpêtrière University Hospital. Prof. Bruno Dubois has spent most of his career studying the neural bases of the main brain functions (memory, planning, motivation, etc.) and their dysfunction in neurodegenerative diseases. He has contributed significantly with his group to the identification, description and recognition of subcortical dementia. He specializes in neuroimaging and the detection of genetic markers of Alzheimer's, helping to significantly improve the diagnosis of the disease. He has published more than 650 articles in international journals. He is the coordinator for several leading bodies, including the National Center for Rare Dementias and for Young Onset Alzheimer's Disease.



NRJ prize and research project

Prof. Bruno Dubois' research projects focus on:

- Biomarkers: identifying the immune system and inflammatory reactions to deposits of amyloid peptide and evaluating the influence of age on the amyloid load; finding biomarkers in cerebrospinal fluid and blood;
- Hippocampal volume and its predictive value in the early stages of the disease;
- Alzheimer's disease in young patients.

The diverse nature of these projects reflects a desire to tackle all aspects of Alzheimer's disease.

ABOUT THE NRJ FOUNDATION - INSTITUT DE FRANCE

Established in May 1999 by Jean-Paul Baudecroux, Chairman and CEO of NRJ Group, under the aegis of the Institut de France, the NRJ Foundation seeks to support medical research, particularly in the field of **neurosciences**.

Every year it awards a **Scientific Prize worth 100,000 euros** to reward and encourage a French or European team working in a public or private organization and which has acquired an international reputation in the field of neurosciences. It also awards 3 subsidies every year (40,000 euros each) to young teams that have recently been established in France.

The topic selected for the 2010 Scientific Price is "**Alzheimer's disease**".

Previous NRJ Scientific Prize topics:

Since 2001, the Scientific Prize has covered topics in areas as diverse as "epidemiology and managing basic learning difficulties among young people and children", "depression in young people", "epilepsy in children", "stem cells and regenerative medicine", "physiology and pathology of the inner ear", "pathology of the visual system", "pathology of memory", "multiple sclerosis" and "pain and its treatment".

ABOUT THE INSTITUT DE FRANCE

Known as the "Parliament of the Learned", the Institut de France is a French public corporation made up of **five Academies**: Académie Française, Académie des Inscriptions et Belles-Lettres, Académie des Sciences, Académie des Beaux-Arts, and Académie des Sciences Morales et Politiques. Its primary role is to support the development and advancement of the arts and sciences on a purely non-profit basis.

The Institute manages several major **foundations** whose administrative and financial structures allow them to play an exceptional role in modern-day patronage.

In addition to the major prize awards, the Foundations also support projects in very different areas:

- **Scientific research**: rewarding renowned researchers, helping emerging talent, and supporting laboratories
- **Humanitarian aid**: fighting against endemic diseases and poverty
- **Cultural heritage**: conservation of works of art, creation of collections or support for young artists
- **Projects in education and training**: granting study and research scholarships
- **Projects in sustainable and environmental development**: safeguarding our natural and rural heritage

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