
**Clinatec Chairman Alim-Louis Benabid
Honored by International Neuromodulation Society**

*'Giant of Neuromodulation Award' Recognizes Benabid's Pioneering Work
In Treating Symptoms of Parkinson's Disease, Essential Tremor and Dystonia*

The International Neuromodulation Society (INS) today presented its third annual "Giant of Neuromodulation Award" to Prof. Alim-Louis Benabid, board chairman of [Clinatec – The Edmond J. Safra Biomedical Research Center](#) in Grenoble, France.

Meeting at its 12th World Congress in Montreal, the society recognized Benabid for clinical work in the 1980s that helped usher in the modern era of using deep brain stimulation (DBS) to manage motor symptoms of Parkinson's disease, essential tremor and dystonia. Benabid, who co-founded Clinatec in 2006, is the first award recipient who is renowned for work in neuromodulation for movement disorder.

Clinatec – The Edmond J. Safra Biomedical Research Center conducts research on the frontier of health care and micro- and nanoelectronics. Its teams of medical doctors, biologists, mathematicians, engineers and other specialists bring a unique, multidisciplinary approach to diagnosis and treatment of neurodegenerative diseases, cancer and motor disabilities, and development of innovative biomedical devices to improve patient lives.

"Prof. Benabid's pioneering role in developing deep brain stimulation for treating Parkinson's disease and other neurological disorders demonstrates the potential benefits that can be achieved by applying advanced technologies to medicine," said Marie-Noëlle Semeria, CEO of CEA-Leti, the French microelectronics research institute that helped launch Clinatec. "This vision drives the research at Clinatec, where clinicians work hand in hand with experts in advanced technologies to discover new treatments for some of humanity's most serious diseases."

The Giant of Neuromodulation Award has been presented at biennial congresses of the nonprofit International Neuromodulation Society since 2011, reflecting the growth and maturity of the field.

Neuromodulation therapy stimulates specific areas in the nervous system to relieve symptoms and help restore function. It has been used over the last four decades to manage symptoms of chronic conditions such as neuropathic pain or movement disorder.

Benabid, a neurosurgeon and emeritus professor of biophysics at Joseph Fourier University in Grenoble, said recently that he was drawn to the field not just for the

insights it offered into neurological systems, but also for the potential to directly treat problems through functional neurosurgery.

Benabid has pointed out that recently developed methods have helped to address serious clinical conditions in a process that has led to new branches and applications of neurostimulation.

In his breakthrough in 1987, Prof. Benabid adapted deep brain stimulation leads that had already been introduced for deafferentation pain. He discovered in pre-surgical probing that high-frequency stimulation mimicked the effect of the only surgical treatment available at the time to control severe involuntary tremor, ablation of a small brain area. He began to suggest that movement-disorder patients who were referred for a second, bilateral ablation have deep brain stimulation instead, since it is reversible and adjustable and does not destroy brain tissue.

In the years since he published his finding with neurologist Pierre Pollak, M.D., in 1987, DBS has largely replaced ablation as a treatment for movement disorder. Some 100,000 patients with Parkinson's disease, essential tremor or dystonia have received DBS therapy to improve their functioning and quality of life. New potential indications and stimulation targets are being actively researched. In addition to helping limit motor symptoms of movement disorder, DBS also has a humanitarian device exemption from the U.S. Federal Drug Administration for obsessive-compulsive disorder.

"Prof. Benabid's work offers hope that we may increasingly relieve suffering from a widening scope of brain disorders, through having formed the foundation to gaining a greater understanding of the dynamics of neural circuits, and their impact on function and symptoms," said Andres Lozano, M.D., Ph.D., a professor and chair of neurosurgery at the University of Toronto. Dr. Lozano presented the award to Benabid at the congress.

A member of the French Académie des Sciences, Benabid received the Robert A. Pritzker Prize for Leadership in Parkinson's Research in 2013; shared the Lasker-DeBakey Clinical Medical Research Award in 2014 with Mahlon Delong, M.D.; received a lifetime achievement award from the North American Neuromodulation Society in 2014; and is a recipient of the 2015 Breakthrough Prize in Life Sciences.

> **About CLINATEC**

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devices to improve patient lives. The teams are comprised of personnel from the Grenoble University Hospital Centre, CEA, Université Joseph Fourier and Inserm. Clinattec recently launched a global fundraising campaign to support its creative approach to curing some of humankind's most debilitating diseases. Clinattec is based in Grenoble, France, within the CEA research center.

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