INSTITUT DE FRANCE
Académie des sciences

Miguel A. L. **Nicolelis**

Élu Associé étranger le 8 décembre 2009 dans la section de Biologie intégrative

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Miguel Nicolelis, né en 1961 au Brésil, est professeur de neurobiologie, d'ingénierie biomédicale et de psychologie, et co-directeur du Centre de neuro-ingénierie au Duke University Medical Center (États-Unis). La maîtrise de concepts et de techniques multidisciplinaires, -neurosciences computationnelles, physiologie et plasticité des ensembles neuronaux sensori-moteurs, robotique-, lui a permis de devenir le pionnier d'une discipline qui révolutionne les neurosciences, celle des interactions cerveau-machine qui permettent, après une période d'apprentissage, de piloter robots et membres artificiels par la pensée. Ses résultats ouvrent une perspective thérapeutique avec la conception de neuroprothèses.

Miguel Nicolelis, born in 1961 in Brazil, is Professor of Neurobiology Biomedical Engineering and Psychology and Neurosciences, and Co-Director of the Center for Neuroengineering at Duke University Medical Center. His fields of interest are: computational properties of large neural ensembles in behaving animals; sensorimotor plasticity in adult and developing sensory animals; neuronal basis of sensorimotor learning; development of brain-machine Interfaces for restoring neurological function; neuronal basis of tactile perception.

Curriculum vitae

1985-1986	Research Associate, Department of Pathology, University of Sao Paulo
1986-1988	Research Instructor, Department of Pathology, University of Sao Paulo
1988-1992	Assistant Professor, Department of Pathology, University of Sao Paulo
1989-1994	Postdoctoral Fellow, Department of Physiology and Biophysics Hahnemann University (USA)
1994-1997	Assistant Professor, Department of Neurobiology, Duke University Medical Center (USA)
1998-2001	Associate Professor, Department of Neurobiology, Duke University Medical Center
1999-2001	Associate Professor of Biomedical Engineering and of Experimental Psychology, Duke University
2001-present	Professor of Neurobiology, Biomedical Engineering, and Psychology and Neurosciences
2001-present	Co-Director of the Center for Neuroengineering, Duke University
2004-present	Founder and Director of the Instituto Internacional de Neurociência de Natal (Brazil)
2005-present	Anne W. Deane Professor of Neurosciences, Duke University Medical Center
2008-present	Professeur titulaire de la Chaire Blaise Pascal à l'École supérieure de physique et de chimie industrielles de la Ville de Paris

Membership

2004 Fellow of the American Association for the Advancement of Science
2010 Fellow of the Academia Brasileira de Ciências

Awards

1984 Oswaldo Cruz Award for Research Excellence in Internal and Preventive Medicine (Brazil)
1994 Whitehead Scholar Award, Mc Donnell Pew Foundation
1996 Klingenstein Fellowship Award
1999 Human Frontier Research Program Grant Award
2001 MIT Review's Top 10 Emerging Technologies
2002 DARPA Award for Sustained Excellence by a Performer
2004 Scientific American 50-Research Leader in Biomedical Engineering
2005 Robert Dow Neuroscience Award, Neurological Sciences Institutes, Oregon University
2007 DARPA Tech Award for Sustained Excellence by a Performer
2009 Foundation IPSEN Neuronal Plasticity Prize
2009 Sandoz Family Foundation Chair, Edmond and Lily Safra International Institute of Neuroscience of Natal, Brazil
2009 Cesar Timo-Iaria Lifetime Achievement Award, Brazilian Society for Neuroscience

Le 29 mars 2010