Network Progression as a Therapeutic Target in Neurodegenerative Disorders

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About the Speaker
David Eidelberg is Director of the Center for Neurosciences and the NIH Morris K. Udall Center of Excellence for Parkinson’s Disease Research at the Feinstein Institute for Medical Research in Manhasset, New York. Dr. Eidelberg is internationally recognized for his pioneering work using functional imaging to identify abnormal functional brain networks in neurological disorders. Dr. Eidelberg’s work has led to the development of novel image-based methods for the assessment of disease progression, treatment response, and to enhance the accuracy of clinical diagnosis.

Dr. Eidelberg received his MD from Harvard Medical School. After completing residency training in neurology at the Harvard-Longwood Area Training Program, he pursued postdoctoral training as a Moseley Traveling Fellow at the National Hospital, Queen Square in London UK and at Sloan-Kettering Institute in New York. Dr. Eidelberg moved to North Shore University Hospital in Manhasset, New York in 1988 to establish the functional imaging laboratory and the clinical movement disorders program. In 2001 he became the founding director of the Center for Neurosciences at The Feinstein Institute for Medical Research, where he is currently Susan and Leonard Feinstein Professor of Neurology and Neuroscience.

Dr. Eidelberg has received many grants and awards, including the Fred Springer Award (2005) and the American Academy of Neurology Movement Disorders Research Award (2010). He is the author of over 350 peer-reviewed scientific articles and reviews and serves on the editorial boards of The Journal of Neuroscience, Annals of Neurology, NeuroImage, and the Journal of Nuclear Medicine. Dr. Eidelberg currently serves on the scientific advisory board of The Michael J. Fox Foundation.

References


Fig. 1. Parkinson's disease cognition-related metabolic pattern. This network, known as PDCP, is characterized by metabolic reductions (blue) involving the premotor cortex (PMC), rostral supplementary motor area (preSMA) and the precuneus, associated with covarying increases (red) in the cerebellum and dentate nucleus (DN) (Huang et al., 2007a). [The display was superimposed onto a single-subject MRI brain template and thresholded at z = 2.44, p < 0.01.]