



## Weill Cornell Medicine Neurological Surgery



### MICHAEL G. KAPLITT, MD, PHD

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Executive Vice Chairman for Research  
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### SURGICAL SPECIALTIES & CLINICAL EXPERTISE

Movement Disorders (Parkinson's disease, Tremor, Dystonia)	Focused Ultrasound for Essential Tremor Spinal Opiate Catheter Implants
Spinal Cord Stimulator Implants	Spasticity
Trigeminal Neuralgia and Facial Pain Surgery	Hydrocephalus Molecular Medicine Epilepsy

Dr. Kaplitt combines surgical expertise with advanced training in state-of-the-art stereotactic techniques to provide patients with effective, minimally invasive treatments for degenerative disorders, including Parkinson's disease, essential tremor, and dystonia. He also uses these methods to provide novel treatments for psychiatric disorders such as obsessive-compulsive disorder as well as for experimental treatment of major depression and drug addiction, and is using both. In addition, he is an expert in the use of implanted devices for the treatment of medication-resistant complex pain, spasticity, adult hydrocephalus, and epilepsy. Dr. Kaplitt is also an expert in various surgical therapies for trigeminal neuralgia as well as novel therapies for more complex craniofacial pain. He is recognized for his contributions by leading medical and patient associations, and has repeatedly been named to Castle Connolly's America's Top Doctors and New York Metro Top Doctors and regularly appears on the list of New York SuperDoctors. He is a member of the Executive Committee of the World Society for Stereotactic and Functional Neurosurgery, the society for physicians who specialize in this type of surgery. He is on the editorial board of several scientific and medical journals, including the journal *Stereotactic and Functional Neurosurgery*, the primary international journal in this area, and the *Journal of Neurosurgery*, the oldest and most important journal in the field of neurological surgery.

### TRAINING

Dr. Kaplitt graduated magna cum laude from Princeton University in 1987 with a degree in Molecular Biology and Russian Studies. He enrolled in the Tri-Institutional MD-PhD Program

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and received his PhD in Molecular Neurobiology in 1993 from The Rockefeller University and his MD in 1995 from Cornell Medical College. Following his neurosurgery residency and chief residency at NewYork-Presbyterian/Weill Cornell, he completed a fellowship in stereotactic and functional neurosurgery with Dr. Andres Lozano at the University of Toronto prior to joining our staff as Assistant Professor of Neurological Surgery in July 2001.

## RESEARCH & PUBLICATIONS

Dr. Kaplitt has pioneered human gene therapy for neurodegenerative disorders, having performed as a student the first rodent study that used the adeno-associated virus (AAV) vehicle for gene transfer to the brain. He performed the world's first human gene therapy procedure for Parkinson's disease, and more recently helped to guide the first successful randomized, double-blind, sham-controlled trial of this experimental treatment, which was the first positive trial of this kind for gene therapy in any brain disorder. He is also pioneering the development of novel deep brain stimulation (DBS) treatments for psychiatric diseases, including refractory drug addiction, and was part of the SANTE (Stimulation of the Anterior Nucleus of the Thalamus for Epilepsy) team that established the efficacy of DBS for epilepsy. Dr. Kaplitt is an internationally recognized expert in the science of gene therapy and molecular neurobiology, and his current focus is to understand molecular disease mechanisms and develop novel molecular therapies for Parkinson's disease, depression, addiction, and pain. He has published over 100 articles and has edited two books on these subjects, with publications from his lab appearing in the most prestigious international journals, including *Science*, *Science Translational Medicine*, *Nature Genetics*, *Nature Medicine*, *Proceedings of the National Academy of Science* and *Lancet*. His basic science lab has received funding from the National Institutes of Health since 2004 and has also been the recipient of major funding from the Department of Defense and several major private foundations.

Dr. Kaplitt is the recipient of numerous awards, including the Young Investigator Award from the American Society for Gene Therapy. In 2004 he was named to Crain's 40 under 40 list of 40 young New Yorkers and in 2015 he was elected to membership in the prestigious American Society for Clinical Investigation, the honor society for scientists focused upon clinical and translational research. He has also been elected to membership in the Society for Neurological Surgeons, the honor society for senior neurosurgeons.

## CLINICAL LOCATION

Weill Cornell Medicine Neurological Surgery  
1305 York Avenue, 9th floor  
New York, NY 10021

**NewYork-Presbyterian/  
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