



## Michael Shelanski, MD, PhD

APC Senior Fellow Since: 2016

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### EDUCATION

**Undergraduate Degree:** Physics, Oberlin College (1959-61). **Graduate/Professional Degree:** MD, University of Chicago (1961-1966); PhD, Physiology (Biophysics), University of Chicago (1961-1967). **Postgraduate Education:** Intern in Pathology, Albert Einstein College of Medicine (1967-68); Resident and Fellow in Neuropathology, Albert Einstein College of Medicine (1968-1970); Researcher in the Laboratories of Nobel Laureate, Marshall Nirenberg (NIH), and Jean-Pierre Changeux (Institute Pasteur).

### SERVICE

**Service as Pathology Chair:** Delafield Professor and Chairman of the Department of Pathology and Cell Biology, Columbia University (1987-2015). **Leadership Roles Before, During, and After Service as Chair:** Associate Professor of Neuropathology and Director of Neuroscience Postdoctoral Training Program, Harvard Medical School (1974-1978); Professor and Chairman, Department of Pharmacology, NYU School of Medicine (1978-1987); Director, NYU Medical Scientist Training Program; Director, Columbia University Medical Scientist Training Program; Director, Pathology Service, New York Presbyterian Hospital (1987-2015); President, Medical Board, Presbyterian Hospital (1994-1997); Co-Director and Co-Founder, Taub Institute for Research on Alzheimer's Disease and the Aging Brain (1996-Present). **Other Academic Positions After Service as Chair:** Senior Vice-Dean for Research, Columbia University Vagelos College of Physicians and Surgeons; Henry Taub Professor of Pathology and Cell Biology (2015-Present).

### AREAS OF PROFESSIONAL INTEREST

**Research:** The role of the cytoskeleton in cell function; Synaptic function in disorders of memory. **Clinical:** Neuropathology of neurodegeneration. **Educational:** Lectures to Medical and Graduate Students; Director of MSTP Programs at NYU and Columbia Universities. **Mentoring:** My trainees have been largely in basic research, and I have trained many leaders in neurodegeneration including Virginia Lee (Pennsylvania), Denis Selkoe (Harvard), Shu-Hui Yen (Mayo), Ron Liem (Columbia) and Rajiv Ratan (Cornell). During my time at Columbia, I have recruited key researchers in Cancer Biology, Neurobiology and Cell Biology, including five junior faculty who have been elected to the US National Academy of Sciences and two more to the National Academy of Medicine. **Current Interests:** Facilitating success in research for junior faculty and building bridges between the clinical and basic science efforts at Columbia University.

### ACHIEVEMENTS

**Honors and Awards:** Alpha Omega Alpha; Teacher-Investigator Award, NINCDS (1971-74); Guggenheim Foundation Fellow (1973-1974); McKnight Scholar in Neurosciences (1977-84); Javits Neuroscience Investigator Award NINCDS (1994-2001); Association of American Physicians (1998-Present); National

Academy of Medicine (1999-Present); Distinguished Service Award, University of Chicago (2013). **Professional Achievements of Which You are Most Proud:** Pioneering work on the initial identification and purification of tubulin and the purification and identification of neurofilament proteins, which are the key elements in our understanding of how cells make and keep their shape and organize their internal functions; Leading in the development of methods for purification of tubulin and associated proteins, the localization and primary structure of high molecular weight tau protein, the development of concept of multiple parallel paths to cell death depending on the type of injury to the cell and studies on the role of the cAMP/PKA/CREB system in A $\beta$  regulation of synaptic plasticity; The success of the many students I have mentored in MSTP programs; The success of the faculty I have recruited over the years; My contribution the Department of Pathology and Cell Biology at Columbia.

### **OUTSIDE INTERESTS**

**Hobbies:** Cycling; Hiking; Travel. **Volunteer Activities:** Past and present service on numerous Scientific Advisory and Editorial Boards, to include: Board of Directors of the Alzheimer's Association; Board of Trustees of the Presbyterian Hospital; Corporate Scientific Advisory Boards; Scientific Advisory Boards of the Alzheimer's Disease Research Centers at Harvard, Johns Hopkins, USC-Irvine, UCSD, and the University of Minnesota; Scientific Advisory Board for the Advanced Practice Nursing Study at the Columbia University School of Nursing; Editorial Boards of the *J. Mechanochemistry and Cell Motility*, the *Neurobiology of Aging*, *Laboratory Investigation*, the *Journal of Neuropathology and Experimental Neurology*, *Brain Pathology*, *Neuroscience* and the *Journal of Neuroscience*; Past-President of the Scientific Advisory Board of the Institut du Cerveau (Paris Brain Institute) in France.