



Michael Levy, M.D., PhD

Michael L. Levy, MD, PhD is currently Chief of Pediatric Neurosurgery at Children's Hospital San Diego (CHSD). He is also Clinical Professor of Neurological Surgery at the University of California, San Diego (UCSD) School of Medicine. He earned his medical degree from the University of California, San Francisco (UCSF) and completed his neurosurgical residency at the University of Southern California (USC). He also obtained a PhD degree in biophysics from USC. He then completed a two-year fellowship in pediatric neurological surgery at Children's Hospital Los Angeles and subsequently joined the USC faculty in 1993. Dr. Levy left USC to join CHSD in August 2002.

Dr. Levy's primary surgical interests are in pediatric and vascular neurosurgery. His clinical interests are also numerous. He has evaluated the longevity and outcome in children with brain tumors and the relationship of certain variables and treatments in these children to survival. He has also evaluated survival and predicted models of outcome including surgical management in pediatric and adolescent head trauma and community based efforts at prevention and communication.

Dr. Levy's vascular research includes the relationships of cerebral blood flow to cardiac output in patients with aneurysmally induced subarachnoid hemorrhage and vasospasm. His research has

led to methodologies by which patients are universally treated with both hyperdynamic protocols and the use of inotropes throughout the country. Further research involves the use of rheologic agents to further increase cerebral blood flow and perfusion to ischemic regions of the brain during cerebrovasospasm.

Additional interests of Dr. Levy include technical methodologies within neurosurgery. He has developed a number of novel endoscope based techniques of intervention for children and adults using modified endoscopes for catheter placement within the ventricular system of the brain and additionally using endoscopes as adjuvants during microsurgery. He has further developed picture-in-picture image graphics for the operating microscope and the use of head mounted display systems for both endoscopic and microscopic neurosurgical procedures. Further research efforts concern the 3-dimensional representation of the central nervous system and the relationship of neoplastic and vascular abnormalities to functional structures in order to maximize both neurosurgical approaches and patient outcome.

A gifted teacher, Dr. Levy, serves as a Professor in the UCSD Neurosurgery resident training program, inspiring the next generation of pediatric neurosurgeons in the United States.