



GERARD FRANCISCO, M.D.

REHABILITATION: THE SCIENCE OF
FUNCTION AND ENABLEMENT

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4:00 P.M.

208 LIGHT HALL

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Upcoming Discovery Lecture:

SCOTT ZEGER, Ph.D.

Professor of Biostatistics, Bloomberg School of Public Health, Johns Hopkins University

April 18, 2019

208 Light Hall / 4:00 P.M.

VANDERBILT  UNIVERSITY
MEDICAL CENTER

REHABILITATION: THE SCIENCE OF FUNCTION AND ENABLEMENT

Previously the success of the United States (US) health care system was measured by mortality rates. Prior to 2015, through the advances in early diagnosis and management of previously fatal conditions, mortality had declined consistently over several decades. Partly as a result of this, the aging population of the US is experiencing an increase in disabling conditions. This has forced a shift in the country's health care priorities, focusing more on quality, rather than quantity, of life through emphasis on health promotion, prevention, and rehabilitation of disabling conditions. The contemporary view of disability is that of a reversible condition characterized by limitation in performing tasks and fulfilling roles expected by societal norms, and one that arises from a complex interaction of disease, impairment, personal factors, functional restriction, and environmental barriers. In varying degrees successes in therapeutics and biomedical engineering address some of these predisposing factors, thereby making disability a reversible condition. This emphasizes the concept that disability is not innate to an individual, but instead a cumulative result of the dynamic interaction of all health conditions and the social and physical environment. Rehabilitation is the discipline devoted to the management of health conditions, prevention of secondary complications, functional restoration, social re-integration and environmental modification, to decrease disability. Thus, through an interdisciplinary and holistic methodology, rehabilitation reverses disability through a systematic process of enablement.



GERARD FRANCISCO, M.D.

**CHAIR AND PROFESSOR OF PHYSICAL MEDICINE
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**CHIEF MEDICAL OFFICER AND DIRECTOR OF
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Dr. Gerard E. Francisco is Chair and Professor of Physical Medicine and Rehabilitation (PM&R) at the McGovern Medical School, The University of Texas Health Science Center at Houston. Concurrently he is the Chief Medical Officer at TIRR Memorial Hermann, which consistently ranks among the top three rehabilitation hospitals in the *US News and World Report*.

While his clinical expertise is in brain injury and stroke rehabilitation and spasticity management, Dr. Francisco's recent research projects focus on the integration of technology in enhancing recovery. These include a federally-funded investigation of a non-invasive brain-robot interface for stroke, vagal nerve stimulation to augment post-stroke upper limb rehabilitation, combined non-invasive brain stimulation and robot-assisted therapy for upper limb motor recovery in persons with incomplete tetraplegia, and lower limb wearable exoskeletons for stroke, spinal cord injury and multiple sclerosis. These projects are conducted at The NeuroRecovery Research Center at TIRR, of which he is the founding director.

Dr. Francisco is immediate past president of the Association of Academic Physiatrists, past chair of the ACGME Review Committee for PM&R, and currently a director of the American Board of PM&R. He is also the founding editor of the *Journal of the International Society of Physical and Rehabilitation Medicine*. He was the American Academy of Physical Medicine and Rehabilitation's Zeiter Lecturer in 2011 and Distinguished Member in 2015. A year later, he was honored as the Sidney Licht Lecturer by the International Society of Physical and Rehabilitation Medicine, the largest PM&R organization in the world. Dr. Francisco was elected to the National Academy of Medicine in 2017.
