

## **“Jam” Ghajar, MD, Ph.D**

Jamshid Ghajar MD, PhD, FACS, is a board certified neurosurgeon, Clinical Professor of Neurosurgery, Director of the Stanford Concussion and Brain Trauma Center and President of the Brain Trauma Foundation in New York City and Palo Alto.

He completed the MD/PhD program at Cornell University Medical College. During his residency training in neurosurgery at New York Presbyterian Hospital, he invented and patented several neurosurgical devices that are currently used worldwide. After residency, he joined the faculty at the New York Presbyterian Hospital-Cornell Medical Center and was a founder of the Brain Trauma Foundation (BTF) in 1986. The mission of the BTF is to improve the outcome of patients with traumatic brain injury (TBI). He joined the neurosurgery faculty at Stanford in February 2014.

He has dedicated his career to innovative and practical ways to improve survival from TBI using scientific principles. In 1995 he led the first TBI scientific evidence-based guidelines that are the gold standard for all subsequent surgical guidelines. These guidelines have led to a 50% decrease in deaths in the US. His surgical care of patients and BTF Guidelines were the focus of an award winning NOVA science documentary called COMA and an article in the New Yorker by Malcolm Gladwell.

Over the last 15 years Dr. Ghajar developed a new brain theory of attention, which depends on proper moment-to-moment predictive timing. The development of the brain predictive state takes place during the early years of play when connections from the cerebellum, involved in timing, are made to other areas of the brain. These network connections enable us to learn, focus, and be “in sync” with the outside world. Recently Dr. Ghajar led a New Academy of Sciences symposium on this called "Play, attention, and learning: How do play and timing shape the development of attention and influence classroom learning?"

If white matter connections are damaged, such as from a concussion, our timing or ability to be “in sync” is impaired. To measure this predictive timing and attention focus, Dr. Ghajar developed eye-tracking tests that within seconds determine how well someone is able to focus. He has several patents and a company called SyncThink. The Department of Defense is currently funding a 10,000 person study of eye tracking as a diagnostic for concussion.

Dr. Ghajar resides in Palo Alto with his wife and three children.