Short Biography – Earl K. Miller

Earl K. Miller is the Picower Professor of Neuroscience at the Massachusetts Institute of Technology. He has academic appointments at The Picower Institute for Learning and Memory and The Department of Brain and Cognitive Sciences at MIT.

Professor Miller earned his B.A. (summa cum laude, with honors) from Kent State University (1985), and his M.A. (1987) and Ph.D. (1990) from Princeton University. In 2020, he received an honorary Doctor of Science degree from Kent State University.

Professor Miller studies the neural foundations of advanced cognitive functions like working memory, attention, decision-making, and learning. His research has made discoveries about how categories and concepts form, the importance of multifunctional "mixed selectivity" neurons in neural computation, and the role of neural dynamics in controlling perception, thought, and action. This research offers vital insights for understanding cognition and its disorders in conditions such as autism, schizophrenia, and attention deficit disorder.

Professor Miller has received numerous awards, holds editorial roles in major neuroscience journals, and serves on international advisory boards. His 2001 paper with Jonathan Cohen, introducing a novel framework for understanding executive brain functions, stands as the fifth most-cited paper in the history of neuroscience.

Selected Honors and Awards:

- Doctor of Science (honoris causa), Kent State University, 2020
- George A. Miller Prize in Cognitive Neuroscience, 2019
- Elected to the American Academy of Arts and Sciences, 2017
- Goldman-Rakic Prize for Outstanding Achievement in Cognitive Neuroscience, 2016
- MERIT Award, National Institute of Mental Health, 2010.
- Elected Fellow, American Association for the Advancement of Science, 2005
- Picower Professorship at MIT (endowed chair), 2003
- Society for Neuroscience Young Investigator Award, 2000
- National Academy of Sciences Troland Research Award, 2000
- Tenured at MIT two years ahead of schedule (1999)
- Phi Beta Kappa, 1985