

Suggested Readings:

1. Malenka, R.C. and Bear, M.F. (2004) LTP and LTD: An embarrassment of riches. *Neuron* 44: 5-21.
2. Lisman, J., Schulman, H., and Cline, H. (2002) The molecular basis for CamKII function in synaptic and behavioral memory. *Nature Reviews Neurosci.* 3: 175-190.
3. Thomas, G.M. and Huganir, R.L. (2004) MAPK cascade signaling and synaptic plasticity. *Nature Reviews Neurosci.* 5: 173-183.
4. Zhang, W. and Linden, D.J. (2003) The other side of the engram: experience-driven changes in neuronal intrinsic excitability. *Nature Reviews Neurosci.* 4: 885-900.

To learn more about fundamental properties of synaptic transmission and synaptic plasticity I'd recommend the following chapters in these classic introductory neuroscience textbooks:

Purves et al., *Neuroscience* (3rd Ed.):

Chapter 5 – Synaptic Transmission

Chapter 6 – Neurotransmitters and Their Receptors

Chapter 24 – Plasticity of Mature Synapses and Circuits.

Kandel, Schwartz, and Jessell, *Principles of Neural Science* (4th Ed.):

Chapter 11 – Signaling at the Nerve-Muscle Synapse: Directly Gated Transmission.

Chapter 12 – Synaptic Integration

Chapter 63 – Cellular Mechanisms of Learning and the Biological Basis of Individuality