The Journal of Neuroscience

December 13, 2006 • Volume 26 Number 50 www.jneurosci.org

Cover legend: The cover illustration shows an artistically modified two-photon fluorescence image of a dendrite and a synaptic spine of a cortical layer 2/3 pyramidal neuron. The Ca^{2+} dependence of the synaptic modifications for spike-timing-dependent plasticity induction protocols was investigated in spines on basal dendrites. It was found that the peak Ca^{2+} transient amplitude alone is not sufficient to account for the direction of the change in synaptic efficacy. It determines the magnitude, but the direction of the change is controlled via a metabotropic glutamate receptor-coupled signaling cascade, which acts in conjunction with voltage-dependent calcium channels and phospholipase C as a sequence coincidence detector that detects post-before-presynaptic action potentials resulting in long-term depression. Long term potentiation is induced by activation of NMDA receptors. Thus, presumably two different coincidence detectors in spines control the induction of spike-timing-dependent synaptic plasticity. For more information, see the article by Nevian and Sakmann in the October 25, 2006 issue (pages 11001–11013).

NEUROBIOLOGY OF DISEASE

Correction: In Figure 3B of the article "Abnormal Ca^{2+} Dynamics in Transgenic Mice with Neuron-Specific Mitochondrial DNA Defects" by Mie Kubota, Takaoki Kasahara, Takeshi Nakamura, Mizuho Ishiwata, Taeko Miyauchi, and Tadafumi Kato, which appears on pages 12314–12324 of the November 22, 2006 issue the scale bar was incorrectly annotated as 10s. The label of the x-axis should have been labeled 20s instead.

Persons interested in becoming members of the Society for Neuroscience should contact the Membership Department, Society for Neuroscience, 1121 14th St., NW, Suite 1010, Washington, DC 20005, phone 202-962-4000.

Instructions for Authors are available at http://www.jneurosci.org/misc/itoa.shtml. Authors should refer to these Instructions online for recent changes that are made periodically.

Brief Communications Instructions for Authors are available via Internet (http://www.jneurosci.org/misc/ifa_bc.shtml).

Submissions should be submitted online using the following url: http://sfn.manuscriptcentral.com. Please contact the Central Office, via phone, fax, or e-mail with any questions. Our contact information is as follows: phone, 202-962-4000; fax, 202-962-4945; e-mail, jn@sfn.org.