Supplementary Figure legends for “Cellular dynamics of cholinergically-induced alpha (8-13 Hz) rhythms in sensory thalamic nuclei in vitro” by Lőrincz et al.

Supplementary Figure 1. Effects of M1 and M3 receptor selective antagonists on LFOs and TC neuron firing assessed with extracellular recordings.

A. Top: Cch-induced LFO. Bottom: abolition of field activity by the M3 receptor selective antagonist, 4-DAMP (1 M). B. Top: single unit recording of rhythmic HT bursting in the presence of 50 M Cch. Middle: application of the M1 receptor selective antagonist, Tzp (1 M), fails to affect HT bursting. Bottom: application of the M3 receptor blocker 4-DAMP (1 M) abolishes HT bursting.

Supplementary Figure 3. Effects of M1 and M3 receptor selective antagonists on TC neuron firing assessed with intracellular recordings.

A. 1: spontaneous firing recorded in a TC neuron in the presence of 50 M Cch. 2 and 3: this firing is reversibly abolished by 2 M 4-DAMP. This effect is accompanied by a hyperpolarization of the cell (inset shows a brief negative pulse elicited from the resting Vm leading to a LTCP-mediated rebound burst). 4: subsequent application of 1 M Tzp fails to affect spontaneous firing. 5-7: reapplication of 2 M 4-DAMP, again, reversibly suppresses firing and hyperpolarizes the cell. 8 and 9: DAU-5884 also reversibly hyperpolarizes the neuron and abolishes spontaneous action potential firing (action potentials have been truncated in 1-9). B. Left: spontaneous firing in a TC neuron in the presence of 50 M Cch involves a prominent spike ADP (see arrows). Middle: this ADP is abolished following application of 1 M 4-DAMP. Right: overlay of action potentials obtained in Cch (red trace) and 4-DAMP (blue trace).