Electronic Supplementary Information (ESI)

An integrated microfluidic/microelectrode array for the study of activity-dependent intracellular dynamics in neuronal networks

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Supplementary Video 1. Live recording of calcium dynamics in cortical axons after high frequency stimulation (related to Figure 3).
Presynaptic electrode was used to apply a train of 10 APs at 50 Hz (white square) in two adjacent axonal microchannels. The video is accelerated 5x.

Supplementary Video 2. Live recording of calcium dynamics in postsynaptic target neurons during high frequency stimulation of projecting axons (related to Figure 4).
Presynaptic electrode was used to apply a train of 10 APs at 50 Hz (white square). The video is accelerated 5x.

Supplementary Video 3. Postsynaptic calcium dynamics before CNQX/AP5 application (related to Figure 5).
Presynaptic electrode was used to apply a train of 10 APs at 50 Hz (white square). The video is accelerated 5x.

Supplementary Video 4. Postsynaptic calcium dynamics after CNQX/AP5 application in synaptic and postsynaptic chambers (related to Figure 5).
Presynaptic electrode was used to apply a train of 10 APs at 50 Hz (white square). The video is accelerated 5x.