Supporting Information

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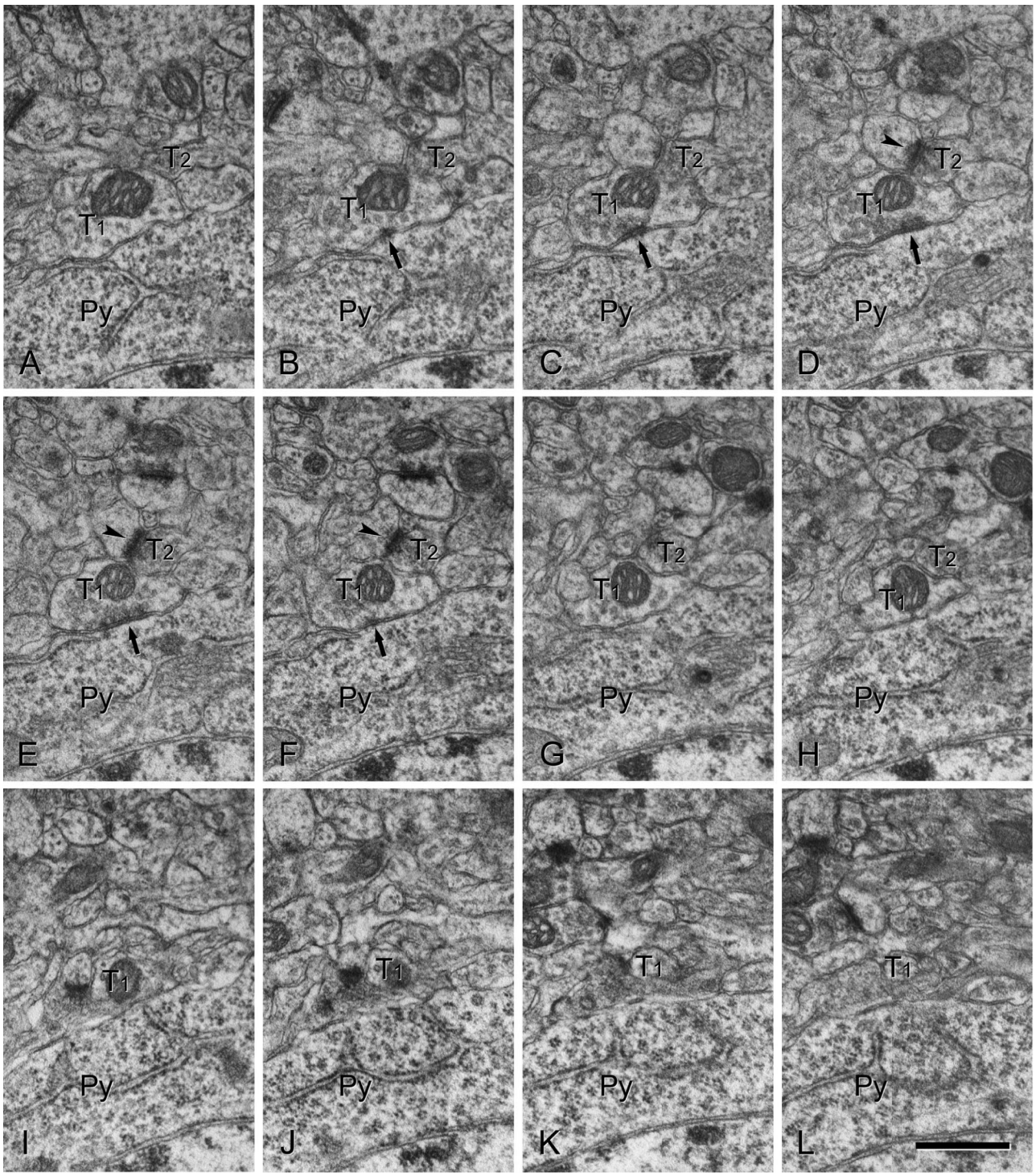


Fig. S1. (*A–L*)Twelve consecutive ultrathin sections showing an axon terminal (T1) establishing an axo-somatic symmetric (inhibitory) synapse (*arrows*) with a pyramidal cell soma (Py), and one adjacent terminal (T2), establishing an axo-dendritic asymmetric (excitatory) synapse (*arrowheads*). Panels (*C*) to (*F*) are the same as those shown in Fig. 3. The terminal T2 [sections (*A*) to (*H*)] is apposed to the axo-somatic bouton. Note the close proximity between the asymmetric (excitatory) synapse and the inhibitory axosomatic terminal. (Scale bar, 0.5 μm.)

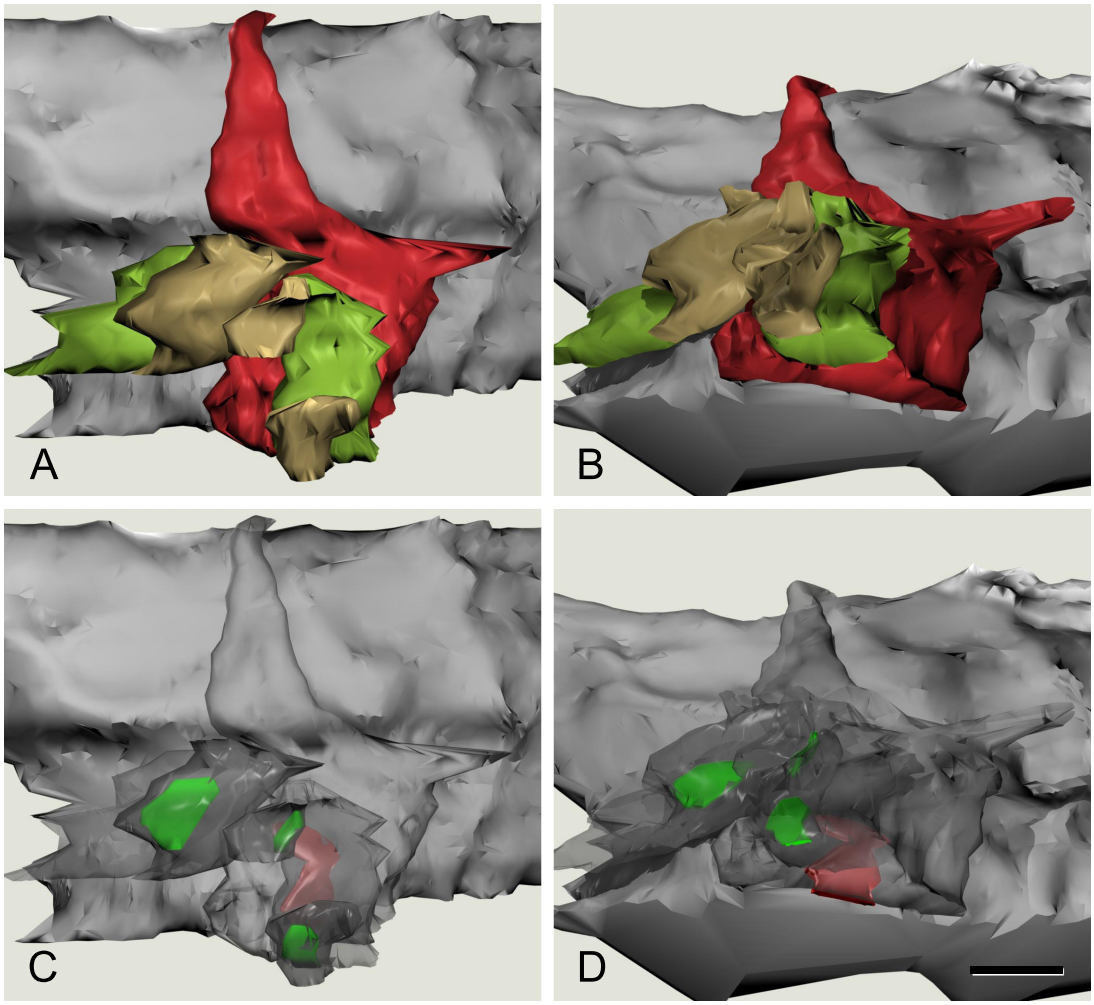
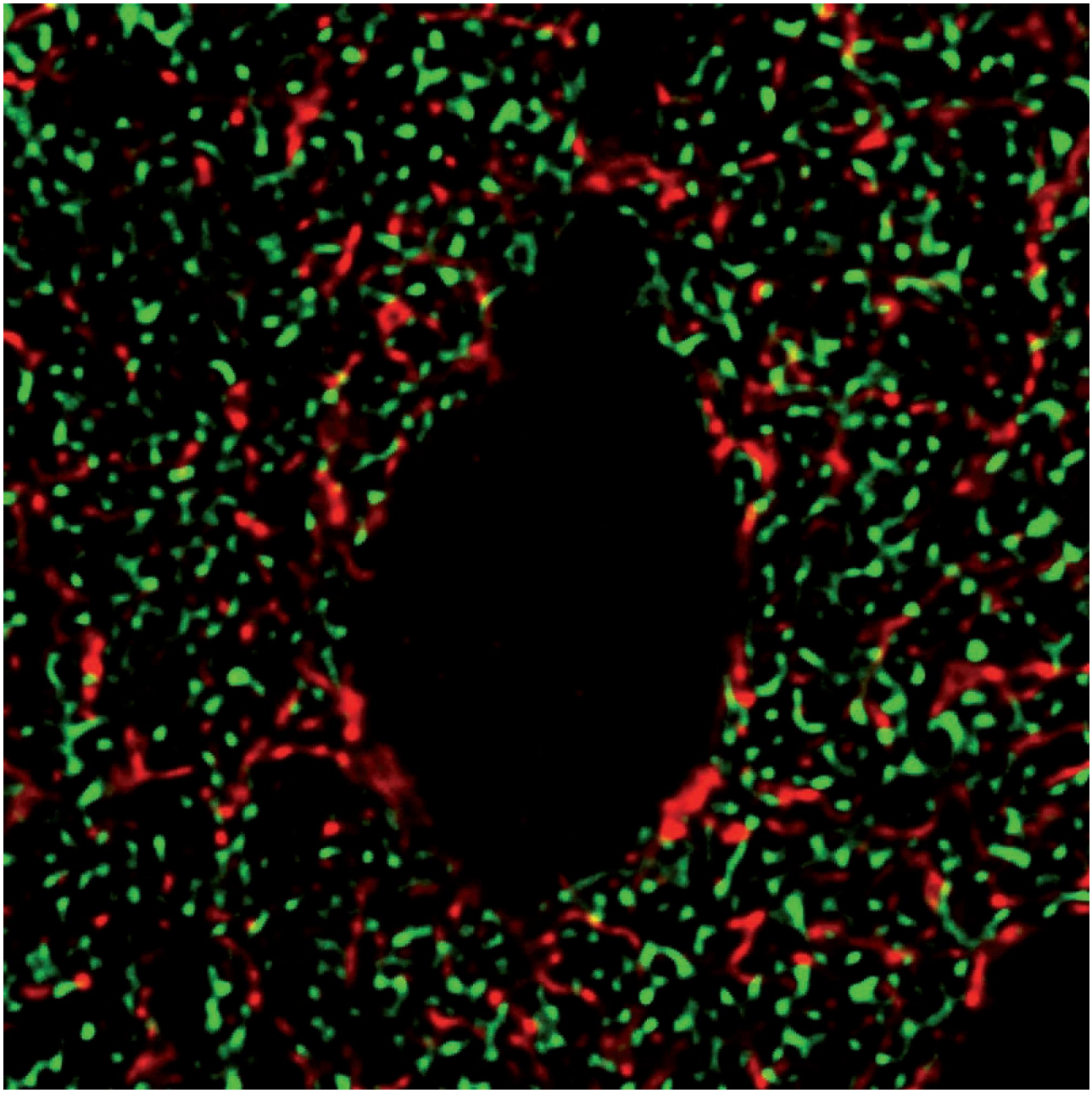


Fig. S2. Three-dimensional reconstruction of an axo-somatic terminal and three neighbor axo-dendritic synapses. (*A*) and (*B*) are 2 views at different angles (a 60° rotation through the transverse axis) to show a portion of a pyramidal cell body (*gray*), an axo-somatic inhibitory terminal (*red*), 2 excitatory axon terminals (*green*), and 3 dendritic spine heads (*pale brown*). Note the close apposition between the axo-somatic terminal and the axo-dendritic terminals. (*C*) and (*D*) are paired with (*A*) and (*B*), respectively, where the axon terminals and dendritic structures have been made transparent to show the location of the postsynaptic densities (PSDs). The PSD of the inhibitory synapse (*red*) is located in the pyramidal cell body, in front of the axo-somatic terminal. The PSDs of the excitatory synapses (*green*) are located in the dendritic spine heads apposed to the excitatory axon terminals. These excitatory synapses are located at different distances from the inhibitory axo-somatic terminal. Notice that there are no axo-axonic synapses between the excitatory and inhibitory axon terminals. (Scale bar, 0.5 μm.)



Movie S1. Video sequence made up of 14 consecutive confocal microscope images (z-step: 0.14 μm) from the pyramidal cell shown in Fig. 1*G*. VGluT-ir (*green*) and GAT1 ir (*red*) are present in punctate structures in the neuropil, and around the cell body and dendritic trunks. VGluT- and GAT1-positive profiles are frequently apposed to one another and to the cell soma. Although there is no colocalization of these markers, a yellow overlapping area is visible in some cases, when both kinds of terminals are closely apposed one on top of the other.

Movie S1 (AVI)