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Corrigendum

Corrigendum to "Gap junction-mediated electrical transmission: Regulatory mechanisms and plasticity" [Biochim. Biophys. Acta 1828 (2013) 134–146]

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The authors regret that the Fig. 8 caption in the article referenced above does not mention that panel A is adapted from Fig. 7C in a paper they published earlier in *Journal of Neuroscience*. Also, the caption is missing the citation to the *Journal of Neuroscience* article, which is cited as Reference [107] elsewhere in this review article. The corrected caption is given below.

Fig. 8. Neuronal gap–junctions are in close proximity to glutamatergic synapses and show variability in coupling strength. A. Freeze-fracture immunogold labeling (FRIL) from goldfish club endings shows Cx35 (10-nm gold beads) in a gap–junction plaque (pink). A nearby aggregate of E-face particles (yellow) represents a post-synaptic density for a glutamatergic synapse and shows labeling for the NR1 subunit (18-nm gold bead), indicating the presence of an NMDA receptor. Modified from Pereda et al. [107]. B. Unitary EPSPs measured in the same Mauthner cell dendrite, but evoked from different club endings, show variability in the electrical conductance of the synaptic transmission, even though the pre-synaptic action potentials were highly invariable (not shown). Only one of the synaptic potentials shows a clear chemical component. Thus, electrical synapses from neighboring club endings coexist at different degrees of conductance. C. Tracer coupling between the Mauthner cell (M-cell) and neighboring club endings shows a similar diversity of coupling strength. The image shows that neurobiotin injected to the Mauthner cell transferred to neighboring club endings (arrowheads) with different degrees of staining intensity, indicating that the junctions differ in their permeability. Thus, club ending synapses on the goldfish Mauthner cell coexist and different degrees of conductance (panel B) and permeability (panel C), likely because of the regulation from nearby glutamatergic synapses (panel A, Fig. 6). A similar arrangement and coexistence of variable gap–junction strengths occur in mammals, suggesting that mechanisms similar to those in goldfish may function to modulate junctional conductance in mammals. Modified from Pereda et al. [105]. D. FRIL double labeling of Cx36 and NR1 in a rat inferior olivary neuron. The image shows a PSD (yellow) of a glutamatergic synapse with labeling for the NR1 subunit of an NMDA receptor (10nm-gold bead, arrow). The gap–junction plaque (pink) shows labeling for Cx36 (20 nm-gold beads). This close arrangement of a Cx36-containing gap junction and an NR1-containing PSD is very similar to the close arrangement found in goldfish club endings (panel A). Modified from Pereda et al. [105]. E. In the rat inferior olive, the labeling intensity of the somata of coupled cells (arrowheads) is highly variable. The image corresponds to a confocal projection (average of 17 z-sections) illustrating a neurobiotin-injected inferior olive neuron with multiple indirectly labeled neurons. Darker silhouettes represent more intense neurobiotin labeling; the variable labeling in the inferior olive is similar to the variable labeling of goldfish club endings (panel C). Modified from Hoge et al. [123].

The authors would like to apologize for any inconvenience caused.

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