

Description of Additional Supplementary Files

File name: Supplementary Data 1

Description: Modulation of activity by Interluminescence of excitatory and inhibitory opsin expressing postsynaptic neurons. Source data for Fig. 2d.

File name: Supplementary Data 2

Description: Communication via Interluminescence in co-cultured populations depends on intact synaptic connections. Source data for Fig. 3c.

File name: Supplementary Data 3

Description: Synaptic Blockers for isolating Interluminescence effects. Source data for Supplementary Fig. 4c.

File name: Supplementary Data 4

Description: Interluminescence elicits postsynaptic firing increase in the presence of synaptic blockers dependent on presynaptic neuronal activity. Source data for Figs. 4c and 4e.

File name: Supplementary Data 5.

Description: Interluminescence is dependent on presynaptic vesicle release. Source data for Fig. 5c.

File name: Supplementary Data 6

Description: Interluminescence is mediated by bioluminescence activation of the opsin. Source data for Figs. 6c and 6f.

File name: Supplementary Data 7

Description: Modulation of postsynaptic neural activity by Interluminescence in vivo. Source data for Figs. 7b, 7c, 7d, 7e and 7f.