

Table S1. Coordinates of the Injection Sites and Behavioral Responses for the ChR2-Expressing Animals shown in Figure 3C

Animal Number	Distance from the Bregma (mm)	Distance from ventral surface (mm)	% Flight behavior
1	1.96	1	100%
2	-0.1	0.75	85.71%
3	-0.1	1	100%
4	-0.22	1	100%
5	-0.46	0.75	100%
6	-0.46	0.5	100%
7	-0.46	0.65	100%
8	-0.56	0.5	100%
9	-0.56	0.75	100%
10	-0.58	1	85.71%
11	-0.58	0.5	42.86%
12	-0.7	0.7	100%
13	-0.7	0.5	85.71%
14	-0.7	1	100%
15	-1.18	1	100%
16	-1.58	1	100%
17	-1.86	1	100%
18	-2.5	0.75	100%

The animals are listed in the order of Bregma position of the injections sites. A subset of these animals with sparsely labeled ChR-expressing neurons at the injection sites are included in the Figure 2B (Dual Virus).