

Extended Data Table 2. A list of viruses used in this paper

	<b>Virus name</b>	<b>Titer(vg/ml)</b>	<b>Packaging</b>	<b>ID</b>
V1	AAV2/9 CaMKII promoter-mEGFP-P2A-paAIP2	2.0 e13	UNC vector core	<a href="https://www.addgene.org/91718/">https://www.addgene.org/91718/</a> CaMKIIP-mEGFP-P2A-paAIP2/pAAV was a gift from Ryohei Yasuda
V2	AAVretro CamKII promoter-Cre	3.0 e13	Janelia viral core	<a href="https://www.addgene.org/182736/">https://www.addgene.org/182736/</a> pAAV-CamKII-Cre was a gift from Janelia Viral Tools
V3	AAV2/9 CaMKII promoter-DIO-mEGFP-P2A-paAIP2	5.0 e12	NA	This paper
V4	AAV2/5 hsyn promoter-cre	2.1 e13	Addgene	<a href="https://www.addgene.org/105553/">https://www.addgene.org/105553/</a> pENN.AAV.hSyn.Cre.WPRE.hGH was a gift from James M. Wilson
V5	AAV2/9 U6 promoter CaMKII gRNA-hsyn promoter-mScarlet	1.4 e13	NA	This paper
V6	AAV2/1 hSyn promoter-mScarlet	9.5 e12	Addgene	<a href="https://www.addgene.org/131001/">https://www.addgene.org/131001/</a> pAAV-hSyn-mScarlet was a gift from Karl Deisseroth
V7	AAV2/9 Ef1a promoter-DIO-CFL-SN	1.1 e13	UNC vector core	<a href="https://www.addgene.org/181740/">https://www.addgene.org/181740/</a> pAAV-EF1 $\alpha$ -DIO-CFL-SN was a gift from Yasunori Hayashi
V8	AAV2/9 Ef1a promoter-DIO-SN	2.6 e13	UNC vector core	<a href="https://www.addgene.org/181741/">https://www.addgene.org/181741/</a> pAAV-EF1 $\alpha$ -DIO-SN was a gift from Yasunori Hayashi