Title
Axonal mapping of the motor cranial nerves

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Supplementary information
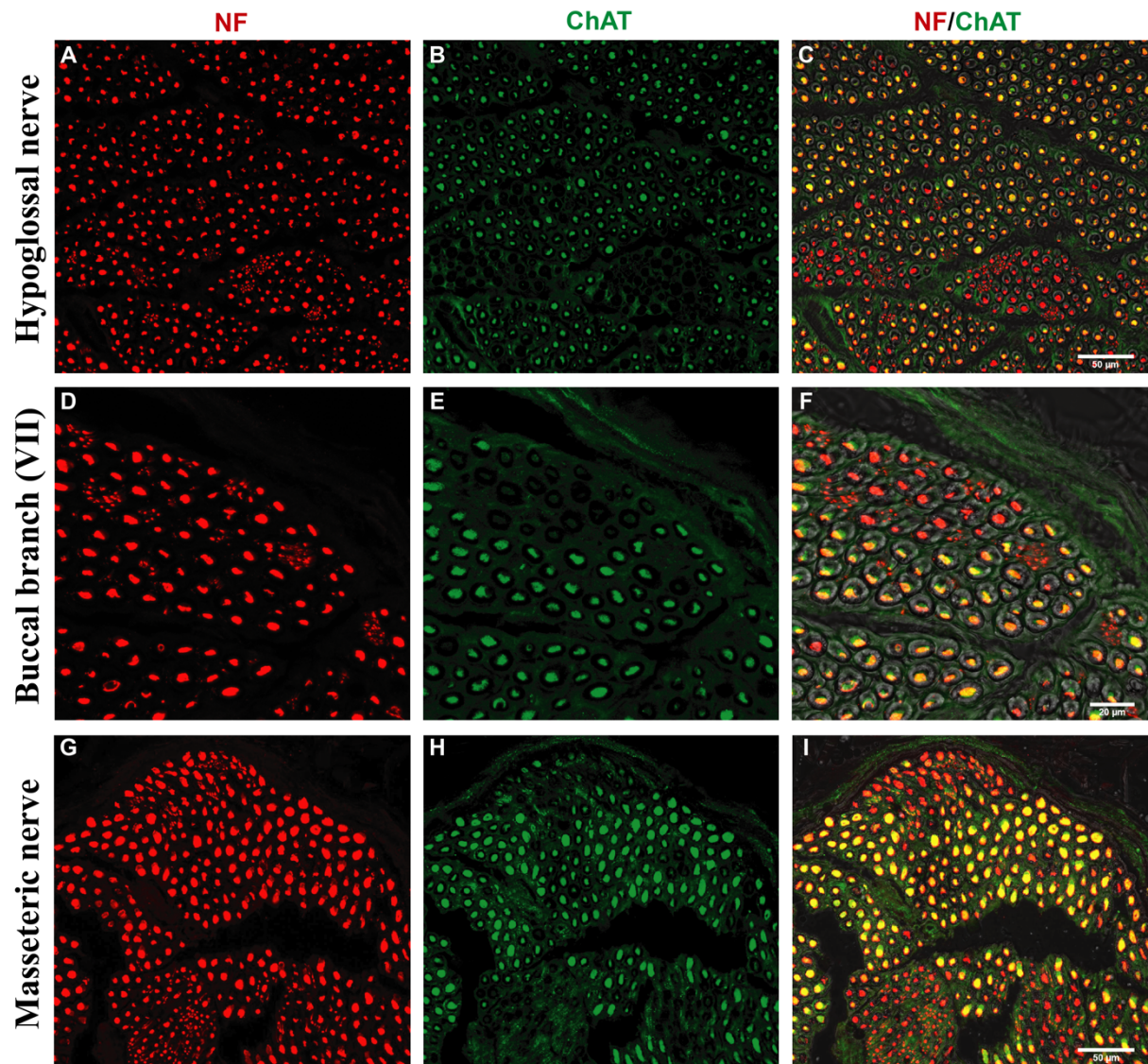
Figure S1 is related to Figure 3.

Fig. S1. Multi-channel images of the cranial nerves. *(A, D, G)The entirety of axons was identified using a pan-neuronal neurofilament (NF) antibody (in red color). (B, E, H) The motor (cholinergic) fibers were labeled with a choline acetyltransferase (ChAT) antibody (in green color). (C, F, I) The overlay demonstrates a large area of NF-positive and ChAT-negative axons, indicating the non-cholinergic nature of the smaller axons. The NF- and ChAT-positive axons are cholinergic motor axons. The thicker non-cholinergic fibers are suggestive of afferent axons.*
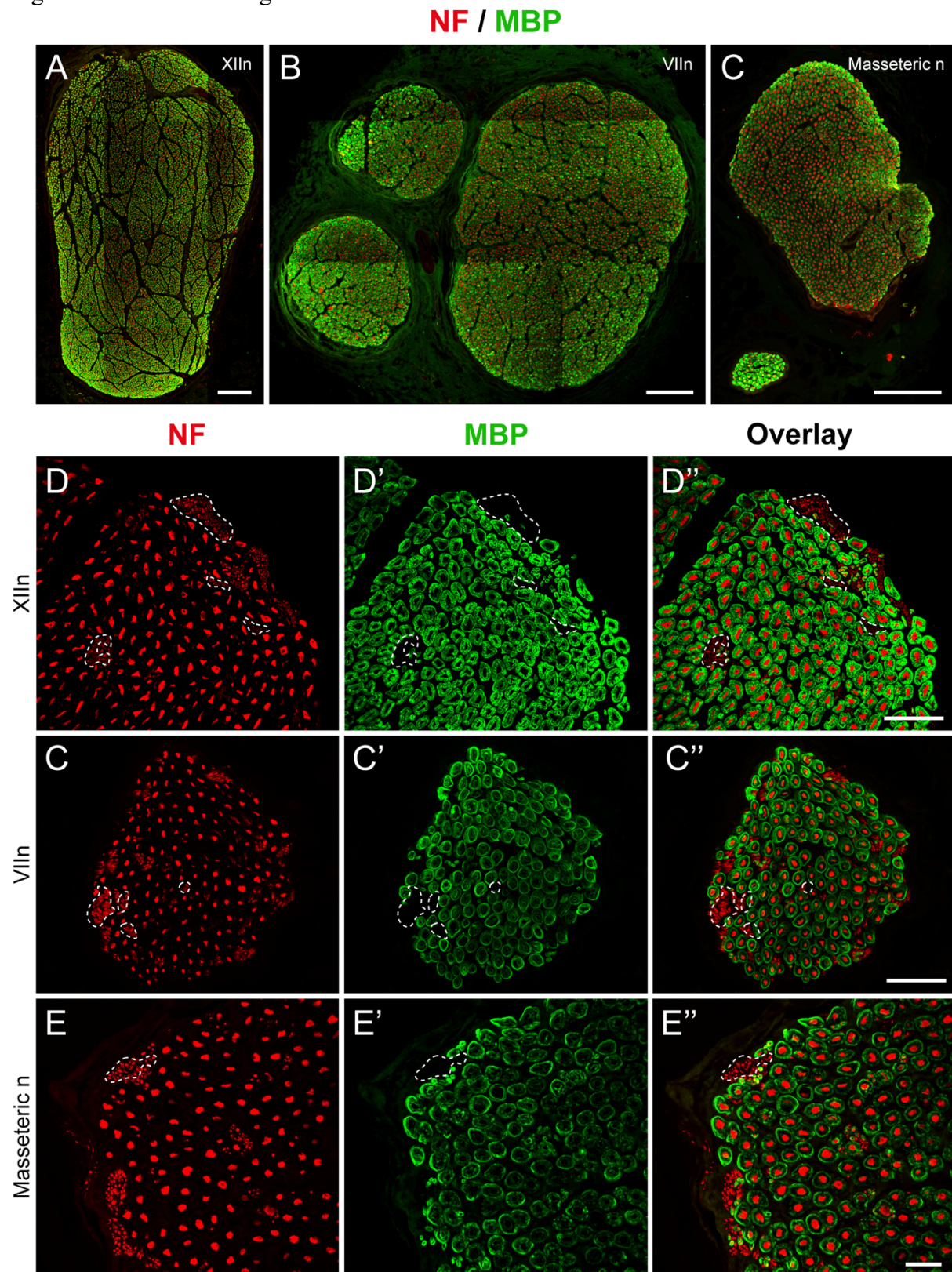
Figure S2 is related to Figure 4.

Fig. S2. Mixed axonal populations of the facial nerve branches. *(A) Schematic illustration of the facial nerve branches and corresponding cross-sections. The specimen is stained using anti-NF (red) and anti-ChAT (green) antibodies.* Scale: 200 μm. *(B) Semi-automated quantification analysis of axons in the cross-section of the mandibular branch of the facial nerve. NF-positive signals are automatically identified using the StrataQuest software (TissueGnostics, Vienna, Austria). (C) Overall and non-cholinergic axon numbers of the facial nerve branches are depicted. Data are presented as mean±SD.*