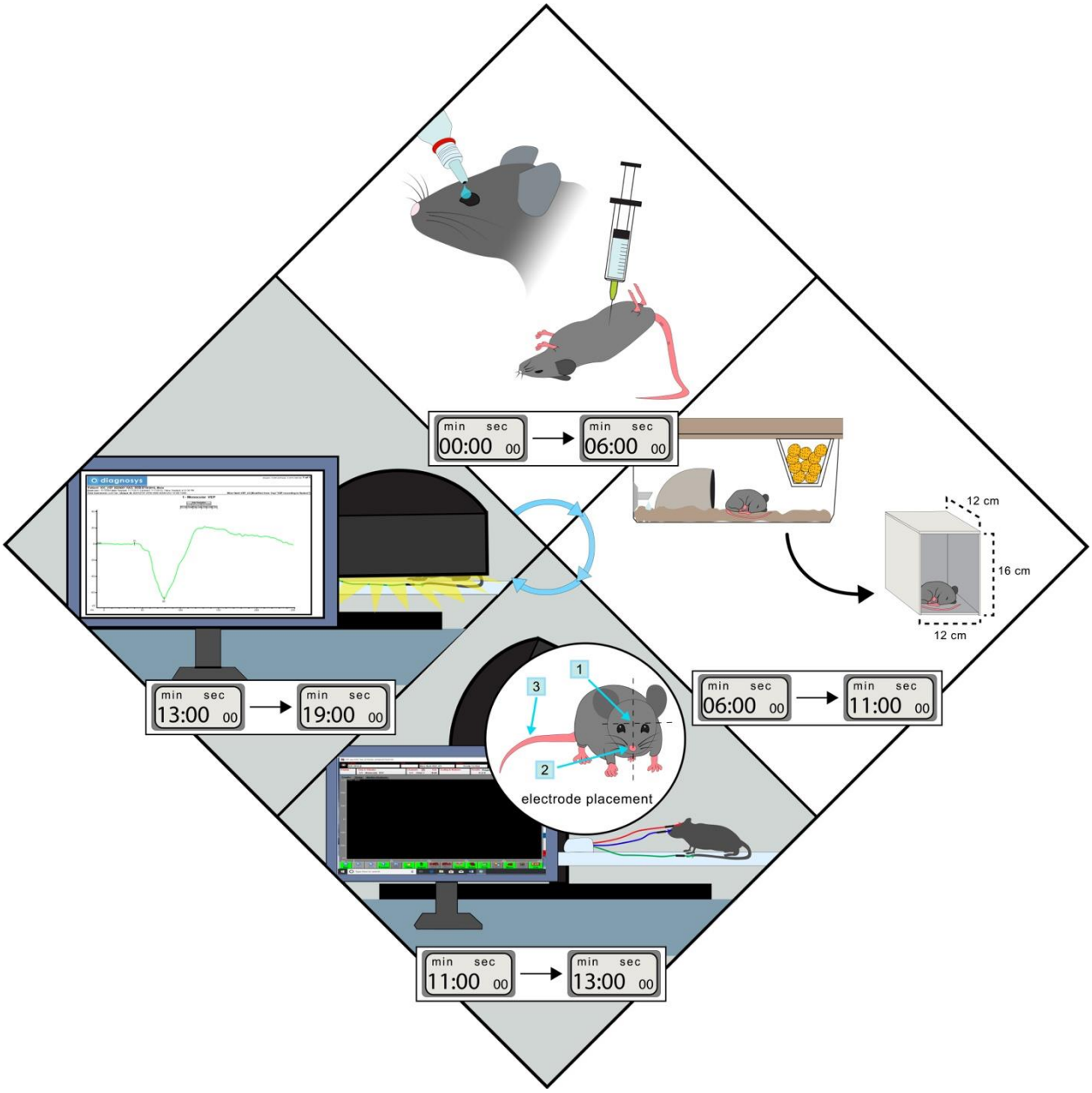
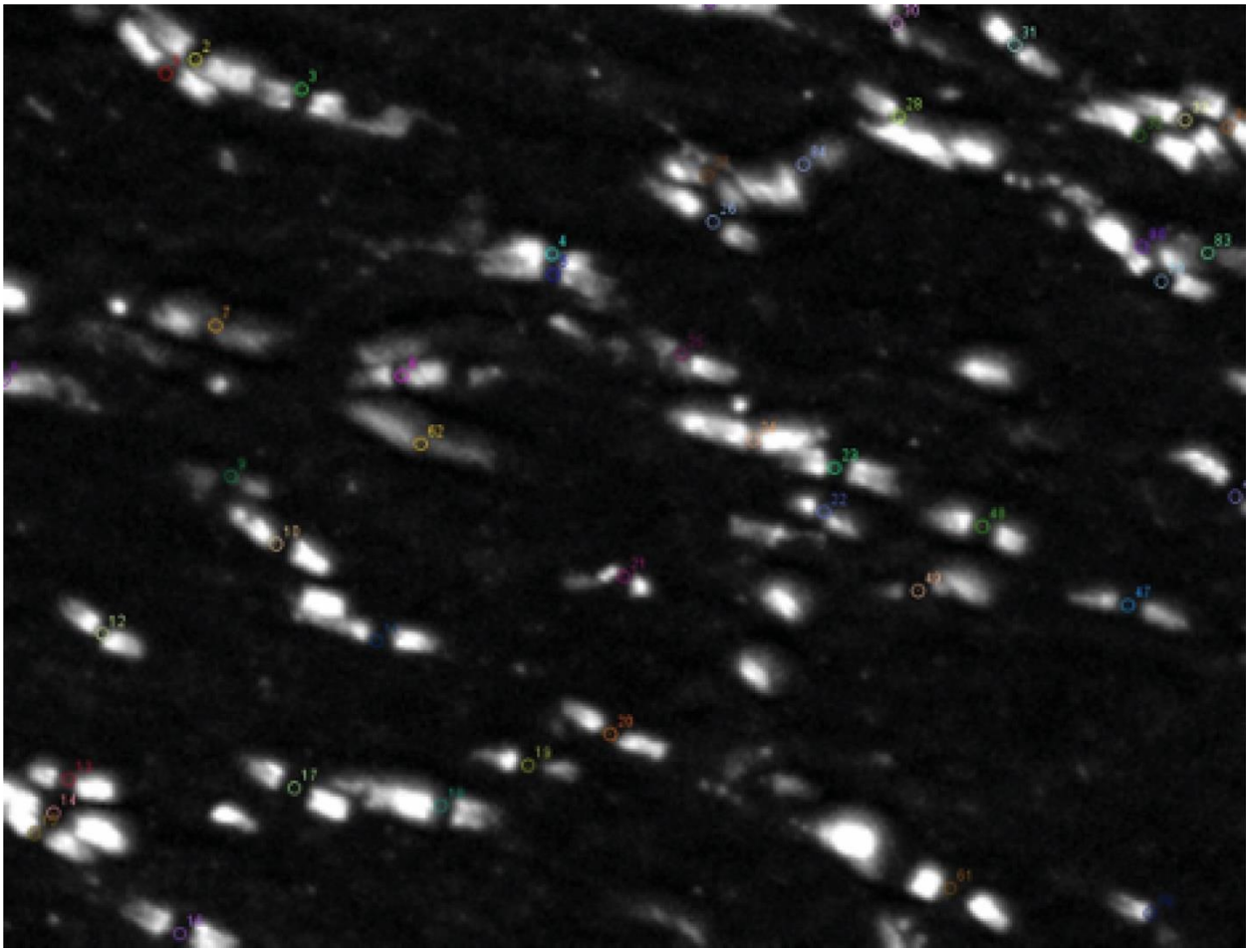
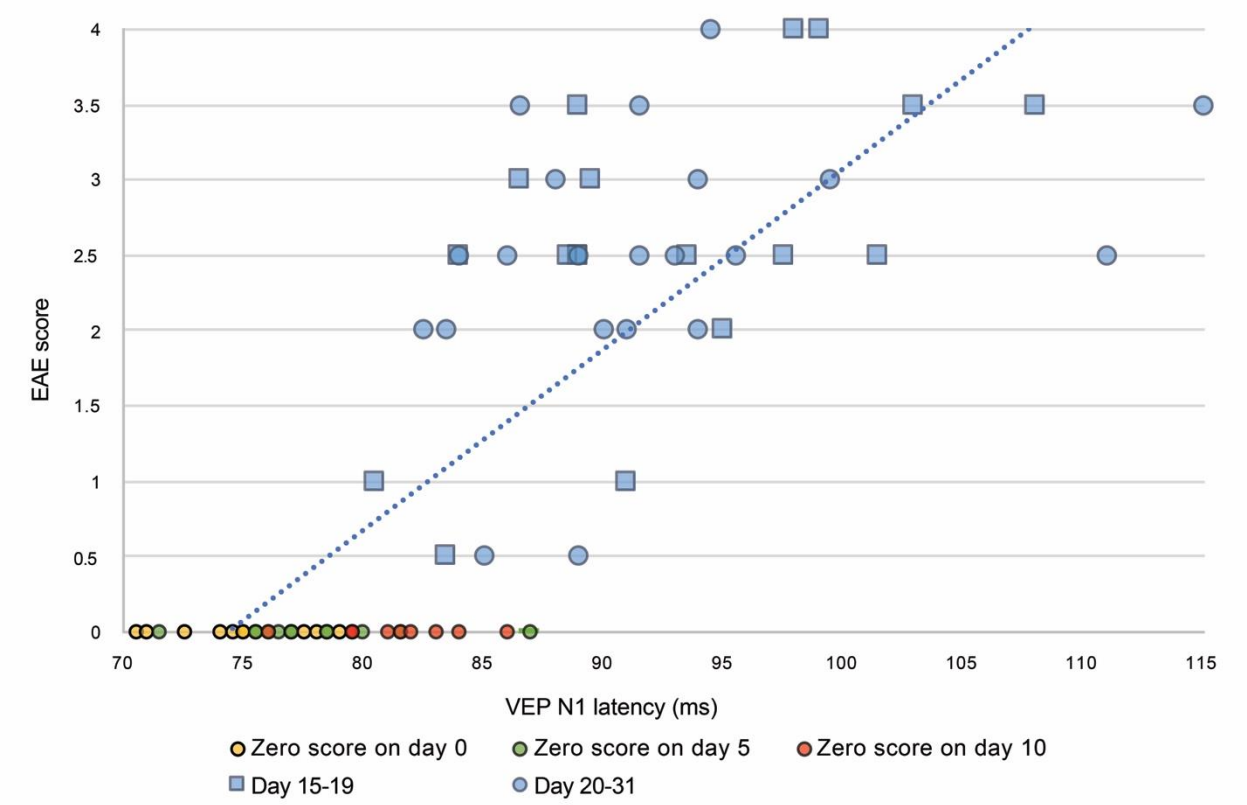


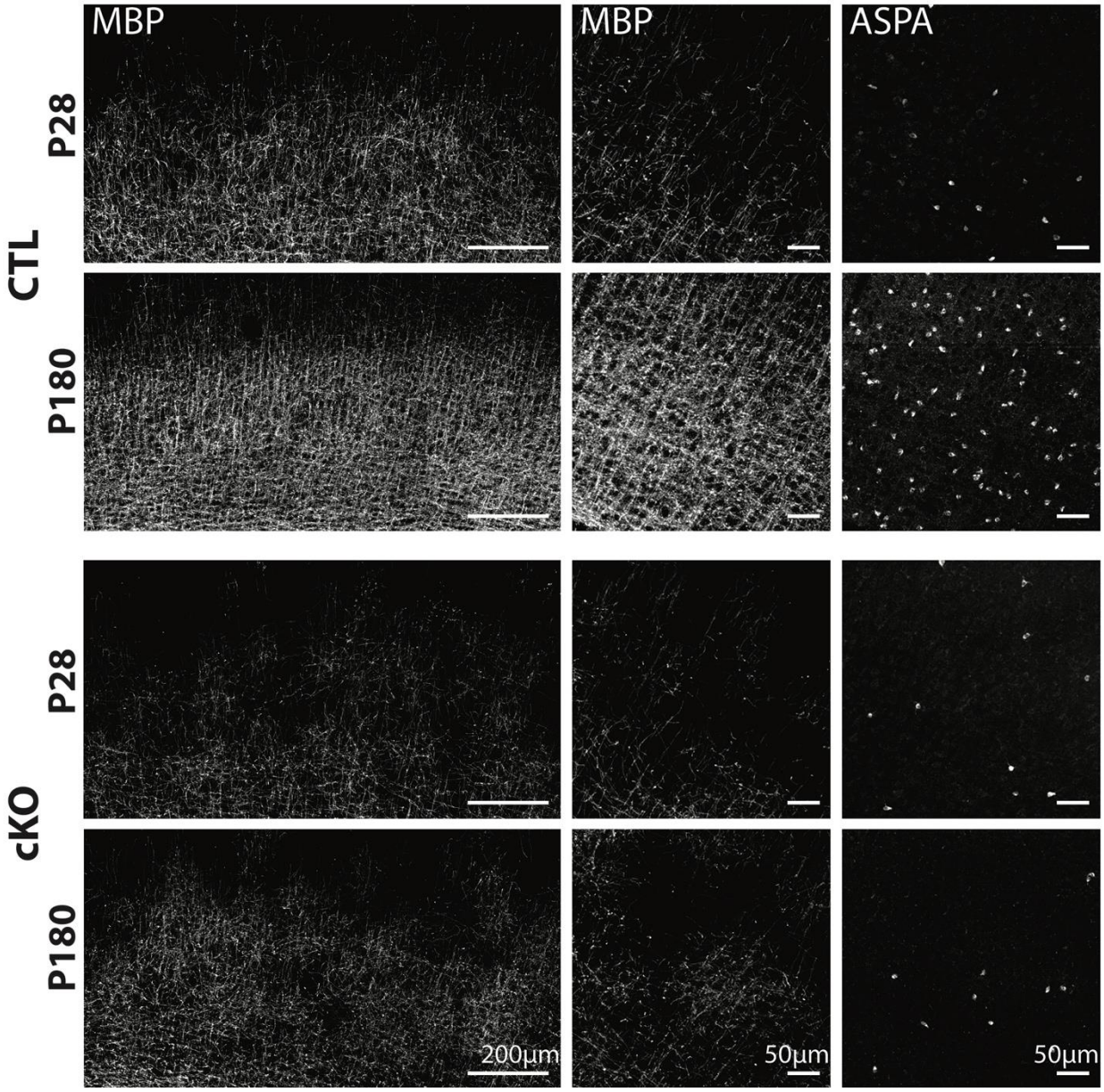
Supplementary fig. 1 VEP methods: 1) Induction of anesthesia and administration of tropicamide 2) Six minutes after anesthesia the mouse is placed for five minutes within a sealed small cardboard box. 3) The animal is placed on a flat surface for insertion of the electrodes.
4) The dome is lowered before initiation of the recording precisely 13 minutes after administration of anesthesia



Supplementary fig. 2 Example of optic nerve CASPR doublet paranode count. The circles represent manually identified nodes of Ranvier between CASPR-stained paranodes



Supplementary fig. 3 Strong association between EAE score and N1 latency (ρ=0.84, $p<0.0001$). Note that increased latencies in the period before clinical onset as documented with points on horizontal axis



<u>Supplementary fig. 4</u> – Deletion of *Myrf* from oligodendrocyte precursor cells (OPCs) halts the progression of oligodendrogenesis and myelination. Immunostaining for myelin basic protein (MBP) and aspartoacylase (ASPA), which labels myelin sheaths and mature oligodendrocyte cell bodies, respectively. Myelin sheaths and mature oligodendrocytes accumulate in the visual cortex from P28 to P180 in control (CTL) mice, but not OPC-specific *Myrf* knockout mice (cKO) that received tamoxifen from P9-13.