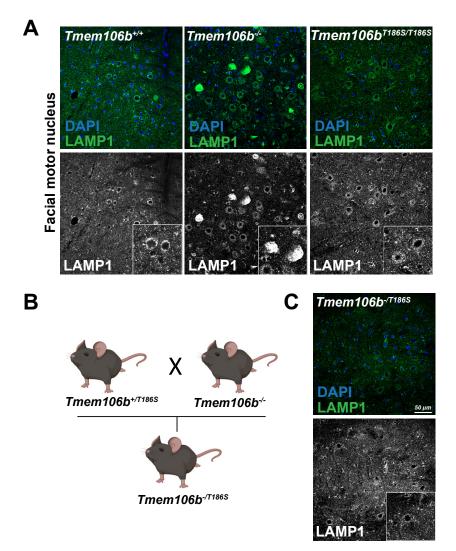
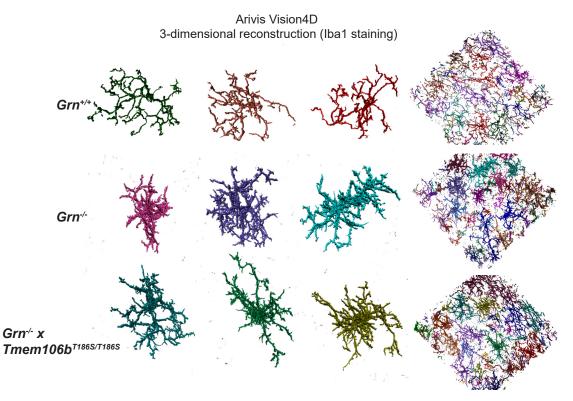
## **Supplemental Figure 1**



**Supplementary Fig.1 (A)** Representative images of immunofluorescence stainings of the facial motor nucleus of a *wildtype, Tmem106b<sup>-/-</sup>, Tmem106b<sup>T186S/T186S</sup>* mouse with an antibody against LAMP1 (upper panel green, lower panel white). Nuclei are stained with DAPI (upper panel, blue). **(B)** Breeding scheme depicting the crossing of *Tmem106b<sup>+/T186S</sup>* and *Tmem106b<sup>-/-</sup>* to produce *Tmem106b<sup>-/T186S</sup>* with one knockout allele and one knockin allele. **(C)** Representative images of immunofluorescence stainings of the facial motor nucleus of a *Tmem106b<sup>-/T186S</sup>* mouse with an antibody against LAMP1 (upper panel green, lower panel white). Nuclei are stained with DAPI (upper panel, blue).

## **Supplemental Figure 2**



**Supplementary Fig.2** Three-dimensional reconstructions of individual lba-1 stained microglia cells of the thalamus of  $Grn^{+/+}$ ,  $Grn^{-/-}$  and  $Grn^{-/-}$  Tmem106b<sup>T186S/T186S</sup> mice (pseudocolored, three examples/genotype) used for cell-volume calculation. The panel on the right depicts overview images used for quantification. 50 images were acquired in the Z-direction and assembled with the arivis Vision4D 3.3 software (Zeiss).