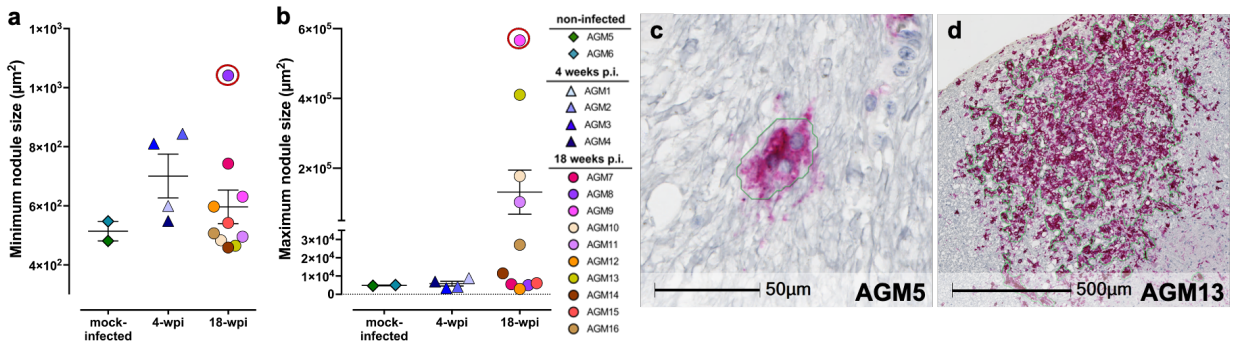

Supplementary Data Figure 4: Increased size of HLA-DR⁺ microglial nodules in SARS-CoV-2–infected animals. Microglial nodules, defined by HLA-DR immunoreactivity, were generally larger in infected animals compared to mock-infected controls. Nodules were identified using a trained machine learning algorithm (HALO) that delineated each lesion and calculated nodule area (µm²), normalized to the number of nodules per tissue. Minimum nodule size per animal was greater in both 4-week and 18-week post-infection (wpi) groups relative to controls (**a**, **c**), while the largest maximum nodule sizes were observed in the brainstem of 18-wpi animals, particularly in AGM9, AGM13, AGM10, and AGM11 (**b**, **d**). Sample sizes: mock-infected controls, *n* = 2; 4-wpi, *n* = 4; 18-wpi, *n* = 10 biologically independent animals. Statistics were performed using Welch's ANOVA. Data expressed as mean ± SEM. Source data are provided as a Source Data file. Abbreviations: **wpi** – weeks post-infection. Scale bars = 50 µm, 500 µm.