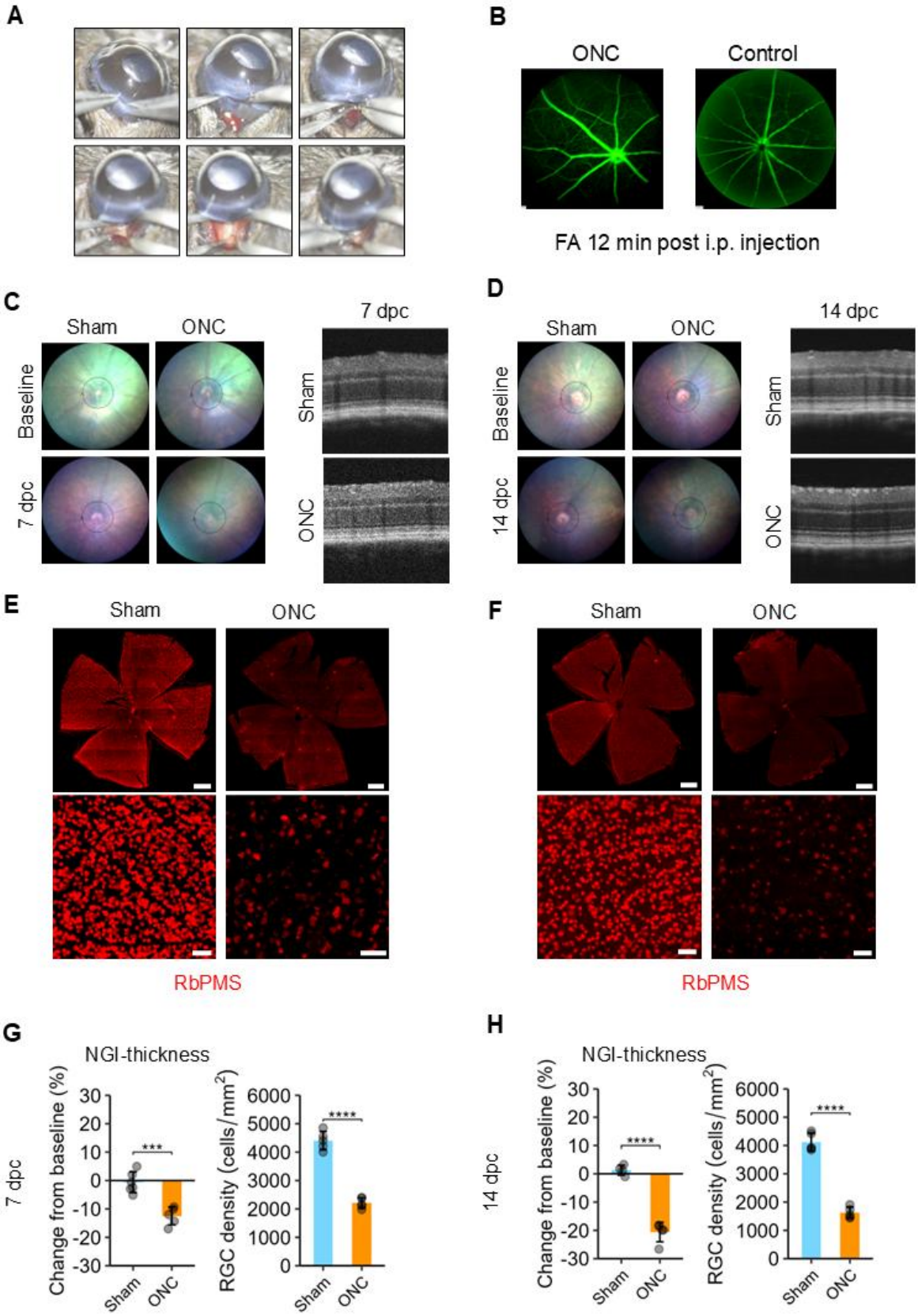

Figure S1. Validation of optic nerve crush model. A. Surgical method of optic nerve crush (ONC): A peritomy is performed and the optic nerve is exposed by blunt dissection. The optic nerve is crushed approximately 1 mm behind the globe using self-closing forceps with pressure applied for 5 seconds. B. Fluorescein angiography (FA) demonstrating perfusion of retinal vessels following crush surgery. C. Representative fundus images and peripapillary circumferential optical coherence tomography (OCT) scans in C57BL/6JRj mice subjected to crush (left eye) or sham (right eye) and sacrificed 7 days post crush (dpc). D. Representative fundus images and OCT scans in mice sacrificed 14 dpc. E,F. Retinal flat mounts stained with antibodies against RNA-binding protein with multiple splicing (RbPMS) from the eye presented in C,D. Scalebars: 500 µm (overview) and 50 µm (magnification). G,H. Bar plots (mean ± sd) with quantification of the change in the combined thickness (NGI-thickness) of the nerve fiber layer, the ganglion cell layer, and the inner plexiform layer from baseline as well as the density of RbPMS positive ganglion cells in retinal flat mounts; statistical comparisons are performed with unpaired t-tests. Significance levels: * [0.01, 0.05]; ** [0.001,0.01]; *** [0.0001, 0.001]; **** [0, 0.0001].