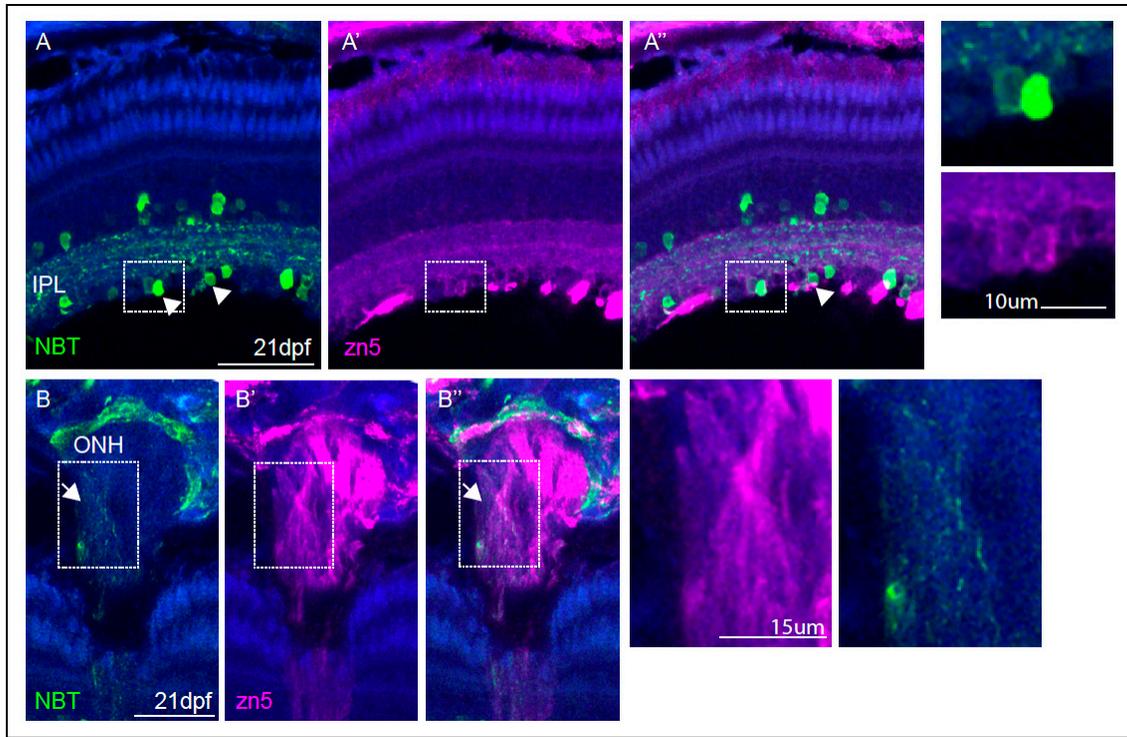


**Supplementary Figure 2. NBT:GCaMP3 transgenic line; expression in the retina (right, 10 dpf).** In the eye, GCaMP3 is expressed in the inner plexiform layer (depicted as IPL) and in a small number of cells ( $2.75 \pm 0.9$  per field of view,  $n = 10$  fields of view) in the ganglion cell layer (depicted as GCL). For presentation purposes, images were filtered using a Gaussian filter ( $\sigma = 1$ ).



**Supplementary Figure 3. Characterisation of NBT:GCaMP3 expression in the eye of 21 dpf fish.** A, a small number of neurons in the ganglion cell layer (arrowheads) are zn5 positive, a marker for retinal ganglion cells. The inset on the right shows labelling of two individual cells in the ganglion cell layer. B, the NBT promoter labels a small number of retinal ganglion cell axons in the optic nerve (ONH, white arrows). The blue label is a DAPI stain. Scale bars in A=50µm, B = 25µm