

### Description of Additional Supplementary Files

File Name: Supplementary Data 1

Description: FASTA file with all the *G. multiverticulata* ortholog eye genes used in this study.

File Name: Supplementary Movie 1

Description: *Girardia dorocephala* three-dimensional spatial signal visualization of neoblasts (*piwi-1* – magenta) and cell nuclei (DAPI – gray) tissues using whole-mount FISH and generated by Imaris. Video highlight segmentation and detection of positive cells.

File Name: Supplementary Movie 2

Description: *Girardia multiverticulata* three-dimensional spatial signal visualization of neoblasts (*piwi-1* – magenta) and cell nuclei (DAPI – gray) tissues using whole-mount FISH and generated by Imaris. Video highlight segmentation and detection of positive cells.