



**Supplementary Figure S1: Z-stack and 3D reconstruction of SOX2/GFAP and BrdU/NeuN labelling**

**(a):** Orthogonal projection of confocal Z-stacks (21.343μM, 57 slices) stained with SOX2 and GFAP in the medial vestibular nucleus. **(b):** 3D reconstruction of the cell presented in the dotted square. **(c):** Single Z-slices (36/57) show colocalization of SOX2 (red) and GFAP (green). Arrows indicate neural stem cells with colocalization of SOX2 and GFAP staining. Scale bar= 20μM. **(d):** Orthogonal projection of confocal Z-stacks (8.183μM, 18 slices) stained with BrdU and NeuN in the medial vestibular nucleus. **(e):** 3D reconstruction of the cell presented in the dotted square. **(f):** Single Z-slices (11/18) show colocalization of BrdU (red) and NeuN (green). Arrows indicate newly generated neuron with colocalization of BrdU and NeuN staining. Scale bar = 10μM.