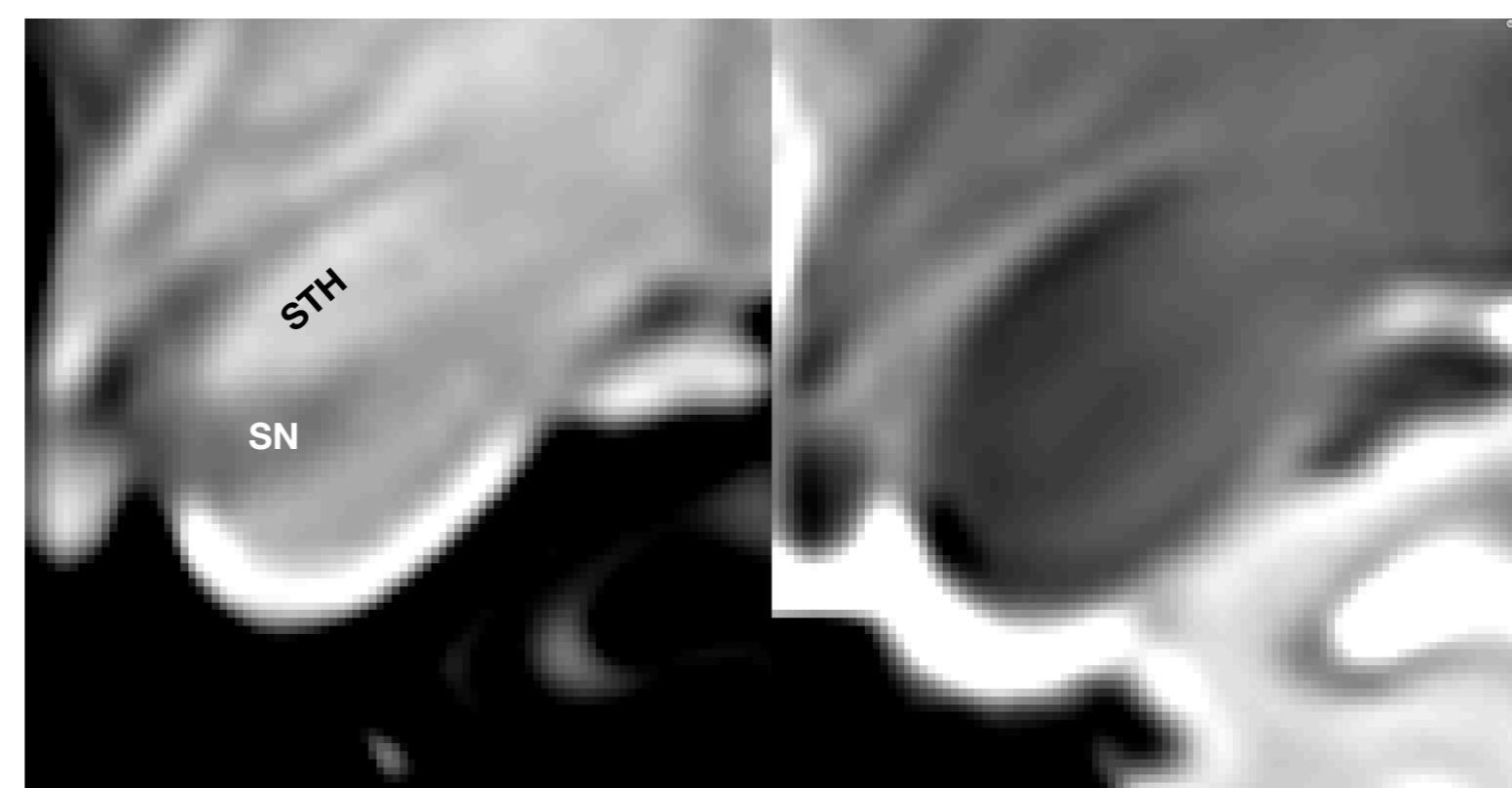
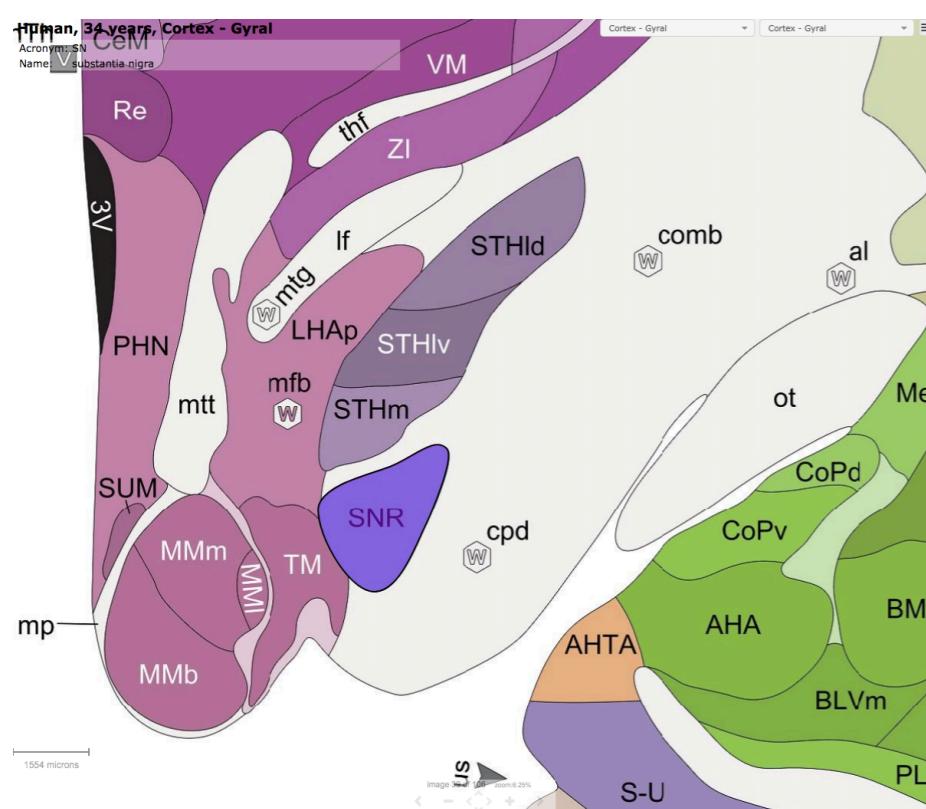
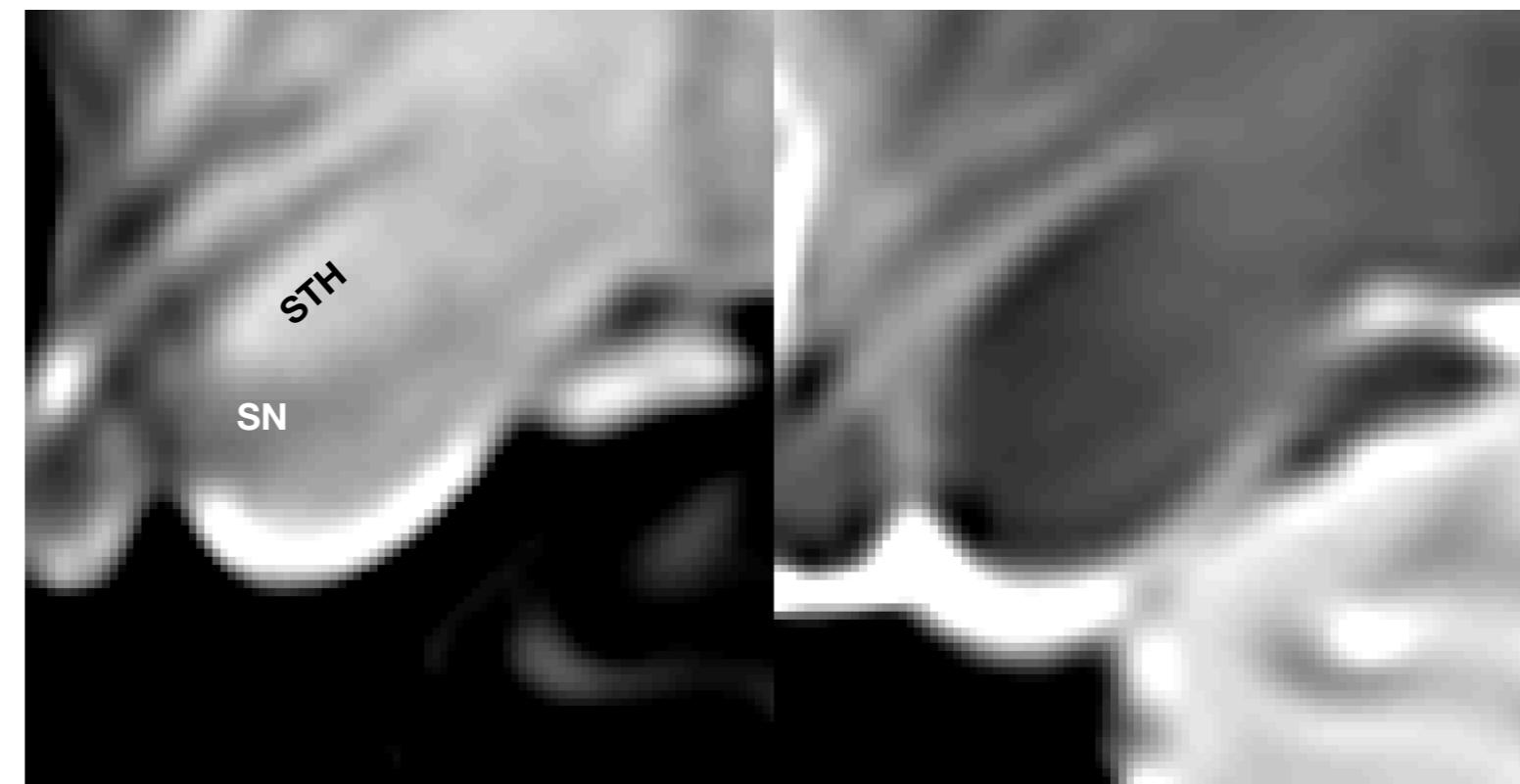
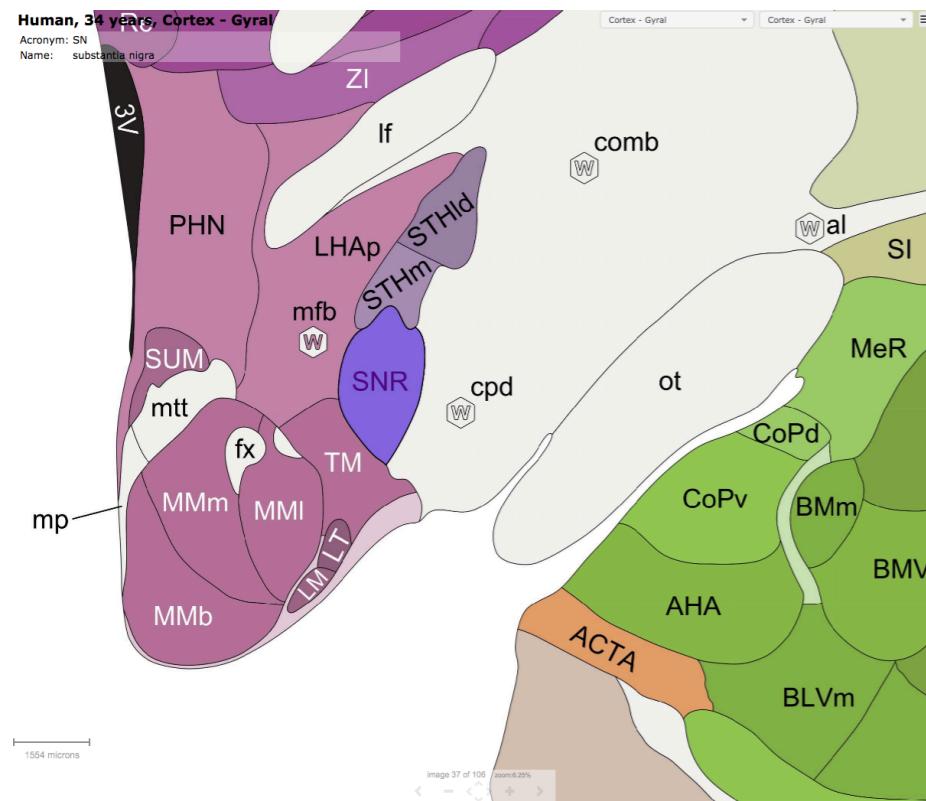
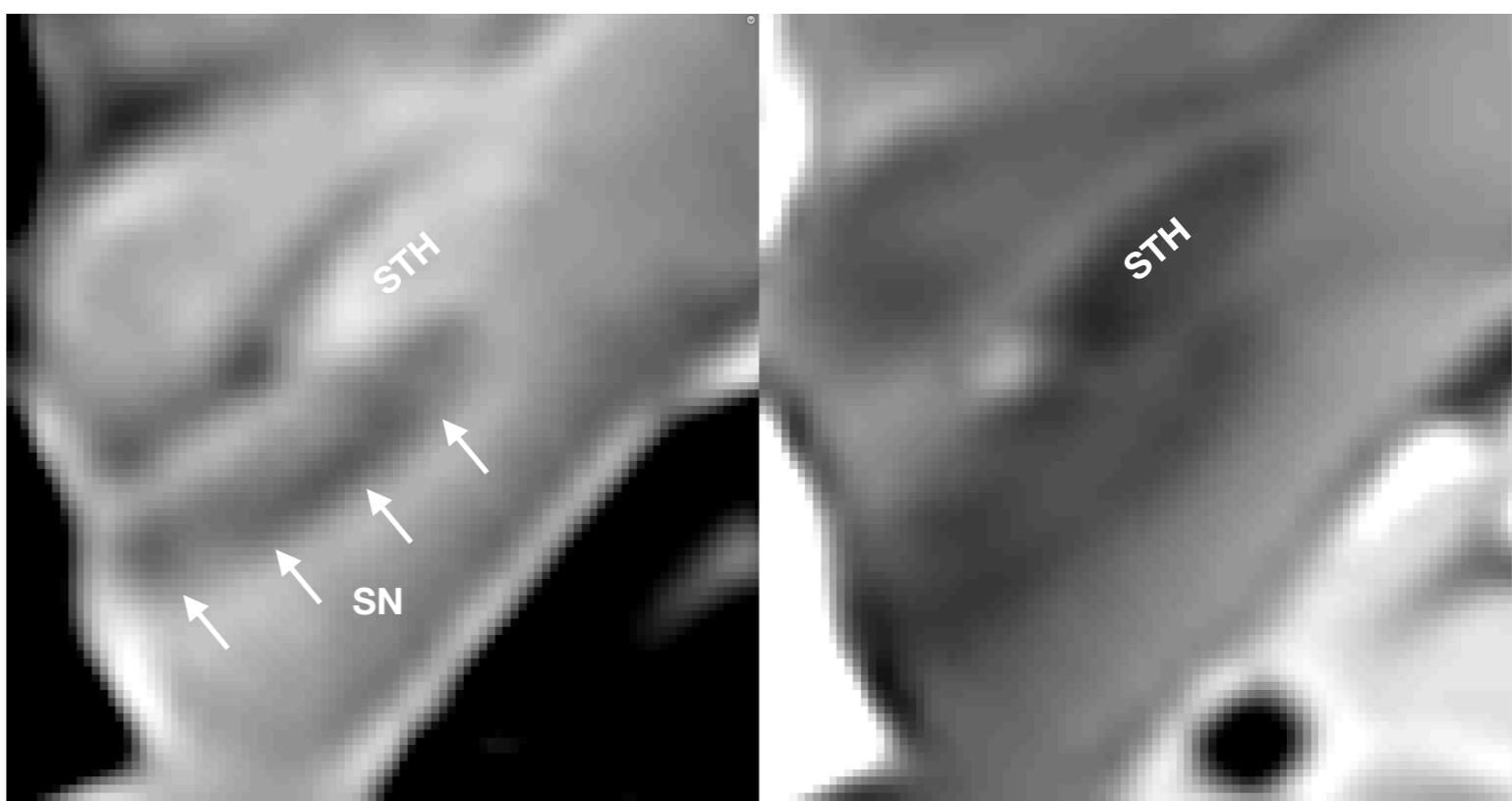
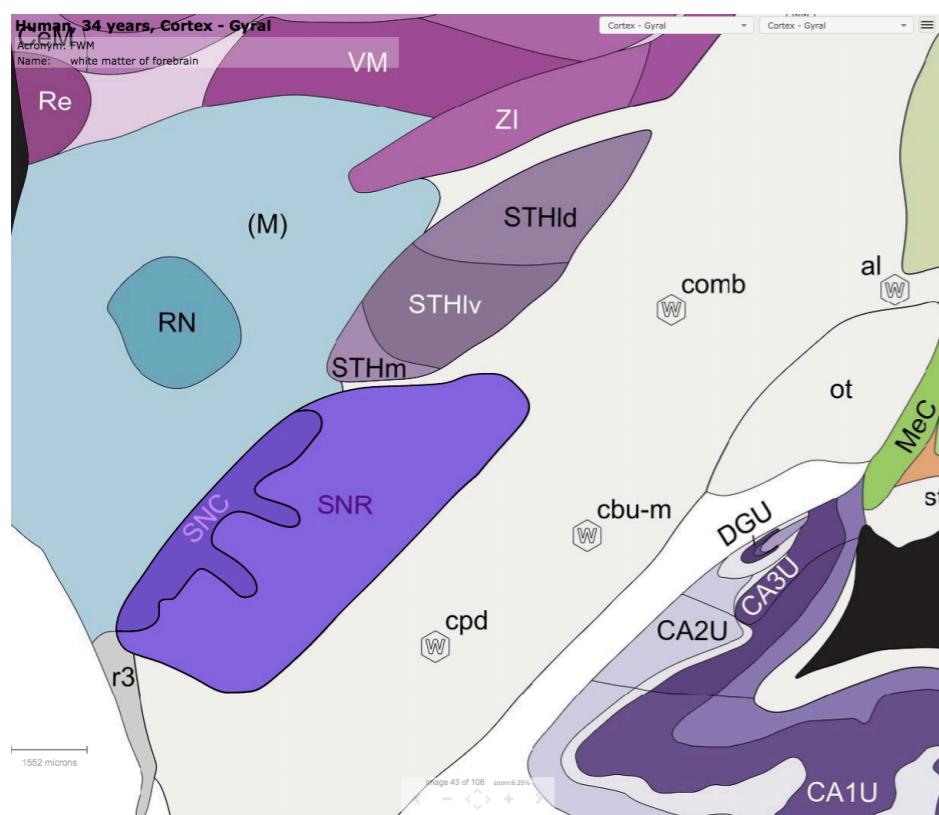
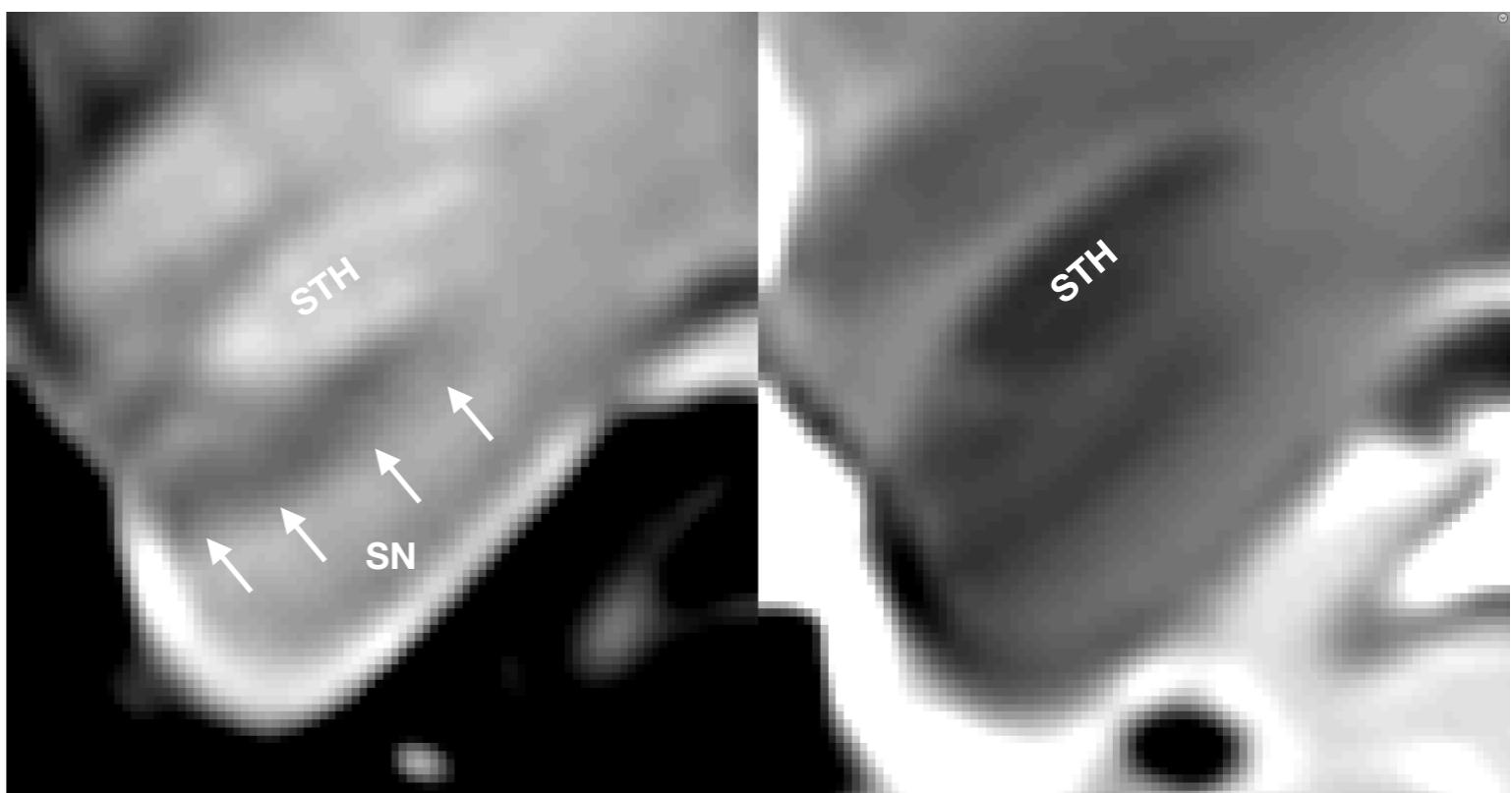
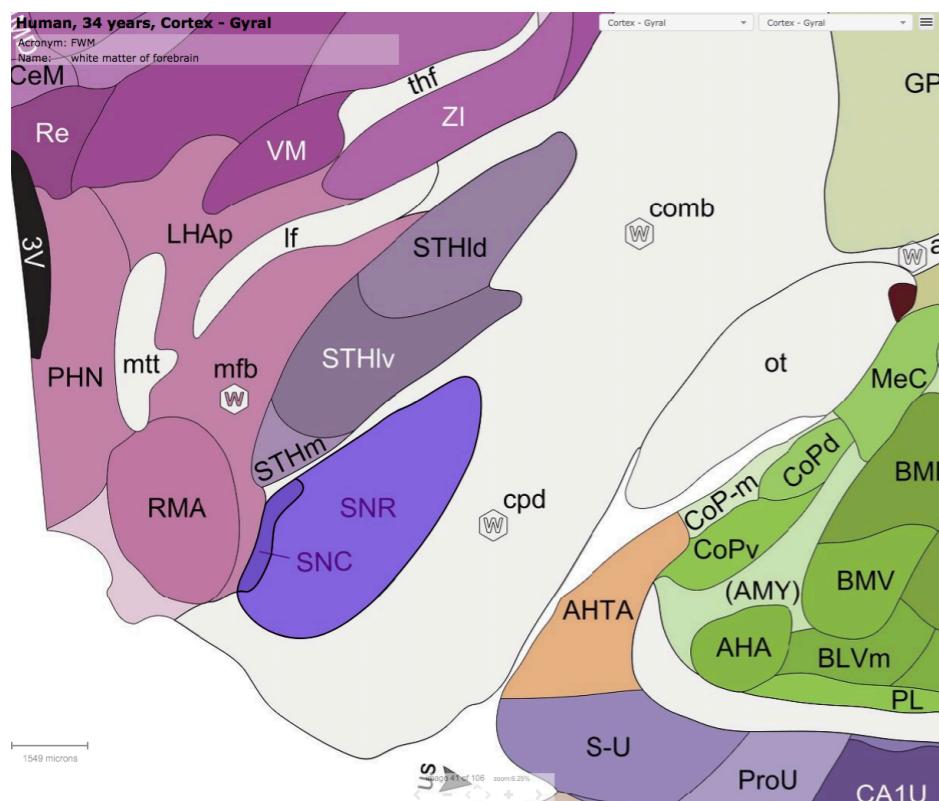


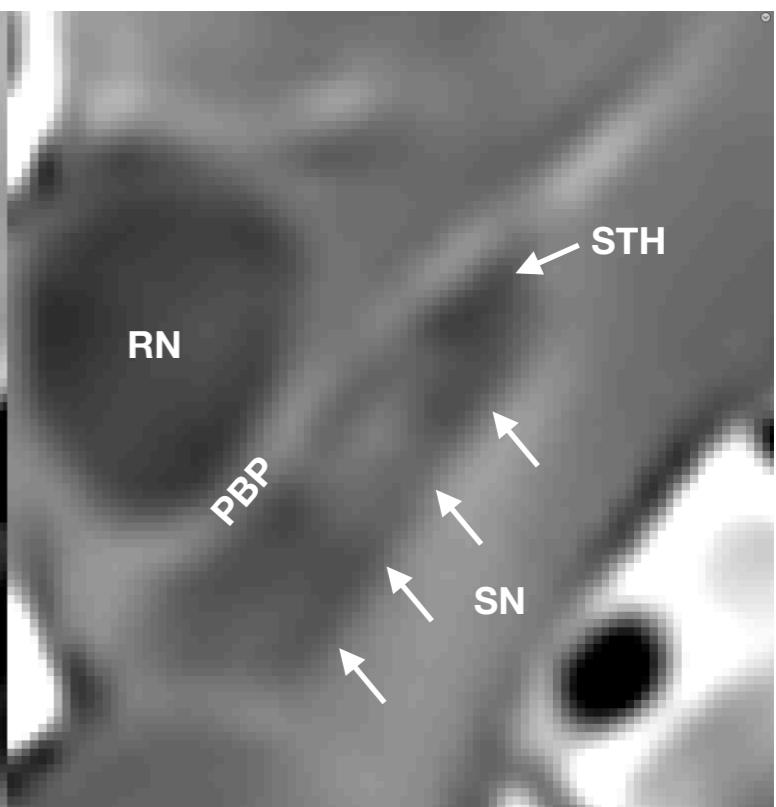
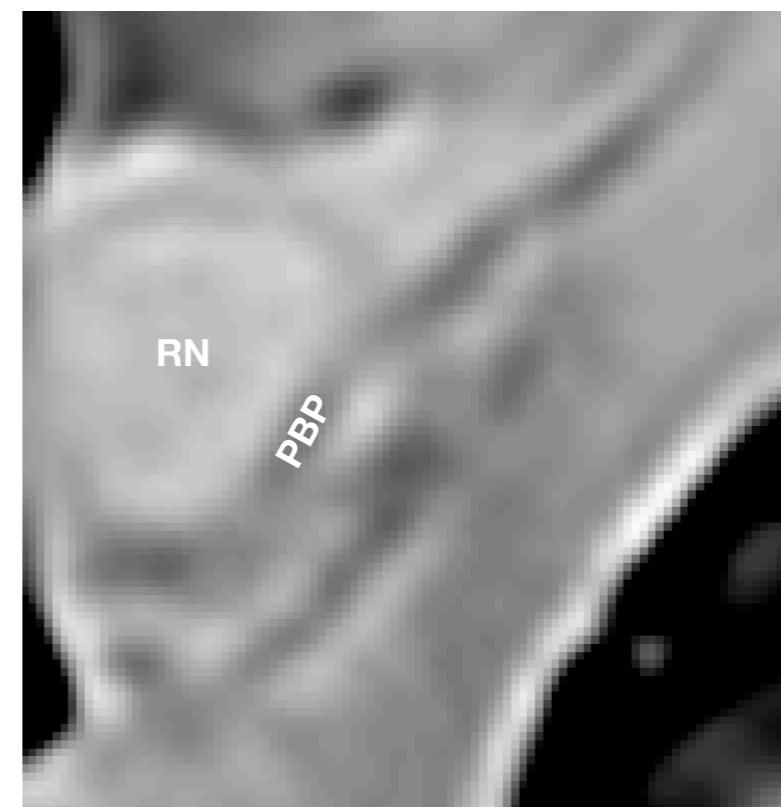
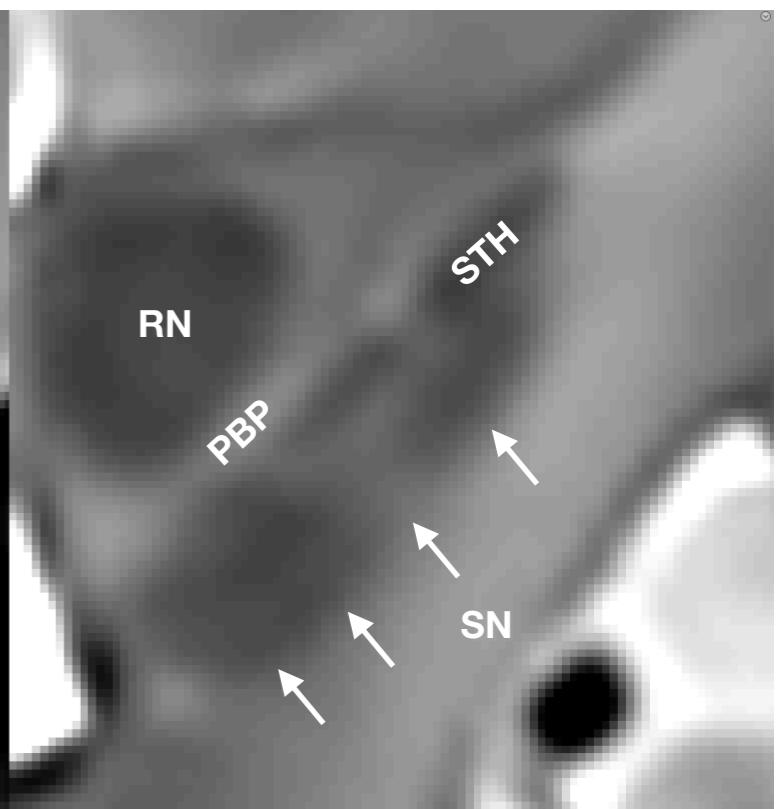
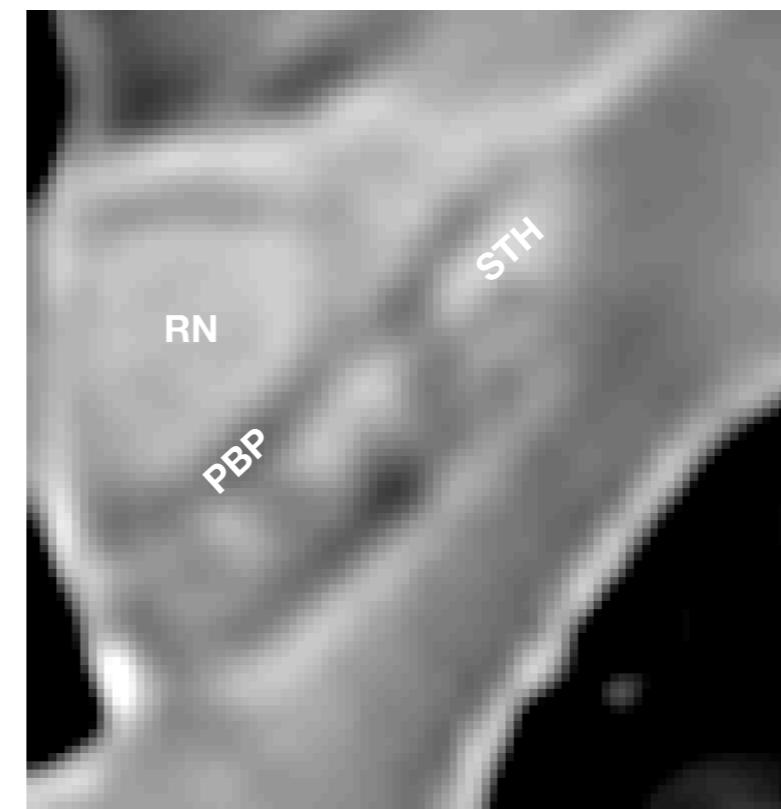
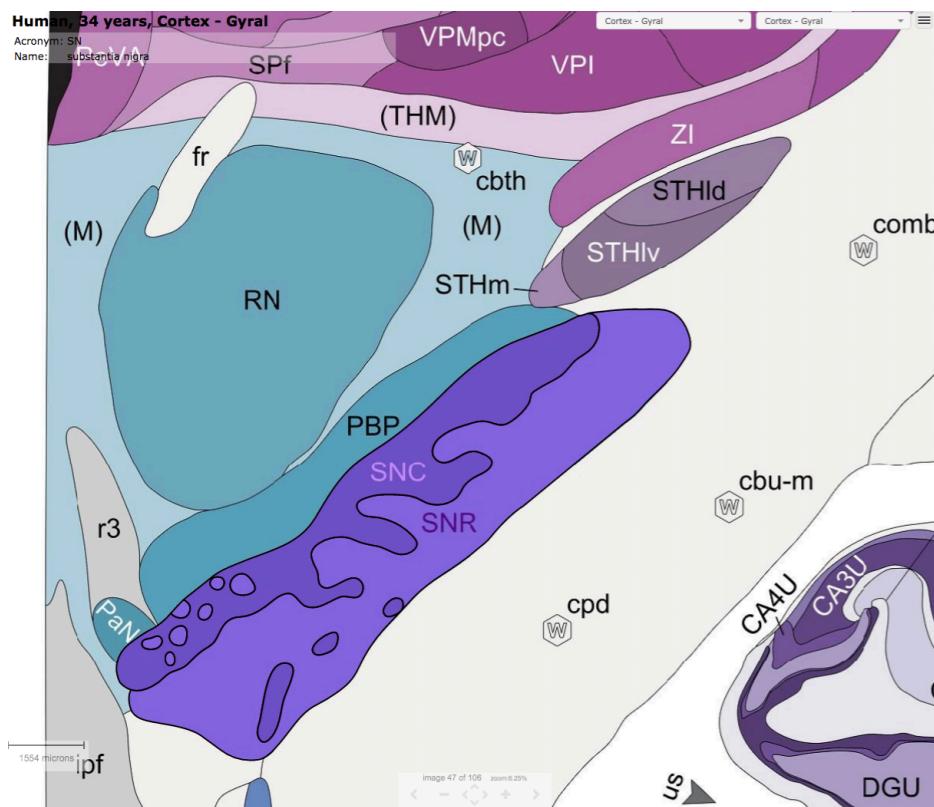
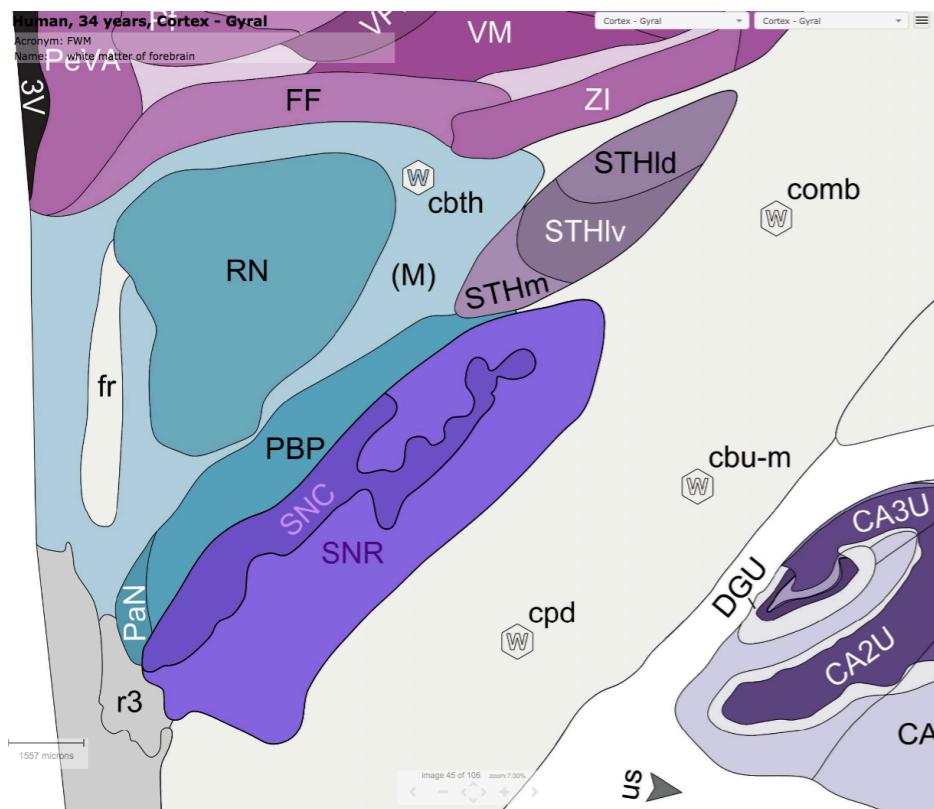
Coronal sections from Allen Human Reference atlas and CIT168 T1w and T2w templates (upsampled to 200 um isotropic). Use the fornix (fx), optic tract (ot), lenticular fasciculus (If) and mammillary body (MM) as landmarks for the rostral margin of SN, which is also bounded medially and dorsally by the the tuberomamillary nucleus (TM) and lateral hypothalamic area (LHA) of the hypothalamus.



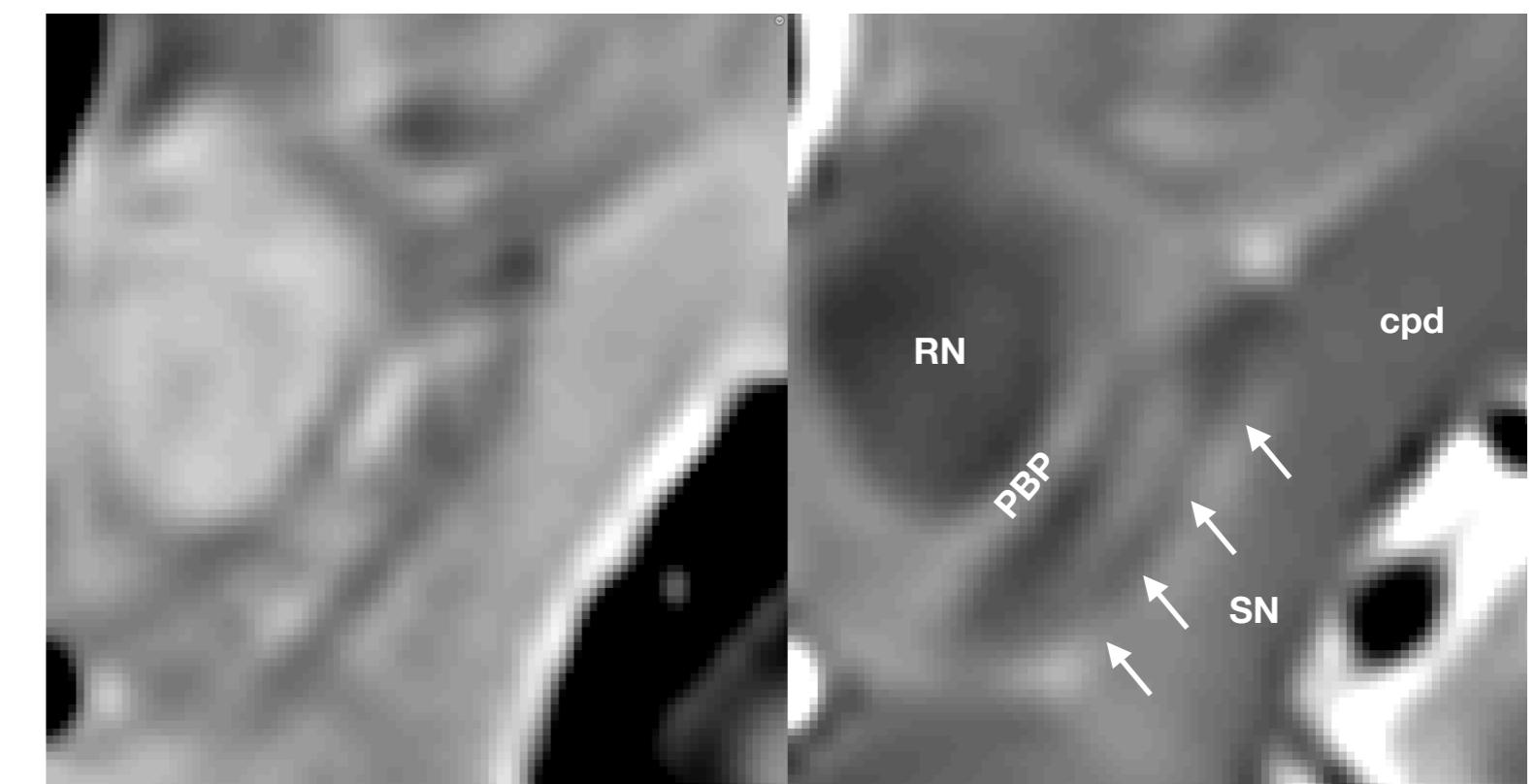
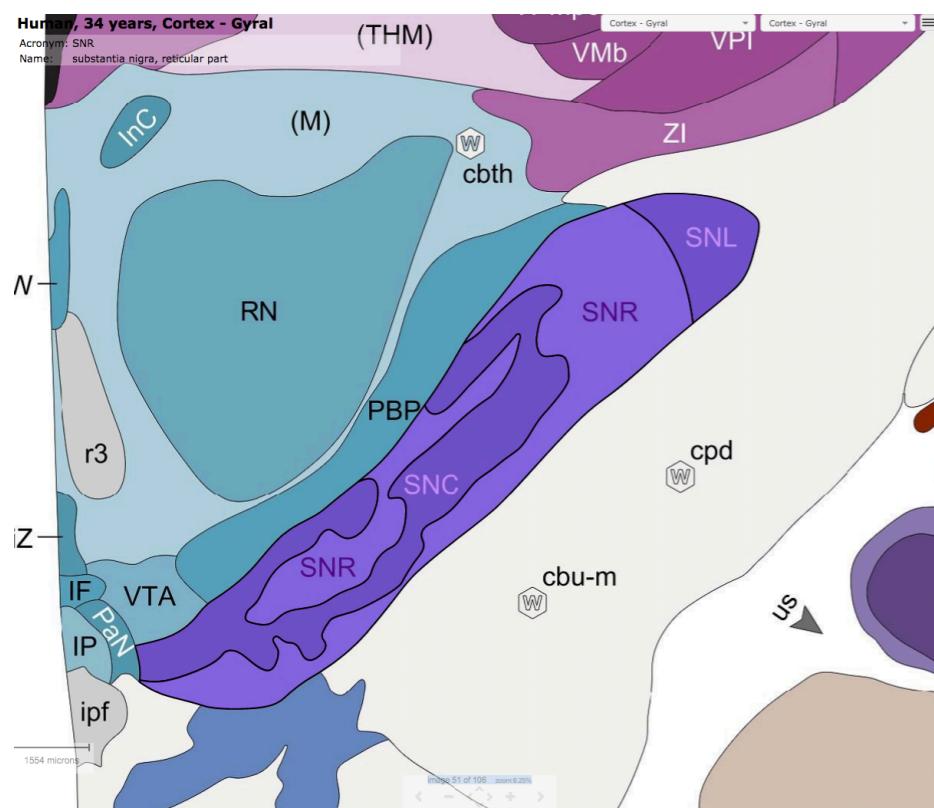
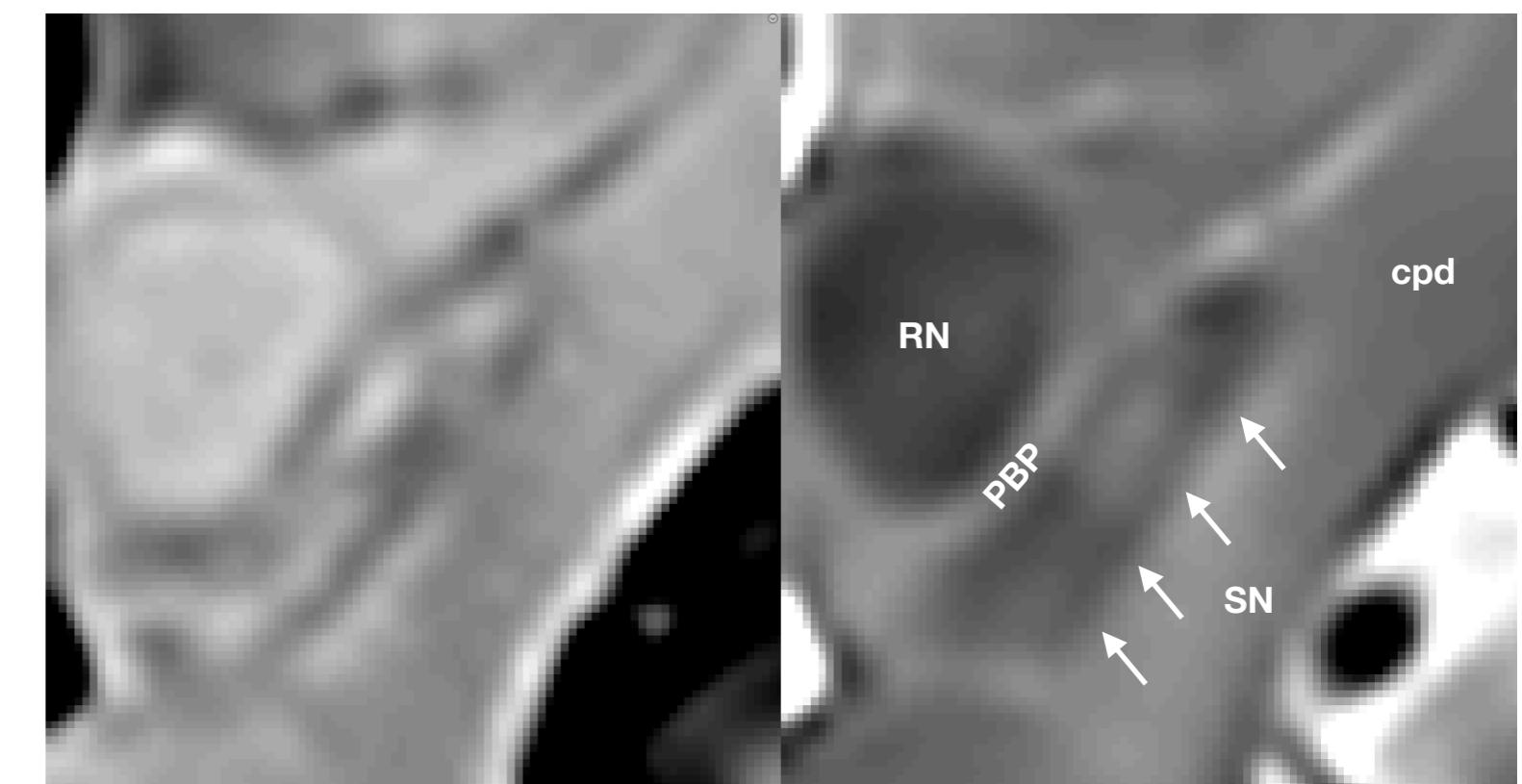
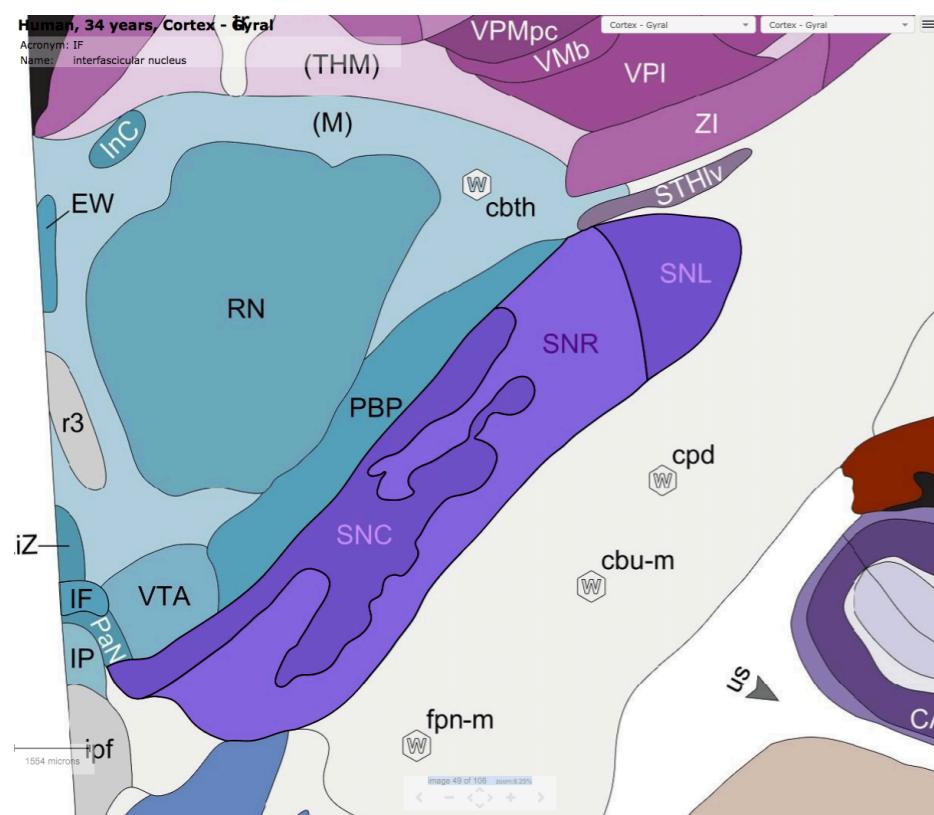
The subthalamic nucleus is a useful landmark for the rostral margin of the SN and should be labeled first in the T1w template. Label the SN initially using the T1w template at this rostrocaudal level.



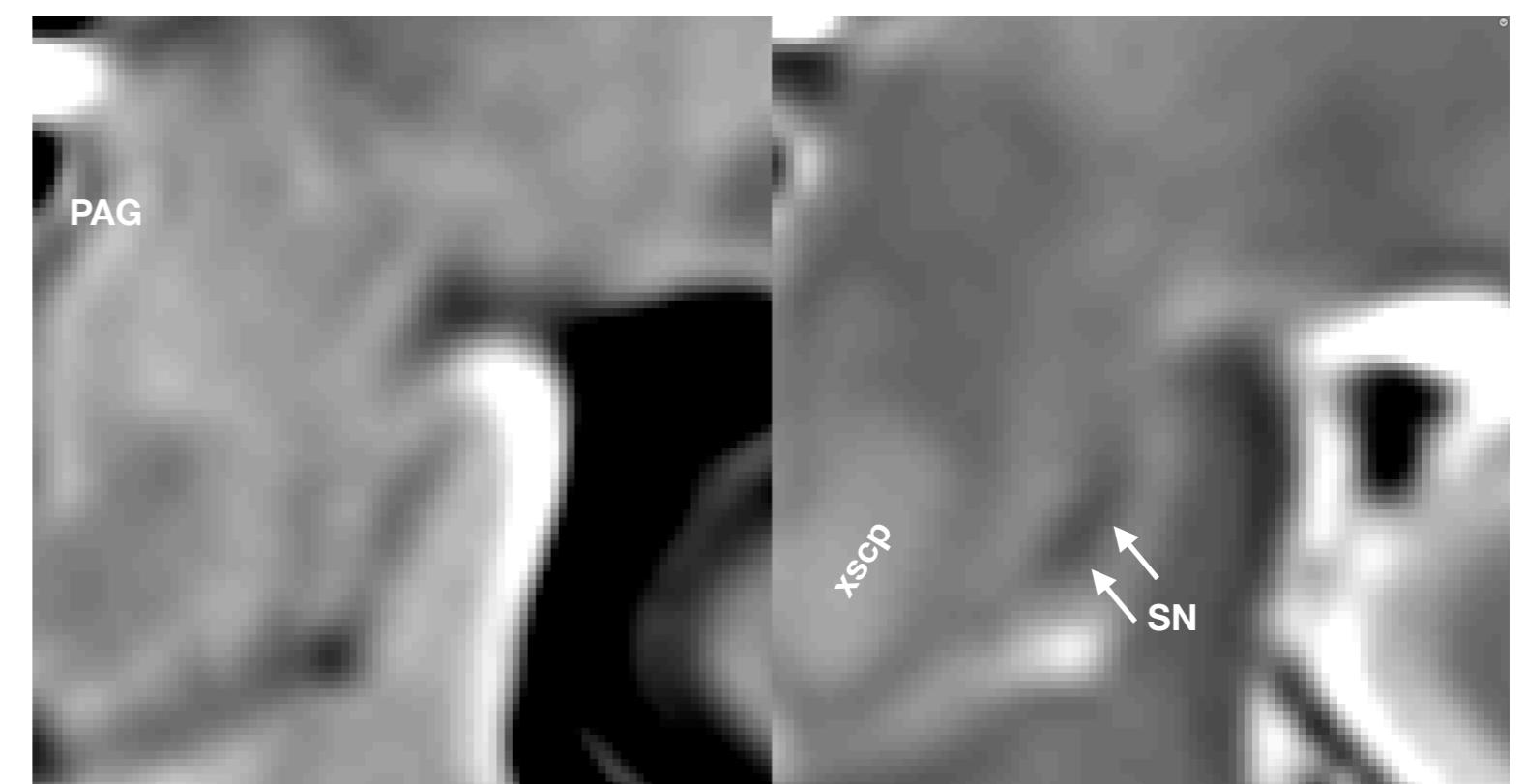
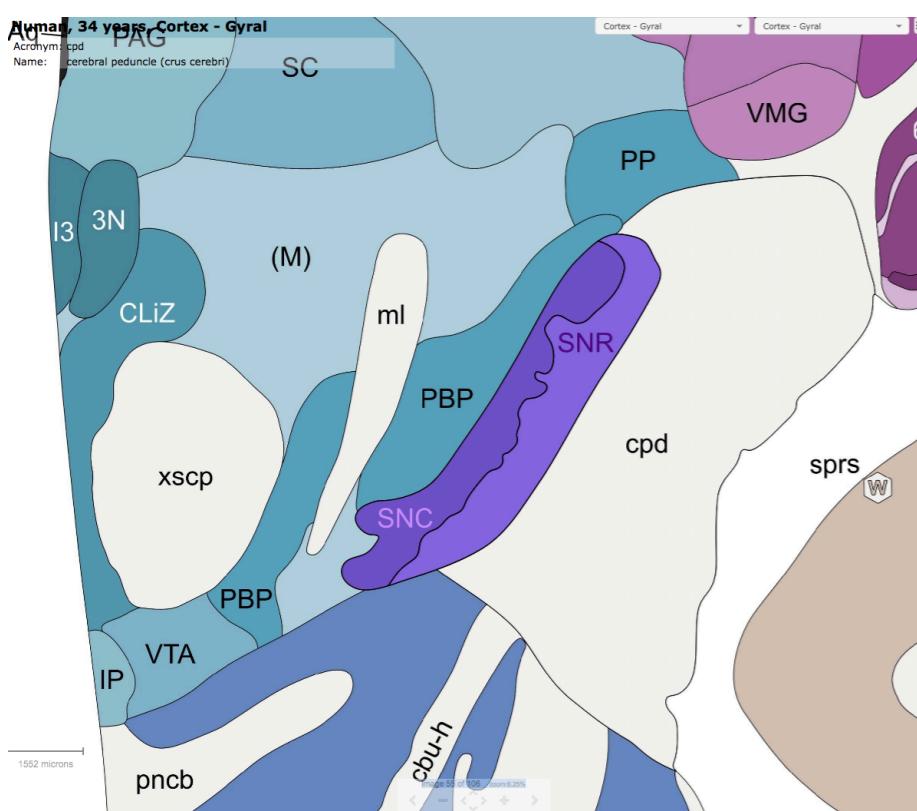
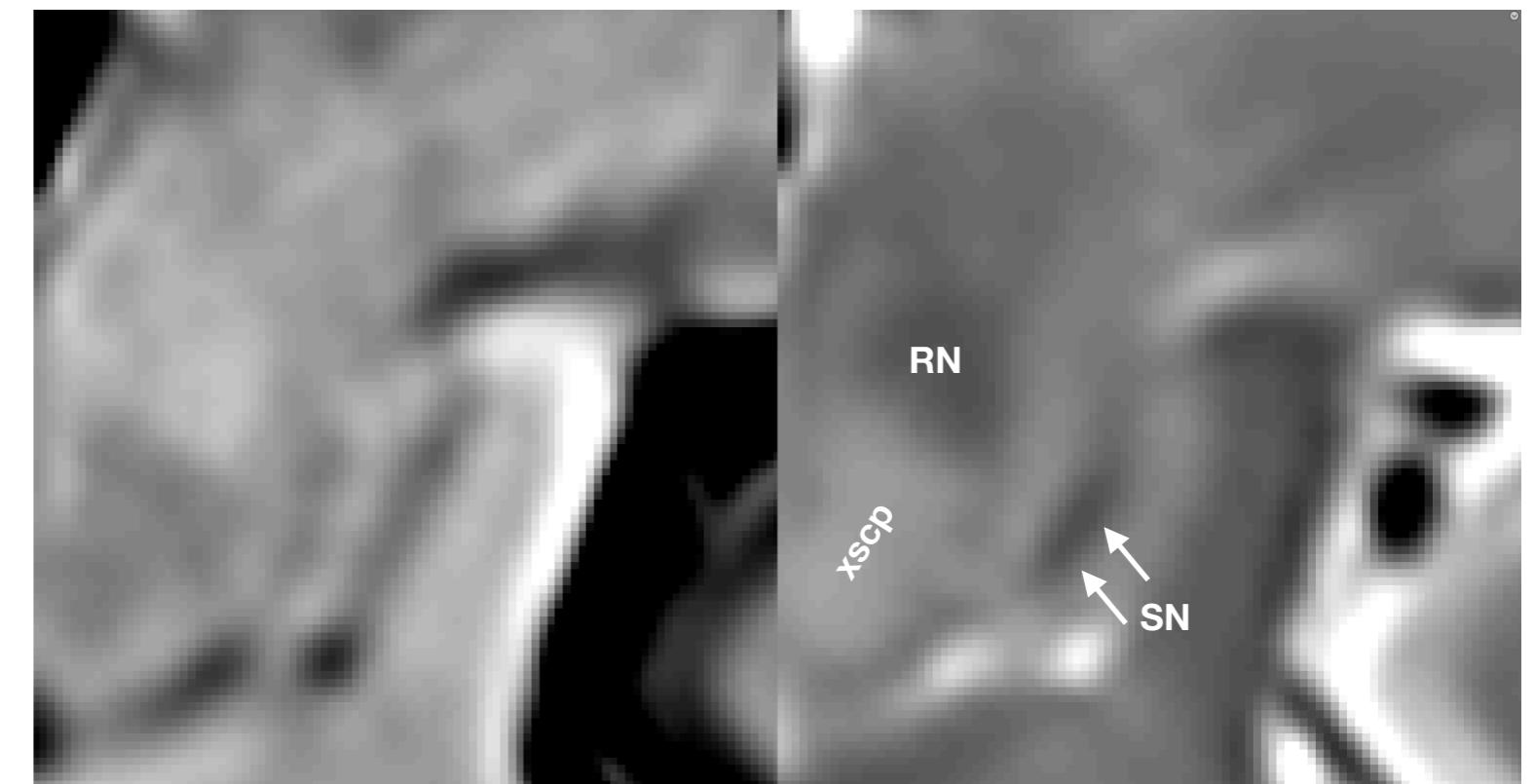
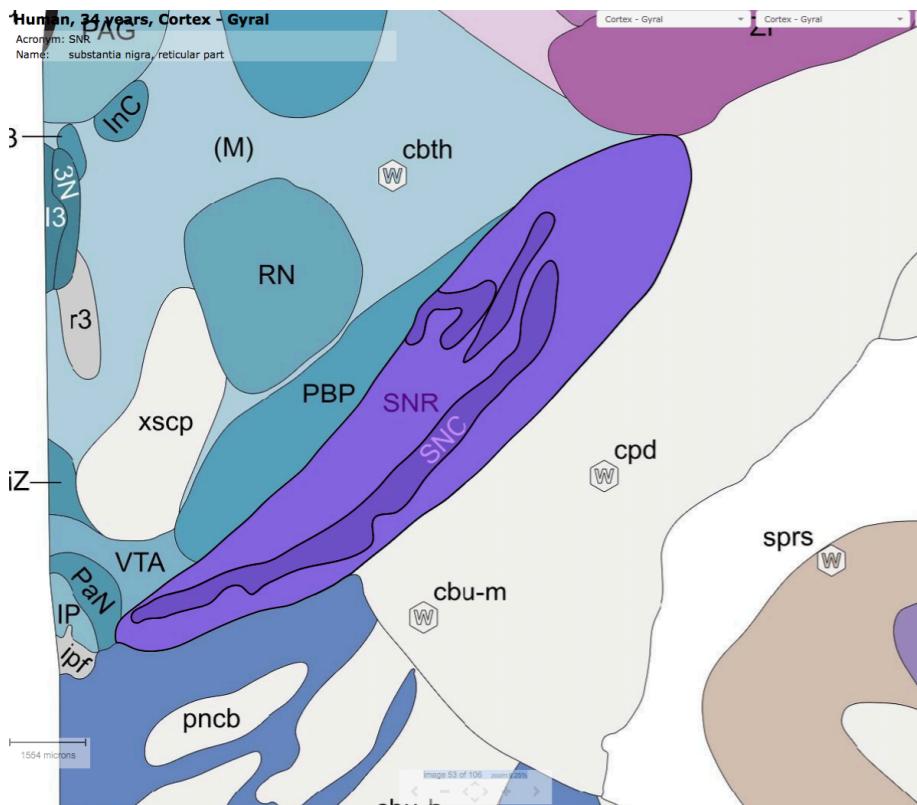
The STH in the T1w template continues to provide a dorsal landmark for the hypointense SN.



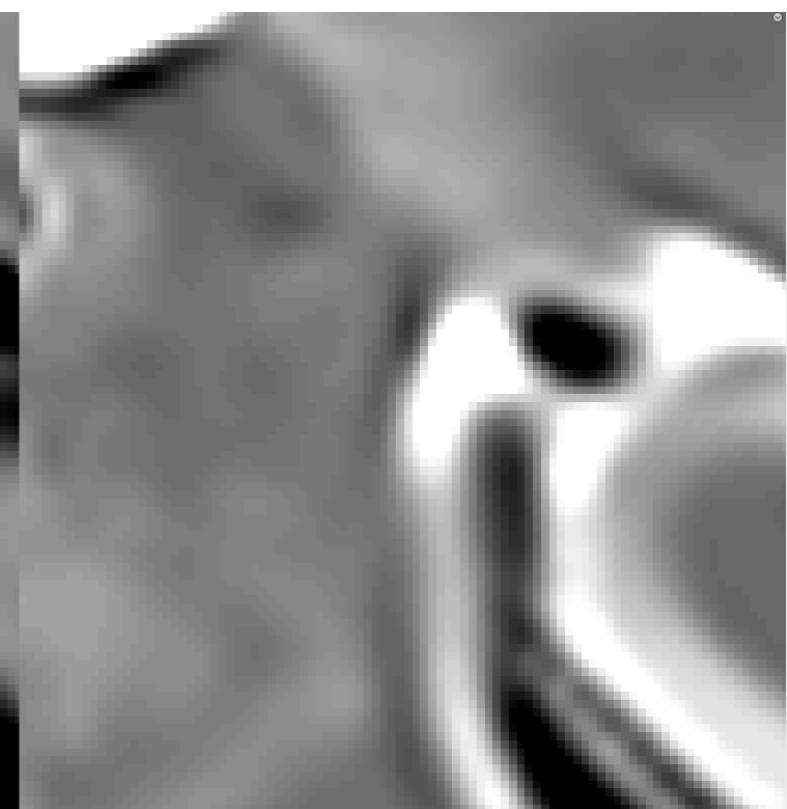
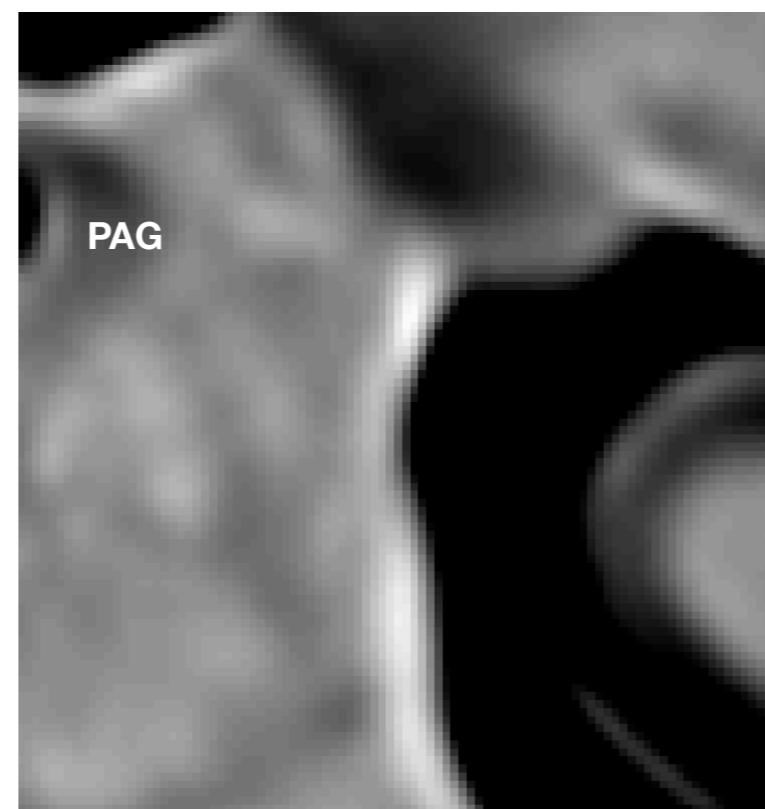
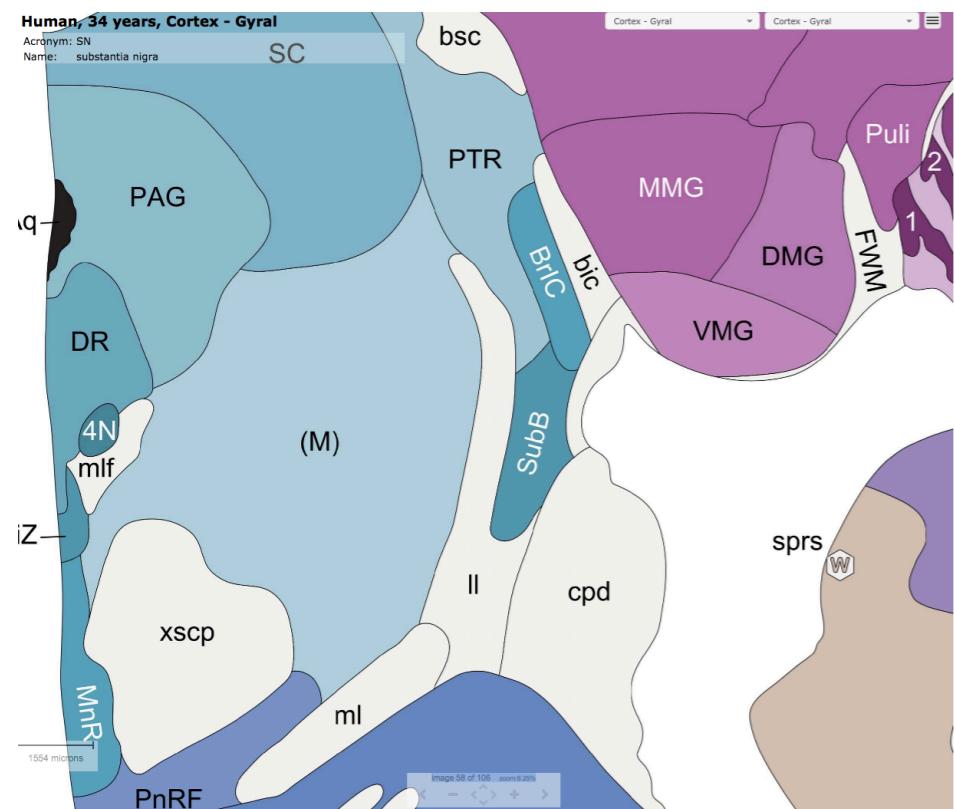
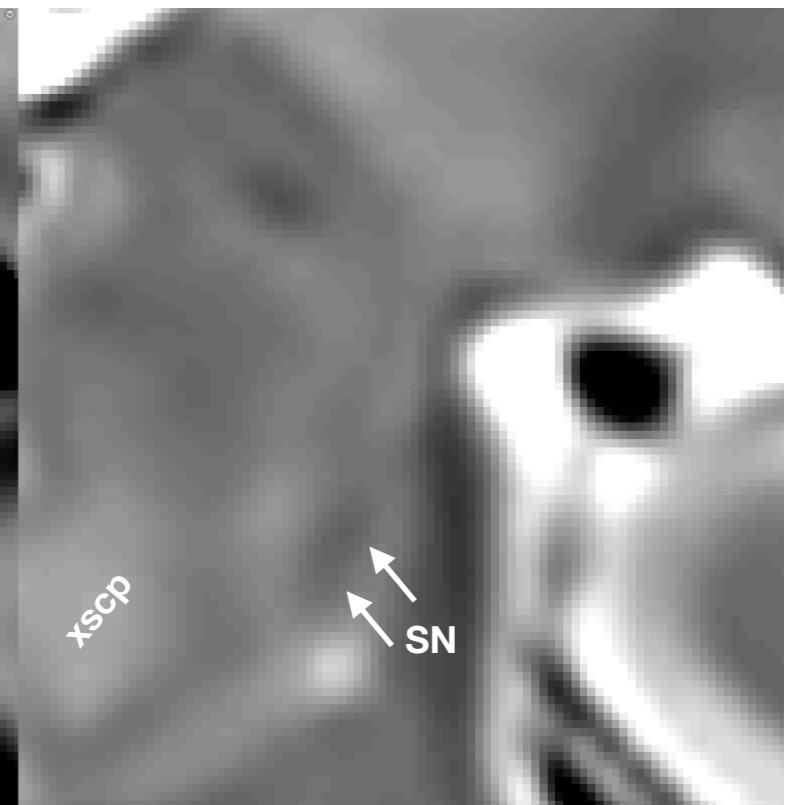
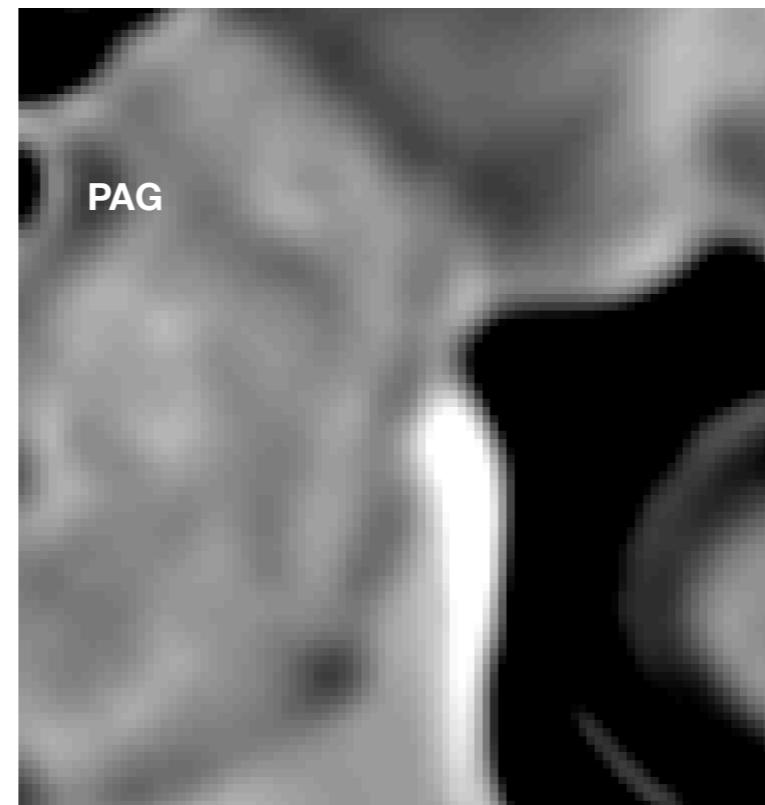
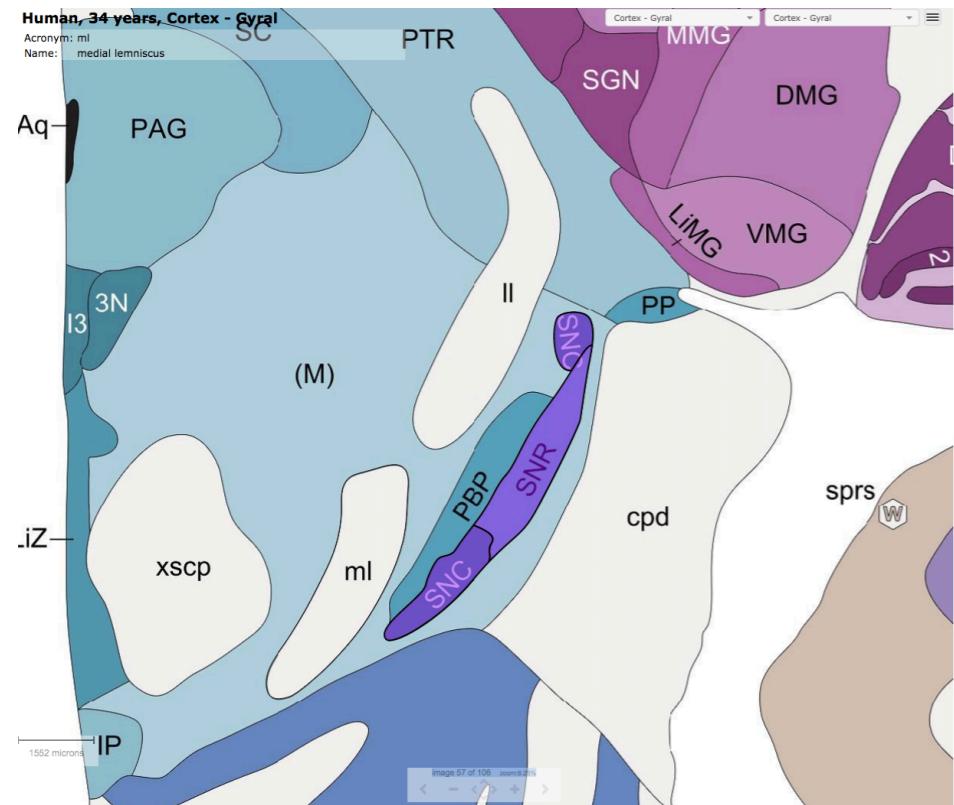
RN, PBP and STH should be labeled in a combination of T1w and T2w templates, prior to labeling SN. The caudal boundary of the STH occurs at about this rostrocaudal level. The SN becomes more heterogeneous in T1 as we move caudally and we don't recommend trying to interpret contrast within the SN as SNC/SNr boundaries, which would not survive the group averaging that generated the template. Switch to the T2w template for all subsequent SN delineation.



SN continues to be heterogeneous in T1w and is much more consistently delineated in the T2w template. The RN and PBP should be labeled prior to SN. SN has a hyper intense region at its core at this rostrocaudal level which should be included in the SN label. STH should no longer be visible at this rostrocaudal level.



SN is visible as hypointense band in T2w template. Use xscp, PAG (in T1w) and the caudal margin of RN as references for SN.



The caudal boundary of SN is just visible at this level using PAG and xscp as landmarks.