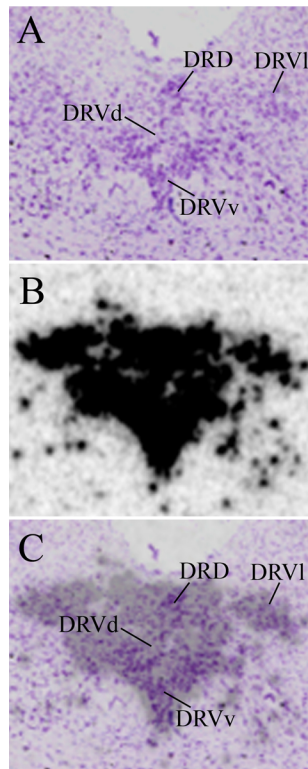
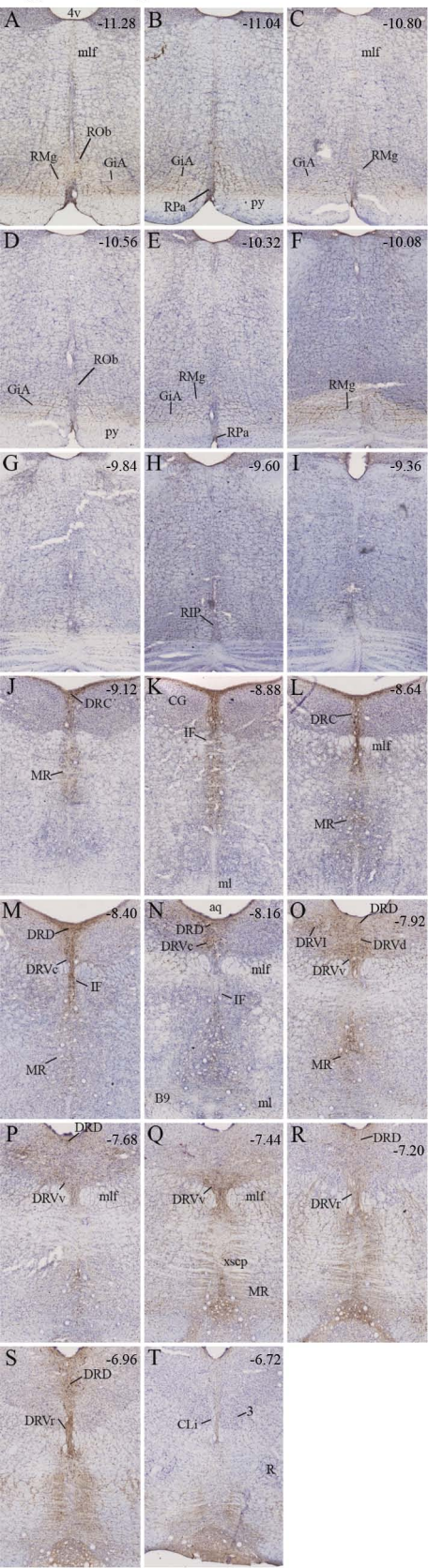


Supplemental Figure 1



Supplemental Figure 2



**Supplemental Figure Legends:**

**Supplemental Figure 1:** Identification of brainstem serotonergic cell groups using a combined cytoarchitectonic and neurochemical approach. Adjacent sections were stained with cresyl violet (A) and processed for *Sert* ISH (B). Cytoarchitectonically distinct cell clusters identified with cresyl violet corresponded well with differences in the distribution and the appearance of *Sert* signal, which was confirmed by the digital overlay of these sections (C).

**Supplemental Figure 2:** Serotonergic cell groups in the rat brainstem. Cell groups were parcelated based on a combination of TPH2 immunocytochemistry and cresyl violet staining using methods described previously (Kerman et al., 2006). TPH2 expression across the rostro-caudal extent of the brainstem was used to delineate cell group boundaries. As in Figure 3, data are presented caudal (A) to rostral (T) from tissue sections 240  $\mu\text{m}$  apart, and numbers in the upper right of each panel represent distances from bregma in mm. The differences in shape, packing density, and signal intensity among different cell groups and along the rostro-caudal extent are consistent with those observed in the expression of *Sert* mRNA (Figure 3).

Abbreviations: 3 – oculomotor nerve nucleus; 4v- fourth ventricle; B9 – B9 cell group; CG – central gray; CLi – caudal linear raphe; DRC – caudal dorsal raphe; DRD – dorsal division of the dorsal raphe; DRVc – ventral division of the dorsal raphe, caudal portion; DRVd - ventral division of the dorsal raphe, dorsal portion; DRVl - ventral division of the dorsal raphe, lateral portion; DRVr - ventral division of the dorsal raphe, rostral portion; DRVv - ventral division of the dorsal raphe, ventral portion; GiA – gigantocellular nucleus pars  $\alpha$ ; IF – interfascicular raphe; ml – medial lemniscus; mlf – medial longitudinal fasciculus; MR – median raphe; PMRF –

pontomesencephalic reticular formation; PPy – parapyramidal cell group; py – pyramidal tract; R – red nucleus; RIP – raphe interpositus; RMg – raphe magnus; ROb – raphe obscurus; RPa – raphe pallidus; xscp – decussation of superior cerebellar peduncle.

**Reference:**

Kerman, I.A., Shabrang, C., Taylor, L., Akil, H., Watson, S.J., 2006. Relationship of presympathetic-premotor neurons to the serotonergic transmitter system in the rat brainstem. *J Comp Neurol.* 499, 882-96.