Supplemental Figure Legends

Supplemental Figure 1. Regional and layer-specific image analysis of immunocytochemistry for dopamine signaling molecules (D3R, DAT and VMAT2).

A, This is the same wide-field fluorescence tiled image of DAT immunocytochemistry shown in Figure 2A (left panel). It is reproduced here to show the areas of analysis used to compare the lobule V bank region and the lobule IX gyrus region, shown in the insets. These regions were further divided to create layer-specific regions of interest. The yellow dashes outline the Purkinje cell layer and the red dashes outline the molecular layer.

B, Quantification of protein expression levels of each stain (D3R, DAT and VMAT2) using mean fluorescence intensity in different regions and layers of the cerebellar cortex. D3R expression level as indexed by mean fluorescence intensity was much stronger in the lobule IX gyrus region molecular layer (ML) and Purkinje cell layer (PCL) than in lobule V bank region ML and PCL (ML: 170.5, PCL: 196.0 in lobule IX, ML: 45.9, PCL: 60.6 in lobule V (Arbitrary Units)). DAT and VMAT2 showed a similar pattern. (DAT; ML: 142.9, PCL: 115.5 in lobule IX, ML: 67.2, PCL: 60.4 in lobule V, VMAT2; ML: 78.2, PCL: 136.9 in lobule IX, ML: 56.85, PCL: 65.70 in lobule V). It should be emphasized that this quantification is only appropriate
for within-slice comparisons where the same antibody is being used with identical conditions and processing.

Supplemental Figure 2. Bath application of DAT inhibitors produces a standing inward current, measured 10 min after application.

Bath application of DAT inhibitors, GBR12909 (20 µM) and rimcazole (50 µM) produced a small increase in holding current with the Purkinje cell clamped at a command potential of -70 mV. This standing current was present 10 min after drug application but had dissipated or reversed by 20 min after drug application. N = 5 cells/group.