

Supplementary material

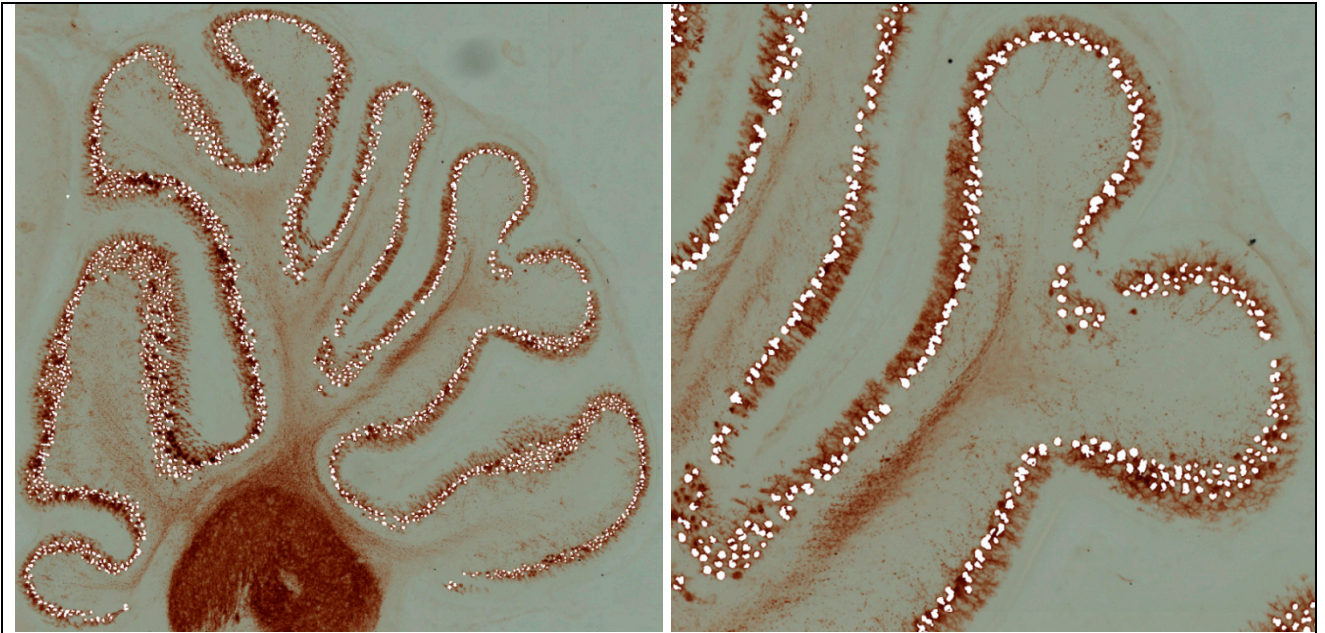


Figure S1. Cerebral Purkinje cell layers in a P10 rat brain. These figures show the cerebral Purkinje cell layers in dark brown color with light background. Segmentation algorithms were used to distinguish the Purkinje cells from their background. This lead to binary version of data with pixels either classified as cells or non-cells (background).

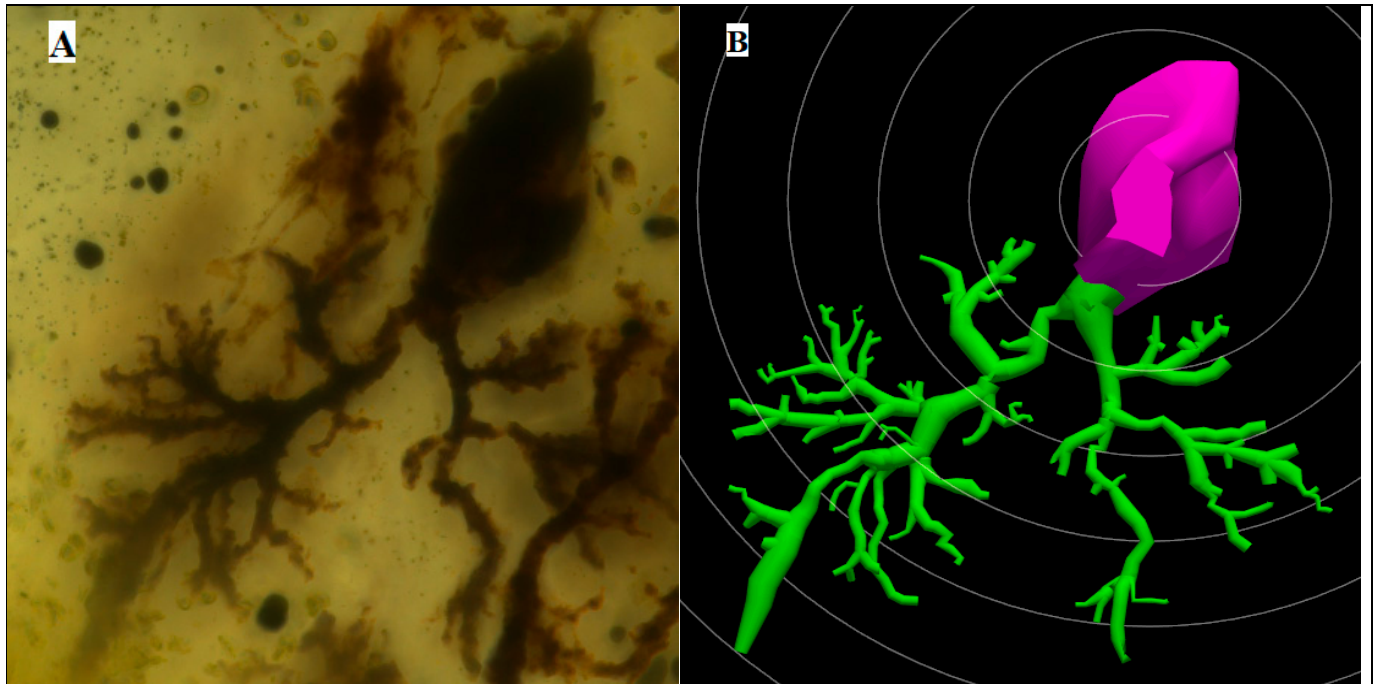


Figure S2. Dendritic morphology of a Purkinje cell in a P10 rat brain. Image A was taken from a Golgi-Cox stained section at 63X using Zeiss Axio Imager (Zeiss, Germany). Image B is a 3D reconstruction of serial stack of image A. A semi-automated tracing program Neurolucida® (MBF Bioscience, USA) was used for this purpose.

Supplementary Table S1. Weight gain in DVD-deficient and control animals.

Body weight (g)				
Groups	Postnatal day 3	Postnatal day 7	Postnatal day 30	Postnatal day 60
DVD-deficient males	8.93 ± 1.33	15.07 ± 1.91	132.5 ± 25.4	301.6 ± 30.6
Control males	8.87 ± 1.57	15.45 ± 2.71	129.2 ± 17.9	296.1 ± 27.8
DVD-deficient females	8.82 ± 1.12	14.45 ± 1.86	117.2 ± 16.2	194.1 ± 20.3
Control females	8.19 ± 1.17	14.04 ± 2.60	121.8 ± 10.8	204.2 ± 11.2

Each data represents mean \pm SD

Supplementary Table S2. Appearance of developmental milestones.

Developmental Milestones			
Groups	Ear unfolding	Fur appearance	Eye opening
DVD-deficient	3.59 \pm 0.68	5.72 \pm 0.72	13.97 \pm 1.25
Control	3.61 \pm 0.65	5.83 \pm 0.77	14.03 \pm 1.28

Data represent the postnatal day on which each of above developmental milestone appeared/completed. The ear unfolding and the eye-opening were considered when ear unfolded and eye opened completely, whereas fur appearance was recorded when fur appeared. Each data represents mean \pm SD.