

Fig. S1. Segmentation of sections shown in Figure 1A,C, shown here with the striatum in the green channel and the striosomes in the blue channel (giving rise to the cyan color because the striosome segmentations overlap with the striatum segmentations) (B,D). Scale bars in A and C correspond to 1 mm

Fig. S2. Skeletonization and morphometric analysis of case 91L from anterior (A) and lateral (B) views, with striosome segment orientations (C). Bifurcation angles (mean= $86.1 \pm 34.1^\circ$, n=782) (D). Striosome diameters (mean= 363.9 ± 112.0 microns, n=659) versus lengths (mean= 1111.4 ± 846.2 microns, n=659) (E).

Fig. S3. Skeletonization and morphometric analysis of case 91R from anterior (A) and lateral (B) views, with striosome segment orientations (C). Bifurcation angles (mean= $87.3 \pm 31.6^\circ$, n=878) (D). Striosome diameters (mean= 348.8 ± 110.2 microns, n=776) versus lengths (mean= 1045.8 ± 738.7 microns, n=776) (E).





