

---

**Supplementary information**

---

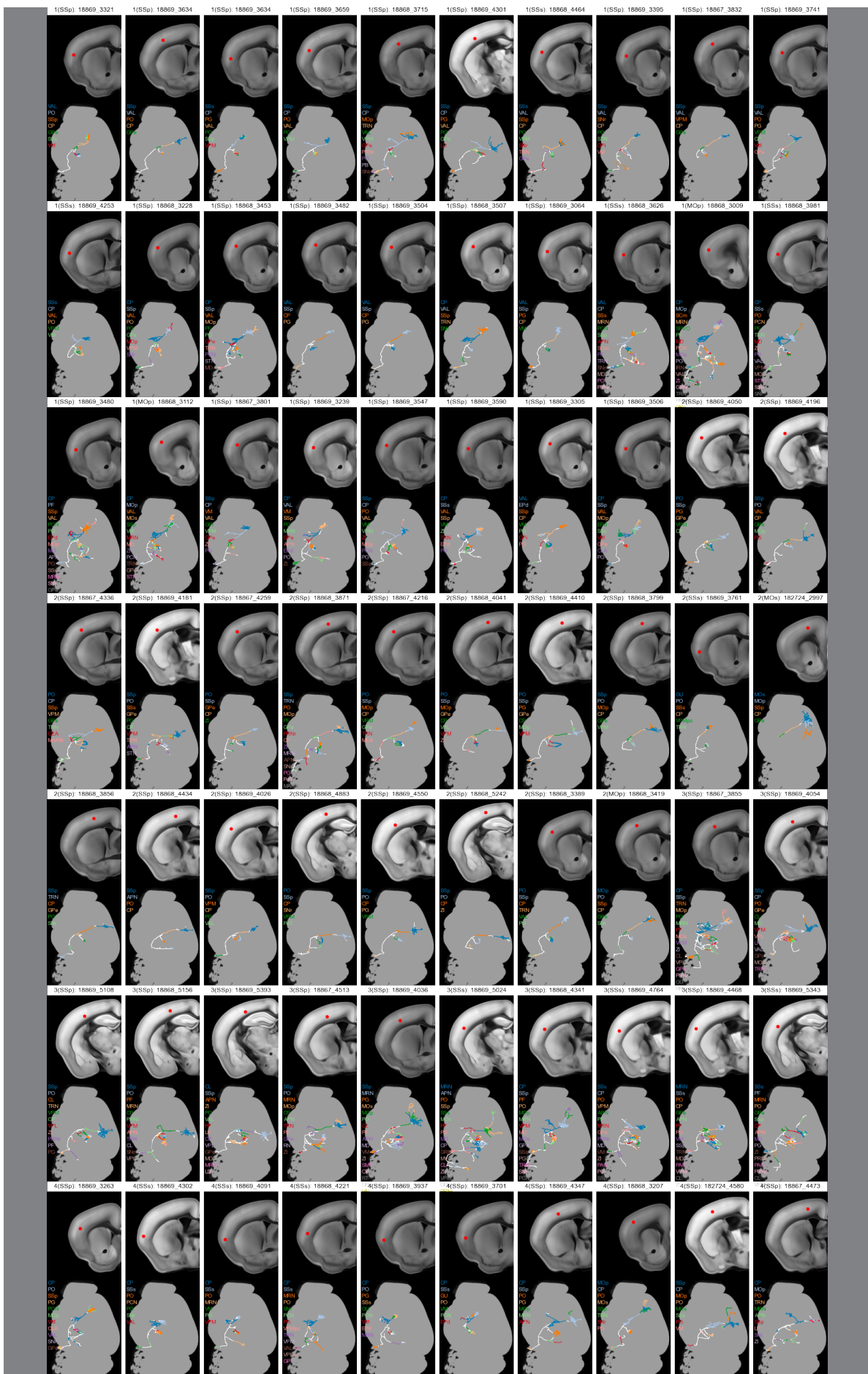
**Morphological diversity of single neurons in  
molecularly defined cell types**

---

In the format provided by the  
authors and unedited

**Supplementary Figure 1. Overview of reconstructed cortical L5 ET neurons, visualized within the CCFv3 3D reference space.** The first number in the label of each neuron indicates the neuron's cluster assignment shown in Figure 3. Each neuron is shown in two views: top, a coronal plane showing the location of the soma (red dot); bottom, a sagittal maximum projection view showing the brain-wide axon projection pattern. Cortical target regions with axon length >1 mm are indicated by different colors while other axon branches are shown in white.

# Supplementary Figure 1 L5 ET cells







**Supplementary Figure 2. Tri-views of representative reconstructed neurons from core thalamic nuclei, visualized within the CCFv3 3D reference space.** Each tri-view contains three views of the same neuron ordered from top to bottom: a whole-brain top-down view (soma indicated by a star, axon in red), a coronal plane showing the location of the soma (red dot), and a chosen coronal or horizontal plane close to the centre of the main axon arbor with superimposed maximum projection view of the axon arbors. Cortical target regions with axon length  $>1$  mm are indicated by different colours while other axon branches are shown in white.







**Supplementary Figure 3. Tri-views of all reconstructed neurons from matrix thalamic nuclei, visualized within the CCFv3 3D reference space.** Each tri-view contains three views of the same neuron ordered from top to bottom: a whole-brain top-down view (soma indicated by a star, axon in red), a coronal plane showing the location of the soma (red dot), and a chosen coronal plane close to the centre of the main axon arbor with superimposed maximum projection view of the axon arbors. Cortical target regions with axon length  $>1$  mm are indicated by different colours while other axon branches are shown in white.

