- Function: Part of the thalamus, it receives visual signals and communicates with the visual cortex.
- Structural features: Located in the dorsal thalamus.
- 6. LH: Lateral Habenula
 - **Function**: Implicated in depression, reward and aversion.
 - Structural features: A small, bilateral brain structure located superior to the thalamus.
- 7. PRC: Perirhinal Cortex
 - **Function**: Involved in visual recognition memory.
 - Structural features: Located adjacent to the rhinal sulcus at the base of the brain.
- 8. PVT: Paraventricular Nucleus of the Thalamus
 - **Function**: Involved in stress, arousal, and reward-seeking behavior.
 - **Structural features**: Located in the dorsal midline thalamus.
- 9. **VM**: Ventromedial Thalamic Nucleus
 - **Function**: It relays sensory information to the cerebral cortex.
 - Structural features: Part of the ventral thalamus.
- 10. MEA: Medial Amygdaloid Nucleus
 - Function: Plays a role in reproductive and defensive behaviors.
 - **Structural features**: Part of the amygdala, located in the medial temporal lobe.

... and many more.

There are many structures labeled, including various parts of the thalamus, amygdala, cortex, and other structures. For a full, exhaustive breakdown with in-depth structural and functional descriptions, consulting a detailed mouse brain atlas or resources like the Allen Brain Atlas would be most effective.

Prompt 2:

Identify brain regions included by Thalamus in this image.

GPT-4V:

From the image you provided, the structures that pertain to the thalamus include:

- 1. LP: Lateral Posterior Nucleus of the Thalamus
 - Function: Part of the thalamus, it receives visual signals and communicates with the visual cortex.
- 2. **PVT**: Paraventricular Nucleus of the Thalamus
 - **Function**: Involved in stress, arousal, and reward-seeking behavior.
- 3. VM: Ventromedial Thalamic Nucleus
 - **Function**: It relays sensory information to the cerebral cortex.
- 4. **PO**: Posterior Complex of the Thalamus
 - **Function**: Receives sensory information and relays it to the cortex.
- 5. **VPM**: Ventral Posteromedial Nucleus of the Thalamus
 - **Function**: Processes sensory information from the face and mouth.
- 6. **VPL**: Ventral Posterolateral Nucleus of the Thalamus
 - **Function**: It relays sensory information from the body to the somatosensory cortex.
- 7. **PF**: Parafascicular Nucleus
 - Function: Linked with the basal ganglia and is involved in motor functions.

These regions together make up portions of the thalamus as depicted in your image. The thalamus is a complex structure with various nuclei serving diverse roles, mainly relaying sensory and motor signals to the cerebral cortex and regulating consciousness, sleep, and alertness.