### 9.14

## class #29: Review, neocortex

### Readings:

- Assignments for classes 23 27.
- Class lectures and discussions.

#### Also recommended:

[Read some of this more than once!]

Know the various terms used in the questions for each session.

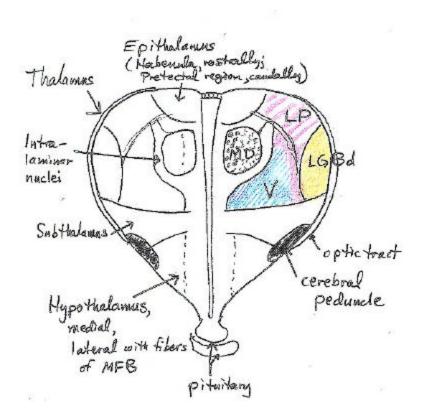
Emphasize the major points stressed in class, but review all the questions.

For descriptions of the thalamus, use Brodal more than Mesulam, since Brodal is less theoretical and more "standard" and straightforward.

In class we will use the following figures:

- Embryonic human diencephalon in frontal section, similar to adult rodent; mature primate caudal thalamus.
- Hemisphere of rat or hamster, color-coded to match the thalamus pictures.

# **THE DIENCEPHALON IN FRONTAL SECTION** (embryonic human, resembling mature brain of many small mammals):



LP = lateral posterior nucleus

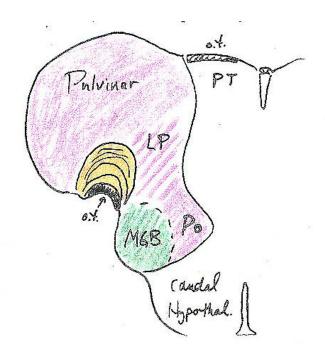
MD = mediodorsal nucleus (medial magnocellular, lateral parvocellular divisions)

V = ventral nucleus, at this level the VPL and VPM (ventral posterolateral and ventral posteromedial, representing body and limbs, and face and head, respectively)

LGBd = lateral geniculate body (nucleus), dorsal part. [The ventral part is just below, in the subthalamus.]

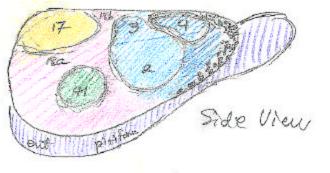
MGB = medial geniculate body

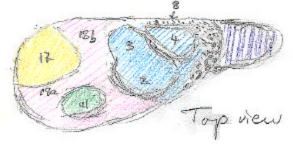
More rostrally: LP becomes L and LD, MD is replaced by the Anterior nuclei (AD, AV, AM), VPL and VPM are replaced by VL and VA (ventral lateral and ventral anterior)

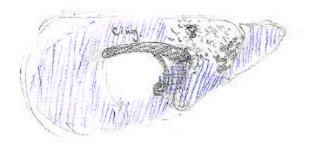


<u>Caudally</u>: Part of LP evolves into the Pulvinar, pushing LGBd out and down; also, the LP is replaced by MGB.

Rad-hamster hemisphere







HAMSTER/RAT CEREBRAL HEMISPHERE, side view, top view, and medial view. Color codes match the pictures of the thalamus.