Assignments and Activities - 11

Task 1: Test your understanding

Question 1: What changes in emotion were observed following temporal lobectomy by Klüver and Bucy? Of the numerous anatomical structures they removed, which is thought to be closely related to changes in temperament?

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Question 2: What procedures will produce an abnormal rage reaction in an experimental animal? Can we know that the animal feels angry?

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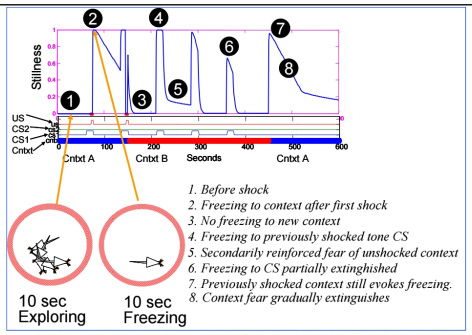
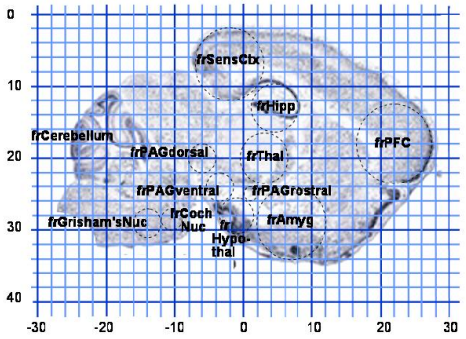
Task 2: FraidyRat fear conditioning (behavioral neuroscience simulation)

Anatomical and physiological basis of fear learning with FraidyRat
https://mdcune.psych.ucla.edu/modules/fraidy-rat/
- follow software instructions: https://ucla.app.box.com/s/0656vyah85nl4wea54kysiszilkf380l
- follow video (0:10-1:30): https://ucla.app.box.com/s/hugw2pzsvnoid26ux77hrvweozs4ltj0
- all materials can be downloaded from course repository

Use the following parameters for delayed conditioning:

1. ☑ Re-implant probes
2. **I. Conditioning**
   Short
   2.1. N Per1: 2
   Cntxt Per1: A
   CS/US Per1: 1+
   N Per2: -20
   Cntxt Per2: B
   CS/US Per2: 1
   ITI: 80
   CSdurAcq: 15
   USdur: 5
   CSdurExt: 15
   Rest of parameters: 0
   Run/Continue
3. From: 1 To: 400
   ☑ Animate Replot
4. Implant probe into Grisham's nucleus and dorsal PAG
   Probe 1: X: -14 Y: 29 Implant
   ◉ Record at Probe 1 Go Move
   Probe 2: X: -6 Y: 20 Implant
   ◉ Record at Probe 2 Go Move
5. Manual ◉ CS1
   ◉ Record at Probe 1 Go Move
   ◉ Record at Probe 2 Go Move
6. **II. Extinction**
   Run/Continue
   ◉ Record at Probe 1 Go
7. Infuse ◉ Syst Rate: 50
   ☑ GABA-R agonist On/Off





Does conditioning occur in dorsal PAG? Paste a graph of PAGd cells in context B.

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What is the relationship between freezing/exploration behavior and Grisham's cells activity? Paste a graph of Grisham's cells in context B.

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What effect does GABA-R agonist infusion have on Grisham's cells?

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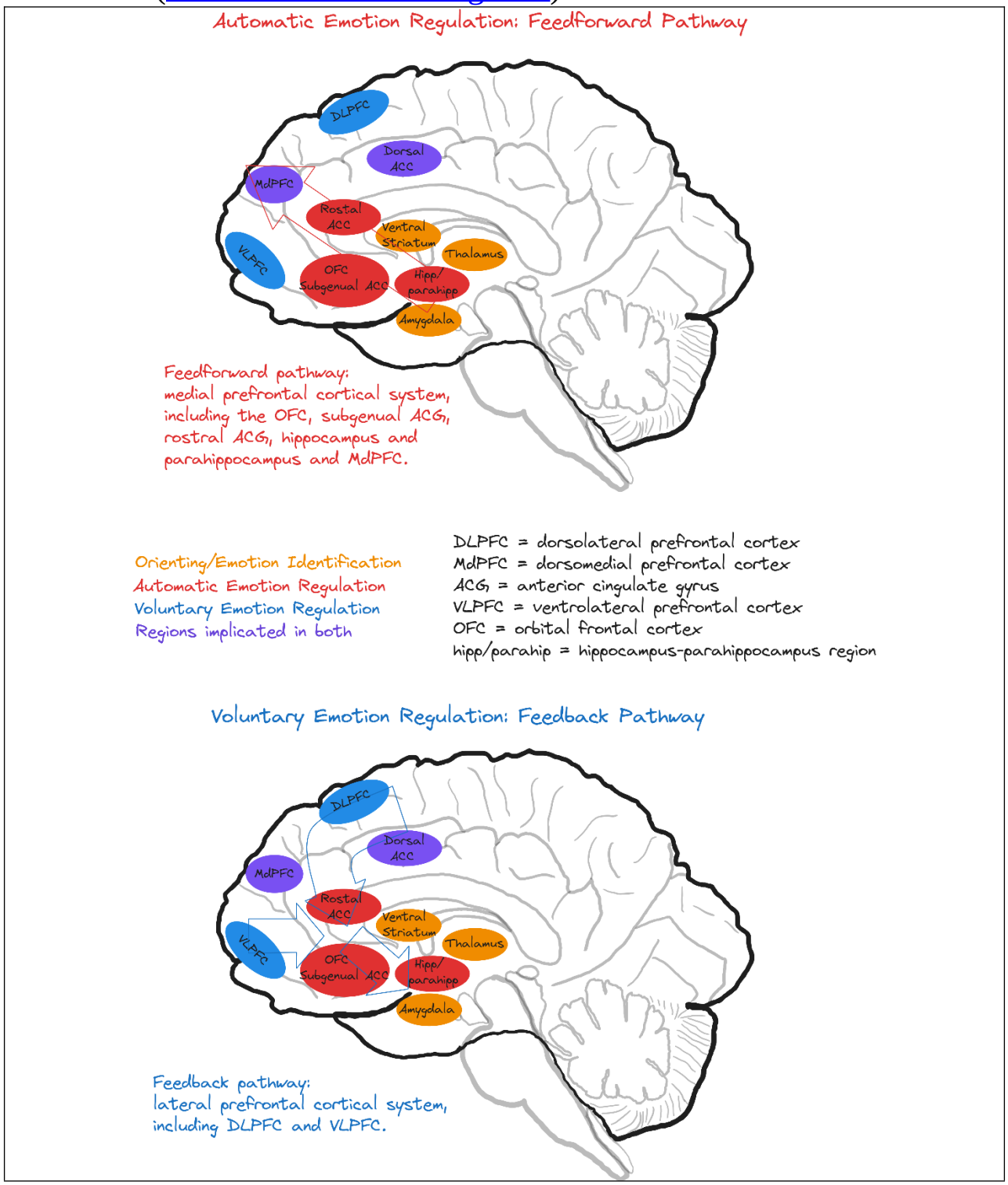
Task 3: Draw me a Brain Ep. 11

Draw this (link to editable drawing here):



Your turn: