

- 1 T May 27 INTRODUCTION:
Check all components and tools, and test the rig using model cells. Learn to fill electrodes and check electrode resistance. Learn to solder, and other troubleshooting issues. Learn to use Chart software to view and record, export data and keep an ongoing notebook of collected data. *Reading for next time: Murphy review (available on Canvas)*
- 2 Th May 29 *Helisoma trivolvis 1*
Intracellular recording from buccal ganglia in *Helisoma trivolvis*. Find identified neurons to observe output of rhythmic neural network. *Reading for next time: continue reading Murphy review.*
- 3 T June 3 *Helisoma trivolvis 2*
Continue intracellular recording. Make sure you are gathering the right kind of data and documentation to make the recording a useful one! *Reading for next time: Crawdad manual, labs 2 & 4 and Appendix A (available on Blackboard: Documents/MANUALS and GUIDES).*
- 4 Th June 5 *Crayfish 1: intracellular recording*
- 5 T June 10 *Crayfish 2: suction electrode recording*
Extracellular recording from the NMJ using suction electrodes. Learn to construct and use suction electrodes to record from or stimulate a nerve, using same the same tail prep from the previous week. Try to get a simultaneous recording from nerve and muscle.
- 6 Th June 12 *Crayfish 3: dual recording*
- 7 T June 17 *Aplysia californica 1*
- 8 Th June 19 *Aplysia californica 2*
- 9 T June 24 *T.B.A.*
- 10 Th June 26 *T.B.A.*

11 Th July 1 OUTRODUCTION

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Review- electricity, Ohm's law.
Review- resting potential, action potential
Demo: intracellular recording

Data acquisition: recording, sampling rate, data pad...
Troubleshooting and soldering
The model cell
Intracellular electrodes
- 2 Th May 29 *Helisoma trivolvis 1 (Reading: Murphy review)*
The buccal ganglia: a rhythmic neural network
Intracellular recording: procedure
What to do with a cell when you get one? The "standard battery"

Troubleshooting
Cleanup
- 3 T June 3 *Helisoma trivolvis 2*
Recording tips and review standard battery
- 4 Th June 5 *Crayfish 1: intracellular recording*
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- 6 Th June 12 *Crayfish 3: dual recording*
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