

## Other Teaching Resources

### Digital Resources I Use in Neurophysiology:

#### **My Flipped Lecture Videos:**

<https://www.youtube.com/playlist?list=PL7HSA1eDpu-HNpokXx6mhP1QtRCZw3Qy5>

#### **Swimmy:**

Free virtual lab where students elucidate a central pattern generator circuit. You can sign up for a faculty account and get solutions, teaching tips, etc.

<https://mdcune.psych.ucla.edu/modules/swimmy>

#### **Neurons in Action 2:**

Simulations using Neuron software, \$50 for book, or \$25/site license. Many people have used this software and share lesson plans, questions, etc. Also has a history section and classic papers.

<http://neuronsinaction.com/home/main>

#### **Dancing Cockroach Leg (great 1<sup>st</sup> day activity):**

<http://www.lifescitrc.org/resource.cfm?submissionID=7750>

#### **Critical Reading of Popular Science Articles:**

<https://www.lifescitrc.org/resource.cfm?submissionID=7764>

#### **Two examples of Neuroscience and Society Activity I use:**

Contact me if you want to see the lesson plans for Alzheimer's Drug Trial and Concussions and the NFL

Correlation vs. Causation: <http://www.lifescitrc.org/resource.cfm?submissionID=9954>

How reliable is eyewitness testimony: <http://www.lifescitrc.org/resource.cfm?submissionID=9955>

#### **Mouse Party:**

Animation about the effects of drugs on the brain. Developed for high schoolers, but you can make it more advanced.

<http://learn.genetics.utah.edu/content/addiction/drugs/mouse.html>

### Digital Libraries

#### **Biosciencednet:**

Collections of peer-reviewed teaching resources run by AAAS. Includes many archives, including the APS archive.

<http://www.biosciencednet.org/portal/>

**Life Science Teaching Resource Community (formerly American Physiological Society Archive of Teaching Resources):**

Peer reviewed teaching resources – I strongly suggest you submit any great teaching resources you generate.

<http://www.lifescitrc.org/index.cfm>

**Educational Resources in Neuroscience (ERIN). Run by Society for Neuroscience:**

<http://erin.sfn.org/>

**Brain Facts.org**

<http://www.brainfacts.org/educators/>

**National Science Digital Library:**

<http://nsdl.org/>

**Med Ed Portal**

Lots of peer reviewed materials, some non-peer reviewed, lots of cases, videos, etc. Targeted to medical education, but some look useful at the undergraduate level. You can even request videos and other material for free.

<https://www.mededportal.org/>

**Other Resources:**

**University of Buffalo Case Study Collection**

Great collection of peer reviewed case studies, includes teaching notes, handouts and slides that you can access with a nominal membership fee. Many of these have clicker-type questions built

<http://sciencecases.lib.buffalo.edu/cs/>

**Learn Genetics from University of Utah**

Other resources from the makers of mouse party. Info sheets, animations, worksheets, etc.

<http://learn.genetics.utah.edu>

<http://teach.genetics.utah.edu/>

**UCLA Modular Digital Course in Undergraduate Neuroscience Education at UCLA:**

Other virtual labs including a Gel Scramble

<https://mdcune.psych.ucla.edu/>

**DNA Learning Center:**

<http://dnalc.org>

<http://bioinformatics.dnalc.org/alu/animation/pdf/pv92.pdf>

**Howard Hughes Medical Institute's Virtual Lab Site**

<http://www.hhmi.org/biointeractive/vlabs/index.html>

**Chem Collective for virtual chemistry labs**

<http://www.chemcollective.org/>

**iLab Central**

<http://ilabcentral.org/index.php>

**Virtual Labs in Chemistry and Physics (supported by NSF)**

<http://matdl.org/virtuallabs/index.php/Virtuallabs>

**NCBI Databases for Protein, Genomic, Bioinformatic labs**

<http://www.ncbi.nlm.nih.gov/>

**Phet Simulations (University of Colorado):**

<http://phet.colorado.edu/en/simulations/category/new>

## **Education Research Journals (often have lesson plans, etc):**

**CBE Life Sciences Education:**

<http://www.lifescied.org/>

**Journal for Undergraduate Neuroscience Education (JUNE):**

<http://www.funjournal.org/>

**Advances in Physiology Education:**

<http://advan.physiology.org/>