

Welcome to the Neuroscience for Kids Newsletter.

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1. WHAT'S NEW AT NEUROSCIENCE FOR KIDS

Neuroscience for Kids had several new additions in August including:

A. August Neuroscience for Kids Newsletter was archived

<http://faculty.washington.edu/chudler/news178.html>

B. Sidewalk Cells

<http://faculty.washington.edu/chudler/sidecells.html>

In August, 12 new figures were added and 25 pages were modified.

2. NEUROSCIENCE FOR KIDS "SITE OF THE MONTH"

The Neuroscience for Kids "Site of the Month" for September is "Project Neuron" at:

<http://neuron.illinois.edu/>

Project Neuron is a web site filled with fun (and educational) lessons, games and activities to learn about neuroscience. Teachers can use curriculum units in the classroom such as lessons about vision, stem cells, circadian rhythms, traumatic brain injury, toxins, and the effects of drugs on the nervous system. Students can get ideas from these lessons to use in science fair projects. There are also plenty of online

games to play too. For example, try the brain quiz to test your knowledge about neuroanatomy or build an eye. For a really challenging activity, play the mirror tracing game to see how you can retrain your brain.

The Project Neuron program was developed by Barbara Hug, Donna Korol and George Resse at the University of Illinois and funded by a Science Education Partnership Award from the National Center For Research Resources at the National Institutes of Health.

3. WALKING ON NEURONS

As I was walking down the street in Seattle last month, I looked down at my feet and saw something surprising. There on the sidewalk was a neuron! Not a real neuron of course, but a crack in the cement that looked like a neuron. I could see dendrites, a cell body (with a nucleus), an axon and axon branches.

So I started to look for more neurons embedded into sidewalks and found more. Sure, some people gave me strange looks as I was examining the sidewalk, but I didn't care.

What do you think? Do these cracks look like neurons to you? See:

<http://faculty.washington.edu/chudler/sidecells.html>

4. NEUROSEEDS TEACHER WORKSHOP

In July, middle school kids had their time at summer brain camp; last month, middle school teachers had their turn. At the University of Washington Neuroseeds Summer Teacher Workshop and as part of my Sowing the Seeds of Neuroscience program, 11 teachers spent a week learning how to use the newly developed lessons about neuroscience and plants. During the school year, the teachers will check out kits with all of the supplies and equipment necessary for their students.

See the teachers at the workshop at:

<https://picasaweb.google.com/echudler/NeuroseedsTeacherWorkshop?authuser=0&feat=directlink>

Learn more about the Sowing the Seeds of Neuroscience program at:

<http://www.neuroseeds.org>

5. DESIGN A BRAIN EXPERIMENT COMPETITION

Do you know high school students fascinated by the brain? If you do, the Dana Foundation is holding a competition where U.S. high school students can compete for a chance to win cash prizes for their schools by designing an original brain-related experiment. Entries are due by Friday, January 17, 2014 and winners will be announced during Brain Awareness Week 2014.

Submissions must test an idea about the brain, and topics can range from treatments for traumatic brain injury to the effects of television on early childhood brain development. Students should not complete their experiment, only design it, so be creative!

For competition guidelines, please see:

http://dana.org/uploadedFiles/DABEC_guidelines.pdf

6. TARGET FIELD TRIP GRANTS

The Target Corporation is accepting applications from teachers to bring K-12 students in the United States to museums, historical sites, and cultural organizations. The grants will fund visits to art, science, and cultural museums, community service or civic projects, career enrichment opportunities; and other events or activities away from school. Perhaps teachers can write a grant to fund a visit to a Brain Awareness Week event in March, 2014?

More than 3,600 grants of up to \$700 will be awarded in January 2014. The field trips must take place between February and December 2014. The funds can cover field trip-related costs such as transportation, ticket fees, food, resource materials, and supplies.

Education professionals who are at least 18 years old and employed by an accredited K-12 public, private, or charter school in the U.S. that maintains 501(c)(3) or 509(a)(1) tax-exempt status are eligible to apply. Educators, teachers, principals, paraprofessionals, or classified staff at these institutions must be willing to plan and execute a field trip that will provide a demonstrable learning experience for students.

For more details and an application form, please visit:

<https://corporate.target.com/corporate-responsibility/grants/field-trip-grants>

7. MEDIA ALERT

A. SCIENTIFIC AMERICAN MIND (September, 2013 issue) has articles about self-esteem, mental health, conspiracy theories, learning, math and the science of handwriting.

B. "Why Does Food Taste So Delicious" by Michael Moyer and "Is Obesity an Addiction" by Paul J. Kenny (SCIENTIFIC AMERICAN, September, 2013 issue).

C. "These 'Bots are Made for Walking" by Stephen Piazza discusses helping people with movement disabilities relearn skills and "The Evolution of Eyeglasses" by Henry Petroski; both articles in AMERICAN SCIENTIST, September-October, 2013).

D. "The Insane and Exciting Future of the Bionic Body" by Geoff Brumfiel (SMITHSONIAN magazine, September. 2013).

E. "'Plasticity Pill' Could Rewire Brain to Treat Autism and Schizophrenia" by Kenneth Miller (DISCOVER magazine, October, 2013).

8. THE TREASURE TROVE OF BRAIN TRIVIA

A. The Voyager spacecraft includes a brain wave recording (electroencephalogram) of a woman. (Source: http://science.nasa.gov/science-news/science-at-nasa/2011/28apr_voyager2/)

B. American singer Linda Ronstadt announced last month that she has Parkinson's disease.

C. In 1596, Sir Walter Raleigh mentioned arrow poison in his book titled "Discovery of the Large, Rich and Beautiful Empire of Guiana."

D. Constanzo Varolio named the part of the brain known as the pons in 1573.

E. Oligodendroglia are cells that provide insulation (myelin) to neurons in the central nervous system. Schwann cells provide insulation (myelin) to neurons in the peripheral nervous system.

9. AUTUMN EMAIL CHANGES

If your email address will change during the fall, please let me know (email: chudler@u.washington.edu) so you will not miss an issue of this newsletter.

10. SUPPORT NEUROSCIENCE FOR KIDS

To ensure that Neuroscience for Kids stays available, we need your help. All contributions to Neuroscience for Kids are tax deductible (subject to IRS regulations). If you would like to donate to Neuroscience for Kids, please visit:

<http://faculty.washington.edu/chudler/help.html>

11. HOW TO STOP RECEIVING THIS NEWSLETTER

To remove yourself from this mailing list and stop your subscription to the Neuroscience for Kids Newsletter, send e-mail to Dr. Eric H. Chudler at: chudler@u.washington.edu

Your comments and suggestions about this newsletter and the "Neuroscience for Kids" web site are always welcome. If there are any special topics that you would like to see on the web site, just let me know.

Eric

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(URL: <http://faculty.washington.edu/chudler/neurok.html>)