

TOOLS

Get Your SNPset

Informatics experts at Harvard's Children's Hospital have developed a Web tool that makes it a breeze to troll public databases for SNPs, single-nucleotide mutations used as markers for finding disease genes. SNPper, as it's called, looks for SNPs in major databases and puts them "in a format that is easy to use," says Harvard's Alberto Riva. Users can search by position on the chromosome or by gene name and receive all the SNPs in that region. They can then view the SNPs in the gene sequence or download their SNPset into other computer programs, for example to design PCR primers (used for making copies of DNA).

bio.chip.org/biotools

FUN

Origami Math

It may not take a Ph.D. in math to fold a frog from a square of paper, but it might not hurt either—especially if your origami ambitions include assembling interlocking polyhedra. The geometric aspects of the art of paper folding are surprisingly rich, enthusiasts say, and origami theory has led to some amazing new designs.

Merrimack College mathematician Tom Hull's Origami Mathematics page* offers a tutorial on origami geometric constructions (including how to trisect an angle, an impossible task with ruler and compass!). Hull also includes instructions for making a model of five intersecting tetrahedra and links to other origami math sites. At British biochemist Alex Bateman's origami page,† you can download Tess, a Perl program for creating mosaiclike origami tessellations. There are also sample patterns (in Postscript) ready for printing and folding. The key instruction when doing origami: Be patient. Rome wasn't folded in a day.

* chasm.merrimack.edu/~thull/OrigamiMath.html

† www.sanger.ac.uk/Users/agb/Origami/origami.html

RESOURCES

Whole Brain Catalog

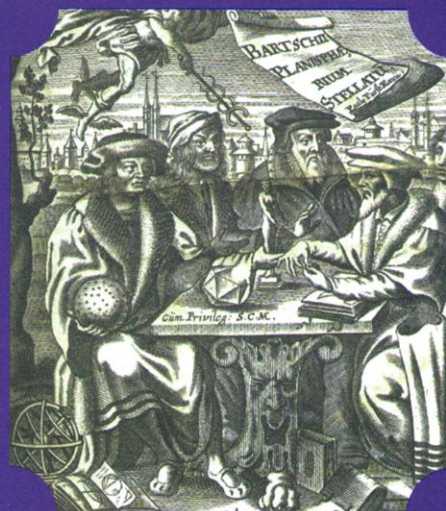
Spending too much time trying to figure out what's going on inside your head? For neuroscientists baffled by the many alternative names given to similar central nervous system structures in different species, BrainInfo offers welcome relief. The new site sorts out 6500 names and synonyms for about 860 structures and gathers information on them from various Web databases.

Type in hippocampus, for example, and the site will tell you where this structure fits in a hierarchy of brain parts, list 22 related terms or synonyms, and link to a PubMed search for abstracts using all these alternatives.

Other buttons bring up line drawings of macaque brains showing the component you seek, or troll outside databases for magnetic resonance imaging scans, 3D computer models, and info on neurons. Alternatively, visitors can start with a diagram of a whole macaque brain and zoom in on structures.

BrainInfo's curators at the University of Washington's Regional Primate Research Center haven't yet added descriptions of the structures and their functions, which will make it more useful to lay visitors. Still, says Mark F. Dubach, a site manager, it's already a boon to researchers who need information fast.

braininfo.rprc.washington.edu



LINKS

Star-Crossed History

Sure, you've heard of Johannes Kepler and his laws of planetary motion, but how about Benjamin Banneker, an 18th century black Maryland farmer and self-taught astronomer who won fame for his eclipse predictions? If you're interested in such tidbits or an overview of astronomy's highlights, then pay a visit to the History of Astronomy's links-packed site.

The site was started in 1995 by German astronomers' Working Group on the History of Astronomy and later gained the imprimatur of the International Astronomical Union. Maintained by Wolfgang Dick on a server at Bonn University, it includes 400 pages with over 8000 links (including some dead ones; Dick checks them as time allows). The Persons section lists Web biographies and other information for a whopping 1800 figures with ties to astronomy—from Ptolemy to Muslim trigonometrist Abul Wafa to Sally Ride, first U.S. woman in space. Click on Topics to learn about antique telescopes or calendars (Chinese to Gregorian) or how Columbus navigated. Other links include observatory history pages, museums, libraries, and archives. To keep up on new additions, subscribe to the Working Group's electronic newsletter.

www.astro.uni-bonn.de/~pbrosche/astoria.html

Send great Web site suggestions to netwatch@aaas.org