**EDUCATION**

**Electronic Chem Lab**

Aimed at beginning chemistry classes, this virtual lab from Thomas Greenbowe of Iowa State University in Ames features some 70 exercises and animations. Simulations illustrate concepts such as Boyle’s law, which describes the relation between a gas’s volume and pressure, and let students run experiments in electrochemistry (right) and other areas. Animations depict molecular interactions such as the formation of hydrogen bonds between water molecules or the reaction between silver ions and a lead electrode in a solution of silver nitrate. >>

www.chem.iastate.edu/group/Greenbowe/sections/projectfolder/simDownload/index4.html

**DATABASE**

**Bad Micromanagers**

To control gene activity, cells sometimes deploy stumpy strands called microRNAs (miRNAs) that latch onto a corresponding sequence in a messenger RNA molecule and stall protein production. Mutations can foul up these matching sequences or form new ones in inappropriate locations, mistakes that might underlie some cases of Tourette syndrome (Science, 14 October 2005, p. 211) and other conditions. The new database Patrocles from the University of Liège in Belgium gathers SNPs, or one-letter changes in DNA, that create or eliminate miRNA attachment sites. The site houses data on mice and humans. >>

www.patrocles.org

**DATABASE**

**Mammoth Tusks and Cave Bear Toes**

At Neogene of the Old World, paleontologists and other researchers can find out where fossils of extinct mammals such as the woolly rhinoceros (Coelodonta antiquitatis; below) have turned up. The database from the University of Helsinki in Finland stores information on mammal remains dating from 25 million years ago to about 10,000 years ago. Search by locality to unearth data on more than 1000 excavation sites sprinkled across Europe, Asia, and Africa. You can map the locales and call up a list of animals discovered at each one. >>

www.helsinki.fi/science/now

**SOFTWARE**

**Annotate While You Read**

The tool CBioC can help biomedical researchers who are trawling abstracts for data on protein interactions and their connection to disease. Just launched by computer scientist Chitta Baral of Arizona State University, Tempe, and colleagues, CBioC (for Collaborative Bio Curation) combines computer-extracted information with human curation. The program runs while you search PubMed. When you open an abstract, the software displays the protein interactions and other data that it gleaned from the article or that other CBioC users posted previously. You can then vote on the listings’ accuracy or contribute overlooked ones. The idea is that over time, CBioC’s user-curators will build a consensus summary of the molecular relations in the paper. >>

cbio.eas.asu.edu

**EXHIBITS**

**A POSSUM IN WOLF’S CLOTHING**

The thylacine, or Tasmanian tiger (*Thylacinus cynocephalus*), had a tiger’s stripes, a wolf’s physique, and a kangaroo’s pouch. The Thylacine Museum, curated by natural history enthusiast Cameron Campbell of Fort Worth, Texas, brims with data and lore about the carnivorous Australian marsupial, which most researchers think died out in the mid-1900s.

The animal comes alive in the film section, which features seven clips of captive animals. The thylacine has become a conservation symbol, and the site details human persecution of the species. Between 1888 and 1910, hunters seeking a government bounty slaughtered more than 2000 of the animals remaining in Tasmania, although disease might have spurred the species’ collapse. No conclusive evidence of thylacines has turned up since the last zoo specimen (above) died in 1936. But some people, including Campbell, hold out hope that a few individuals hang on—or that the species can be resurrected. The museum recounts many unsuccessful expeditions that have searched for survivors and describes some of the difficulties facing an on-again, off-again project to clone thylacines using DNA from preserved specimens. >>

www.naturalworlds.org/thylacine/index.htm
DATABASE: Mammoth Tusks and Cave Bear Toes

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