

would be a blend of all three, says Vaughan Wiles, U.S. president of Freeplay. The idea is a spin-off of the company's main product: hand-cranked radios that a British inventor came up with to help people in parts of Africa without reliable power.

The computer power supply, which could go on the market next year, works by tightening a spring that slowly unwinds, spinning a gear train connected to a small generator. Selling for \$50 to \$90, one version might be the size of a shoe box, weigh 1.8 to 2.7 kilograms, and power a laptop for, say, 45 minutes after a 30-second crank, Wiles says. "It's a good idea," says David Hughes, head of Old Colorado City Communications in Colorado Springs, which is funded by the National Science Foundation to set up wireless Internet connections in rural areas and places like Mongolia. Hughes envisions two cranks: one for a computer, and another for a radio to relay network signals.

All About Proteases

SITE VISIT

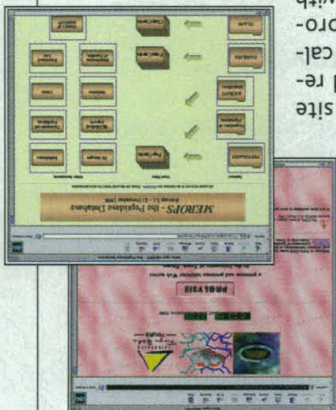
Whether with a deft snip of a single bond that activates a hormone or an all-out digestive assault on a speck of meat, enzymes called proteases are key players in processing proteins. PROLYSIS,* a Web site at the University of Tours in France, offers an introduction to proteases and their inhibitors, including info on assays and enzyme kinetics. The site has an image gallery of proteases and related molecules. And its handy Cutter calculator shows what fragments are produced by cutting a peptide sequence with a certain protease.

For structural and other details on proteases, try Merops,† a catalog from Neil Rawlings and Alan Barrett of the Babraham Institute in the United Kingdom. A few years ago the duo developed a classification system for proteases (or peptidases, the term they use). Their site lists Merops IDs for over 900 proteases and holds a "card" for each: a Web page that lists its forms in different organisms and links to entries in peptide sequence, nucleic acid, taxonomic, and structural databases. The cards can be searched by common name, organism, and protease family or clan. Merops also describes where proteases fit in biomolecular and biotech. For example, acetylamin has a "likely role in snake venom toxicity," while others play a part in everything from cheesemaking to anticancer drugs.

* delphi.phys.univ-tours.fr/Prolysis
† www.bibbsrc.ac.uk/Merops/Merops.htm

Exactly how the moon formed has long been a mystery, but new evidence is shedding light on this question. A Perspective (p. 1861) this week on the topic links to a movie featuring a computer simulation of the current theory: The moon was born from the accretion of debris created by the collision of a protoplanet with the proto-Earth. www.sciencemag.org/cgi/content/full/283/5409/1861

Send Internet news and great Web site suggestions to netwatch@aaas.org

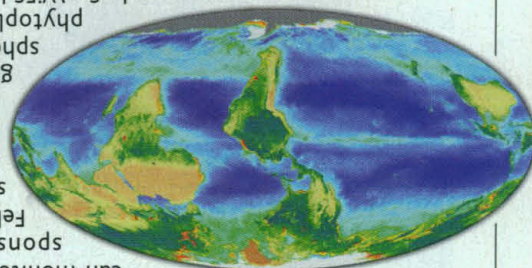


COOL IMAGES

Greening of the Seas

The green, yellow, and red patches in this yearlong, false-color image of the globe (below) trace the oceans' patina of chlorophyll, the stuff that makes plants green (hotter colors in the oceans indicate more chlorophyll).

The data came from SeaWiFS, a satellite launched as part of NASA's Mission to Planet Earth in 1997 to keep an eye on ocean color, which indicates the abundance of tiny plants called phytoplankton. For years other satellites have tracked physical and chemical changes in the oceans, but "now, for the first time, we can monitor the biological response," NASA's Gene Feldman says. The results could help climate change researchers pin down how much of the globe's rising atmospheric carbon dioxide is absorbed by phytoplankton.



ready, SeaWiFS has revealed a dearth of plankton around the Galapagos Islands as a result of El Niño warming and an unusual, milky-green bloom in the Bering Sea last summer. See these images and more at seawifs.gsfc.nasa.gov/SEWIFS/IMAGES/SEAWIFS_GALLERY.html

HOT PICKS

The good life. Who's happier, Argentines, Americans, or Japanese? You'll find survey results "on subjective appreciation of life" for 93 nations at the World Database of Happiness. The site also offers abstracts of studies correlating happiness with various factors (such as literacy) and a huge bibliography. www.eur.nl/fsw/research/happiness/index.htm

Seaborg memorial. Glenn Seaborg died last month at age 86 after a lifetime of work that included his discovery of plutonium, his advocacy of arms control, and his efforts to improve science education. Lawrence Berkeley National Lab, where Seaborg last worked, has devoted its latest online newsletter to the physicist. Included are a timeline, photos, and a link to Seaborg's own Web site. enews.lbl.gov

Shell game. The calcareous remains of tiny aquatic creatures offer clues about ancient environments and the age of rocks. Paleontologists may want to check out this nifty display of over 500 foraminifera and other microfossils from the Gulf of St. Lawrence; it's also drawn kudos as an educational site. www.uwindsor.ca/meta-index/fossils/woop.html



Windup Computers?

NET NEWS

Just as people once wound up Victrola phonographs, cyberjunkies may soon be cranking a handle to fire up their computers. A United Kingdom-based company called the Freeplay Power Group is working with other companies to develop a hand-cranked power supply for laptops. It would fill in when batteries fail and there's no sun for solar panels—although some models