NETWATCH

edited by MITCH LESLIE

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EXHIBITS

Mother of the Jumping Gene

Geneticist Barbara McClintock's studies of corn plants revealed that genes can move around on chromosomes and won her a Nobel Prize in 1983, when she was 81. Along the way, however, she battled skepticism toward her work and barriers to women in science. When she began her studies at Cornell University in 1919, for example, women were forbidden from majoring in genetics, so she earned her Ph.D. in botany.

A new section of the National Library of Medicine's Profiles in Science site explores McClintock's life through photos, letters, lecture notes, and other documents. A selection of some 50 academic publications stretches from a 1926 article on polyploidy (chromosome multiplication) in corn to a 1971 paper on the control of gene expression. McClintock's correspondence reveals her struggle to find a place in academia. Long-term postdocs take heart: Even this great geneticist didn't find a permanent job until she was 40.

www.profiles.nlm.nih.gov/LL

DATABASE

Phosphorylation Station

Cells can activate or hamstring their proteins by sticking on phosphate groups, which change the protein's shape. The reaction, called protein phosphorylation, "is probably one of the most important regulatory mechanisms in cells," says biochemist Peter Kennelly of Virginia Tech in Blacksburg. Drawing from more than 20 years' worth of publications, this brand-new Web site from Kennelly and colleagues provides a wealth of data on the phosphorylated proteins of bacteria and archaea. The database specifies the functional effects of phosphorylation (if known) and the amino acids involved, as well as offering the original reference and links to PubMed and the usual gene and protein databases.

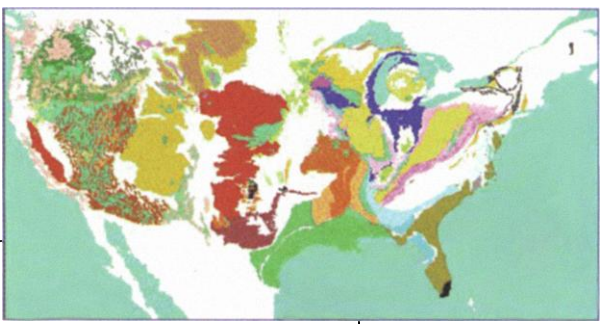
vigen.biochem.vt.edu/xpd/xpd.htm

RESOURCES

Life-and-Death Matters

Population ecologists want to know how aspects of individual lives such as birth, growth, diet, and death shape populations and drive their dynamics. This community site for population ecologists, built by Alexei Sharov of Virginia Tech in Blacksburg, offers some standard features, such as a worldwide directory of researchers and links to journals and professional organizations. But most useful may be the catalog of hyperlinks to online ecological models. A site at the University of Kassel in Germany, for instance, offers more than 100 models simulating everything from carbon cycling in the biosphere to the growth and death of trees in a forest. You'll also find Sharov's online course in quantitative population ecology and tutorials on classic models, such as the Lotka-Volterra model of predator-prey dynamics.

www.ento.vt.edu/~sharov/popechome



MAPS

Under the Surface

The growing Digital Earth project allows users to create and download snappy, multilayered maps based on some 100 geology, geography, and geophysics data sets. Collected over the last 8 years by researchers at Cornell University in Ithaca, New York, the data sets cover national, regional, and global scales. They include information on the structure of Earth's crust, the location of faults, earthquake and volcanic events, magnetic and gravity measurements, details of surface topography, and descriptions of aquifers (above, aquifers in the United States). With the site's mapping function, you can combine data to create composite images and build cross sections through Earth's surface by "stacking" data sets that describe different layers. If you're not satisfied with mapping, contact information explains how to get your hands on the underlying data.

atlas.geo.cornell.edu

TOOLS

Plumb Your Psyche

It may not expose the dark recesses of your soul, but the Implicit Association Test can reveal attitudes you may not admit to your closest friend—or even to yourself. By gauging your immediate reactions to sequences of words or images flashed on the screen, the five versions of the test supposedly disinter deep-seated biases on race, gender, age, politics, and academic subjects. The results can be illuminating and are occasionally disconcerting: In the racial associations test, the site reports, most Americans betray some preference for whites over blacks. To get in-depth explanations of the scoring and background, however, you have to visit the researchers' home pages, where you can peruse their papers on what they've learned from 3 years of probing attitudes online and read about the test's limitations.

buster.cs.yale.edu/implicit

Send great Web site suggestions to netwatch@aaas.org