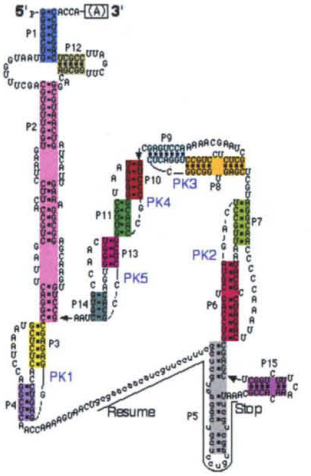
NETWATCH

edited by MITCH LESLIE

RESOURCES

The RNA Mechanic



Like a balky photocopier, the cellular machinery that makes proteins sometimes jams partway through a job. Many bacteria respond by summoning their own version of the copier technician: a molecule called tmRNA. The handy molecule clears the blockage and caps the aborted protein, flagging it for destruction by cleanup enzymes. Find out more at The tmRNA Website, curated by molecular biologist Kelly Williams of Indiana University, Bloomington. For 250 species of bugs, the site supplies tmRNA's sequences and the predicted order of amino acids in the cap. Another feature allows you to compare sequences for various combinations of species.

www.indiana.edu/%7Etmrna

LINKS

Get Psyched

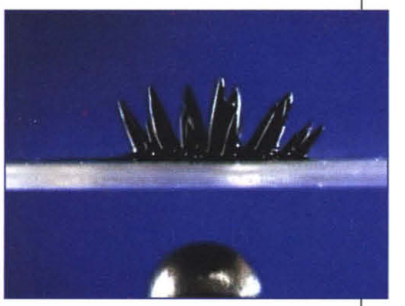
These two portals offer a wealth of resources for teachers and students hoping to get a grip on psychology. Along with a guide to careers in the field, Psych Web* links to a long list of psych departments and more than 1000 journals. Curator Russell Dewey of Georgia Southern University in Statesboro has also corralled a herd of explanatory pages on topics from the evolution of behavior to sports psychology.

A similar site is the Encyclopedia of Psychology,† hosted by Jacksonville State University in Alabama. Whether you're after a biography of Freud or the latest research on the development of mother-infant attachment, you'll find it among the site's more than 2000 annotated links.

* www.psywww.com
† www.psychology.org

EDUCATION

Making a Small World



This nest of spikes (right) is a nifty material known as a ferrofluid, a slurry containing particles of iron compounds. The magnetic goo—shown here climbing the field lines emanating from the magnet below—serves as a dust-blocking sealant in disk drives and a resonance dampener in speakers.

Demystifying ferrofluids and other examples of nanotechnology is the aim of Exploring the Nanoworld, which features video demonstrations and lab activities for grade school to college students. Hosted by the University of Wisconsin, Madison, the site's video clips investigate the properties of carbon nanotubes, alloys of nickel and titanium that "remember" their original shape even when bent or twisted, and foam that becomes thicker when you stretch it. Background articles explain the underlying science, and for teachers there's also a video lab manual with eight nanoactivities. Follow the instructions to make organic light-emitting diodes or craft a solar cell from, among other materials, a pigment found in raspberries.

www.mrsec.wisc.edu/edetc/index.html

DATABASES

An Ocean of Data

Featuring more than a dozen databases, the National Oceanographic Data Center is awash with measurements of the ocean going back to the 1960s, from wave height to plankton abundance. Try diving into the Oceanographic Profile Database, which records variables such as salinity, temperature, pH, nitrate levels, and chlorophyll concentrations from samples taken around the world. A plankton storehouse holds measurements of total biomass and species abundances, with results from more than 140,000 "tows." Besides loads of raw data for specialists, the site offers a few topical items, such as atlases on harmful algal blooms and the frigid Barents Sea, where the Gulf Stream peters out. You can download the data or plot them online to create an assortment of graphs and charts.

www.nodc.noaa.gov

SOFTWARE

Stemming the Nitrogen Glut

Nitrogen pollution is an environmental nightmare, contributing to everything from coastal dead zones to global warming. Cutting nitrogen emissions isn't easy, because sources include manure, fertilizers, and fossil fuel burning. NitroGenius, a computer game developed by Dutch scientists, lets you play various sectors—such as the government or the public—that are involved in managing the Netherlands' nitrogen emissions. Clamp down on runoff from animal farms with new regulations, for example, and the enviros will love you, but the economy might take a hit. Download a free demo version here.

www.serc.nl/play2learn/products/nitrogenius

Send site suggestions to netwatch@aaas.org. Archive: www.sciencemag.org/netwatch

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