Parasite Portfolio

The fluke Notocotylus notocotylus (left) lurks in the guts of rodents, pillering its host’s nutrients, whereas the tapeworm Lacistorhynchus tenuis (above) latches onto a shark’s intestine for its dinner. You can meet them and scores more body invaders at Parasites and Parasitological Resources, created by biologist Peter Pappas of Ohio State University in Columbus.

The atlas displays 550-odd images of more than 180 species, from bedbugs to flesh-boring worms, and offers tidbits on the creatures’ habits. You can learn the details of parasite anatomy by studying the collection of labeled photos and drawings. The site also maps out the life cycles of more than 50 species, including medically important parasites such as the protozoan that causes African sleeping sickness and ecologically intriguing examples such as Notocotylus.

www.biosci.ohio-state.edu/~parasite/home.html

The Sweet Science

Dieters are shunning carbohydrates, but scientists are hungry for information about these molecules. They help the immune system discriminate friend from foe, are an ingredient in the goo that surrounds and supports cells, and may play a role in aging and diseases such as cancer.

The Japanese site Glycoforum, sponsored by the Seikagaku Corp. and the Mizutani Foundation for Glycoscience, is a gathering place for researchers with a taste for carbohydrate biology. Four main sections post short articles, written by academic experts in Japan and other countries, on topics from the evolution of the sugars in milk to the importance of carbohydrate-adorned receptors for flu susceptibility. One focus of the site is hyaluronan, a molecule prevalent in the gel around cells. You can learn about its effects on ovulation and development and read about how the cell’s carbohydrate milieu can encourage the spread of cancer. Malignant cells exude more hyaluronan, which in turn alters the cell’s internal skeleton and membrane to promote movement. The site also features a calendar of upcoming meetings and links to proceedings from past conferences.

www.glycoforum.gr.jp

Einstein for the Masses

Readers flummoxed by Einstein’s special theory of relativity might soon get help, thanks to an Internet challenge. To mark the 100th anniversary of Einstein’s achievement, the Italian company Pirelli, which runs an annual Web site contest, is offering a prize for the best 5-minute multimedia presentation that makes special relativity intelligible to a general audience. Entries are due by 15 March 2005, and the winner, to be announced next summer, will pocket €25,000 (about $30,000). Get more details here:

www.pirelliaward.com/einstein.html

Portents of Change in the Arctic …

Polar bears could vanish by the end of the century, warned a scientific report on Arctic climate change last month. Higher temperatures are reducing sea ice, which the animals need to stalk seals. Shrinking sea ice is one of many signs of northern warming in recent decades, as you can see at Arctic Change, a new site from the U.S. National Oceanic and Atmospheric Administration.

Aimed at decision-makers and the general public, the site provides historical perspective on more than 20 climate change indicators, from wildlife behavior to river outflow, that mostly reflect rising Arctic temperatures. The number of months that northern residents can travel on ice roads has fallen from more than six in the early 1970s to fewer than four today, for example. Not all species have suffered from these changes, however: Populations of walleye pollock, a fish that prefers open water, have spiked in the Bering Sea as the ice wanes. The site’s brief backgronders offer plenty of links to reports and more detailed data.

www.arctic.noaa.gov/detect

… and an Antarctic Anniversary

They cleared the 3300-meter Polar Plateau only after ditching their emergency provisions, and on 29 November 1929, U.S. aviator Richard E. Byrd and his crew became the first explorers to fly over the South Pole. A new site from the U.S. National Science Foundation honors the 75th anniversary of the event by reviewing Byrd’s impact on Antarctic aviation. You can play a video that includes footage from the famous flight and tag along as modern pilots retrace Byrd’s route.

www.nsf.gov/od/lpa/events/byrd