RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Kicking the Tobacco Funding Habit

British researchers could find money from one of the country's leading cancer charities drying up if they or their colleagues accept research funds from the tobacco industry, according to a new policy announced last week.

Angered by Cambridge University's acceptance of $2.4 million from British American Tobacco last year, the Cancer Research Campaign (CRC), which doles out more than $75 million a year, is circulating to university heads a proposal outlining plans to withhold money from any science faculty that accepts research funds from the tobacco industry.

Existing grants will be honored, but in the future the CRC will insist on pledges from research units that they accept no tobacco money. According to CRC education director Jean King, there is no easy way to determine how much tobacco money goes to universities, so CRC will have to rely on the word of grantees.

There's been "overwhelming support from agencies in Britain and abroad for the draft code," says David Simpson, director of the International Agency on Tobacco and Health, a nonprofit organization based in London. "The tobacco industry craves respectability and seeks to gain it by sponsoring [university-based] research."

CRC Director-General Gordon McVie predicts the code will help "break the addiction to tobacco funding." But John Carlisle of the Tobacco Manufacturers Association, a British trade group, calls the policy unwise. "There's an insinuation that researchers have been influenced by these funds. But the ultimate losers are ... the researchers themselves."

Ironically, the policy, which the CRC hopes to have in place by next April, would be irrelevant to Cambridge's tobacco deal. That money has endowed a chair in international relations—outside the science faculty.

Monsoons Defy El Niño

Last spring, in the face of yet another El Niño climate pattern, the U.S. National Oceanic and Atmospheric Administration (NOAA) predicted a light monsoon season in India (*Science*, 27 June, p. 1977). But this year's rains were actually 2% above normal, in keeping with predictions by the India Meteorological Department.

NOAA had predicted that El Niño–induced warming in the tropical Pacific would shift atmospheric circulation enough to put a crimp on the monsoons. "Some Indian meteorologists did not buy into this idea," says NOAA meteorologist Wayne Higgins in Washington, D.C., "and they ultimately came out correct."

Indian monsoon specialists base their forecasts on a model comprising 16 parameters, including the extent of snow cover over the Himalayas, wind patterns, and atmospheric pressures. "Nine parameters were favorable" by last May, says meteorologist Sewa Ram Kalsi in New Delhi—just enough positive signs to predict a normal monsoon.

India's southwest monsoon season, which lasts from June through September, dumps about 80% of all rain the country receives—about 80 cm. In the 18 El Niño events so far recorded in this century, the Indian monsoon was below normal in half.

PAOLO KOCH/PHOTO RESEARCHERS

Wet as usual. Indians wade through results of downpour.

Fighting Parasites With Garlic

International travelers are often advised to eat fresh garlic, as it seems to protect against intestinal ills. Israeli chemists now say they've figured out why: Garlic derails key enzymes needed by parasites and other pathogens to invade cells and to break down food particles.

Garlic is like a binary chemical weapon—it has to be cut or crushed to unleash its antiparasite powers, says chemist David Mirelman of the Weizmann Institute for Science in Rehovot. When that happens, a peptide called alliin comes in contact with an activating enzyme to form allicin, one of garlic's suspected active ingredients. Allicin has been difficult to study biochemically, because, once formed, it quickly reacts with garlic's other components.

Mirelman, chemist Meir Wilchek, and their colleagues got around this problem by developing a method for making pure, semisynthetic allicin. After exposing *Entamoeba histolytica* parasites to it, the team noted an 80% decrease in the activity of enzymes called cysteine proteinases. Within minutes the parasites were dead, the researchers report in this month's *Antimicrobial Agents and Chemotherapy*.

The duo has "taken what had been anecdotal reports and provided a rational explanation" for why fresh garlic seems to combat Montezuma's revenge, comments Eric Block, a chemist at the State University of New York, Albany.

Mirelman thinks allicin's powers may transcend the gut. Because cysteine proteases are important in many bacteria and fungi as well as protozoans, garlic "has potential as a very broad spectrum antimicrobial [drug]," he says. Mirelman also speculates that garlic's rumored usefulness against heart disease may come from an ability to interfere with enzymes that synthesize artery-clogging cholesterol.

New Alternative Medicine Watchdog

Hoping to sort the wheat from the considerable chaff, a group of physicians and scientists last week unveiled a new journal to apply "the best tools of science and reason" to the tangled field of alternative medicine. They also took some swipes at the National Institutes of Health's Office of Alternative Medicine (OAM) and its director, Wayne Jonas.

At a press conference in Washington, D.C., editor Wallace Sampson, a professor of medicine at Stanford University, said the purpose of the semiannual *Scientific Review of Alternative Medicine* is not to "expose" alternative medicine, but to present accurate information. The news is all bad in the first issue, though, which carries articles on the lack of scientific rationales for homeopathy, therapeutic touch, and the alleged anticancer agent hydrazine sulfate, as well as a review that shoots up the latest book by the alternative health guru, physician Andrew Weil.

Physician Victor Herbert of Mount Sinai School of Medicine in New York City, a longtime campaigner against unproven remedies, presented the journal as an antidote to the OAM. The office, he said, fails to make distinctions between "the genuine, the questionable, and the fraudulent." Not all so-called alternatives are bad, he noted: St. John's wort, for example, is well known for its effectiveness in treating depression.

In response to the new journal, Jonas issued a statement saying that more peer-reviewed journals on alternative medicine are a good idea. One OAM grantee, neuroscientist Leanna Standish—who runs the Bastyr University Research Institute in Seattle, which evaluates alternative AIDS therapies—is particularly supportive. "I welcome the journal," she says, as a force to counter what "in my view is a great deal of self-delusion in the field" of alternative medicine.