RANDOM SAMPLES

edited by CONSTANCE HOLDEN

Dutch Magnetic Resonance

Think of the Netherlands, and images of windmills, tulips, and Vermeers may come to mind. But if you're a structural biologist, you may soon be adding high-field nuclear magnetic resonance (NMR) to the list. Early next year, a group led by biophysical chemist Rob Kaptein of the University of Utrecht will acquire a machine that should open up the next generation of NMR to the European research community.

The machine will allow researchers to work out the structures of biological molecules that are too large to be studied with existing NMR devices and that are difficult to crystallize—with the result that they cannot be studied easily using conventional x-ray diffraction. Top of Kaptein's list: the domains of DNA binding proteins involved in gene transcription that interact with enzymes such as RNA polymerase. The resolution of an NMR machine is determined by the frequency at which protons oscillate when held in its powerful magnetic field, and the new Dutch device will fly along at 750 MHz. Current machines top out at 600 MHz, so they can't resolve the structures of molecules larger than about 30,000 daltons. But with a 750 MHz machine, the limit should be 40,000 daltons or higher.

The Utrecht facility will be open to users from all over Europe one-third of the time. So, Kaptein has been able to augment $3.8 million from the Dutch government with a $1.2 million grant from the European Community. He hopes to negotiate a formal affiliation with the European Molecular Biology Laboratory (EMBL)—which should fit well with new EMBL director-general Fotis Kafatos' plans to build links with labs in EMBL's member states (see p. 1740). With the Utrecht machine coming online at the same time as the x-rays from the European Synchrotron Radiation Facility in Grenoble, prospects for European structural biology look bright.

Fighting Smoking With Child Power

LARRY MULVEHILL/PHOTO RESEARCHERS

Chinese smoker. With his constant companion.

The People's Republic of China has one of the most tobacco-addicted populations in the world, with about 250 million smokers, 90% of them male, in 1984. Most are still puffing despite government efforts.

But one controlled study conducted in Hangzhou province suggests there is a powerful force out there waiting to be harnessed: kids' ability to manipulate their parents. The study began with the addition of an antismoking component to programs in 23 primary schools in the Jiangan district. Then, report doctors from the Center for Health Education in Hangzhou,* children took home antismoking literature and questionnaires for the 9953 fathers to fill out. Kids wrote letters asking their fathers to quit and kept daily charts on their dads' smoking over a 6-month period, submitting monthly reports to their schools.

The results: In May 1989, when the project started, 68.8% of the fathers in the intervention group were smokers—comparable to the rate in the 9580-father control group. By January 1990, 90% of the smokers had quit for at least 10 days. But filial pressure had a major effect on some: 11.7%, or 800 fathers, hadn't smoked for at least 6 months. Meanwhile, the quitting rate in the control group was only 0.2%.

*Reported in the 21 May issue of the Centers for Disease Control and Prevention's *Morbidity and Mortality Weekly Report.*

No Big M in the Sky (For Now)

Two months ago astronomers were hit with a scary vision of the future—searching for stars amid a litter of orbiting advertising logos. The bad dreams began when a company announced that for just $30 million it would fly an organization's logo on a space billboard.

The fuss started last April, when Space Marketing Inc., of Roswell, Georgia, said it could send up an orbiting mylar sheet of reflective material that would make a full moon-sized logo glimmer in the dusk and dawn heavens. CEO Mike Lawson called it "a tremendous opportunity for a global-oriented company to have its logo and message seen by billions of people on a history-making, 'high-profile' advertising vehicle."

The concept set off wails of protest from the American Astronomical Society, the Public Interest Research Group, the National Audubon Society, the National Consumer League, and astronomer Carl Sagan, among others. Space Marketing, in response, changed its tack to pointing up the scientific plusses of its proposal. A billboard could also improve the environment, it said, by carrying equipment to "continuously monitor the condition of the Earth's delicate protective ozone layer." And now Lawson claims that the main purpose was to get corporations to sponsor scientific research. But two scientists the company cited as having interest in the project told *Science* they wanted nothing to do with it. One, Preston Carter of Lawrence Livermore National Laboratory, says he only answered questions about the feasibility of the venture.

The company has now backed off—Lawson says he's concentrating on other projects. But Sagan says the genie's out of the bottle, and there may be other such proposals in the future. To forestall this, the Public Interest Research Group's David Hamilton says he's working on getting a bill in Congress that would outlaw advertising in space. And, he says, they hope to seek a UN Resolution to ban messages in the sky.

Newspapers Abandon Science Readers

Newspaper science sections have undergone a "sharp and sudden" decline, according to a survey published last year by the Scientists Institute for Public Information (SIPI), which noted that the number of such sections had dropped from 96 in 1990 to 47 in 1992. So early this year, they commissioned a Harris poll to find out if there was a concommitant loss in public interest. The answer? No. A telephone poll of 1250 adults reveals that 71% agree that "it makes no sense for the media to cut back on its coverage of science news." People particularly wanted more news about health and about waste treatment. But the sexes diverge in some areas. Women, for example, are keenly interested in children's health and are not crazy about outer space, while more men like reading about alternative energy sources. The survey also noted that 65% of men but only 48% of women are regular viewers of science-related TV programs.

Percent 'Very Interested' in Science-Related News

Topic	Women	Men
Dangers to children's health	80	67
AIDS research and treatment	67	52
What to do with garbage	54	50
Women's health problems	67	32
Prenatal diagnosis	58	44
Alternative energy sources	33	59
Agricultural biotech	50	38
Endangered animal species	42	46
Human brain research	45	41
Global warming	42	44
Outer space exploration	19	41
Product breakthroughs, e.g. high-speed trains	18	40
Developments in computers	16	23