RANDOM SAMPLES

edited by CONSTANCE HOLDEN

An OTA for Parliament

Britain's answer to the congressional Office of Technology Assessment, the Parliamentary Office of Science and Technology (POST)—which has subsisted on private donations during its 3 years of existence—should soon receive official backing. And none too soon: The grants that have kept it alive are set to run out next year.

POST has been turning out scientific briefings for British lawmakers since 1989, and the House of Commons Commission, a committee of senior lawmakers, has decided that Parliament should vote on whether to make POST a publicly funded agency. The vote hasn't yet been scheduled, but POST director Michael Norton is confident that lawmakers will decide to fund the office beginning in April 1993, as the measure calls for. "The case for POST has now got the support of all three parties," he says.

Moves to make POST an official parliamentary agency have been gathering speed recently, and earlier this year, a parliamentary committee recommended providing some $400,000 a year to support POST's staff of five. Norton notes ruefully that this will still leave Britain with a technology assessment office less than half the size of those in the other leading European scientific nations. But it's a beginning. "It gives us the chance to evolve into a mechanism fine tuned for this Parliament," he says.

Parkinson's Progress

What are the genes that make some people susceptible to Parkinson's disease? Attempts to answer this question have not met with much success—until now. A British research group has found that people who have a gene defect that makes them unable to produce the enzyme CYP2D6 are more than twice as likely to develop Parkinson's as the general population.

CYP2D6 is one of the cytochrome P450 family—a group of enzymes that form the body's first line of defense against toxic chemicals. As Parkinson's is thought to be induced by exposure to toxins, researchers have regarded the cytochrome P450 genes as a good place to start looking for a defect that might predispose to the disease. The CYP2D6 gene is a particularly promising candidate: The enzyme breaks down a contaminant in lab-manufactured heroin that has caused Parkinson's-like symptoms in some unfortunate drug users.

Researchers have been following this lead since the mid-1980s, but with little success. The problem: The common test used to identify people with defective CYP2D6 genes—their poor ability to metabolize a drug called debrisoquine—is unreliable with Parkinson's patients because their medication interferes with the drug's metabolism. And although a group from the University of Newcastle recently did find, with a direct genetic assay, that a particular mutant CYP2D6 gene is more common among Parkinson's patients, their sample was too small to convince many researchers.

The culpability of CYP2D6 has now been shown in a larger population. Roland Wolf from the Imperial Cancer Research Fund's Molecular Pharmacology Group in Edinburgh, collaborating with neurologists from London and Birmingham, have genotyped 229 Parkinson's patients and 720 controls. The team, which will publish its findings in the 6 June *Lancet*, found that people homozygous for mutant CYP2D6 genes were more than twice as frequent among the Parkinson's sample.

Wolf stresses that the finding won't help clinicians predict who will develop Parkinson's—only about 12% of the patients he studied were homozygous for the gene mutants. But he believes the results should help researchers pinpoint toxins that may be important risk factors.

KAREN ASIS, AAZPA

Foal control. Shooting a contraceptive-loaded dart at an Assateague mare.

Birth Control for Animals

The wild horses of Virginia's Assateague Island, descendants of livestock abandoned by 17th-century colonists, have been seriously threatening their environment by overpopulation. But now, thanks to an experimental immunologic contraceptive delivered by dart gun, they are enjoying the benefits of modern family planning: a small, stable population and plenty of resources to share.

The horses are part of a 4-year trial in which scientists are vaccinating the herd's mares with PZP (Porcine Zona Pellucida), proteins extracted from the membrane that surrounds the eggs of pigs; the raw material comes from sows killed at slaughterhouses. According to the vaccine's developer, Irwin K.M. Liu of the University of California, Davis, mammals react by making anti-PZP antibodies that prevent sperm from reaching the egg. Endocrinologist Jay Kirkpatrick of Eastern Montana College, who has been running the vaccination project, contends that with it, the pony population will be maintained at the island's carrying capacity of about 150.

The Assateague horses are part of a fast-growing trend. Thanks to advances in long-acting contraceptives, scientists say it will be possible to abandon crude methods like shooting and poisoning in favor of more humane and effective means for controlling the population of animals in both urban and natural habitats.

Kirkpatrick, for example, is also involved in an experimental project that involves using the contraceptive implant Norplant in skunks, whose proliferation in urban areas creates rabies risks and causes a lot of garbage disruption. Kirkpatrick says birth control stabilizes the population because contracepted females continue to occupy and defend their territories. "When you kill an urban skunk, another skunk simply moves in from the country to take its place."

Thinning Ranks of Researchers

What's happening to younger researchers in psychology? That's a question that has been bothering people in the field ever since 1988, when a report from the Alcohol, Drug Abuse, and Mental Health Administration (ADAMHA) showed that the proportion of ADAMHA-supported investigators under 35 had dropped from 26% to 13% since 1980. The report showed that about 95% of that decrease was among psychologists or social scientists.

The situation reflects "the graying of the investigator pool generally," says Alan Leshner, deputy director of the National Institute for Mental Health (NIMH). But that graying is particularly acute in behavioral science, where "we have potentially a very great seed corn problem," says Leshner.

The American Psychological Society (APS) and NIMH have therefore mounted a joint effort to analyze the situation and start looking for solutions, with the aid of a work group of university-based psychologists.

One obvious problem, says APS director Alan Kraut, has been the decrease in government research training grants. Indeed, the ADAMHA report found the number of ADAMHA-supported predoctoral trainees in the behavioral sciences had dropped to 250—down from 1200 in the mid-1970s.

But work group member Toni

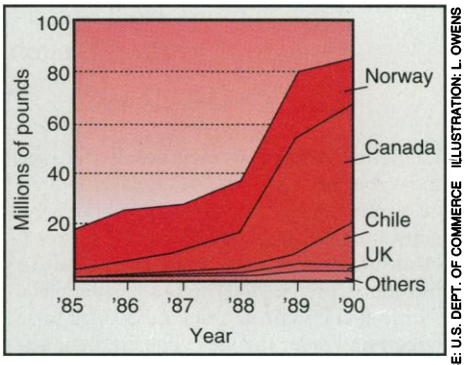
Antonucci of the University of Michigan's Institute for Social Research also points out that biology is all the fashion these days—and despite the fact that the biggest health problems require behavioral solutions, behavioral researchers have to battle "the notion that what we do isn't real science."

Kraut believes that "we are in danger of losing a generation of researchers" if measures aren't taken. He also brings up another aspect of the situation: The fact that the majority of Ph.D.s in psychology are going to women. Because of this, he says, "it is incumbent on us to create a research training system that is more in tune with the lives of women in their late 20s." That means, he says, a less workaholic atmosphere and more flexibility to accommodate family responsibilities.

A Sea Change for Aquaculture?

The farming of salmon, shrimp, clams, or other ocean species has for decades seemed an attractive alternative to depleting the world's fisheries—and Norway and Japan, among other countries, have been quick to adopt it. Congress tried to smooth the way to aquaculture in the United States by passing two aquaculture acts, in 1980 and 1985, but it never got around to appropriating any money under the laws. So although freshwater aquaculture—primarily catfish farming—is flourishing, marine aquaculture has been going next to nowhere.

Now the National Research Council (NRC), which issued an aquaculture report back in 1978, has taken another stab at the problem.* The new report's authors, headed by Robert B. Fridley of the University of California, Davis, note that U.S. per capita fish consumption is going up even as virtually all the world's major fisheries are being stressed to—or beyond—sustainable limits. But the report notes that aquaculture faces obstacles including water pollution, conflicts with other coastal activities, and laws regulating shoreline development. The NRC's recommendations include a $12 million program for R&D on "environmentally sensitive, sustainable" technologies, creation of a high-level aquaculture office in the Department of Agriculture, and revisions of laws such as the Coastal Zone Management Act to accommodate aquaculture.



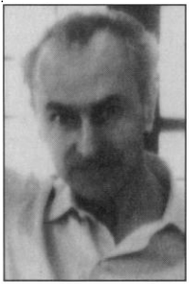
U.S. imports of fresh salmon. Virtually all non-Canadian imports are from aquaculture.

SOURCE: U.S. DEPT. OF COMMERCE ILLUSTRATION: L. OWENS

Marine Aquaculture: Opportunities for Growth, available for $34.95 plus $3 shipping from the National Academy Press, 2101 Constitution Ave. NW, Washington, D.C. 20418.

Gallo Wins One...

Yale mathematician Serge Lang, who led the movement that sank Harvard government professor Samuel Huntington's nomination to the National Academy of Sciences (NAS) in the late '80s, has now trained his sights on AIDS researcher Robert Gallo, but his initial volley appears to have missed its target. In April Lang wrote an open letter to the NAS council demanding that it review Gallo's 1988 election to the academy—a demand the academy has rebuffed.



Serge Lang

Lang, himself an NAS member since 1985, first wrote the academy in 1990 to challenge Gallo's election. In the 2 years since, Lang has made Gallo the subject of one of his famous "files"—complete reviews of the correspondence he provokes on an issue, plus copies of news clippings, that he mails to hundreds of people.

Lang noted in his April letter that the panel selected by the academy to review NIH's probe of Gallo has reportedly criticized Gallo more severely than NIH did in its own investigative report (*Science*, 8 May, p. 738). Based on news reports of the conclusions of the panel, which was headed by Yale biochemist Frederic Richards, Lang wrote that the NAS council should start "a public investigation of the merits of Gallo's nomination and election" to the academy.

Lang's proposal was discussed at a council meeting in late April and rejected without explanation, according to a brief letter signed by home secretary Peter Raven. That letter has joined the half-inch thick file Lang has been mailing to 250 academy members, government officials, and journalists. One recipient is Gallo, who, says Lang, telephoned him last month and spent 20 minutes vehemently defending himself.

Gallo is only the latest target in Lang's 25-year career as self-appointed scientific watchdog. He circulated a long-running file on David Baltimore, who recently resigned as president of Rockefeller University following the publication in *Cell* of a paper that included data allegedly fabricated by a coauthor, Tereza Imanishi-Kari of Tufts University. Lang also criticized the qualifications of political scientist Kenneth Shepsle for membership soon after his election to the academy in 1990.

Gallo is taking Lang's attack philosophically. "When you've got a man who makes a whole career of doing something like this, it doesn't really sting," he told *Science*. A spokesman for NAS president Frank Press said he would have no comment.

...and Loses One

Like many public figures caught in the spotlight of investigative scrutiny, Robert Gallo, dogged for the past 2 years by an NIH scientific misconduct investigation, has tried off and on to blame the messengers in the news media for his plight. His most aggressive effort along those lines is a libel suit he filed in French courts against Franck Nouchi, a reporter for the Paris newspaper *Le Monde*, for reporting—among other things—that Gallo "stole" a French isolate of the AIDS virus.

But the result hasn't been very satisfying for Gallo, as last month the French court threw out his suit. According to Agence France Presse, the court acknowledged that the charges Nouchi made in two articles last September—that Gallo stopped a colleague from publicly crediting the French in 1984 for the use of their viral isolate, lied about his own work, and had "stolen" the French virus—were unproven and defamatory. But, the judge said, because the reporter based his article on a draft report by NIH's Office of Scientific Integrity and acted without malice, his articles were not libelous.

At the same time, the judge threw out a similar case brought by the French researcher and Gallo collaborator Daniel Zagury, who claimed Nouchi wrote that Zagury's mid-1980s vaccine work in Zaire violated professional ethics and French rules on the treatment of human research subjects. The judge agreed with Zagury that he had not broken any rules, but decided that *Le Monde* didn't imply that he had. This legal saga may not be over, however: Gallo has hinted that he may appeal the judgment.