Briefings

edited by CONSTANCE HOLDEN

Zagury in the Clear

The all-clear has apparently been sounded for French AIDS researcher Daniel Zagury—on both sides of the Atlantic. Last year, clinical trials of HIV vaccines in infected and uninfected patients made Zagury, an immunologist at Paris's Pierre and Marie Curie University, the subject of high-powered investigations both in France and the United States.

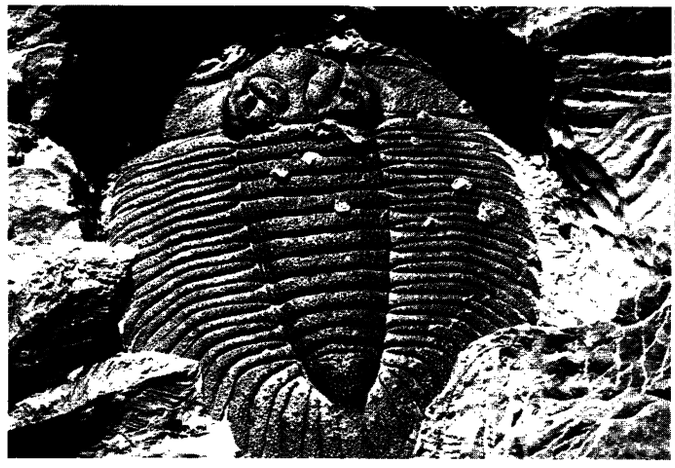
But last month France's National Medical Order rejected a complaint filed by the country's health minister, Bruno Durieux, (*Science*, 17 January, p. 280). The complaint—which could have led to Zagury's losing his medical license—claimed that his treatment of three patients, who died during one of his vaccine therapy trials, was unethical. Durieux has now announced that he will not appeal the ruling. And at the same time the National Institutes of Health says it has effectively completed its long-running investigation of Zagury, who was charged with violating regulations designed to protect patients in clinical trials.

French embassy official Pascal Chevit says Durieux has decided that further scrutiny of Zagury would serve no purpose. "Everybody was convinced that Dr. Zagury is an honest person," says Chevit. "The issues raised by NIH and the French inquiries led to changes in the way clinical research is done, [and] that was the real goal." Those changes include the fact that the French National Agency for AIDS Research now evaluates all new protocols for clinical trials. In addition, the vaccinia virus, which served as a delivery vehicle in one vaccine Zagury was testing—and was probably the cause of the deaths—can no longer be used in HIV-infected people.

Back at NIH, Charles McCarthy, director of the Office for Protection from Research Risks (OPRR), says his unit expects to issue a final report on its Zagury investigation within 2 months. He adds that it will be little different from the interim report issued last July, in which OPRR called for stricter evaluations of NIH collaborations involving human experimentation, and tighter control of NIH-supplied biological materials designed for human testing. OPRR also required that NIH establish a new intramural Office of Human Subjects Research.

Zagury's ethics first came under fire in July 1990 when *Chicago Tribune* reporter John Crewdson questioned NIH about the French researcher's collaborations with Robert Gallo and other NIH researchers.

Debut for 425-Million-Year-Old Fossil



JAMES MONTANUS/U. OF ROCHESTER

One of the world's best-preserved trilobites—a 425-million-year-old fossil arthropod—is on its way to the Smithsonian Institution after being found 2 years ago near the University of Rochester. Technician Gerry Kloc spent more than 100 hours restoring the 6 1/2-inch fossil, which apparently was buried intact while making its way along the bottom of the tropical sea that covered the Rochester area. Riding piggyback on the creature are fossils of brachiopods, shellfish that went along for food and transportation, as well as tiny organisms called bryozoans. The area around Rochester is among the world's best sites for fossils of the Ordovician, Silurian, and Devonian eras.

Sarin Indicted

Despite the ongoing investigation into Robert Gallo's role in the discovery of the AIDS virus, it's safe to say that one of his former aides is currently in more trouble than Gallo himself. On 24 January, a federal grand jury returned a four-count indictment against Prem Sarin, formerly deputy chief of Gallo's Laboratory of Tumor Cell Biology at the National Institutes of Health.

Sarin stands accused of embezzlement, making false statements to the government, and illegally supplementing his income. The indictment alleges that Sarin consulted for Lyphomed, Inc. and tested drugs for the pharmaceutical company Homburg Degussa Pharma at Gallo's laboratory, then lied about his income on financial disclosure forms. All but the illegal income charge are felonies punishable by up to 5 years in jail and fines of $250,000. The charges arose out of an investigation last year by Representative John Dingell (D–MI). Sarin rejected a plea agreement several weeks ago (*Science*, 24 January, p. 391), and his attorney has indicated he will plead not guilty.

Sarin is the second scientist from Gallo's lab to be charged with wrongdoing. In 1990, Syed Zaki Salahuddin pled guilty to two misdemeanors—accepting illegal gratuities and conflict of interest. Salahuddin paid a $12,000 fine and is now a tenured professor at the University of Southern California.

Neuro Nerves Calmed

Neuroscientists' anxiety axons rang off the hook last fall when signals emerged from the National Science Foundation (NSF) that officials there were considering dismantling and dividing up the neuroscience division (*Science*, 1 November 1991, p. 643). From all over the nation, researchers deluged Mary Clutter, NSF assistant director for Biological, Behavioral, and Social Sciences, with letters arguing against fragmentation of their field. Now, it seems, the cries of protest did not fall on unreceptive auditory neurons.

Not only has the dismantling failed to happen, but in an open letter published in the current newsletter of the Society for Neuroscience, Clutter attempts to quiet all those overworked axons. "I was impressed by [the] outpouring of support for the special role you see NSF playing in the neurosciences," Clutter wrote. Calling neuroscience "*the* integrative system *par excellence*," Clutter said it "will continue as a prominent, unified cluster of programs," within a new division of integrative biology that also contains physiology and developmental biology.

"It's much better than I had

Mary Clutter. *Olive branch to neuroscientists.*

feared," says University of Illinois neuroscientist William Greenough, one of those who lobbied NSF to keep neuroscience together. But Greenough maintains that the former division of behavioral and neural science made more sense. That division, he says, "had a kind of independence" that remains to be demonstrated in the new division, which mingles areas as diverse as neuroscience and plant biology. "Brains and behavior go together; they're dealing with the same questions," says Greenough. It's less obvious, he says, that the same is true for brains and plants.

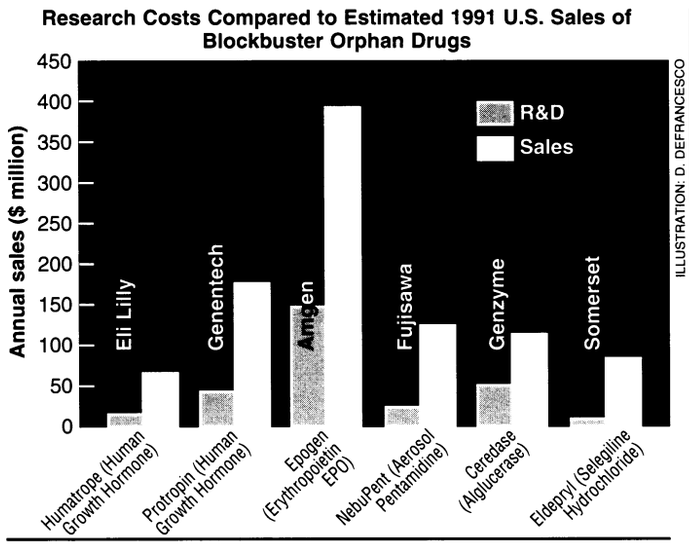
More Turmoil Over Orphan Drugs

The battle over the Orphan Drug Act was rejoined late last month when a Senate subcommittee held a hearing on alleged abuses of the law. The act gives companies incentives to develop medicines for diseases affecting fewer than 200,000 people. But critics have charged that a few biotech firms have been using the 7-year monopoly given to companies for any approved orphan drug to stifle competition and make outrageous profits.

Among the act's critics is Senator Howard M. Metzenbaum (D–OH), chairman of the Judiciary Committee's antitrust subcommittee, who called the hearing. Metzenbaum wants to address the problem with a new measure that would terminate the monopoly once sales of an orphan drug reach $200 million.

The drug industry is divided over that proposal. The Pharmaceutical Manufacturers Association and the Industrial Biotechnology Association claim that the measure would effectively kill orphan drug research by eliminating a needed incentive. Some companies also worry about the loss of protection for original research, since they say the drug patent system is ineffective.

But John Castillo, chairman of Ares-Sereno, Inc., told senators on Metzenbaum's committee that "the orphan drug law was not designed to be a welfare program for the biotech industry or a substitute for patents." And the Association of Biotechnology Companies also supports the proposed change. They argue that "true" orphan drugs would never reach the sales trigger and that the bill would merely open up competition on blockbuster drugs that would have been developed without the act.



Patient advocates are just as sharply divided as industry. While the Cystic Fibrosis Foundation testified in favor of the current act, the National Organization for Rare Disorders (NORD) has broken ranks to support Metzenbaum's bill. NORD executive director Abbey Meyers testified that outrageous prices charged by "a few greedy companies" spurred the group's change in position.

A little more than a year ago, President Bush heeded drug company objections and vetoed a similar attempt to change the Orphan Drug Act (*Science,* 16 November 1990, p. 905). This new bill may not even reach the president. Committee member Orrin G. Hatch (R–UT), who thinks the act works fine, has vowed to stop the measure.

Picture-Perfect Plankton

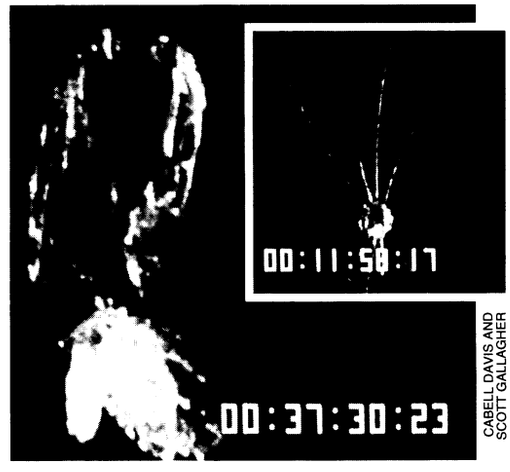
The surface layers of the ocean teem with a drifting and endlessly varied cast of minute creatures, but until recently nobody had succeeded in filming this full profusion in its natural setting. Now, though, a novel instrument, the Video Plankton Recorder (VPR), is bringing about a sea change in scientists' understanding of the critters.

Designed by biologists Cabell Davis and Scott Gallagher at the Woods Hole Oceanographic Institution, the VPR has turned plankton—which range from single-celled plants and animals up to fish larvae and jellyfish—into movie stars. Marine biologists in the past had to content themselves with specimens captured in nets or bottles. Nets risk damaging the delicate creatures, however, and neither technique tells scientists much about how the critters swim, feed, and reproduce. Nor do captive specimens reveal whether the plankton gather in small clumps or are evenly dispersed—a factor that may affect the ease with which other creatures can feed on them.

Into the breach swims the VPR, looking rather like a 4-meter-long metal lobster. At the back is a fanlike tail; from the front extend two arms, one bearing a cluster of four video cameras pointing at the other arm, which carries a strobe light. When the VPR is moored or towed behind a research ship, the strobe flashes 60 times a second. With each flash, the cameras capture freeze-frame images—at four different magnifications—of the creatures drifting between the arms.

By filming the plankton for hour after hour, says Davis, the VPR "can sample on scales from microns up to kilometers." On its shakedown cruise last fall south of Woods Hole, he and his colleagues found that copepods, tiny crustaceans that are a major food source for fish larvae, form dense clumps—a boon for hungry predators.

Just to learn that, Davis and Gallagher had to go through their movie frame by frame. But with the help of Mark Berman of the National Marine Fisheries Laboratory in Rhode Island, the group is rigging an image processing system that will watch the movie for them. At first, says Davis, the system will only indicate, for each frame, "whether there's a bug there." But eventually they hope to program the system to recognize different plankton types, so that it will be able to do a high-speed plankton census on the high seas.



Stars of the Silver Screen. *A tunicate with budding young and* (inset) *an amoeba-like sarcodine.*