

been considerably less than affluent.

Until the end of World War II the Pasteur managed to scrape along. But then pressures mounted because of the rising costs of research and competition from the increasingly efficient French pharmaceutical industry, which, incidentally, cast covetous eyes on the institute's production activities. By the end of the 1950's, it was clear that inefficient facilities and marketing practices were hobbling the production operations and that outmoded administrative machinery was breeding conflict in the research branch.

Internationally, the scientific reputation of the Pasteur was decidedly mixed at the time, but the work of Jacob, Lwoff, Monod, and others, particularly in the department of cellular biology, retained the old luster. Within the institute, the prestige of the Nobel enabled the three laureates and like-minded colleagues to tip the balance toward the major changes they argued were necessary. In addition to new leadership and organization, physical renovation was badly needed, as well as redirection of the scientific program, which sagged badly in some departments. To outsiders it was Monod who led the revolution at the Pasteur and it was Monod, in 1971 after the reformers had won the day, who was named scientific director.

Monod's stated aim was to expand the production facilities and to put them on a more profitable footing. By capitalizing on the scientific work of the institute to develop new products, he hoped to assure the long-term equilibrium of the whole enterprise. He also gave high priority to maintaining the traditional independence of the institute, which meant avoiding heavy reliance on government support and the influence that would entail.

Monod plunged into a strenuous effort at fund-raising in Europe and the United States and made some progress. In 1972, for example, there was a gift of \$1.7 million from Sir Max Raynes, a British financier, for building a new immunology lab. In the spring of 1973, the institute tapped the reservoir of goodwill toward it with *L'appel Pasteur* on French television and radio. A handsome \$5 million was raised, but the tradition of private philanthropy benefiting medical research is less developed in France than in Britain and the United States, and the financial tide was not turned.

In July of 1972, with the Pasteur's financial position still deteriorating, Monod announced a plan to set up the

production arm of the institute as a separate, private company, Institut Pasteur Production (IPP), with 100 percent of its stock owned by the Pasteur foundation. Monod became president of IPP, which meant that he took responsibility for the operation of modernized production facilities in Normandy and overhauling commercial policies.

In September of 1973, Monod went public with a gloomy analysis of the institute's financial prospects and a plan to "safeguard" the institute. Monod noted that production and sales were up but that so, disappointingly, were production costs. With inflation heating up in France, the institute's financial health was still declining.

Monod proposed a package of measures aimed at budget reductions, most notably a cut of 130 to 140 people from the staff of 750 at the "campus pastorien" and similar reductions in personnel elsewhere. He also hoped to increase income from services for which the institute was undercharging.

At this point Monod began to en-

counter serious opposition from unions which represent scientists, technicians, and workers at the institute. The rank and file tended to be resentful because he had blocked what they felt was a reasonable pay raise, and the threat of layoffs triggered trade union reflexes. Among the scientists, Monod's efforts to retire some older, less productive researchers had earned him hostility from old-timers.

During the next year—the year of the energy crisis and of accelerating inflation—difficulties multiplied. Problems with the new manufacturing facility in Normandy continued. A new and much heralded flu vaccine proved so unexpectedly costly to produce that it was wryly observed that another success like that would ruin the institute.

Last October Monod concluded that the institute would no longer be able to meet its financial obligations after May, and as a drastic recourse he recommended that the institute sell the property in central Paris and rebuild a new institute on property at Garches, some 10 kilometers southwest of Paris. Part

Briefing

Worldwatch in Orbit

Lester Brown, who has made a name for himself analyzing and publicizing the world's food, population, and economic problems, has set up a little think tank to institutionalize his approach to resolving global dilemmas. It is called Worldwatch Institute, and it is situated in Washington, D.C., across the street from the Overseas Development Council (ODC), where Brown worked until he left last fall to start the new venture.

Brown prides himself in being a "synthesizer," and he hopes Worldwatch will prove itself uniquely capable of applying interdisciplinary and anticipatory thinking to the complexities it has chosen to grapple with. His staff of eight so far includes Eric Eckholm, his coauthor and alter ego whom he brought with him from ODC, Jim Falows, a former Rhodes Scholar who was with the *Washington Monthly*, and Denis Hayes, environment and energy specialist remembered by some as the coordinator of Earth Day. Worldwatch is starting out with a project on "redefining national security," which

involves emphasizing the nonmilitary aspects of security. "OPEC [the Organization of Petroleum Exporting Countries] has a much greater stranglehold on us than the Russians ever had," observes Brown. Another project will examine the ecological undermining of food systems—by deforestation, overgrazing, climatic changes, and so forth. Various energy studies are under consideration, as is an examination of the changing roles of women around the world.

Brown, who has Ralph Nader-like work habits, wants to keep his institute small and fat-free, with an ultimate staff of no more than 20. Worldwatch's four-man board of directors, which includes Orville Freeman, Brown's old boss at the Department of Agriculture, will be expanded to perhaps 20 with representation from around the world.

So far, money doesn't seem to be a problem. The institute is being launched with a half-million dollar grant from the Rockefeller Brothers Fund, and there is money from other sources including the United Nations Environmental Program. Worldwatch expects to operate with an annual budget of about \$500,000.—C.H.