The crisis in milk bottles has been aggravated in recent years because more geneticists than ever are doing experiments on fruit flies. The principles of molecular genetics, worked out first on bacteria and viruses, are now being increasingly studied on higher organisms.

"People have been recognizing for some time that there was going to be a shortage," says Remondini. "Caltech, for instance, buys up many gross of these things whenever they find them. But everybody's starting to get worried. They're dipping into the last of their stockpiles."

Federal Review of DNA Research to Shrink

Several proposals that would substantially shrink the overview of recombinant DNA research by the National Institutes of Health were agreed to in early October by the NIH committee that authored the guidelines. If approved by the NIH director, the upshot would be that 97 percent of all recombinant DNA research will be reviewed by local biosafety committees in academia and industry. Previously, about 80 percent was reviewed by biosafety committees.

The only research to remain under federal review are projects for which containment levels are not clearly specified. "We couldn't anticipate every experiment when we wrote the guidelines," says William Gartland, director of the NIH office of recombinant DNA activities. "So there is a chunk of virology and certain host-vector systems where we will still require case-by-case NIH approval."

A related relaxation involves the NIH review of containment hardware used by industry. Although it is not required by law, most major companies voluntarily submit their work to NIH for review. If the new proposals are accepted, only the biology of large-scale industrial systems will be reviewed. "In the past we looked at the blueprints of fermenter design and wanted validation studies to show that the cells were being killed," says Gartland. "Now we're making it analogous to the academic community. If somebody says they have a P-3 lab that is certified by the local biosafety committee, then we take their word for it. That's essentially what we're doing for industry. We're turning over the responsibility for meeting containment requirements to their local biosafety committees."

Third World Science Vies for Petro Dollars

Some of the oil billions that have been marshaled by the tough bargaining of the Organization of Petroleum Exporting Countries (OPEC) are slated to be spent on the development of Third World science and technology. The question for some time has been how. One answer now seems to be emerging in Venezuela.

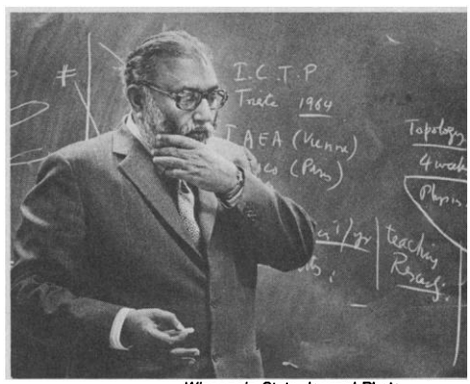
With an initial grant of $50 million, Venezuela announced in September the creation of an International Institute for Advanced Studies, a center to be located at Simón Bolívar University in Caracas where researchers from Latin America and the Caribbean will study science and technology for development. The budget after 1 year will expand to $200 million, according to Venezuelan science attaché Rogelio Valladares. To fuel this expansion, Venezuela, a leader in OPEC affairs, is currently wooing the organization for petro dollars. The president of Venezuela, Luis Herrera Campins, for example, recently made several visits to OPEC headquarters in Vienna.

Voicing their intention to fund such a center, the OPEC ministers in June instructed the Secretariat to carry out a feasibility study of an institute to "help other developing countries in forming and promoting highly qualified scientific and technological development of human resources, scientifically and socially. The institute is to be oriented and financed by OPEC Member Countries and directed towards research and development." OPEC has not officially announced a site, but many observers feel that Venezuela is a good bet.

An OPEC-funded, $200-million center for Third World science in Venezuela would mean that the United Nations, which has also been vigorously lobbying for OPEC funds, would have lost the race. The UN Conference on Science and Technology for Development, held in August 1979 in Vienna, proposed a UN-controlled fund of $250 million to build up the science-based capacity of poor countries (*Science*, 2 May, p. 475). The realities of world politics, however, made deep cuts into the rhetoric of the Vienna accords. Total pledges made in March 1980 at a UN meeting came to a mere $36 million. Until this fall, UN officials still held out hope for a sizable contribution from OPEC, but the poor performance by the developed countries seems to have squashed those hopes. The latest bout of U.S. indifference came in August when the House Appropriations Committee cut from the 1981 budget $10 million that the Carter Administration had grudgingly proposed for the UN fund. The committee says it took the action because the Administration failed to provide adequate information on the activities of the fund.

In lieu of supporting a UN-controlled fund, OPEC nations are looking into individual centers. In Rome, for example, the Arab Organization of Petroleum Exporting Countries is currently discussing a proposed Italian-Arab international institute for research on new sources of energy.

Behind much of the worldwide drive for Third World institutes is one man, Nobel Laureate Abdus Salam, who



Wisconsin State Journal Photo

Abdus Salam

runs the International Centre for Theoretical Physics in Trieste, Italy. It was Salam, for instance, who met with Venezuelan President Campins in January 1980 and talked him into starting an institute. "As we see it from the outside," says Salam, "there is a faltering will for the United States to help in these matters. We have therefore taken an initiative to get OPEC nations to undertake something along these lines."

William J. Broad