
U.S.-India Science Accords Renewed

Scientific exchange agreements have become common currency in international diplomacy—something tangible to be signed whenever heads of state get together. Thus, little attention was paid when the U.S.-India Science and Technology Initiative was launched 3 years ago during Prime Minister Indira Gandhi's visit to Washington. But the initiative, which was renewed on 12 June during the visit of her son and successor, Rajiv Gandhi, has proved to be different from the usual run-of-the-mill agreement.

For one thing, it is now receiving substantial sums of money—\$6.2 million from the U.S. side in the current fiscal year alone, and a further \$1 million from foreign currencies held by the Indian government. For another, it has been getting high-level attention from the White House Office of Science and Technology Policy.

According to a breakdown supplied by the White House, a total of \$2.75 million is being spent this year on three health programs—research on reproductive biology, infectious diseases, and links between nutrition and blindness.

Some \$2.25 million is being spent on research into monsoons, with emphasis on understanding their causes and improving short-term predictions.

And another \$2 million is being devoted to agricultural research, focusing on nitrogen fixation, biomass fuels, and more efficient use of fertilizers.

About to get under way is a fourth area of activity concerned with solid-state physics, particularly photovoltaic energy.

All four areas of cooperation were selected on the basis of a study by a joint committee consisting of scientists from both countries, and one reason why the initiative is moving along at a fast clip is that the projects tend to be both scientifically interesting and of benefit to both countries.

Renewal of the science and technology initiative was not the only science-related happening during Rajiv Gandhi's visit to the United States. Two additional joint projects were launched, one on vaccine production,

and the second a U.S. Agency for International Development-sponsored project on research and technology policy.

Gandhi was also given a briefing at the National Academy of Sciences by four scientists from U.S. industry. Howard Schneiderman, of Monsanto Corporation, described in glowing terms the potential benefits from biotechnology. Next came Ian Ross, president of AT&T Bell Labs, who described advances in microelectronics and computer science, noting that it would cost \$100 million to set up a state of the art microelectronics facility. Donald Klass of the Institute of Gas Technology then described research on biomass fuels.

Finally, Joseph Engelberger of Westinghouse Corporation demonstrated a robot that performs brain surgery. The instrument, which uses data from a CAT scan to locate a brain tumor and select the best route to drill into it, performed an operation on a dummy skull while Gandhi watched with some bemusement. In later remarks, Gandhi noted that not all Western technologies can "find a slot in our country."—COLIN NORMAN

Plans for Big Science Facilities Scrutinized

The National Academy of Sciences is scheduled to meet in September to consider conducting a study on the international sponsorship of future big science facilities. Heading the effort is Frederick Seitz, past president of the Academy and president emeritus of Rockefeller University, and Ralph E. Gomory, senior vice president for research at IBM.

The scope of the review would include not only high energy physics and astronomy, but also specialized engineering facilities such as very large wind tunnels and neutron-scattering synchrotrons. The 12-member panel will examine the advantages and disadvantages of international collaboration, says William Spindel, staff director for the Academy's Board on Chemical Sciences and Technology.

Meanwhile, Representative Don Fuqua (D-Fla.), chairman of the House Committee on Science and

Technology, has asked the Library of Congress to inventory all major science research facilities constructed since 1920. For purposes of comparison, the costs of all these projects will be shown in 1984 dollars.

And on yet another front, the Office of Science and Technology Policy, the National Academy of Engineering, the National Academy of Sciences, and the National Science Board are sponsoring a conference on 22–23 July to look at funding new research facilities at the university level. The purpose is to try to outline strategies for financing new laboratories and equipment with state, federal, and private financing. The event is being coordinated by the academies' Government-University-Industry-Research Roundtable.

—MARK CRAWFORD

Cyclamate's Safety Still Unresolved

A National Academy of Sciences committee has concluded that cyclamate by itself does not cause cancer, but raised two other concerns that leave the issue of its safety as unresolved as ever.

In a report released last week,* the committee introduced a new concern, stating there is "suggestive evidence" from laboratory studies that the artificial sweetener could be a tumor promoter or a co-carcinogen. It also said that, based on human data, a mixture of cyclamate and saccharin "may be associated with a small increase in risk of bladder cancer." This mixture is the way cyclamate would be marketed if approved.

In addition, the committee noted a long-standing concern that animal studies have linked cyclamate's major metabolite cyclohexylamine with testicular atrophy. The committee recommended that these data "would need to be considered in detail" before cyclamate were approved for broad use, but the study did not address this issue any further because it was beyond its charge.

The Food and Drug Administration (FDA), which commissioned the study, has been struggling over the approval of cyclamate for more than a

*"Evaluation of Cyclamate for Carcinogenicity," National Academy Press, 1985.