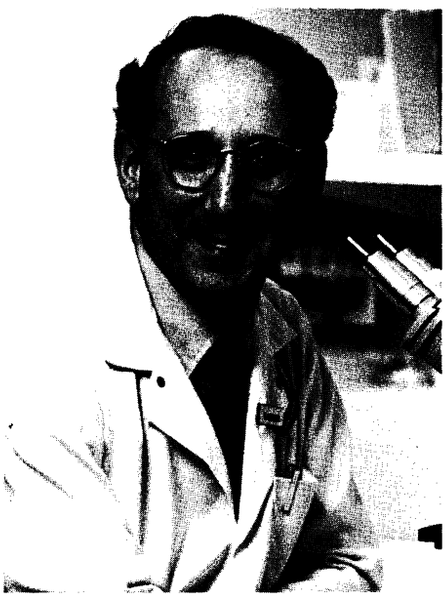

Steven Rosenberg *of NCI defends IL-2 studies as vital.*

with bone marrow grafts, now considered usual therapy for certain types of cancers.

Rosenberg says Moertel's "major error" was to look at IL-2 as a treatment now ready for wide application. "This should be likened to the early days of surgery, radiotherapy, and chemotherapy, when we were just learning how to use them and they obviously didn't have the benefits they do today," says Rosenberg. "He is misinterpreting this as a final treatment, but it was really a description of a new approach to treatment in the infancy of development."

NCI director Vincent T. DeVita, Jr., likens IL-2's stage of development to vincristine, an effective chemotherapy agent when he was a young NCI investigator in the 1960s. "I would come onto a ward of paralyzed children, because the drug paralyzed the nervous system. They were paralyzed while they were in remission from leukemia. We learned how to use that drug, and now it's given in an outpatient clinic, and kids go out and play afterward."

Furthermore, DeVita notes that Rosenberg and others who are testing IL-2 are devising ways to modify the therapeutic protocols to make subtle but important changes. "You can't make it less toxic if you don't test it," he says. "The idea that we should stop testing because it's too toxic would be to throw away a good therapy. If we had thrown away vincristine in the 1960s, we wouldn't have the cure now for childhood leukemia."

Meanwhile, Rosenberg is itching to talk about his new study of more than 150 patients he just submitted to a journal, presumably the *New England Journal.* Though he will not discuss it until it is published, he says new data justify his previous optimism about IL-2. "We have seen a considerable number of additional responders with less treatment-related mortality than from many accepted treatments for patients with metastatic cancer," says Rosenberg.

But as these leads are pursued, Moertel added in his editorial, "one would also hope that investigators will suppress the urge to publicly state or imply that a breakthrough has taken place until solid evidence exists that, indeed, there has been a breakthrough as the public would interpret it, i.e., treatment that provides either a longer or a better life for the patient with cancer."

To this, Rosenberg states that with 475,000 Americans dying of cancer every year, researchers "can't be too timid, too traditional, or too conservative because the problem is too desperate." ■

MARK BLOOM

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Landsat Commercialization Stumbles Again

Citing undue delays in the release of fiscal year 1987 funding for commercializing the Landsat system, the Earth Observation Satellite Company (EOSAT) of Lanham, Maryland, has terminated all work on the Landsat 6 and 7 spacecraft, effective 5 January 1987. Unless a compromise can be reached, EOSAT's contractors will have to reassign or lay off some 700 workers.

EOSAT, a joint venture of the Hughes Aircraft Company and General Electric's RCA Astro-Space Division, won the Department of Commerce's competition to become the private operator of Landsat in 1985. The company agreed to take over the existing Landsat 4 and 5 satellites and to develop a new generation of satellites, sensors, and ground systems. The federal government, meanwhile, agreed to pay EOSAT a subsidy of some $250 million, spread over 6 years, to aid the company in establishing a commercial market for remote sensing data.

In early 1986, however, pressure from the Gramm-Rudman-Hollings deficit exercise led the White House Office of Management and Budget to delete the fiscal year 1987 installment of EOSAT's subsidy—$69.5 million—from the President's budget request to Congress. In the end, Congress restored $27.5 million of that money and directed the National Oceanic and Atmospheric Administration (NOAA), which had been the government operator of Landsat, to carve out the rest from its other programs. At the same time, the loss of the space shuttle Challenger and the subsequent string of launch failures with expendable rockets left EOSAT's launch plans highly uncertain; Congress accordingly made the payment contingent upon NOAA's submitting a new Landsat commercialization plan for approval of both the House and Senate appropriations committees.

This led to EOSAT's termination notice to its subcontractors. The immediate problem is that Congress has still not approved NOAA's plan, which was submitted in December 1986, and EOSAT has started to run out of development funds. The more serious problem is that NOAA's plan provides for only $209.6 million in total subsidy, instead of the $250 million originally agreed upon, and calls for only one new satellite instead of the original two. (That one satellite, Landsat 6, would be launched in late 1989 aboard a refurbished Titan 2 missile provided by the Air Force.) EOSAT and NOAA are still trying to negotiate an acceptable compromise.

For now, at least, the prospects for a resolution seem reasonably good. The appropriations committees will probably give their approval to the commercialization plan in the very near future, says Thomas Pyke, head of NOAA's satellite and information service. If they do, the fiscal 1987 money will be released and EOSAT's contractors can go back to work with minimal disruption. And as for the changes in the original agreement, he says, "Both sides are still negotiating in good faith." Indeed, he says, the very fact that the White House has agreed to subsidize a one-satellite system is a significant change from last year, when the Office of Management and Budget wanted to cancel the subsidy entirely. EOSAT, however, is still pushing for a two-satellite system.

EOSAT president Charles P. Williams is hopeful that some accommodation can be reached. "We cannot lose sight of the fact that this termination is . . . a blow to the struggling new space commercialization industry in this country," he says. Nonetheless, "We are optimistic that a long-term solution to funding Landsat commercialization is possible." ■

M. MITCHELL WALDROP