

personnel." Cantlon has since retired and could not be reached, and Bredeck had no comment.

After a period of quiescence, the dispute escalated this summer when Williams learned that ElKassaby, still in MSU's graduate program, intended to publish an article based upon her work in the Sudan Project. According to Garrison and Jensen, ElKassaby thought that the data she produced were hers to use. But Williams insists that she must obtain permission from other collaborators in the Sudan Project. Not surprisingly, he and the Sudanese have reportedly refused to grant it, and now question their very validity.

Nevertheless, the university appears to be willing to allow the publication to go for-

ward, according to Williams and other observers. This posture may have caused Williams to decide to go over the university's head. Recently, he called on the police to intervene and recover the material, which he felt he could not get in any other way. But university officials informed the police there was no crime to investigate because the missing material had been surrendered to Associate Dean McCormick. He told the police they would be returned to the Sudan Project after ElKassaby has signed a legal release. This infuriated Williams, and is undoubtedly the basis of his formal charge of scientific misconduct against the university officials.

Failing to receive satisfaction from the university, Williams has also sought intervention

by NIH's Office of Scientific Integrity. This is not the first time he attempted to bring NIH into the case. Last summer, Williams tried to get the NIH institute that funded his work to investigate what he views as misappropriation of data. But in a letter dated 6 July, 1990, John R. La Montagne of the National Institute of Allergy and Infectious Diseases informed Williams that the case "falls within the jurisdiction of local law enforcement authorities and the university itself."

This logic seems to support the university actions. Vice president for research Percy Pierre told *Science* that any data produced under contract with the faculty belong to the school. Since the university now has possession of the data, officials may feel the fight over custody is moot. Pierre wouldn't say, but he forecast a resolution soon, promising to disclose more at that time.

One big loser in all this may be the Sudan Project itself. When one industry scientist says, "This is not trivial research," he has a point. The work that involved ElKassaby focused on a drug called ivermectin, recently adapted for use in humans to treat onchocerciasis, a parasitic disease in the developing world known as "river blindness" that is estimated to infect about 17.5 million people. ElKassaby had been asked to test a radioimmune assay that would detect low concentrations of ivermectin in blood and tissue. The Upjohn Company donated free of charge a testing protocol and radio labeled test chemicals. They were hoping to use the information to develop a general pharmacokinetic model for antiparasite drugs. Physicians in Mexico and the Sudan played a major role, contributing human tissue and blood samples from people infected with the worms that cause river blindness. Jensen added that it's not easy to get such material from the Sudan: "There were three coups, two civil wars, and three famines."

But now an uncivil war on a U.S. campus has shut down a laboratory that had survived all that. Williams—who won an MSU distinguished professor award in 1982 and holds the 1979 Henry Baldwin Ward medal for parasitology research—has decided to end the project at MSU after 11 years and take early retirement. He says he is "disillusioned" by the way officials failed to support his claim to data from his own lab. The grant is being transferred to Brigham Young University.

"The real losers" in this dispute, Jensen says, are the Sudanese, who made a great effort to collect the samples and whose claims "are being ignored." At the same time, some of the faculty at MSU fear that unless universities learn to handle such conflicts better, collaborative research on campus will become a risky proposition.

■ ELIOT MARSHALL

SSC Detectors: Yes, No, Maybe

This week, managers of the Superconducting Super Collider (SSC) are expected to announce which two large experiments will be given space on the machine. *Science* has learned that a group led by George Trilling of the University of California at Berkeley, the SDC (Solenoid Detector Collaboration), has been given the go-ahead. A proposal from a group called EMPACT/TEXAS, led by Michael Marx of the State University of New York at Stony Brook has been turned down. And a collaboration led by Samuel Ting of the Massachusetts Institute of Technology, known as L*, has been told to rework its proposal in response to problems identified by the SSC's Program Advisory Committee (PAC). While this news has been floating around in the high energy physics community for 3 weeks in the form of faxed drafts of the PAC's report, written after a public hearing last month (*Science*, 21 December, p. 1648), the official notification was held up until after the first of the year.

The approval of SDC was no surprise. It made use of a traditional design, employed relatively low-risk technology, and was led by a standard-bearer of the community.

The chief competition had been between L* and EMPACT/TEXAS. The latter was explicitly designed for the special high-energy, high-event rate conditions of the SSC, and introduced a new technology into high energy physics. But the PAC found the technology too risky, and worried that the collaboration—the youngest and smallest of the three—was not up to mounting an effort of the required magnitude.

Ting's L*, essentially an ambitiously scaled-up version of his current detector at CERN, also provoked doubts—but about cost estimates and the way the collaboration was structured. The group's heavy reliance on foreign contributions makes the experiment vulnerable if some fall through; moreover, the total cost was calculated to be about \$100 million higher than Ting's group had reported. L* is also heavily weighted with European physicists, and the committee wanted more involvement by leading U.S. institutions and individuals. In order to attract them, Ting will have to overcome a common perception that he is an autocratic leader.

Last week, Trilling began putting together a formal design proposal for presentation to the SSC laboratory in April 1992. Ting started to woo other institutions and physicists and to rework his cost estimates in preparation for another attempt to secure approval. Marx and other members of the EMPACT/TEXAS team found themselves faced with the choice of joining the other collaborations or mounting a smaller experiment on their own; aside from allotting \$550 million for the two large detectors, the SSC has also earmarked \$75 million for smaller experiments to be approved at a later date.

The scale of the SSC experiments has made the selection process considerably more difficult and protracted than in the past. "It's not just a lot more people, a lot more money, and a lot more time," says SSC head Roy Schwitters. "There will be a natural evolution in design and engineering between today and when the detector is built 9 years from now, so you have to make judgments far in advance, which is extremely risky. We're in a new world now."

■ ROBERT CREASE