

ing from medical physicists to solid-state theorists, and they may in fact not have much sense of themselves as a user community.

Mildred Dresselhaus of MIT, another user of the magnet lab and one of the few besides Stormer to show up for the briefing, complained that the lab has lacked adequate resources and consequently has not been able to keep up with the times "as well as we would like," though it "still is the best place worldwide if you have an experiment [requiring high fields] and want it done on schedule." All recommendations will be irrelevant if there is not adequate rapport between the head of the lab and the sponsoring agency, as there was before NSF took over the lab, she said pointedly.

Many people associated with the Bitter Lab date its troubles to when the Air Force turned over management of the lab to NSF. Unaccustomed to running large facilities, the standard complaint goes, NSF tried to "micromanage" the lab by restricting and finally eliminating the in-house core program.

But the lab is said to have had an awkward relationship with MIT even before the NSF takeover. Benjamin Lax, the lab's founder, proposed the lab to the Air Force with the support of the MIT administration in 1958, when he was in charge of semiconductor research at Lincoln Labs. It was the Air Force that insisted on making the lab a national facility and not just an MIT institute. Lax, described as fiercely independent, had to balance conflicting demands that the lab function both as a national facility and an academic research center. After NSF took over the lab's financing, demands to give the facility a national character became even more insis-

tent, and some research staff had to be let go.

The establishment of the Alcator fusion program under the aegis of the lab was a "shot in the arm," Lax feels, though the lab had some trouble integrating the program. Alcator, funded by the Department of Energy, soon had a bigger budget than the NSF-sponsored core research program. In 1976-77 the two programs were separated.

After Wolff was recruited to replace Lax in 1980-81, the lab continued to be caught between competing academic and national demands. As Wolff sees it, the lab has been a victim of "kind of a game of chicken between NSF and MIT."

When Litster was invited to succeed Wolff, he obtained assurances from the MIT administration about the future of the lab as a precondition of his acceptance. MIT is thought to have promised Litster some \$10 million toward rehabilitation of the laboratory's building, provided NSF makes an adequate commitment to the lab's equipment and staff. Kenneth Smith, MIT's vice president for research, considers an investment of \$100 million in the lab over ten years "not a crazy idea"; the lab will cost \$50 million to support over that period at the current budget level, he notes.

The key people at NSF who are thought to have made the decisions to cut the magnet lab's staff have left, and this may facilitate reconsideration of the lab's status. Richard Nicholson, assistant director for mathematics and physics at NSF, says that the future of high-field magnet facilities in the United States is "quite an important issue," which "we'll take very seriously." It may be, he says, that NSF will try to involve

other agencies, given the level of investment the Seitz-Richardson panel is proposing.

If the government makes a substantial commitment to a new magnet lab, solicits proposals for such a lab and considers them fair-mindedly, the staff members at the MIT lab are confident they will come out as winners.

"The lab still has enormous promise and potential for the country," Lax believes, and "if we're going to remain competitive, we're not going to accept a lab second to that of the Japanese or Europeans. Lax feels that his vision for the lab was fulfilled under the Air Force, but not under NSF, "which never had adequate funds to support the lab." Foner points out that the Bitter Lab has produced many practical applications, including a method for high-gradient magnetic separation used in the clay industry, a forced-flow method for making niobium-tin cable for large superconducting coils, and the high-field, high-density plasma concept developed in the Alcator program.

As a last resort the State of Massachusetts might put up some money for the sake of keeping the world's premier high-field facility in Cambridge, though nobody claims that this is to be expected. In this connection, it is perhaps not irrelevant to note that the governor of Massachusetts, Michael Dukakis, clinched the Democratic Party's Presidential nomination just as this magazine was going to press. Depending on what happens this November, that could turn out to be the best or worst of this year's political news for the Francis Bitter National Magnet Laboratory.

—WILLIAM SWEET

WILSON AND BROWN LEAVE CORNELL FOR OHIO STATE UNIVERSITY

Kenneth G. Wilson, director of the Cornell University Theory Center, and Alison A. Brown, the center's associate director for advanced computing and networking, have announced they are leaving Cornell for Ohio State University. Wilson and Brown are husband and wife. Brown was named associate director of the Ohio Supercomputer Center and the university's associate director for research computing in March. Wilson, who will take a leave of absence from Cornell, in June was named a Trustees's Distinguished Professor and a professor in the department of

physics at Ohio State.

Both Brown and Wilson have deep roots at Cornell. Brown has worked there since 1968. Wilson, who won the 1982 Nobel Prize in Physics for his application of renormalization-group theory to critical phenomena (PHYSICS TODAY, December 1982, page 17), has been at Cornell since 1963, and he became a full professor at the university in 1971.

Brown expects to have wider responsibilities as the associate director of the Ohio Supercomputer Center, and she points out that the Ohio center is a start-up, "which is always

more exciting." In addition to bringing the new supercomputer center into full operation and helping to guide research computing for the university as a whole, she will preside over the development of the Ohio Academic Research Network.

Brown is particularly interested in advanced computing with Cray computers and the UNIX operating system. The Ohio center is equipped with a Cray X-MP/24 computer and next year will acquire a Cray Y-MP. Unlike Cornell, Ohio already has UNIX. Brown also points out that the budgetary situation at Ohio is strong.