BREAST CANCER FUNDING

An Expert Panel Advises, And the Army Consents

Not everyone likes getting advice, but the U.S. Army has just received some suggestions on how to spend a $210 million windfall from Congress for breast cancer research, and it seems to like what it's hearing. Biomedical researchers will be pleased, too, since the chief recommendation is that most of the money should go to peer-reviewed work in biology and public health. That's the bottom line of a report issued last week by the Institute of Medicine (IOM), whose help the Army sought in sorting out priorities in breast cancer research.

The report isn't binding, and it's not clear whether the Army will accept all of its recommendations, which include a schedule for awarding grants and an administrative structure. But General Richard Travis, head of the Army Medical Research and Development Command and custodian of the breast cancer funds, said in a prepared statement that he was "pleased with the results" of the IOM review. That should put to rest some researchers' fears—inspired by the Army's initial plan to focus on "short-term, high-technology" projects—that the money would be used to buy mammography equipment (*Science*, 30 October 1992, p. 732).

Congress appropriated the money in October 1992, and the Army quickly turned to the IOM for advice in devising what the report calls—in Clinton-speak—an "investment strategy," as well as a peer-review system for awarding grants. The IOM put together a diverse panel that included geneticist Mary Claire-King of the University of California, Berkeley, virologist and Nobel Prize–winner Harold Varmus of the University of California, San Francisco, clinician Larry Norton of the Memorial Sloan-Kettering Cancer Center, and epidemiologist Kay Dickersin of the University of Maryland, who is a leader in the National Breast Cancer Coalition, an activist group that lobbied the funds through Congress. "People came with very different points of view," says panel chair Suzanne Oparil, a cardiologist at the University of Alabama.

In spite of their different starting points, in the end, the panel members reached consensus: 72% of the Army's breast cancer money should be spent on investigator-initiated research. Another 10%, according to the panel, should be spent on "infrastructure"—such as tissue banks, mouse breeding, and information sharing—and 13% on training and recruitment of new research talent to focus on breast cancer. Administrative costs account for the remaining 5%. In carrying out these aims, says the IOM report, the Army should avoid duplicating existing research by "channel[ing] the funds in directions that stimulate and reward innovative ideas."

But before these recommendations take effect, the Pentagon's multilayered bureaucracy has to approve them. Travis' deputy, Colonel C. Frederick Tyner, says that as soon as higher-ups give the green light, the Army will adopt a schedule similar to one proposed by the IOM report.

That will mean a busy summer. First, says the report, the Army should issue a solicitation requesting one-page "letters of intent" from grant seekers. By June, the IOM urges the Army to hire an administrator—no one in Travis' shop has experience in breast cancer research—and a 16- to 18-member advisory council to oversee the project. Then, as letters of intent arrive, the Army should set up peer-review sections in the fields represented by the letter writers. Oparil says she hopes the Army will be able to borrow some staffers "on furlough" from other agencies.

The IOM report recommends a 1 October deadline for submitting proposals. The panels will finish their reviews and give each proposal a score by January. Then the advisory council is supposed to take over, checking the winners for "program relevance" and winnowing out the finalists by 1 March. At that time, the whole cycle would begin again, by the IOM's plan, leading to a second round of awards by September. The motivation for the brisk pace? The law requires the entire $210 million to be spent by 30 September 1994.

The panel gave broad guidelines for picking winners among the hundreds of proposals that will be submitted. In the area of training, it said an important objective should be to entice talented people in other fields to redirect their interests by offering 1-year "instant sabbaticals." The IOM report suggests the Army make grants worth $50,000 to $100,000 to 50 "midcareer investigators" who would like to move into breast cancer research. For example, one panel member said, this program might persuade cell biologists to apply their specialized knowledge to improving cancer therapy.

The panel also set some general goals for spending the $151.5 million worth of research funds. In guidelines reflecting the panelists' diverse interests, including those of the breast cancer activists, the report suggests that grant applicants focus on:

- genetic, cellular, and molecular alterations that may cause breast cancer.
- risk factors at the molecular level.
- using knowledge about genetic and cellular changes in cancer patients to improve detection, diagnosis, prevention, treatment, and follow-up of breast cancer.
- the impact of risk, disease, treatment, and ongoing care on the mental and physical health of patients and their families.
- improving the delivery of health care to all women.

The panelists concluded that "the Army really wants to do a good job," Oparil says, and some members became so enthusiastic they volunteered to serve on the advisory council that will guide the spending of the $210 million. One major qualm remains: Basic researchers may become too dependent on this new funding source. In several years, when the Army funds run out, they could be "hung out to dry," says Oparil. But the panel believes that if the research on this round "turns out to be good," the money will continue to flow.

–Eliot Marshall

IOM Recommendations for Breast Cancer Research

Type of grant	Number	$ per year
Training and Recruitment	**Total: $27 million**	
University-based predoctoral programs	10	100,000
Predoctoral fellowships	50	20,000
Postdoctoral fellowships	50	40,000
Instant mid-career sabbaticals	50	50,000 to 100,000
Career development	40	50,000
Interdisciplinary meetings	—	1,000,000
Investigator-Led Projects	**Total: $151.5 million**	
New investigator awards	25	150,000
Innovative development and exploratory awards	30	75,000
Investigator-initiated, RO1-type grants	160	200,000
Infrastructure	**Total: $21 million**	
Existing cancer registries		10,000,000
Registries of high-risk women		2,000,000
DNA resources		2,000,000
Transgenic mouse husbandry		1,000,000
Tumor, cell line, and tissue banks		2,000,000
Information systems		3,000,000
Innovative shared resources		1,000,000