Klausner Follows Own Advice at NCI

After having written a prescription to improve the quality of NIH's intramural research 3 years ago, the new head of the National Cancer Institute is now implementing his recommendations

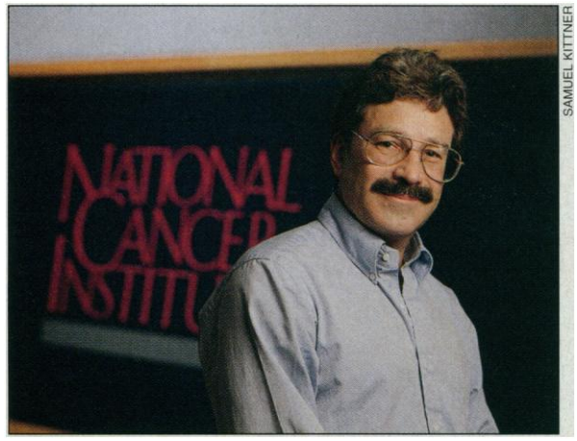
Although Richard Klausner took charge of the National Cancer Institute (NCI) just 3 weeks ago, he's already fomenting a revolution of sorts.

A cell biologist who spent the past 16 years as a researcher at the National Institutes of Health (NIH), Klausner says he plans to create something "unique" on the NIH campus—an "open" institute, "flat" in structure, in which administrators will serve lab and branch scientists, rather than the other way around. He has chosen new leaders for the top administrative posts and recruited new scientific advisers. He plans to conduct "extremely rigorous, but fair reviews" in the coming months of everything NCI supports. And these reviews, Klausner says, "will absolutely determine the allocation of resources." The scientific chiefs will be rated on "mentorship" of juniors, as well as research productivity. Klausner has declared that NCI, the largest part of NIH with a $2.1 billion budget, will undergo a complete restructuring on 1 October.

If all this weren't enough, on his fourth day in office Klausner leapt into a hot political dispute, when he joined NIH Director Harold Varmus in a letter to the president urging him to give the Food and Drug Administration authority to regulate cigarette sales. The letter calls cigarettes "devices for the delivery of an addictive drug, designed to hook the user at a young age." The signals are unmistakable: Klausner intends to be an activist leader and a champion of science, not tradition.

To his delight, Klausner says, the NCI staff is responding enthusiastically. A random check by *Science* among NCI employees and extramural scientists suggests that expectations are indeed running high at NCI, and Klausner begins his term with lots of good will. But there is also nervousness. The leadership change—which took place on 1 August when Klausner was sworn in and acting Director Edward Sondik returned to the Division of Cancer Prevention and Control—is likely to diminish some programs and some jobs, and in this environment, anxiety is "unavoidable," Klausner says. He has been meeting with staffers, "trying to make it clear that as we do all of these things, we will do them deliberately, we will do them clearly, things will be well articulated. ... I have promised the intramural community that ... people will be dealt with with due process." But he remains adamant on one point: NCI staff "must be held to the type of rigorous review that our extramural colleagues are held to."

There is also some hesitancy on the outside among clinical oncologists, who wonder if a basic researcher like Klausner really appreciates the complexities of patient care. As one member of that community said: "We've heard very good things about Rick Klausner. He's smart; he's nice; he's accessible. But he's not from the cancer world, and nobody knows him."



SAMUEL KITTNER

Rallying the troops. Richard Klausner, the new general in the $2.1 billion war on cancer.

Klausner, who's been running a cell biology lab at the National Institute of Child Health and Human Development since 1984, isn't hard to get to know. His style is informal and ebullient. He arrived for a meeting with *Science* last week straight from a press conference with the president, stripped off tie and jacket, and began talking with animation about his plans. He says he is making efforts to bridge the distance between himself and the "cancer world." For example, he had scheduled a meeting on 14 August with leaders of the American Society of Clinical Oncology (ASCO).

After that meeting, John Glick, ASCO's president and chief of the cancer center at the University of Pennsylvania, was full of praise. Klausner "has hit the ground running" with a reorganization plan that seems "eminently sensible," Glick says. "I think he not only understands the problems but will work in a collaborative fashion with various groups around the country to really solve them. ... I came away thinking we're going to see an incredibly productive time under his tenure."

One of the central challenges Klausner faces, according to Paul Marks, president of the Memorial Sloan Kettering Cancer Center in New York, is to "make all these changes in an environment of constrained resources." It's one thing to restructure an organization as it grows, but quite another to overhaul one in a steady state, as the NCI is likely to be. Marks, who chaired the search committee that recommended Klausner for this job, thinks that Klausner's plans for the agency are "totally consistent" with recommendations for intramural NIH reform from an independent panel headed by Marks and microbiologist Gail Cassell of the University of Alabama (*Science*, 13 May 1994, p. 896).

Michael Bishop, the University of California molecular biologist who co-chaired a panel this spring with Brown University clinician Paul Calabresi that proposed changes at the NCI, also regards Klausner as an "outstanding" choice to head the agency. Bishop says his panel's conclusions closely paralleled an analysis of changes needed at the NCI that Klausner laid out for the panel earlier this year (*Science*, 26 May, p. 1121). Indeed, Klausner notes that many of the themes that run through the Marks-Cassell report and the one Bishop co-chaired were set down in an earlier document known as the "Klausner report"—an internal NIH study chaired by its namesake. It took a hard look at intramural NIH science in 1992 and urged the then-chief of NIH, Bernadine Healy, to make sweeping changes (*Science*, 27 August 1993, p. 1120).

As Klausner says, "I've been thinking about these issues for a long time." Now he can put his ideas into action. Expect to see these changes in coming months:

■ *Priorities*. Klausner says doing good science will be the goal of every office at the NCI: "The institution has become very bureaucratized over the years, both in the intramural program and vis-à-vis the extramural community. That hasn't served science well, and it wastes resources and produces frustra-

Research, Education, and Iron Control

To researchers at the National Institutes of Health (NIH), Richard Klausner is perhaps best known as the man who chaired a committee in 1992 that recommended sweeping changes in NIH's intramural research program. To those involved in education reform, he is the man who finally pulled together the National Academy of Sciences' ambitious effort to develop standards for precollege science education (*Science*, 9 December 1994, p. 1637). And to molecular biologists and immunologists, he is one of the most cited researchers in their fields. The new head of the National Cancer Institute (NCI) has "always been able to do many things at the same time," says one of his co-authors, Tracey Rouault of the National Institute of Child Health and Human Development (NICHD).

Klausner Milestones

Born: 22 December 1951; New York, NY

1973	B.S., Yale University
1976	M.D., Duke University Medical School
1977	Research Associate, Harvard Medical School
1979	NIH researcher and medical officer
1984	NICHD cell biology and metabolism branch chief
1986	Meritorious Service Award, PHS
1991	Chair, Scientific Advisory Board, Ariad Pharmaceuticals
1992	Damashek Prize, American Society for Hematology
1992	Klausner report on NIH research
1993	Member, National Academy of Sciences
1994	President, American Society for Clinical Investigation
1995	Director, NCI

The trait was evident early in his career: He wrote a textbook, called *Medicine*, when he was a third-year medical student at Duke University. This compact guide is still used by many medical students, is regularly updated, and earns royalties for Klausner and co-authors. Klausner began his career in internal medicine at Duke, the Massachusetts General Hospital, and Harvard before coming to NCI in 1979 as a research associate in the mathematical biology program. In 1984 he got his own lab, becoming chief of the cell biology and metabolism branch at NICHD.

Klausner's best known research is his work on iron metabolism. He and his colleagues, including Rouault, showed that a single iron-sensitive protein can operate as an on-off switch—by binding in different ways to RNA—for two processes that increase and decrease iron availability in the cell. Klausner says he came to this project through basic studies of endocytosis, which also led him to investigate the function of T cell receptors. Lately, Klausner says, he's been collaborating with "an old friend," Marston Linehan of NCI, on the biochemistry of the *VHL* gene, a new tumor suppressor gene involved in human kidney cancer. It appears to function by transcription regulation and is analogous to the retinoblastoma gene.

Klausner says he "absolutely" intends to continue this research and to run the lab at NICHD, although he concedes it will "make for long days." Why did he give up at least part of his research to become an administrator? Because NIH is a "spectacular place," and it "could be better." He says: "I wanted to give something back."

–E.M.

tion. We end up focusing on process decisions rather than scientific discussions." Klausner was amazed to find that the NCI's top executive committee voted on fellowship extensions. That panel will be reorganized to avoid micromanagement and to include the voices of bench scientists. It will debate "what we're trying to achieve, what's going on in science, what are the new opportunities," he says.

■ *New-Age bureaucracy*. The old NCI divisions will be scrapped and new ones installed on 1 October. Scientists won't have to "climb through multiple administrative branches to get permission for things" any longer, Klausner promises. Instead, he says, the entire administrative system will be "broken down into resource teams whose function and goal will be to facilitate science." As much as possible, authority will be delegated to laboratory and branch chiefs, with review.

■ *Structural change*. Most intramural science will be grouped under two headings. One will deal with basic science, to be led by molecular biologist George Vande Woude, a contract research chief at NCI's Frederick Cancer Research Center. The other, a division of clinical sciences, will be led by NCI pediatric AIDS researcher Philip Pizzo. Extramural research will be concentrated in a new division of cancer biology, whose director hasn't been named, and a division of cancer centers, diagnosis, and treatment, headed by NCI's former medicine branch chief, Robert Wittes. Two current structures remain unchanged: the division of cancer prevention and control headed by Peter Greenwald, and the division of extramural activities led by Marvin Kalt. Alan Rabson, a former division director, becomes Klausner's deputy.

■ *Genetics*. The most exciting intramural change, in Klausner's view, will be an expansion of NCI's work in genetics. Klausner is creating a new division of cancer epidemiology and genetics, where he hopes to encourage interaction between NCI staffers and extramural scientists. It will be led by NCI staff scientist Joseph Fraumeni, "one of the fathers of molecular epidemiology," says Klausner. Klausner has persuaded Alfred Knudson of the Fox-Chase Cancer Center in Philadelphia to come to NIH this fall to help get this new division started. Klausner says he considers Knudson "one of the most extraordinary members of our community." In another change, Klausner notes, NCI will join in "lots of" cooperative ventures with the National Center for Human Genome Research, headed by Francis Collins. "Francis and I are working extremely closely on this," says Klausner.

■ *Promotions*. "This place has to be run as a meritocracy," Klausner declares. "That means that people who do well, who achieve things, will be rewarded. And people who do not will not continue to get the resources." He believes NIH is a good place for young people to begin careers, and he wants to help make it even better: "To be a lab chief in this institute will require a demonstration ... of mentorship and stewardship and support of individuals."

■ *Intramural/extramural balance*. The Bishop-Calabresi review said the NCI spends at least 18% of its budget on intramural research and that it should lower that figure. Klausner's response: "I suspect the fraction spent on intramural research is higher than I would like. ... We will be developing a plan to lower the percentage to intramural research and to raise the fraction going to extramural research" over 5 years.

■ *AIDS*. The Bishop-Calabresi panel found that a large chunk of NCI operations classified as "AIDS research" did not strictly speaking fit in this category. Klausner agrees that the panel "uncovered something that is a real problem." He says it is "stretching it" to call this work AIDS research. "I do not want to see the NCI in any way using money that is not of the color we're calling it," says Klausner. He hasn't solved the problem of the mislabeled research, but will be developing a solution "over the next few months."

These are just a few of the items that loom large on Klausner's agenda as he takes over the NCI this month and seeks to tame this research behemoth. It's an ambitious agenda, but Klausner says: "You'll just have to watch and see whether I'm true to my word."

–Eliot Marshall