MENTAL HEALTH RESEARCH

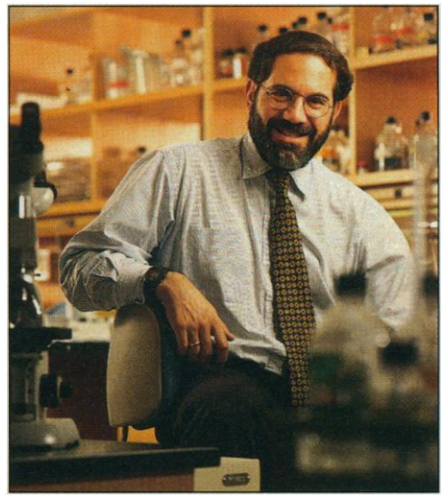
New NIMH Director Offers Institutional Stimulant

After 2 years without a permanent director, the nation's premier mental health research agency is about to get an outspoken psychiatrist and molecular biologist at its helm: Steven Hyman, 43, of Harvard University was named as director of the National Institute of Mental Health (NIMH) last week. Already Hyman has begun commuting to Washington, D.C., in preparation for taking the reins in April. And he has brought with him a sheaf of ideas for changing the way NIMH conducts its business.

Hyman discussed some of his plans and the challenges now facing NIMH in a wide-ranging interview with *Science* last week. Like other institute directors brought in by National Institutes of Health (NIH) Director Harold Varmus, Hyman plans to conduct a top-to-bottom review of NIMH's intramural program, with the help of an outside panel of advisers. He favors small research groups and says he will take a hard look at the institute's big labs—among the largest on the NIH campus. He wants to integrate genetic studies more closely with behavioral research and move away from sponsoring hunts for disease genes for their own sake. And he hopes to put more emphasis on supporting investigator-initiated grants, less on bankrolling centers.

Although Hyman acknowledges that some of these changes may make researchers at NIMH uncomfortable, scientists in the intramural program are encouraged that the job has gone to a topflight researcher. (His work has focused on how synthetic drugs and natural compounds alter gene expression in the brain's striatum.) Hyman's appointment is "definitely a turn for the better," says Daniel Weinberger, who oversees a large intramural schizophrenia project, adding that "it's been a long time in coming." Elliot Gershon, an intramural clinical geneticist, says staffers welcome having an active scientist in charge. But he hopes Hyman will scrutinize extramural programs as closely as intramural projects.

The recruitment effort began back in April 1994, when Frederick Goodwin stepped down as director, his departure clouded by a furor over his remarks linking ape behavior and inner-city violence. The first choice to succeed Goodwin, Roland Ciaranello, died suddenly in December 1994 just as his nomination was about to become official. A second search began, but it ended abruptly in April 1995 when a finalist declined the job, saying his family needed him in Boston. At that point, Varmus went back to square one, even though some mental health research advocates were arguing that it was more important to name a compromise candidate quickly than to restart the search in hopes of finding an ideal director. NIMH was then under attack in Congress, where a few critics were engaging in the old ritual of bashing eccentric-sounding NIMH research projects (*Science*, 5 May 1995, p. 632). But Varmus persisted, and today he says getting Hyman was "worth the wait."



Bold plans. Steven Hyman says he wants intramural program to "take risks."

Hyman's name was not at the top of any lobby's short list. Nor, for that matter, did Hyman initially view himself as a candidate. He told *Science*: "I had not, in my life, had a flicker of an idea that I might want a job like this." Hyman couldn't envision himself as a manager behind a desk, shuffling papers: "I am an active scientist early in my career, having a great time" in the lab. Hyman graduated with top honors from Yale University in 1974 and Cambridge University in 1976 and received an M.D. from Harvard University in 1980. He has been director of psychiatric research at the Massachusetts General Hospital since 1990, associate professor of psychiatry at Harvard, and, most recently, director of Harvard's interfaculty initiative on Mind-Brain-Behavior. With Eric Nestler of Yale, he published a textbook in 1993 on molecular neurobiology.

Still, Hyman says he was flattered last year when he received a call from Zach Hall, chief of the National Institute of Neurological Disorders and Stroke (NINDS) and a member of the search committee for NIMH director. Hall asked Hyman if he would put his hat in the ring. Hyman hesitated, for, like many, he associates government with bureaucracy and turf battles. But he came around quickly. "What really sold me on doing this," Hyman says, "was a sense that NIMH could grasp important scientific opportunities that are being made available ... by molecular genetics on the one hand and by functional neuroimaging on the other." When the search committee picked him, he accepted the job.

Among the issues and plans Hyman discussed with *Science* are the following:

■ *Intramural reform.* Hyman's first job will be to recruit new staff to fill many management slots that now stand vacant—including that of scientific director, responsible for running the intramural program. Meanwhile, at Varmus's instigation, NIMH has already launched a penetrating review of intramural science, led by Herbert Pardes, dean of Columbia University's College of Physicians and Surgeons. Pardes's committee met for the first time on 11 March. Hyman, who flew in for the occasion, says he encouraged the group to "be bold," because "if they are not, I will have to appoint a new committee." Above all, Hyman believes, intramural research needs to "take risks." He adds: "There really is too much incremental research."

■ *Smaller labs.* NIMH intramural and extramural research, Hyman says, has been deadened by the power of "guilds" that protect their own turfs: "I know this is hard, but I want to say that our goal is the best science, not to protect any particular guild." In general, Hyman says, "one often sees the very best science when the units, the number of scientists whose work is controlled by any laboratory head, is not immense. ... I think we have to address that." He likes the "programmatic focus" the big lab creates, but deplores its directed, "European" style of management, which has "outlived its usefulness." Echoing an opinion that has come up in two external reviews—one of the NIH intramural program and the other of the National Cancer Institute—Hyman says the system has "got to be much more democratic." As an afterthought, he adds, "This may terrify some people who read it."

■ *Extramural grants.* As a well-funded principal investigator himself, Hyman not surprisingly thinks that "the best research comes from investigator-initiated R01" grants. "Normally I don't like centers," he says, but because he is "worried about the existing infrastructure" for clinical research, NIMH may need to lend a hand to psychiatric centers buffeted by the winds of managed care. "I want to put together a group of people ... that would include psychiatrists and maybe even an economist" to consider how NIMH can "preserve" clinical research without trying to prop up a model that's no longer relevant—

that of inpatient psychiatry as a "profit-making business." In addition, Hyman would like to do something more to build "stable career paths for young people" in research, perhaps by focusing assistance at "the most vulnerable point"—the first grant renewal.

■ *Peer review.* One possibly disruptive change confronting NIMH in the next year is an order from Congress to merge its formerly independent peer review system with NIH's study sections. Current NIMH grantees are nervous: They fear their projects might be shut down by hostile NIH reviewers. The worst solution, Hyman says, would be to "put two mental health types" on each NIH study section. The result, he fears, would be that the NIH culture would "kill our grantees." Hyman says he hopes Varmus will give NIMH "a reasonable amount of time" to come up with a better solution; "one wants to approach this thoughtfully." Oddly enough, Hyman adds, the task of redesigning NIMH peer review is one of the things that attracted him to the job, because it offers a chance to "break down barriers" between disciplines.

■ *Improved tools.* Hyman says that the use of brain imaging, a technique that has consumed lots of energy and dollars, needs to be reviewed more carefully. He says: "A lot of clinical neuroimaging, which is done without having strong prior hypotheses about the circuitry that's involved and doesn't have any input from cognitive neuroscience, ... has led to a lot of very splashy and colorful publications." But the results don't always stand up, Hyman thinks.

■ *Molecular bogeyman.* "Because I am a molecular biologist," Hyman says, some people "are worried that I'm a bogeyman reductionist." Not so, he claims. While Hyman is enthusiastic about "serious molecular approaches" to mental health, he says NIMH should focus on "integrative neurobiology," a phrase that pops up again and again in his conversation. By this, he means researchers should plan research projects—such as a hunt for a new gene or a brain-imaging effort—in terms of how they relate to an overriding scientific hypothesis about brain function. Far from pushing behavioral research to the sidelines, he argues, this strategy would make it "absolutely critical," as a bridge between lab studies and clinical research.

As for his own research, Hyman says he intends to continue the work he's been doing at Harvard. Varmus has promised him a lab of his own at NINDS, although it is about "one-half the size of the lab I have now." Hyman admits that may create the appearance of a conflict, because he will be supervising a field in which he is also a major player. But he says, "Just watch me. See if I misuse resources." He adds: "I couldn't have taken this job at the age of 43 if I couldn't continue as a scientist: It would just kill me."

–Eliot Marshall

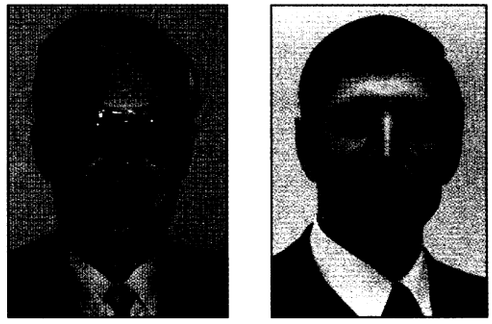
RUSSIAN PARLIAMENT

Communists Dominate Science Panels

MOSCOW—Ever since last December's elections gave the Communist Party of the Russian Federation the largest faction in the Duma, the lower house of Russia's parliament, researchers have been nervously waiting to see how their concerns would fare in this new political environment. They got a promising sign last month, when the Duma weighed in on the side of the Russian Academy of Sciences (RAS) in its battle to get the government to turn over long-overdue funds. But key politicians in the Duma itself are warning that political infighting could hamper the work of the committees that oversee science.

First, the good news. As one of its first acts, the new Committee on Science and Education initiated an emergency parliamentary debate on the RAS's funding crisis—a crisis that virtually halted research in many institutes and prompted RAS researchers to stage demonstrations on the streets of Moscow (*Science*, 23 February, p. 1052). As a result, on 17 February, the Duma passed a special resolution demanding not only that the government pay off all the debts run up by RAS research institutes, but that government officials responsible for delaying the payment of RAS's budget be prosecuted. The deputies also called on the government to initiate an urgent recovery program for Russian science, and they resolved to set up a special parliamentary body to monitor government finances and to inform the Duma of any delays or underpayments.

That good news, however, is tempered by concerns about the makeup of key Duma committees. Since the election, the new deputies have spent most of their time electing various committees and subcommittees. Most of them are now headed by Communist Party members, and eight of the 12 seats in the Committee on Science and Education are held by communists. There are also many more committees than in the previous parliament. For example, the Committee on Science and Education, having shed the responsibility for culture held by its predecessor, will now operate alongside a newly created Committee on Conversion and Scientific Technologies. And because the exact duties of this new committee are yet to be defined, it is unclear how the two committees will divide their responsibilities.



Duma duo. Science and Education Committee Chair Ivan Melnikov *(right)*, a Community Party member, and Deputy Chair Mikhail Glubokovsky, a reformist.

Mikhail Glubokovsky, a member of the reformist Yabloko faction and deputy chair of the Committee on Science and Education, expects serious conflicts. "Although the majority of the [Science and Education] committee members are eager to work constructively instead of arguing over political issues, the tendency to multiply the number of committees, and hence the number of bosses brought in by the Communists, may create serious obstacles to creative work," he says.

One particular source of worry for reformers like Glubokovsky is Viktor Shevelukha, a former member of the hard-line Agrarian Party and now a Communist Party deputy. Although he lost his seat as one of the vice chairs of the old committee, he is now chair of the subcommittee on science. Shevelukha is one of two deputies accused of tampering with the text of a law on science and technology policy last December (*Science*, 12 January, p. 139). "My relations with Viktor Shevelukha could not be called unclouded, because we have different values," Glubokovsky told *Science*. "I hate to have conflicts with him. Still, it may happen, and these conflicts could spoil the work of the committee."

A more encouraging development is the election of Ivan Melnikov to chair the Committee on Science and Education. Although a Communist Party member, Melnikov is much respected and is considered reasonable even by his political opponents. He is more optimistic about the prospects for his committee. "One cannot avoid conflicts at the very beginning, but in due time it will settle," he told *Science*. His first priority for the committee is to draw up a more coherent legal framework for the work of scientific institutes and research groups. Researchers are hoping that, under Melnikov's stewardship, the new committee's support for RAS in its funding battle won't be the last time the committee speaks with one voice on behalf of Russia's beleaguered scientific enterprise.

–Vladimir Pokrovsky

Vladimir Pokrovsky is a writer in Moscow.