

have strong records of supporting science funding. "Porter clearly identifies NIH as a priority, and he fought hard for it this year," said one lobbyist who requested anonymity. Lewis, meanwhile, was a solid backer of NASA's space station program.

The game of musical chairs is less complicated in the smaller and staid Senate. Senator Larry Pressler (R-SD) is in line to head the Commerce, Science, and Transportation Committee, replacing Senator Ernest Hollings (D-SC). Senator Arlen Specter (R-PA) is likely to chair the appropriations subcommittee that oversees health and edu-

cation funding, succeeding Senator Tom Harkin (D-IA). Both men have records of defending research funding. In addition to being committee chair, Hatfield may also oversee the Energy and Water subcommittee, now led by Senator Bennett Johnston (D-LA), which funds DOE's civilian research programs. Senator Christopher Bond (R-MO), a strong NASA supporter, would replace Senator Barbara Mikulski (D-MD) as head of the panel that handles NASA and NSF if Senators Phil Gramm (R-TX) and Alfonse D'Amato (R-NY), as expected, move to other committees.

The shifting political winds—53% of the House Republicans in the 104th Congress will have no more than 2 years' experience—make it all the more important for scientists to convey their message to Congress, say several government sources. "Science programs could be a target for cuts because people don't understand them," says one senior White House aide. "And science is not the most effective constituency for lobbying."

The Administration, meanwhile, is on the defensive. Says another White House official: "Our legislative agenda is to survive."

—Andrew Lawler

## RUSSIAN SCIENCE

### Rivals for Power Lay Down the Law

**MOSCOW**—The dissolution of the Soviet Union prompted a struggle for power in Russian science that has been raging for the past few years. The chief combatants are the ministry of science, generally perceived to be a reforming influence, and the old guard, represented by the Russian Academy of Sciences (RAS). Now that battle is set to move to a new stage: the Duma, the lower house of the Russian parliament. The Duma's Committee on Culture, Education, and Science is now mulling over three rival bills aimed at creating a new science policy in Russia. One of the bills broadly represents the positions of the ministry, another reflects the views of RAS, and the third is a grassroots document seeking to champion the rights of scientists themselves. The word on the street is that RAS is likely to be the loser in the coming battle.

Just as in the rest of Russian life, changes in the structure of science are slow in coming. RAS still runs most basic science institutes by doling out block grants provided from the state budget, although a few key institutes have been removed from the control of branch academics to become State Scientific Centers, funded directly by the ministry. And in spite of the introduction of competitive, peer-reviewed funding through the ministry-sponsored Foundation for Basic Research and programs run by Western organizations, on the whole, the science power-brokers of the Soviet era—institute directors and influential academicians—still pull all the strings.

The first of the three bills tries to tackle these power structures head-on. Presented to the Duma committee in June and produced by the Ministry of Science and Technological Policy, it elaborates basic principles for the state's scientific policy, such as the freedom to carry out scientific work, legal protection for intellectual property, free access to information, and financial support from the state for scientific institutions, as well as encouraging competition, entrepreneurship, and free-market principles in

the funding of research.

Science minister Boris Saltykov calls the draft a "framework law" which will be supplemented with a collection of more detailed laws, each covering a specific problem for the scientific community. For example, a subsequent law will deal with the management of RAS and other academies and non-profit research organizations. The law "must regulate activities of the highest ranking bodies in science, such as the ministry, the RAS, and the branch academies," says Saltykov. Under this law, the ministry would have full responsibility for science policy, and RAS would be limited to scientific matters.

RAS's interests are, however, reflected in a rival bill drawn up principally by members of the science committee of the Federal Assembly, the upper house of parliament, and supported by the Communist faction. Agricultural researcher Viktor Shevelukha, a deputy chair of the Duma committee and co-author of the bill, says it was inspired by a call from President Boris Yeltsin for the scientific community to draw up a science law that would protect the independence of Russian science and improve its world standing. The bill declares RAS and other academies the most authoritative bodies in science, specifies academicians' salaries, and limits the title of "scientist" to those with a scientific degree. The procedure for awarding degrees is identical to the existing system, and there is little provision for independent evaluation of the quality of research.

As for the interests of scientists themselves, the third draft law is described by one of its sponsors, Mikhail Glubokovsky, also a deputy chair of the Duma committee, as a scientific Magna Carta that would set science's

serfs free from their feudal lords. Drawn up by the reformist Yavlinsky faction in parliament, otherwise known as Yabloko, it has major input from scientists themselves. "By presenting its own version, Yabloko has fulfilled its pre-election promises to scientists," Glubokovsky says. Science desperately needs money, he says, but it also needs a legal basis for scientific activities, to get rid of the unlimited power of functionaries.

The Yabloko law would give everyone the right to conduct scientific research, create scientific institutions, publish results, and compete for funding. Anyone who has a scientific degree or has published at least two papers describing the results of their own research would be considered a scientist. The state is mandated to finance science from the budget, initiate and monitor federal research programs, certify researchers, and manage

the property of scientific institutions.

The three draft laws have provoked intense debate in the scientific community, and about 150 submissions have been sent to the Duma. According to biologist Nikolai Vorontsov, chair of the Duma subcommittee on science, all three were strongly criticized at a round-table debate the subcommittee sponsored in St. Petersburg in September. The ministry's law was attacked for being too vague, the Yabloko version for being too idealistic, and the Federal Assembly's bill for being too hard-line and old-fashioned. Around the end of this month, a session of the Duma will debate whether to accept one of the bills or take the best parts of each. Vorontsov predicts that the result will be a composite taken mostly from the ministry and Yabloko versions.

—Andrei Allakhverdov

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Seeking to regulate science. Science minister Boris Saltykov.

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