

RUSSIA A Painful Cure for Ailing Academy

Perched on a gentle rise above the Moskva River in Moscow's Sparrow Hills district, the 2 Russian Academy of Sciences's (RAS's) new presidium complex, twin towers crowned with ornate sculptures known affectionately as the "golden brain," is the seat of power of Russia's scientific elite. These days, however, the view from Sparrow Hills is bleak. In recent weeks, the academy has faced a forced merger, the appointment of a new overlord with no background in science, and now, a painful downsizing.

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This week, pink slips were due to go out to about 2000 of the 2500 scientists in the administrations of RAS and the two sister academies with which it is merging, according to an RAS source who requested anonymity. RAS's 483 institutes have begun assessing which of the academy's roughly 55,000 researchers will keep their jobsthough formal firings may not happen until the end of 2014. "Word of mouth is that at least 30% of staff will be laid off. Inefficient institutes will be closed or merged with others," says biochemist Yegor Vassetzky, a Russian expat at the Institut Gustave Roussy in Paris who has been in contact with colleagues back home. "People are completely panicked." Even RAS's iconic presidium complex may be at risk.

Almost everyone agrees that RAS is in dire need of reform. Founded by Peter the Great in 1724, the academy grew especially powerful during the Soviet era. After the Soviet Union collapsed in 1991, critics $\frac{B}{C}$ argued that concentrating research in RAS-

run institutes harmed university education and research. They called for RAS to shrink and evolve into an entity resembling the U.S. National Academy of Sciences, an honorific body that does not manage research. RAS's leadership successfully resisted change for 2 decades-until President Vladimir Putin this year took decisive steps that were "meted out like a punishment," says Roald Sagdeev, a plasma physicist at the University of Maryland, College Park, and former director of RAS's Space Research Institute.

Putin has said that the reforms will restore luster to an ailing scientific establishment. Others claim to see the machinations of individuals in Putin's inner circle bent on harming the academy or stripping it of its estimated \$10 billion in real estate holdings. In June, Putin's administration unveiled legislation ordering the merger of the three academies and the creation of a new Federal Agency for Scientific Organizations (FASO) that from 1 January will oversee the combined academies and their assets.

Many prominent scientists inveighed against the bill, arguing that its measures would erode rather than improve Russian science, and Russia's parliament delayed a final vote until September (Science, 5 July, p. 18). Putin invited feedback on the legislation and asked recently elected RAS President Vladimir Fortov, an accomplished plasma physicist, if he would wear two hats: as director of the merged academies and as head of FASO. After the law's enactment in September with minor revisions sparked more protests, Putin issued a 1-year moratorium on any firings or sale of RAS property holdings that would result in "irreplaceable losses."

In a surprise move, Putin did not follow through on what Sagdeev calls a "rhetorical" offer to appoint Fortov as FASO head. Putin instead in October brought in Mikhail Kotyukov, a 36-yearold specialist in finance and credit from the Siberian city of Krasnoyarsk who had risen quickly in the bureaucratic ranks to become deputy finance minister. In a 22 November interview with Poisk, a Russian science weekly, Kotyukov declared that his task is to "build a more modern economic model for Russian science," while leaving research to the scientists. "I've heard nothing bad about him," Sagdeev says, "but I don't think he'll serve any positive role."

Fortov, who will remain RAS president, has pledged to cooperate with Kotyukov. "From the beginning, Fortov has played the role of the good boy, trying to find a reasonable compromise to save the academy," Sagdeev says. That strategy failed, he says: "Putin simply cheated him." Neither Fortov nor Kotyukov could be reached for comment.

The contours of the amalgamated academy are still in flux. Sources say that many of the medical academy's 32 institutes will be transferred to the health ministry; likewise, the agricultural academy's 255 institutes may be shorn off and given to the ag ministry.

But the merged academy's flat budget in 2014 of \$2.9 billion is forcing institutes to start making hard choices about whom to support. In such a dismal environment, Sagdeev predicts, "an exodus of young scientists from Russia is unavoidable." Others contend the opposite will happen. Alexei Khokhlov, a polymer physicist and vice-rector of Moscow State University, says that a "clever winnowing" of the bloated academy "may give better opportunities for more able researchers, young researchers, and those overseas who want to come home." At least some of the crème of Russian science may thrive during the shakeup, as Putin has mandated big pay increases for influential scientists.

But for RAS's embattled leadership, the news just gets worse. Russia's state property office now says that RAS never asserted ownership rights to its complex in Sparrow Hills, the newspaper Kommersant reported on 29 November. FASO is reportedly sizing up the property for its new digs.

-RICHARD STONE

With reporting by Daniel Clery.