

RUSSIA

Tampering Allegations Stall Science Law

MOSCOW—Russia's long-awaited law on science and technological policy seems to have fallen at the last hurdle, just before it was to have been written into the statute books. The problem: Some members of the Duma, the lower house of the Russian parliament, may have altered the text of the law to change its impact after it was passed by the Duma itself. The alleged tampering came to light late last month when President Boris Yeltsin and the Council of the Federation (parliament's upper house) received copies of the law with different texts. Yeltsin has now sent the text to the procurator general for an official investigation. According to Nikolay Vorontsov, chair of the Duma's subcommittee on science, if deputies did make substantive changes to the language, the president could veto the legislation, and its passage through the Duma would have to begin again.

The legislation is an amalgamation of three rival bills put forward a year ago by the Ministry of Science and Technological Policy, the Russian Academy of Sciences (RAS), and the reformist Yavlinsky faction in the Duma. The proposed laws have been the focus of an intense debate, because the outcome could finally determine who controls Russian science. During the communist era, the Soviet Academy of Sciences was the supreme authority, and it ran hundreds of institutes where most of the Soviet Union's basic research was carried out. The RAS's status was cast in doubt by Yeltsin, however, when he created the Ministry of Science in 1991 to oversee it and other "branch" academies that sponsor research, and the RAS has railed against the ministry's control ever since.

During the first half of last year, the science subcommittee carefully crafted a single law from the three very different drafts (*Science*, 30 June 1995, p. 1844). The Duma itself debated the law twice, and in late autumn it approved a final version for consideration by the president and the Federation Council.

Deputy Speaker of the Duma Mikhail Mityukov says that after a copy of the law had been sent to the Federation Council, a group of senior RAS officials approached Duma Speaker Ivan Rybkin and asked him to make a slight change to article 6. This article defines the RAS's legal position as a state body, and hence everything it possesses—including land, buildings, vehicles, and equipment—is federal property that the RAS simply manages. As a result, phrases were added to the article that not only gave the RAS the right of "operative management and economic authority" over the property but even suggested that the RAS had the right to own it.

At a news conference on 26 December, Deputy Speaker Mityukov said that in addition to the changes to article 6, several other wording changes have also drawn criticism. Science Minister Boris Saltykov, for example, has protested changes to language governing the ownership of research commissioned by the state and carried out by defense industry contractors. Although Mityukov insists that the changes were "stylistic," Saltykov insists the new phrasing gives control of the research to the defense ministry rather than the science ministry.

The changes were approved on 12 December by Viktor Shevelukha, then acting chair of the Duma Committee on Culture, Education, and Science, apparently without informing the committee, and this version was sent to the president. Several days later, Vladimir Shumeyko, chair of the Federation Council, protested that because of these

changes the text he was given was not identical to the one in the president's office. It was this that prompted the president to order the procurator general's investigation.

The aim of the investigation is to determine whether the document was tampered with illegally, or if it was just a question of correcting inaccurate wording. Although the investigation has only just begun, accusations are already flying among Duma deputies. Mikhail Glubokovsky, who was deputy chair of the Committee on Culture, Education, and Science prior to December's general election, told *Science* he strongly doubts that in the new Duma committee he could work together with people such as Shevelukha, who belongs to a pro-communist faction. While researchers had hoped the law would soon resolve the issue of their official status and give new impetus to government funding, they now look set to remain even longer in legal limbo.

—Andrey Allakhverdiv

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MEDICAL RESEARCH

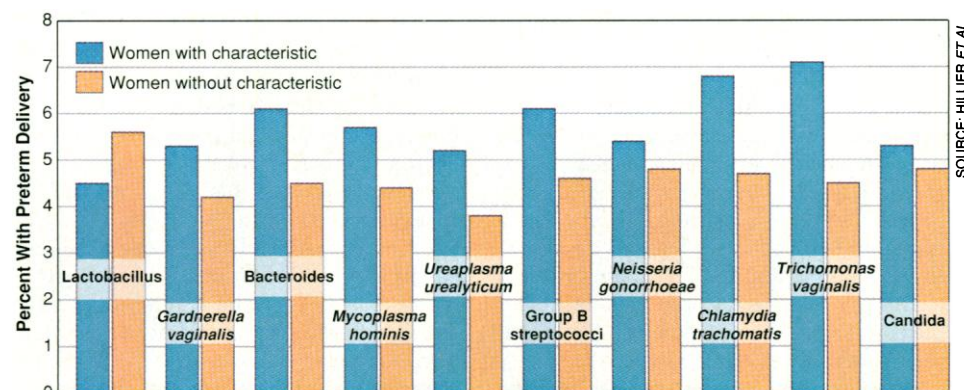
Guarding Against Premature Birth

BOSTON—Each week of pregnancy betters a fetus's chances of survival outside the womb. Babies born prematurely are 120 times more likely to die than those carried to full term, according to Roberto Romero, head of the Perinatology Research Branch of the National Institute of Child Health and Human Development. So the recent, widely reported finding that bacterial infections of the mother's reproductive tract are one cause of premature birth was welcome news. It suggested that antibiotic treatment of the mother could make a dent in infant mortality rates. But reproduction experts are divided about just what the findings mean for public health measures.

To James MacGregor, a perinatal researcher and infectious-disease specialist at the University of Colorado Health Sciences

Center in Denver, studies published 2 weeks ago in the *New England Journal of Medicine* (NEJM) imply that testing for and treating such infections should become "a routine part of pregnancy care." One of the studies, after all, showed that antibiotic treatment of infected pregnant women can reduce these women's rate of premature delivery by more than one third. But that step may not be enough. Another research group, reporting in *Obstetrics & Gynecology*, found that one of the most common agents infecting the reproductive tract is hard to eliminate during pregnancy and may require large-scale screening and treatment even before conception.

Researchers had long suspected that reproductive-tract infections played a role in prematurity. Now, in one NEJM report—the largest study to date of infection and pre-



Microbes and prematurity. When the vagina's lactobacilli are replaced by more virulent species, preterm delivery rises. All but streptococci, *Trichomonas*, and candida are found in bacterial vaginosis.

maturity—genital microbiologist Sharon Hillier of the University of Pittsburgh and 13 colleagues examined more than 10,000 pregnant women for signs of bacterial vaginosis (BV), a condition in which the benign lactobacilli normally present in the vagina are replaced by more virulent species (see graph). The researchers found that subjects who were diagnosed with BV—16% of the total—were 40% more likely than their peers to give birth prematurely, even after other risk factors such as smoking were taken into account.

These results were given added weight by the other *NEJM* study, conducted by obstetrician and gynecologist John Hauth and four co-workers at the University of Alabama, Birmingham, who looked into the effect of treating these infections with the antibiotics metronidazole and erythromycin. In a group of mostly African-American women—who have a higher-than-average risk of giving birth prematurely—the treatment reduced the rate of preterm delivery among infected women to 31%, as opposed to 49% among infected women receiving a placebo. The results imply, says MacGregor,

that BV “should be treated if identified in any pregnant woman.”

Work by microbiologist Ruth Kundsinn of the Brigham and Women’s Hospital (BWH) in Boston suggests, however, that pregnancy may be too late to start treatment. Kundsinn and three colleagues examined placentas from 647 women who had given birth to preterm, low-birthweight babies. The most common micro-organism, found in 28% of the placentas, was the sexually transmitted bacterium *Ureaplasma urealyticum*. Women harboring *Ureaplasma* in the placenta were almost 14 times more likely to have undergone premature labor, the group found.

Kundsinn concludes that overall, uterine infections with *Ureaplasma* far outweigh vaginosis as a cause of prematurity. “The vaginal flora,” she says, “are not as influential as what goes on in the uterus.” But because tetracyclines, the antibiotics most effective against *Ureaplasma*, cause defects in fetal vertebrae and teeth and therefore cannot be used during pregnancy, “both father and mother have to be screened and treated simultaneously prior to conception,” Kundsinn says.

One longtime critic of the infection-prematurity connection, Paul MacDonald, a perinatal researcher and director of the Green Center for Reproductive Biology Sciences in Dallas, isn’t convinced by these studies. MacDonald argues that they show only an association between infection and prematurity, not a direct cause-and-effect relationship. “These women may be at increased risk of preterm delivery for reasons totally independent of infection,” such as abnormalities in the fetal brain that may generate biochemical signals initiating labor prematurely, says MacDonald.

But many researchers think these studies have illuminated part of the picture, although how infections interact with other risk factors, such as ethnic background and smoking, remains unclear. Says Shirley Driscoll, former director of women’s and perinatal pathology at BWH, “To identify risk factors and to sort out which are instrumental, singly and in synergy, is terribly complex.” But, she adds, “It’s nice to see progress being made.”

—Wade Roush

FRANCE

Cancer Charity Falls Afoul of Audit Court

PARIS—The future of France’s Cancer Research Association (ARC), one of the country’s best known charities and a major funder of research, has been cast into doubt by the leaking of an official report into its finances. According to press accounts, the report, which has been passed to France’s public prosecutor, accuses ARC of spending less than one third of its income on research, and it even suggests financial mismanagement. The huge scandal this has provoked in France has also prompted a war of words between ARC’s autocratic president, Jacques Crozumarie, and senior cancer researchers. Crozumarie has threatened to wind down the charity, while Laurent Schwartzberg, a former government minister and prominent cancer researcher at the Paul-Brousse Hospital in Villejuif, told the leftwing Paris daily *Libération* that Crozumarie “believes himself the master of everything.”

Crozumarie is closely associated in the public mind with ARC. He makes televised appeals for cash, and advertisements in the press are accompanied by a signed photograph. Together with the National Cancer League, ARC has traditionally provided a substantial proportion of France’s cancer research funding. But ARC, like many medical charities, has suffered a drop in income over the past decade as many donors have shifted their generosity to AIDS research.

The Cour des Comptes, the state auditing court that investigates how public money is spent, began looking into ARC’s affairs after

reports 2 years ago that too much money was spent on administration and advertising. At the time, Crozumarie dismissed the allegations. The issue again hit the press last week when *Libération* obtained a leaked copy of the report and published some of its findings, which were later confirmed by the court. According to the paper, the Cour des Comptes said that only 27.2% of ARC’s funds, or \$25 million, was spent funding research in 1993. ARC refuted this figure in a statement, insisting that the true figure was 45%. When approached by *Science*, ARC declined to make further comment.

The court also said last week that it had passed the report to the public prosecutor’s office for possible legal action, because the report alleges that contractors to ARC, such as the public relations company handling its promotion, had “overinvoiced,” or charged well over the real price for equipment and services. The court said a mill supplying paper for ARC publicity material took a profit of 43.8% on the deal, while an intermediary added another 25.5% in commission. According to *Libération*, the court also uncovered the fact that Crozumarie had worked as a private consultant for the intermediary.

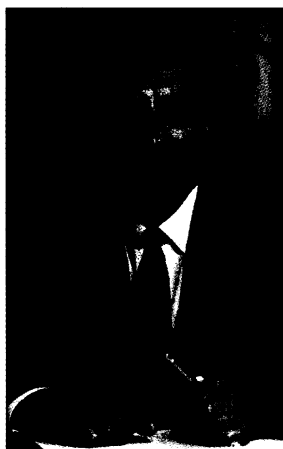
At an ARC press conference last week,

Pierre Tambourin, director of life sciences at France’s research agency, the CNRS, said the report revealed “shocking self-distribution of funds” for uses other than research. Crozumarie responded in the press by saying that he had been unaware that the company concerned had dealings with ARC. “Frankly, I feel guilty about nothing,” Crozumarie told the newspaper *Journal du Dimanche* last Sunday. “Let the justice authorities look into these stories of over-invoicing. I was not aware of them.”

At an emergency ARC board meeting held last week, Crozumarie’s authority was significantly reduced, although he retains his title. The board established a new commission—consisting of five researchers, including Schwartzberg, and a lawyer but not including Crozumarie—which will temporarily manage ARC while it prepares a reply to the court’s charges. After the meeting, Crozumarie said that ARC would not campaign for funds this year, adding that he might hand over what remains of the 33-year-old charity to the Fondation de France, an independent body that oversees large donations to research charities.

—Julian Nundy

Julian Nundy is a writer in Paris.



Eye of the storm. ARC President Jacques Crozumarie.