JAPAN

Lab Chiefs Decry Push For Strategic Research

TOKYO—Shattering a tradition of restraint in criticizing government policy, 14 current and four former heads of major Japanese laboratories have sent an open letter to Prime Minister Junichiro Koizumi, pleading for greater recognition of the value of basic research and a bigger role for active researchers in shaping the nation's research policies.

Outspoken. Japanese astrophysicist Norio Kaifu and other lab chiefs have attacked new report on research priorities.

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The lab chiefs' main target is a report issued on 11 July by the Council for Science and Technology Policy, the nation's highest science advisory body. The 12-page report recommends that the government realign its research priorities "to strengthen industrial competitiveness, invigorate the economy, [and] promote a high quality of life and a vigorous society." In particular, the council said that the budget for the fiscal year beginning next April should lean toward the life sciences, information technology, environmental studies, and nanotechnology.

The lab chiefs responded the same day, complaining to Koizumi, who chairs the council, that the report is a vote for "the short-term goal of strengthening industrial competitiveness." Such a policy would be shortsighted, they argue, because "advanced science and technology must be supported by the cultivation of basic research in a wide range of fields." The missive was drafted by Yoshiki Hotta, director-general of the National Institute of Genetics, based in Mishima; Norio Kaifu, director-general of the National Astronomical Observatory of Japan in Mitaka; and Motoya Katsuki, head of the National Institute for Basic Biology in Okazaki.

"The [report] really says very little about basic research," says Kaifu. The lab heads felt they had to speak up now to ensure that their concerns are considered as the various ministries start work on next year's budget.

Koji Omi, a career politician who was recently named to the new position of minister for science and technology policy, says the government agrees with the lab chiefs and doesn't see a gap between their concerns and the council's report. "We recognize the importance of basic science," he said at a press conference, "and those laboratory heads don't have to worry" about budget allocations.

But the lab directors aren't taking anything for granted. Hotta says the group is weighing how to be more active in influencing future policy debates. "This is the first time we have presented a request [to a prime minister], but we may do so regularly from now on," he says.

–DENNIS NORMILE

INTELLECTUAL PROPERTY

Appeals Court Clears Way for Academic Suits

Postdocs and junior faculty members generally have a tough time convincing a court to hear their grievances when they feel they've been denied a share in the financial rewards from discoveries they participated in. Now, the trip to the courthouse may have become a little easier.

In a unanimous ruling on 3 July, a three-judge panel of the U.S. Appeals Court for the Federal Circuit in Washington, D.C., removed a major roadblock facing one such claim. Patent attorneys say the ruling sets a strong precedent for similar cases. The judges also admonished universities and senior faculty members to keep their junior colleagues fully informed of intellectual property claims they file.

The court suggests that professors should disclose patenting decisions to junior staff members involved in the work.

The ruling came in a case brought by herpesvirus researcher Joany Chou, a former postdoc at the University of Chicago who is now self-employed. Chou claims that in 1990 she discovered a variant herpesvirus gene that may be useful in vaccine manufacturing. She co-authored a paper on the finding with her lab chief and mentor, Bernard Roizman, a well-known virologist at the university. Roizman and the university filed for a patent, issued in 1994, on uses of the gene. When Chou learned about the patent—in 1997, she says—she demanded to be named as an inventor. She eventually sued the University of Chicago, Roizman, and two spin-off corporations, seeking due credit and a share of profits.

Roizman and the other defendants deny Chou's allegations and argue that Roizman was the inventor. They sought to have Chou's suit thrown out on grounds that she has no legal "standing" because she can never claim to be the owner of the discovery. (Discoveries made in university labs belong to the university, no matter who the inventor is.) The Chicago federal judge who heard the case, James Zagel, agreed. He dismissed Chou's claims last year without examining the contentious details of who discovered what (*Science*, 31 March 2000, p. 2399).

But the appeals court read the law differently. In a sweeping reversal, it ruled that the law "imposes no requirement of potential ownership" on people who want to go to court to prove they are the inventor of something that has already been patented. "Chou should have a right to assert her interest, both for her own benefits and in the public interest," the court ruled. It went on to suggest that an inventor seeking legal redress of this kind doesn't even need to prove a direct financial stake. "After all," the judges said, "being considered an inventor ... is a mark of success in one's field, comparable to being an author of an important scientific paper." And that kind of interest in a patent is probably enough to get a claimant into court.

"I think this is an important decision," says Sam Pasternack, a patent attorney who handles many academic intellectual property cases at the firm of Choate, Hall & Stewart in Boston. He is impressed not only by the fact that the ruling lowers the barriers to bringing such cases to court, but also by strong language in the ruling on the "fiduciary duty" of professors and university officials. The tone, he adds, implies that the lower court in Chicago "absolutely blew it."

The university will not appeal this decision, says Larry Arbeiter, a spokesperson; it will prepare for a trial in Chicago this fall. The university has examined Chou's claims carefully, he says, and "found them wanting." Roizman's attorney, Timothy Vezeau of the Chicago firm of Katten Muchin Zavis, says Roizman "looks forward to presenting the facts in court. ... He believes that Chou's assertions against him personally are absolutely meritless."

Chou's attorney, Paul Vickery of the Chicago firm of Niro, Scavone, Haller & Niro, says "it's hard to put a number" on the exact amount Chou is seeking, although it's likely to be in the tens of millions of dollars. Vickery is handling this case through a con-

tingency agreement that will give him a share of any winnings. Right now, he wants to obtain more information on the profits made by Roizman and the university. The process of legal discovery will begin in a few weeks. –ELIOT MARSHALL

STEM CELL RESEARCH

NIH Review Outlines 'Enormous Promise'

In a comprehensive review of stem cell research, the National Institutes of Health (NIH) this week laid out its perspective on the promise and unanswered questions of the nascent field. As *Science* went to press, the report, requested by Secretary of Health and Human Services Tommy Thompson, was scheduled to be released at an 18 July Senate hearing.

A preliminary copy of the report obtained by *Science* describes a field that is full of potential but still fairly short on concrete results. It carefully outlines the differences among results in stem cells derived from adults, fetal tissue, or embryos, reviewing both published and unpublished work. But the report does not take a position on whether the federal government should fund work with embryonic stem cells—a question President George W. Bush is still trying to resolve.

Together, all types of stem cells "hold enormous promise for new approaches to tissue and organ repair," says the report, compiled by the NIH office of public policy under the direction of Lana Skirboll. Offering a dramatic example, the NIH report describes a study, still under review at a scientific journal, suggesting that pluripotent stem cells can restore mobility to the hind limbs of rats paralyzed by a virus. In this work, John Gearhart of Johns Hopkins University in Baltimore, with colleagues Douglas Kerr, Jeffrey Rothstein, and others, used a line of cells that Gearhart originally derived from the gonadal tissue of an aborted fetus. The team injected the cells into the fluid surrounding the spinal cord of rats that had been infected with the so-called Sindbis virus. The virus destroys motor neurons in the rear half of rats' bodies, damage similar to that caused by amyotrophic lateral sclerosis (ALS). Three months after receiving the injections, many of the 18 treated rats were able to walk, albeit clumsily, the report notes.

This is one of the first examples in which human pluripotent stem cells have partially corrected an animal model of disease. "The data are pretty dramatic," says Rothstein, who nonetheless cautions that they are still preliminary. Experiments are now under way in a mouse model of ALS that is much closer to the human form of the disease, he says, but they have not yet produced results.

Evan Snyder of Harvard Medical School in Boston, who has been collaborating with the Johns Hopkins team on related experiments, says the results are encouraging. He suspects that neuroprotective factors produced by the stem cells may be the reason for the recovery rather than new neurons.

Despite the experiment's promise, NIH is cautious about the potential of stem cell therapy for spinal cord injury, one of the most frequently cited applications. "Complete restoration after severe spinal cord injury ... is probably far in the future, if it can ever be done at all," the report says. Partial restoration of some functions is "a more achievable goal." –GRETCHEN VOGEL

YUGOSLAVIA

Science Goes Begging In Recovery Package

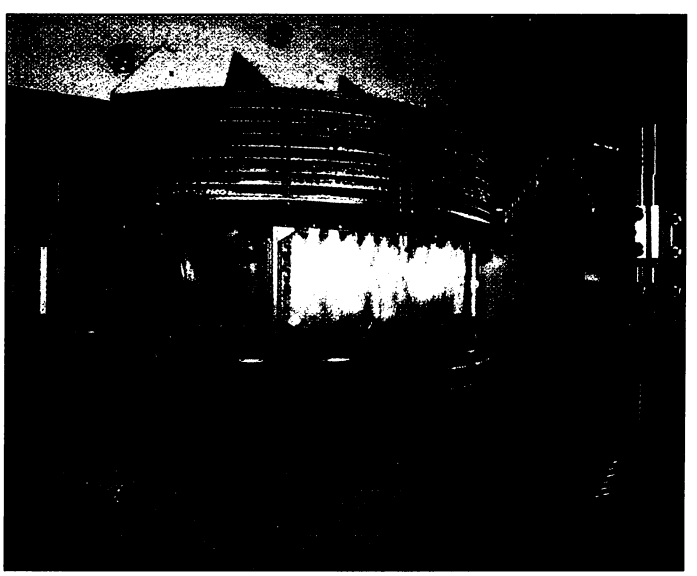
CAMBRIDGE, U.K.—The shipment last month of former Yugoslavian President Slobodan Milosevic to The Hague to stand trial as a war criminal has unleashed a flood of Western aid for the shattered country. But high hopes that some of the $1.28 billion pledged at a 29 June conference in Belgium would nourish good science have, for now, been dashed. Several Yugoslav science initiatives failed to win a slice of the pie, leaving their future uncertain.

Research has struggled along with the rest of the fragile federation of Serbia and Montenegro since Milosevic was toppled last year (*Science*, 27 October 2000, p. 690). Roughly half of the country's top scientists are thought to have left the country, and the level of outside support has been disappointing. But there have also been hopeful signs: In February, Science Minister Dragan Domazet won a doubling of his budget, to $25 million, and he was looking to extend those gains with a slice of the new money.

Instead, more than half the funds from the donors' conference, run by the European Commission (EC) and the World Bank, were earmarked for such reforms as overhauling the banking industry and tightening the social safety net. The Serbian government was allowed to dole out much of the rest (Montenegro received roughly 10% of the pot) according to its own priorities. And only one of a dozen projects—upgrading Internet connections—received the go-ahead. "We're pretty disappointed," says Domazet. "We're not getting any financial help for our scientists or labs."

One of the biggest blows was a failure to secure additional funding for a state-of-the-art cyclotron facility under construction at the Vinča Institute of Nuclear Sciences near Belgrade. Serbia has already spent $18 million building the TESLA Scientific Center, which would do everything from probing atomic structure to treating cancer patients, and the science ministry had requested $8 million to finish the job. "We are continuing the fight," says Vinča's Nebojsa Neskovic. Officials also hope to find donors to replace obsolete equipment in labs around the country and to create technology parks in Belgrade and Nis.

Although money is scarce, contacts are expanding. Serbia has inked a deal to allow a handful of scientists to work at CERN, the European particle physics laboratory near Geneva. And the EC is poised to make Yugoslav scientists eligible to compete for funds in its flagship Framework research program.



On standby. The TESLA Scientific Center's attempt to secure $8 million to finish its cyclotron and related labs has stumbled.

Domazet is also given credit for making available funds go farther. In a break with the tradition of spreading a thin budget evenly, a call for research proposals issued last month is designed to funnel money to the best labs. The idea is to force mediocre scientists in the 9000-strong workforce to upgrade their skills, change careers, or retire. –RICHARD STONE

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