

## Genetic engineering

**Rifkin wins interim injunction**

Washington

AN experiment that would have been the first to release recombinant organisms to the environment was blocked last week by a federal judge (see p. 301). Granting a motion filed by anti-genetic engineering activist Jeremy Rifkin, Judge John Sirica ordered the University of California not to proceed with the experiment of Drs Steven Lindow and Nikolas Panopoulos until a full hearing can be held on Rifkin's lawsuit, which challenges last year's approval of the experiment by the Recombinant DNA Advisory Committee (RAC) of the National Institutes of Health (NIH). RAC was also enjoined from considering other proposals for deliberate release of recombinant organisms while the case is pending.

The Lindow experiment was to have tested the ability of altered strains of the bacterium *Pseudomonas syringae* to protect potato plants in the field against frost damage. The altered bacteria have a deletion for the gene responsible for an ice-nucleating protein excreted by the wild bacteria on the leaves of plants.

Attorneys for the University of California said they would immediately appeal. According to Dr Lindow, if the experiments cannot begin this week or next, they will be delayed until the autumn, when temperatures at the test site in northern California once again drop below freezing. The experiments, originally planned for last autumn, were postponed when Rifkin threatened at that time to seek an injunction (see *Nature* 306, 349; 1983).

Sirica's unusually detailed ruling on the preliminary injunction strongly suggests that he will also find in Rifkin's favour when the hearing is held. Rifkin is claiming that NIH should have filed environmental impact statements before approving the Lindow experiment. The ruling does not affect private industry, but only experiments carried out with NIH funds. Advanced Genetic Systems has submitted a proposal to RAC for an experiment virtually identical with Lindow's which is likely to be approved at the next meeting of the committee.

Although the ruling is a victory for Rifkin, Sirica made clear that he was making no judgement on the scientific issues that Rifkin had tried to raise. Sirica's judgement says that he was deciding only "narrow legal questions" and, during last week's hearing, he repeatedly rebuffed attempts by Rifkin's attorney to present testimony from scientific experts.

If Sirica finds for Rifkin in the full hearing, the immediate effect will merely be to require an environmental impact statement, but Dr William Gartland, executive director of RAC, said that process would take a year or more. The consequences might be that investigators

would meanwhile carry out their experiments in other countries — or industry-sponsored research would proliferate.

Lindow's experiment, first considered in October 1982, was unanimously approved at the April 1983 meeting of RAC. During its brief deliberation, the committee noted that Lindow had already performed identical experiments involving chemically-mutated bacteria without ill effect and that the experimental proposal had been modified to meet earlier concern.

On both occasions, the proposals were published in the *Federal Register* for public

**Andrei Sakharov****Birthday gloom and celebrations**

New York

LAST Monday, 21 May, the 63rd birthday of Dr Andrei Sakharov, the dissident Soviet physicist now in internal exile in Gor'kii, was marked by various and diverse events. In the Soviet Union, Dr Sakharov himself, who with his wife has been on an open-ended fast since 2 May, was removed, over the weekend, to a nursing home, where he is reportedly being forcibly fed. At the same time, the Soviet media stepped up their attacks on Sakharov's wife, Elena Bonner, on whose behalf he has undertaken the fast, accusing her, in effect, of exploiting her husband. In the United States, however, the day was marked by a concert in New York's Carnegie Hall, and the conferring *in absentia* of two honorary degrees, by the Universities of Long Island and of Pennsylvania.

The concert and the degree ceremonies were, of course, planned long ago. Nor is this the first time that Sakharov has received an honorary degree. Moreover, some of the formal speeches placed relatively little emphasis on the current plight of Sakharov and his wife, but delivered very much the same message on the scientist's responsibility to society as they would otherwise have done.

Sakharov's physicist colleagues, however have responded to the latest events. Last week, 36 members of the US National Academy of Sciences (of which Sakharov is an honorary foreign member), including 13 Nobel laureates and the presidents of the American Academy of Arts and Sciences and the American Physical Society, sent a cable to the Soviet leader, Konstantin Chernenko, stressing their "deep concern" and saying that the death of either Sakharov or his wife would create "very severe and long-lasting damage to efforts to maintain and to improve collaboration and cooperation with our Soviet colleagues". A "humanitarian act to save the Sakharovs", rather than "the creation of martyrs" is, they urge, "surely the common concern of all".

comment; none was received on either occasion. According to Sirica's ruling, NIH made two mistakes in handling the matter. First, they failed to prepare a "programmatic" environmental impact statement in 1978, when the guidelines were modified to permit deliberate-release experiments at the NIH director's discretion.

Second, they failed to carry out even an "environmental assessment" of the Lindow experiment. Sirica rejected the US Government's argument that RAC's deliberations constitute an environmental assessment, saying he was "confident that the plaintiffs have identified several areas of plausible environmental concern which are not rebutted on the record before this Court".

Stephen Budiansky

The Soviet view, however, is that they are *not* creating martyrs, but forestalling an anti-Soviet plot. Adequate treatment for Mrs Bonner's heart condition is, they say, available in the Soviet Union. Her demand to go abroad (the repeated refusals of which triggered the fast) is, according to TASS, the official Soviet news agency, only so that she might become "one of the leaders of the anti-Soviet scum on the payroll of the Western special services".

As early as 4 May, TASS described a scenario in which "with the participation of American diplomats... Sakharov would declare another 'hunger strike' while Bonner would receive 'asylum' in the US Embassy in Moscow" for the purpose of meeting foreign correspondents and "for the transmission abroad of slanderous fabrications about the Soviet Union. This 'operation', TASS claimed, was "frustrated" by the "timely measures taken by the Soviet law-enforcement agencies".

The US Embassy in Moscow and the State Department in Washington immediately denied any US involvement in such a plan. Last Saturday, however, the *New York Times* quoted unnamed State Department officials as admitting that Sakharov had appealed to the embassy to shelter his wife during the fast but that, since the embassy had not received Sakharov's letter until after Mrs Bonner had left Moscow for Gor'kii, they had not discussed either the appeal or the fast with her. The same issue of the *New York Times* also carried a story, originating from Jean Daniel, editor of the Paris weekly *Le Nouvel Observateur*, claiming that there had been "indirect" approaches from Soviet diplomats suggesting that the Sakharovs would be allowed to leave the Soviet Union if President Francois Mitterrand of France called for a halt to the deployment of medium-range nuclear missiles in Western Europe by the North Atlantic Treaty Organization (NATO).

Vera Rich