

## A letter to Leonid Brezhnev. . .

Secretary General of the Communist Party  
and President of the Council of the Supreme Soviet,  
Leonid Brezhnev, Moscow, Kremlin

Sir,

We have followed with great interest your remarks in the press and on television, on the occasion of your latest visit to Bonn, expressing your concern for the maintenance of world peace. This concern is shared by all responsible and thinking people throughout the world, independently of their ideological differences, and we stand with you in your desire to preserve humanity from destruction.

At the time of your visit, however, we were shaken by the news that your country's Nobel Peace Prizewinner, Prof. Andrei Sakharov, and his wife, Yelena Bonner, had embarked on a hunger strike of unlimited duration. The ensuing response of the Soviet government, averting the danger to the Sakharovs' lives, was seen by the entire world as an act of humanitarianism. Indeed, we recognize in your government's action an important contribution to détente, a regard for human rights being basic to and inseparable from the search for peace.

The awarding of the Nobel Peace Prize to Andrei Sakharov acknowledges that he engaged himself unequivocally in the interests of world peace, independently of his successes in physics. This recognition of Prof. Sakharov is a tribute also to all our countrymen who, like our own, are filled with the sincere desire for the peaceful coexistence of all nations following the dreadful sacrifices of the Second World War.

In January 1980, Prof. Sakharov was exiled to Gorky, without benefit of a court trial or having been sentenced.

As members of the international scientific community, we feel we cannot ignore the circumstance that Prof. Sakharov, in his two years of exile, has been unable to carry out his scientific work. We see here a clear threat to the freedom of scientific endeavour, and indeed to the freedom of the human spirit.

We therefore appeal to you to accede to Sakharov's repeated request for a full trial, or to allow him to return to his work at the Soviet Academy of Sciences.

Prof. Dr. Gabriele Taugner

An English translation of a letter which was sent on 29 December last year to Soviet leader Leonid Brezhnev and signed by 136 scientists at the University of Heidelberg, West Germany.

have written that has had any effect at all; those of us who think NIH has been dismantling the guidelines too fast still feel as strongly as ever, but we see no evidence that anyone listened to what we were saying", says Dr Susan Wright of the University of Michigan.

Most of the letters received by NIH's Office of Recombinant DNA Activities from individual members of the scientific community, commenting on the two published proposals, support the more radical revision, which would make the guidelines voluntary. This support, the apparent waning of public concern over the potential hazards of recombinant DNA research, legislative efforts to spur the commercial application of genetic engineering, and the anti-regulatory leaning of the Reagan Administration appear to favour a move towards less control.

The single factor which could prevent this, however, is a resurgent militancy in communities in different parts of the country, particularly where new debates about the safety of the research have been triggered by the ambitious plans of the genetic engineering industry.

Both the Boston Biohazards Committee and the Cambridge Biosafety Committee, for example, have written to NIH expressing their opposition to any move that would make the guidelines voluntary.

In California, the state assembly's health committee has recently held two hearings on the growth of biotechnology companies in the state and the current status of federal safety regulations. The chairman of the committee, Mr Art Torres, says he would consider introducing legislation enforcing the guidelines if NIH made them voluntary.

With a large proportion of the nation's genetic engineering research taking place in California, threats of state legislation are

not being treated idly by NIH. In the past, university scientists have made strenuous efforts to prevent Congress from enacting legislation that would turn the NIH guidelines into broad legal requirements; indeed, this has frequently been the motivation behind NIH's agreement to accept tougher restrictions on the research than it would have liked. **David Dickson**

### Lead additives in petrol

## New offensive

A well-organized campaign to persuade the British government to ban lead in petrol was launched in London last week. The Campaign for Lead-free Air, or CLEAR, claims already to have 130 Members of Parliament, 8 national organizations concerned with environmental and health matters and 21 scientists and clinicians who are convinced by epidemiological studies or their own clinical experience that low blood lead levels harm the mental health of children. The chairman of the campaign, Mr Des Wilson, is a seasoned campaigner whose organization to put forward the case of homeless people, SHELTER, was prominent in the late 1960s.

Lead in petrol has been in and out of British politics since 1980 when a working party under Professor Patrick Lawther found no conclusive evidence that low concentrations of lead in the blood are detrimental to health or that lead in air is a major contributor to increased blood lead concentrations. In the light of the Lawther report, the government's decision last May to reduce the lead content of petrol from 0.4 to 0.15 grammes per litre by 1985 was a surprise.

CLEAR's objectives are to persuade the government to introduce the reduction

earlier than planned and to pass legislation requiring all new cars sold in Britain after 1985 to run on lead-free petrol. The pressure group will also be pressing for a lower excise tax on lead-free petrol and for it to be on general sale by 1985 at the latest.

The campaign, which has received some money from its trustees, hopes to raise £250,000 mainly from public donations. Some of the money will be spent on public education and monitoring the government's programme to reduce lead pollution. The plan is to send out teams to investigate, for example, the effectiveness of the government's programme to increase public awareness of the hazards of lead in old paint and whether car manufacturers are following government instructions to reduce the amount of lead in solder. CLEAR also hopes to support academic research on the effects of low lead levels in the body and to monitor the level of lead in air.

At the launch last week, the organizers described two recent studies implicating low levels of lead in the body as harmful to health. D.A. Otto and colleagues in California, whose study was published in *Electroencephalography and Clinical Neurophysiology* 52, pp.229-239, claim to have found a link between abnormalities in the electroencephalograms of sensory stimulated children aged 1-6 years with blood lead levels as low as 150 microgrammes per litre. Dr Fraser Alexander, a paediatrician from Newcastle and a member of CLEAR's scientific and medical advisory committee, reported his as yet unpublished study implicating low blood lead levels in pregnant women with malformation of the fetus. **Judy Redfearn**

### Satellite communications

## Up for grabs

Washington

It seemed a good idea at the time; the RCA Corporation, besieged by more than 50 potential customers eager to lease space on its latest telecommunications satellite, Satcom-IV, successfully launched last month, had previously held a public auction for bids to lease seven separate transponders (frequency-shifted radio relays). The response was even better this time. With the auction being held in the Manhattan Galleries of Sotheby Parke Bernet, it attracted a flood of national publicity; the transponders were sold at between \$10.7 and 14.4 million for leases that run until 1988, resulting in a total sale of more than \$90 million dollars.

It was a bit too good to last. On Thursday the Federal Communications Commission (FCC) ruled that the auction was illegal, since it resulted in different prices for leases being paid by different buyers, in violation of federal regulations which require no discrimination. As a result, negotiations with the seven successful bidders have been suspended

until a new way of allocating the leases has been worked out.

However, FCC did not rule out the auction idea completely, and has invited the company to make alternative proposals for selecting bidders that would not contravene federal regulations. One is that sealed bids should be invited, and leases awarded to the seven highest bidders at the price offered by the lowest of the seven.

The dispute between RCA and FCC over how to allocate the leases reflects a gradual shift in attitudes towards the regulation of access to telecommunications satellites. In the early 1970s, when the satellites were first coming into service, the federal government introduced strict regulations to prevent manipulation of the market.

In practice, this goal has been achieved through classifying companies such as RCA which launch the satellites as "common carriers" which are required to offer leases on their transponders on a first-come, first-served basis at prices that are strictly regulated by FCC. The procedure has been effective in protecting smaller users from being squeezed out of the satellite communications market; it has also made it difficult for companies to stockpile transponders, even if they have no immediate need for them, in order to exclude their competitors.

Recently, however, concern has been growing about speculators who have bought leases at the regulated prices and resold them at a considerable profit. In addition, the growth of available space on satellites has led the industry to argue that tight federal regulation is no longer needed. The cause of deregulation of the telecommunications satellite industry has also been embraced by the members of FCC, which in a 7-0 vote last week agreed to publish for public comment new rules which would allow companies operating satellites to negotiate sales directly with private customers.

Satcom IIIR, launched successfully from Kennedy Space Center in November, contains 24 transponders, eight of which were reserved for those who had bought space on the ill-fated Satcom III which failed to go into orbit after its launch in December 1979.

Both Satcom IIIR and Satcom IV are dedicated to use by cable television companies. The satellites are intended to transmit programmes to local television operators, which would then distribute them to individual homes. Since an antenna can only pick up signals from a single satellite at any one time, the companies have been keen to band together rather than lease space on other commercial satellites, such as Westar 1 and Comstar D2.

Among the companies which will have to renegotiate the transponder leases with RCA is RCTV, a joint venture of RCA and the Rockefeller Center Inc., which has announced ambitious plans to distribute

## Cashing in now

British Telecom, exercising its right under last year's Telecommunications Act to form partnerships with commercial enterprises, has launched a company to exploit spin-off from research at its laboratories at Martlesham Heath, Suffolk.

The plan is to set up small venture companies to exploit ideas, although patents may be available under licence to existing manufacturers. The new company, Martlesham Enterprises, has been set up with £250,000 of issued ordinary share capital, the shareholders being British Telecom (30 per cent), Electra Investment Trust (25 per cent), Lazard Brothers (20 per cent), Raeburn Investment Trust (managed by Lazards) (20 per cent) and Thompson Clive and Partners (5 per cent).

Research at the Martlesham Heath laboratories covers optical fibres, semiconductors, video-phones, slow-scan TV, speech synthesis and public viewdata systems. Martlesham Enterprises has already identified five ideas which could form the basis for new manufacturing companies, but so far only one of them, a new materials process for semiconductors, has been developed to any significant extent.

Martlesham Enterprises plans to hold a financial interest in new operating companies, giving its shareholders first option to put up new capital. Attractive terms are to be offered to inventors who leave the laboratories to help set up new companies. Interest on profits will, as normal, return to the shareholders. It is hoped that the operating companies will grow to the point where they can be launched publicly, when Martlesham Enterprises will decide whether to retain a financial interest or dispose of them.

**Judy Redfearn**

entertainment programmes through cable television. The company has already agreed to buy the first rights of British Broadcasting Corporation programmes for transmission in the United States.

Meanwhile, in a separate move illustrating the social and political possibilities being opened up by satellite telecommunications technology, four labour unions have joined with the American Federation of Labor/Council of Industrial Organizations to arrange for the broadcast over public television of two films on safety and health whose distribution had been suspended by the Department of Labor's Occupational Safety and Health Administration. The unions have made use of a 1978 amendment to the 1934 Communications Act which allows groups outside public broadcasting to rent time on one of the four transponders which the Public Broadcasting Station (PBS) leases on the satellite.

**David Dickson**

## Technical change in France

# Central theme

The French government is to set up a centre for social and systems research on science and technology, inspired to some extent by the Brookings Institution of Washington and, in Britain, the Technical Change Centre in London and the Science Policy Research Unit (SPRU) in Sussex. But in the Paris institution there will be a difference: it will be strictly linked to, and under the direction of, the Ministry for Research and Technology, and will thus lack the political independence of its models.

The Center for Advanced Technological Systems Study (CATSS), to use its Americanized name, (CESTA, Centre d'études des systèmes et des technologies avancées, in French) should be in full swing by 1984 with a budget of around 40 million francs and a staff of 40 "scientists and engineers".

The creation of CATSS is the immediate result of a report to Prime Minister Pierre Mauroy by Dr Joël de Rosnay, director for research applications at the Institut Pasteur (where Francois Gros, science adviser to the Prime Minister, was until recently director). De Rosnay recommended that a centre like CATSS be established "to study the industrial, social and cultural change induced by advanced technological systems (such as micro-electronics, biotechnology, robotics and solar energy)".

The questions are political and involved, the report notes, and it claims that in France "there are traditional difficulties" in thinking in terms of complex systems and networks. CATSS must overcome these difficulties.

As a government agency in a government devoted to industrial development through technology, CATSS may find its emphasis lying more frequently on innovation strategy in key industries than on social impact *per se*. The emphasis of the report is on missed, or botched, industrial opportunities: Concorde, an "indisputable technical success" marred by a failure to anticipate economics, competition and environmental impact; microelectronics, insufficient in France because opportunities to develop liquid crystals and integrated circuits were not taken up; and biotechnology, limited by the lack of researchers and engineers trained in the life sciences.

Despite its government links, the centre will be open to scientists, industrialists, union leaders, parliamentarians and local politicians. It will also collaborate with outside institutions (including, perhaps, Brookings, SPRU and the Technical Change Centre).

CATSS will have a strong training function as well as undertaking research, experimenting with new educational technology and communications systems,