

CORRESPONDENCE

Space Research

SIR,—May I as one of the founder members of the European Space Research Institute (ESRIN) at Frascati, Rome, thank you for bringing to the attention of your readers the dangers facing that institute. A proposal to close the institute was accepted as part of the basic plan for the future programme by the council of ESRO of July 14 subject to definite adoption in November. This action has been widely considered as a setback to the cause of European scientific collaboration.

This situation is of importance at this moment when there is a probability of growing collaboration in Europe and I would like to consider it in the light of Professor Sir Brian Flowers's recent article in *Nature* on "Science and the Common Market". In this article he proposed five criteria for successful collaboration in science. For brevity I shall paraphrase these five criteria as follows: (a) the need to establish a scientifically viable institute; (b) that the institute should have a part to play in European science; (c) that it should be supported wholeheartedly by the collaborating nations.

Let me now consider to what extent ESRIN has satisfied these criteria. Those of us who worked together to build ESRIN believed that there was a need for a European institute devoted to space physics and that ESRIN could fulfil that need despite the severe restriction imposed on it that any direct participation in satellite or rocket experiments was precluded. The contributions

made to the field of space physics are exemplified by the following: theoretical studies of the magnetosphere, laboratory simulation of magnetospheric and ionospheric phenomena, collaboration in European experiments on gravitational waves and in design of a cosmological satellite experiment; studies of the solar corona with reference to heating mechanisms and spectroscopic observations; development of a high resolution laser scattering technique for atmospheric studies; design of a new high aperture, high resolution electrostatic spectrograph for particle analysis in the ionosphere and of novel multichannel recording systems (patented); and so on.

I believe that the breadth and depth of these contributions indicate that in less than three years of full operation ESRIN has achieved a high degree of viability. Perhaps this is best demonstrated by the fact that protests against the proposed closure have been made by many scientists including Professor Alfvén, Professor Biermann, Professor Lehner, Professor Parker and Professor Van Bueren.

The programme, and the budgetary means to carry it out, have also been approved by the council of ESRO each year up to and including 1971. Why then has it been considered that this viable and internationally recognized institute should be closed; that in the future ESRO cannot support its budget of \$2 million out of a scientific research budget of \$27 million and a total budget of \$70–80 million?

The new plans for ESRO indicate a

changing programme for the organization as a whole and it is reasonable to expect the programmes of each part of ESRO to reflect these changes. Not to allow this to take place at ESRIN, but to abandon the capabilities to carry out research on the European scale built up at considerable expense to the taxpayer, would appear to be an act of irresponsibility.

It seems to me therefore that the explanation for the action lies more deeply than this change in programme. I believe it arises from the problem of "in house" research which has dogged not only ESRIN, but ESRO, from the start. The policies being evolved for execution of the new programme call for further reductions of "in house" research; the closure of ESRIN would be but one of the reductions.

Surely, as stated by Sir Brian Flowers in his article, the lesson of the success of CERN is that it has satisfied his five criteria and that the success is due in part to the complete collaboration and support of a central research laboratory and research group, that is, of "in house" research.

In choosing not to follow the example of CERN, and, in doing so, to close one of its viable and internationally recognized research centres, ESRO will find it more difficult to retain its own viability as a research organization.

Yours faithfully,

T. S. GREEN

*Culham Laboratory,
Abingdon, Berkshire*

Obituary

Professor Asher Korner



ON September 22, Professor Asher Korner died after some months of illness at the age of forty-four. Since 1967 he was Professor of Biochemistry in the School of Biological Sciences at Sussex University. He started his research career as a graduate student in the Department of Biochemistry at Cambridge working with Professor F. G. Young on the influence of androgens on growth. During the course of this work he became in the early fifties one of the pioneers developing cell-free systems capable of incorporation of amino-acids into protein. By the mid-fifties he had shown that microsomes from hypophysectomized rats were deficient in their protein synthesizing capacity and that this deficiency could be rapidly reversed by an injection of growth hormone to the whole animal.

He went on to develop the first cell-free system from rat liver consisting of ribosomes freed from membranes and cell sap, which was capable of protein synthesis, and with this system he showed that the lesion in hypophysectomized animals lay in the ribosome fraction.

In the early sixties with the development of the messenger RNA concept it seemed that the effects of growth hormone on protein synthesis and growth could be explained in terms of its control of messenger RNA synthesis. Careful detailed research showed repeated inconsistencies in this model. By the mid-sixties his working hypothesis for the control by growth hormone was that this control was affected at the point of initiation of new rounds of protein synthesis on messenger RNA molecules. He thus became one of the first expo-