

OLD WORLD

Unit Proposed for *in vitro* Fertilization

FRUSTRATED in their attempts to obtain financial support for their work on *in vitro* fertilization, Dr R. G. Edwards of the University of Cambridge and Mr Patrick Steptoe of Oldham General Hospital have set up a charitable trust to attempt to increase the pace of their work in helping infertile women.

The trust, entitled the Edwards-Steptoe Research Trust, will soon be launching a campaign to obtain money, and Mr Patrick Steptoe, a Consultant Gynaecologist at Oldham said this week that they would need a sum of between £100,000 and £200,000 to be viable.

The aim is to set up a unit, probably at a university, where the work on infertile women could continue at a much greater pace than now possible. Mr Steptoe and Dr Edwards now treat between 4 and 6 patients a month at Oldham but according to Mr Steptoe if he and Dr Edwards worked at the same hospital they could treat many more patients and the remaining problems could then, in all probability, be solved within a reasonable time.

The concept of a unit to carry out work on *in vitro* fertilization was suggested by Dr Edwards and Mr Steptoe a few years ago but they have had difficulties in obtaining sufficient funds for long term research. Since then, however, a great deal of work has been done on fertilization of animals *in vitro* followed by successful implantation which makes the clinical application in humans possible as well as contributing to fundamental research.

The growth of a human embryo in a test tube, which was hailed with such publicity a few years ago, was pioneered by Dr Edwards and Mr Steptoe. This work which is primarily designed to help wives who cannot have children by normal means also has several other beneficial effects not the least of which is to obtain a greater understanding of congenital abnormalities. The infertile women who can be helped by *in vitro* fertilization have at least one healthy ovary and a healthy uterus, but their Fallopian tubes which channel the ova between these organs are either diseased or non-existent. The objective of the work is to simulate, outside the body, the processes which take place in the Fallopian tubes. To achieve this ova are removed from the wife by laparoscopy a minor operation where a needle is inserted into previously prepared ovaries through the navel in order to remove the ova. The ova are fertilized by the husband's sperm and then grow for a matter of days in the laboratory.

The process thus far has been perfected but the problems of implanting the few days old embryo in the womb to grow and develop normally are so far unsolved. One of the difficulties is that the hormone balance in a woman who is a few days into pregnancy is poorly understood and for the embryo to implant itself in the womb this hormone balance must first be controlled. And there are other problems to be solved such as the techniques of implantation, but these are of lesser importance.

Last week Professor Carl Wood of Monash University, Victoria, Australia reported that an attempt to implant a fertilized egg in the womb had failed after nine days. Mr Steptoe said this week that he and Dr Edwards had been attempting to implant embryos for over a year now without success. He said that a possible implantation for nine days could not be considered a pregnancy and that Dr Edwards and he had managed to implant an embryo for

21 days before the onset of menstruation demonstrated that the woman was not pregnant.

Mr Steptoe estimates that there are at least 20,000 women in Britain who want a child but are unable to become pregnant because of lesions affecting their Fallopian tubes. In the United States the number is probably much higher - possibly approaching a million. In Britain there are of the order of 10 million women of reproductive age, one million of whom are pregnant and one million of whom are actively avoiding pregnancy, while a further one million are trying to have a child according to Mr Steptoe.

The research trust, if enough money became available, would set up a unit where full facilities including endocrine assays and facilities for treating patients rapidly would be available. The advantages of having a unit set up in one place is that apart from being able to treat more patients than now possible a laboratory could be set up to provide on the

SOVIET OPPRESSION

IUPAP Retaliates

MORE than 200 scientists at an International Union of Pure and Applied Physics conference in Amsterdam last week signed a round-robin letter to Professor M. Keldysh, President of the USSR Academy of Sciences protesting that Professor A. V. Voronel, an expert in specific heat measurements, had been prevented from attending the conference to deliver an invited paper.

Dr Voronel was one of the seven Soviet Jews who held a hunger strike in Moscow recently in protest against the treatment of those who want to emigrate to Israel.

Professor L. Kerwin, Secretary-General of IUPAP also sent a personal telegram of protest to Professor Keldysh. Physicists at the conference were particularly annoyed by the attitude of Professor Keldysh when he was asked to help sort out the problem. Dr Voronel was invited to address the conference (the van der Waals Centennial Conference) almost a year ago. When it became plain that he was having difficulty obtaining permission to attend, Professor de Boer of the Royal Netherlands Academy of Sciences wrote to Professor Keldysh. Keldysh replied that as Voronel no longer holds a post in a Soviet institute (he resigned as

director of a division in the Institute for Physics and Radiophysics when he applied for permission to emigrate to Israel a year ago) he could not be of any help to the conference.

A fortnight ago Professor Voronel and Professor Mark Azbel were also prevented from attending an IUPAP conference in Moscow on magnetism. A number of those attending the conference retaliated by holding a session in Professor Voronel's flat, the meeting being chaired by Professor E. Stanley of MIT.

After the meeting Professors Azbel and Voronel issued a statement decrying the Soviet authorities' intervention, but also attacking the IUPAP for supporting the Soviet authorities. "We were flabbergasted" they say "to learn that (the Soviet authorities) have found unexpected support in their decision to decline our participation support from the leaders of IUPAP." The statement is not entirely clear on what form this support has taken, but Professor L. Kerwin, IUPAP's secretary general, said this week that "this is nonsense". IUPAP has always protested against attempts to limit the free flow of information amongst scientists. IUPAP policy on this is quite clear, he said.

The union is in fact to have a meeting in Budapest later this month to discuss the problem. Israeli scientists will be consulted before it takes place.