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Proposal of the above topic seems inopportune following the recent public furore when fetal ovaries were suggested as a source of ova for clinical usage. Yet, viewed through a longer perspective, recent events are but a symptom of the need to address requirements of a rapidly emergent area of medicine which can no longer be ignored. Over the last two decades research has led to increasing knowledge of the fetus. Added to this are the many intrauterine procedures introduced to diagnose and treat fetal disorders or abnormalities. Intentionally or unintentionally this focus has attributed to the fetus the presage to be considered as an individual in its own right. It demands that parents and doctors should address its disorders with due care and, where possible, consider treatment to save fetal life or prevent further harm. First trimester progenitor fetal liver haemopoietic cells are theoretically an ideal source of material for transplantation to treat haemoglobinopathy (Flake et al. 1986; Crombleholme et al. 1991). Before 14 weeks, but especially before the 12th week, the fetal immunological system is not mature, hence haemopoietic cells from this stage of pregnancy are less likely to mount a graft against host reaction (Hayward 1981; Crombleholme et al. 1991). Neither ectopic pregnancies nor miscarriages are a useful source of progenitor cells (Byrne et al. 1993), because in these situations fetal death has usually occurred some days, if not weeks, before and autolysis invalidates attempts at cell separation. The most useful supply of progenitor haemopoietic cells is from therapeutic abortions, in effect, a fetus donating organs for the sake of another fetus. The Swedish experience indicated that women seeking abortions are willing to help this cause (Westgren et al. 1994). Attempts to treat haemoglobinopathies is but one facet of this debate. Following animal experimentation, the French and Swedes have already forged ahead with clinical application (Touraine 1991; T. H. Bui, personal communication). Successful treatment has been reported for severe combined immuno-deficiency disorders (Touraine 1983). Inheritable metabolic disorders is another group of diseases where stem cell transplantation can possibly benefit. In the United Kingdom programmes are underway to extract progenitor cells from cord blood to treat leukaemia. Fetal hepatic progenitor cells may prove a better source of material since there is less risk of graft against host disease. These would not be affected by recent changes in legislation which refer to the fetal ovary only. Research with use of fetal tissue for treatment of medical disorders draws attention to the need to process and store the tissue to ensure its safety for use and that it is in ready supply when required (Cohen & Jonsen 1993). To accomplish this, a fetal tissue bank is mandatory. Cohen and Jonsen (1993) argued cogently for federal funding of such a bank in the United States because this will allow the advantage of large scale research on processing aborted fetal tissue, control of its distribution on a non-profit basis, and will ensure strict standards of quality. They foresee the likelihood of a rapid increase in fetal tissue transplantation as a potent argument for directing attention to the need for such a bank. In Nottingham it has taken us over two years to assemble a team to look at the question of a progenitor (stem) haemopoietic cell bank to anticipate clinical application. This programme complements and supports that of our colleagues at the Karolinska Institute, Stockholm, Sweden. Their programme has the ethical approval of the

Karolinska Institute, the Swedish Medical Research Council and their National Council for Medical Ethics. They have already made their first clinical steps towards therapeutic trials with thalassaemia A and B affected fetuses. A stem cell bank programme requires the collaboration of a multidisciplinary team which includes immunologists, haematologists, specialists in sexually transmitted diseases, neonatologists and, not least, a perinatologist involved in prenatal diagnosis and fetal therapy. Partial funding for our programme has come from local charity, private concerns and support from the Trent Region. Recent discussion concerning the value of the fetus as a potential donor should be viewed in its proper perspective as an urgent need to draw attention to this emergent area of science. There is mounting international consensus to indicate that there is much to be gained and little lost by being involved. Fetal tissue banking (and research to support it) is a pre-eminent issue with far reaching medical consequences. We have negotiated local ethical approval for our venture. In the light of the above discussion it is timely to consider formation of a National Ethics Committee to adjudicate and provide guidance in this field of research. The cost and complexity of programmes for fetal tissue banking of necessity require the consideration and support of national and major funding bodies. We are trying to ensure we do not stand on the sidelines in this area of new medicine. We, however, cannot do this without encouragement and proper funding.

## **FETAL TISSUE BANKING—THE RIGHT TIME IS NOW**

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