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A FLOCK OF EWE TO A FLOCK OF YOU : NOW IS THE TIME TO PONDER

BY the time this editorial is gone to press, the first human clone has been produced. At last, the not so impossible, but highly improbable, has been claimed to be done. On 27th December 2002, Brigitte Boisselier, Director of a research institute on human reproduction named 'Clonaid' announced the birth of the first human clone "Eve" – a baby girl of a mother (or is she older twin sister ?) who was unable to get a baby normally fathered by her husband. After Dolly the lamb was cloned in 1997, USA, France and many other countries banned human cloning. So, human cloning can not be done in US soil without the approval of Federal Drug Administration. As if to ridicule this law, cloning is said to be done in Italy, but both the company and the mother of the clone are American and the director of Clonaid a French chemist. Again in Italy, Dr. Severino Antinori in collaboration with Advanced Cell Technology of Massachusetts announced successful human cloning which was supposed to be born by January this year. But Clonaid claimed the achievement by beating Antinori by about a week.

After the initial shock of disbelief, the common people all over the world and the media took the news with awe and respect as an important scientific achievement. But the scientists would not accept the claim before DNA testing (finger printing) of the baby and the mother which will prove whether Eve is a real clone or not. Scientists' doubt about Clonaid's claim are on more than one counts. Firstly, Clonaid is a company founded by small religious cultist sect called the Raelians who believe that life including human was transplanted on this earth by some extraterrestrial beings by cloning. Secondly, the clandestine research lab 'Clonaid's research is not transparent and has only a short history, if at all. Justified or not, this piece of news has brought us or you at the cross-road of human culture. When Dolly was cloned, this writer wrote that in science, what can be done will be done. Even if the Clonaid claim is not

substantiated later, the point still remains that the technology is now in.

This brings us all at the cross-roads of human destiny. Soon after Dolly was cloned, mass hysteria stirred up by media hype built up world opinion against not only cloning, but against any technological breakthrough for which society is not prepared. When this settled down, scientists' opinions came first trickling in then as a current for "medical cloning" : cloning of human for obtaining totipotent undifferentiated embryonic cells (stem cells) which could be cultured, multiplied and differentiated to produce desired organs and tissues for transplantation. In theory, this is doable, beneficial to alleviate human sufferings and apparently should not raise any ethical questions. The involved scientists and technologists backed by corporates try to make us believe so. In doing so, they brand anybody raising a word of concern is branded conservative, ignorant and antisocial. A scientist specialised in a narrow line of research now a days has hardly any grasp of multifaced social, political, economical and ecological problems in this age of globalisation. Also, some concern is about long term or long run effects, not for the present short term only. Neither the scientists nor the sociologists have hard data or experience to address the questions which are being raised by 'nonscientist activists'.

What are the points raised against human cloning ? Firstly, a human is not a sheep. One Dolly was born out of 277 embryos produced by nuclear cloning, transplanted into surrogate mothers. In case of Eve, we do not know the number of failures. What will happen to the abnormally developed embryos ? Secondly, we can eventually produce designer baby with all the desirable traits that the parent choose with the expectation of desired qualities in the child, thus destroying the joy of uncertainty and nurture of a baby to adulthood. Thirdly, the cloned baby's cell donor

already has lived an adult life. So what will be her identity. Will it have any identity or will it be a xerox copy of the adult cell donor. Will this not burden the growing cloned child with all the expectations of the parents and everybody around. Why a human being will be subjected to such psychological pressure ? As Clonaid also claims the birth of second cloned girl, this time of a lesbian 'couple' of Netherland, how will be human society like when thousands of such clones will be there. Will there be anyone who can afford not willing to clone themselves ?

Why we can not depend on scientists' assurance that there is no danger is human cloning ? The answers are again many. Firstly, the application and outcome of scientific

knowledge is not determined by scientists. It is not for them to make decisions that affect the public at large. Secondly, the balancing of risks and benefits does not rest only on scientific arguments but on a complex illdefined process. Thirdly, it is folly not to realise the immense power of technology. The question is whether all the fruits of technology is good for mankind and can technological progress be equated to progress of civilization. Hence, the point of social responsibility will be always relevant while developing, applying and globalising technology. In this context, the responsibility of scientists and technologists is to inform people, not to decide what is good for them. □

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