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## Developments In Life Sciences

New developments in life sciences, including cloning and genetically modified organisms, have provoked great public concern. The birth of "Dolly" the sheep — cloned from a single mammary cell — in particular has raised urgent questions as to whether the birth of Dolly has opened the way to cloning a human being. This is a highly debated issue, raising such ethical questions as the potential misuse of genetic information.

In 1993, UNESCO's 55-member International Bioethics Convention (IBC) drafted a Universal Declaration on the Human Genome and Human Rights that explicitly outlawed human cloning for reproductive purposes as "contrary to human dignity." This was adopted unanimously by UNESCO Member states in November 1997 and subsequently by the UN General Assembly in December 1998. Several countries went on to prohibit human reproductive cloning through national legislation.

By the year 2002 or 2003, researchers will have completed their map of the human genome — 15 years after they began. This means that man will have identified and located the 30,000 to 100,000 genes on the 23 pairs of chromosomes which are found in every cell of the human body, continuing the genetic heritage in the form of DNA (deoxyribonucleic acid) molecules. This would open up endless possibilities, which is why serious thought must be given to its potential.

UNESCO is bringing together more than 2,000 scientists, inter-governmental and non-governmental organisations and other representatives of civil society at a Conference, to underline this fact. For it is imperative that ethical concerns be at the core of research in the 21st century.