S & CB (2000), **12**, 98 0954–4194

Editorial

The Human Genome Project

"Today we are learning the language in which God created life.…We are gaining ever more awe for the complexity, the beauty, the wonder of God's most divine and sacred gift". The words of President Bill Clinton as he compèred the international press conference announcing the completion of the initial draft of the human genome leaves Christians in something of a dilemma. On one hand DNA is indeed a remarkable molecule which inspires awe for its complexity. On the other hand it is but one of the many components of the created order, ranging from beetles to lofty mountain peaks and from antelopes to stars which can generate a spirit of worship in all those who look to God as Creator. DNA as a cultural icon should be resisted as much as DNA as a public threat.

The eventual completion of the human genome project will have an enormous impact on molecular medicine during the 21st century. The research community will be relieved at the thought that they will never need to clone and sequence a human gene again. Data from other genome sequencing projects – especially that of the mouse – will greatly facilitate the next major phase of research, the investigation of gene function. The immediate medical impact will be in diagnosis and prognosis, and the increased ability to prenatally diagnose risk factors will generate ethical dilemmas which are not novel, but increased in scope. Accumulation of data on single nucleotide polymorphisms – those small differences in gene sequences between individuals which define both our physical individuality and our susceptibilities to certain diseases – will lead to more accurate predictions of the effectiveness of drugs and of likely side-effects for specific individuals. In contrast to these positive spinoffs, the curing of genetic disease will not necessarily be helped very much in the short-term by the identification of mutant genes which contribute to disease, though their characterisation will certainly facilitate more effective research programmes. The defective gene in sickle cell anaemia was identified many years ago but has not, as yet, led to any successful gene-based therapeutic approaches. Multigenic diseases, such as heart disease, may prove equally recalcitrant to pharmaceutical interventions based on genetic insights.

Christians will therefore wish to steer carefully between the Scylla of media hype and the Charybdis of genetic pessimism. As stewards of the created order we should do all in our power to utilise genetic data for the good of humankind. At the same time we will continue to remind society that for only £3.30 per person 13 million lives worldwide could have been saved last year by community-driven health campaigns to combat killers such as childhood diarrhoea and that some of the most terrible famines continue to be caused by war. We should be thankful for the Human Genome Project, but not assign to it a value which is out of proportion in the larger scheme of things.