

## The Human Genome Project: Aims and Progress

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The Human Genome Project(HGP) was officially launched in the United States on 1 October 1990 as a 15-year program to map and determine the DNA sequence of the entire human genome and those of several model organisms. Major funding agencies include the US National Institute of Health(NIH), the Department of Energy(DOE), the Wellcome Trust of London, and other governments and foundations around the world. So far, the complete DNA sequences of 20 different bacterial genome, the yeast genome, and the *C. elegans* genome have been determined. The DNA sequences of various model organisms will allow to see the human sequences in phylogenetic context. At present the high resolution linkage map of the human genome is essentially complete. Physical maps of the human genome in YAC contigs have been established. It has been estimated that the entire human genome would be sequenced within 3 years, well ahead of the scheduled completion date of 2005. A major challenge for the future will be to identify the functions of a very large number of novel genes and understand the different roles of the gene families. Another challenge will be understanding of the genetic basis of human diseases on which a new realm of predictive medicine would be developed eventually. In that context, the human genome diversity project (HGDP) gains more attention. HGDP aims to investigate variations in the human genome by study of different populations, and is expected to reveal valuable information on the genetic factors associated with predisposition or resistance to diseases. The HGP will also be the basis of the biotechnology industry in the next century.