Human Genome Project

The Human Genome Project (HGP) is an international scientific research project with the goal of determining the sequence of chemical base pairs which make up human DNA, and of identifying and mapping all of the genes of the human genome from both a physical and a functional standpoint.

It remains the world's largest collaborative biological project.

After the idea was picked up in 1984 by the US government when the planning started, with the project formally launched in 1990, and finally declared complete in 2003. Funding came from the US government through the National Institutes of Health (NIH) as well as numerous other groups from around the world. A parallel project was conducted outside of government by the Celera Corporation, or Celera Genomics, which was formally launched in 1998. Most of the government-sponsored sequencing was performed in twenty universities and research centers in the United States, the United Kingdom, Japan, France, Germany, Canada, and China.

The Human Genome Project originally aimed to map the nucleotides contained in a human haploid reference genome (more than three billion). The “genome” of any given individual is unique; mapping the “human genome” involves sequencing multiple variations of each gene.

In May 2016, scientists considered extending the HGP to include creating a synthetic human genome.

In June 2016, scientists formally announced HGP-Write, a plan to synthesize the human genome.