1994

* Genetic-mapping 5-year goal achieved 1 year ahead of schedule.

Completion of second-generation DNA clone libraries representing each human chromosome by LLNL and LBNL.

Genetic Privacy Act, first U.S. HGP legislative product, proposed to regulate collection, analysis, storage, and use of DNA samples and genetic information obtained from them; endorsed by DOE-NIH Joint ELSI Working Group.

DOE Microbial Genome Program launched; spin-off of HGP.

LLNL chromosome paints commercialized.

SBH technologies from ANL commercialized.

DOE HGP Information Web site activated for public and researchers.

1995

LANL and LLNL announce high-resolution physical maps of chromosome 16 and chromosome 19, respectively.

* Moderate-resolution maps of chromosomes 3, 11, 12, and 22 maps published.

* First (nonviral) whole genome sequenced (for the bacterium *Haemophilus influenzae*).

Sequence of smallest bacterium, *Mycoplasma genitalium*, completed, displaying the minimum number of genes needed for independent existence.

* EEOC guidelines extend ADA employment protection to cover discrimination based on genetic information related to illness, disease, or other conditions.

1996

Methanococcus jannaschii genome sequenced; confirms existence of third major branch of life, the Archaea.

DOE-NIH Task Force on Genetic Testing releases interim principles.

* Integrated STS-based detailed human physical map with 30,000 STSs achieves an HGP goal.

* Health Care Portability and Accountability Act prohibits use of genetic information in certain health-insurance eligibility decisions, requires DHHS to enforce health-information privacy provisions.

DOE-NIH Joint ELSI Working Group releases guidelines on informed consent for large-scale sequencing projects.

DOE and NCHGR issue guidelines on use of human subjects for large-scale sequencing projects.

* *Saccharomyces cerevisiae* (yeast) genome sequence completed by international consortium.

Sequence of the human T-cell receptor region completed.

Wellcome Trust sponsors large-scale sequencing strategy meeting in Bermuda for international coordination of human genome sequencing.

1997

DOE forms Joint Genome Institute for implementing high-throughput sequencing at DOE HGP centers.

* NIH NCHGR becomes NHGRI.

* *Escherichia coli* genome sequence completed.

Second large-scale sequencing strategy meeting held in Bermuda.

* High-resolution physical maps of chromosomes X and 7 completed.

Methanobacterium thermoautotrophicum genome sequence completed.

Archaeoglobus fulgidus genome sequence completed.

* NCI CGAP begins.

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* DOE had limited or no involvement in this event.

LANL	Los Alamos National Laboratory
LBNL	Lawrence Berkeley National Laboratory
LLNL	Lawrence Livermore National Laboratory
MGP	Microbial Genome Project
MOU	Memorandum of Understanding
mRNA	messenger ribonucleic acid
NAS	National Academy of Sciences
NCHGR	National Center for Human Genome Research (NIH)
NCI	National Cancer Institute (NIH)
NHGRI	National Human Genome Research Institute (NIH)
NIGMS	National Institute of General Medical Sciences (NIH)
NIH	National Institutes of Health
NRC	National Research Council
OHER	Office of Health and Environmental Research
ORNL	Oak Ridge National Laboratory
OTA	Office of Technology Assessment
R&D	Research and Development
SBH	sequencing by hybridization
STS	sequence tagged site
YAC	yeast artificial chromosome