Cold Spring Harbor Laboratory

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(Redirected from Cold Springs Harbor Laboratory)

Cold Spring Harbor Laboratory

Established

1890

President

Bruce Stillman

Faculty

317

Staff

1105

Budget

$143,000,000

Location

1 Bungtown Road, Cold Spring Harbor, NY

Website

http://www.cshl.edu/

Cold Spring Harbor Laboratory Historic District

U.S. National Register of Historic Places

U.S. Historic District

Location:

Jct. of NY 25A and Bungtown Rd., Laurel Hollow, New York

Coordinates:

40°51′43″N 73°28′2″WCoordinates: 40°51′43″N 73°28′2″W

Area:

100 acres (40 ha)

Built:

1953

Architect:

Multiple

Architectural style:

Multiple

Governing body:

Private

NRHP Reference#:

94000198
[1]

Added to NRHP:

March 30, 1994

The Cold Spring Harbor Laboratory (CSHL) is a private, non-profit institution with research programs

focusing on cancer, neurobiology, plant genetics, genomics and bioinformatics. The Laboratory has a broad educational mission, including the recently established Watson School of Biological Sciences. It currently employs over 400 scientists. Over its history eight Nobel laureates have worked at the laboratory.

Cold Spring Harbor Laboratory is one of sixty-three institutions supported by the Cancer Centers Program of the National Cancer Institute (NCI) and has been a NCI-designated cancer center since 1987.

The lab is located in the village of Laurel Hollow, New York, on the shores of Cold Spring Harbor.

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[edit] History

Cold Spring Harbor Laboratories
The laboratory began its history in 1890 as an extension of the Brooklyn Institute of Arts and Sciences; in 1904, the Carnegie Institution of Washington established the Station for Experimental Evolution at Cold Spring Harbor on the site. In 1921, the station was reorganized as the Carnegie Institution Department of Genetics.[2]

During the years 1910 to 1940, the laboratory was also the home of the Eugenics Record Office of biologist Charles B. Davenport and his assistant Harry H. Laughlin, two prominent American eugenicists of the period. In 1935 the Carnegie Institution sent a team to review their work, and as a result the ERO was ordered to stop all efforts. In 1939 the Institute withdrew funding for the ERO entirely, leading to its closure. Their reports, articles, charts, and pedigrees were considered scientific "facts" in their day, but have since been discredited. However, this closure came 15 years after its findings were incorporated into the National Origins Act (Immigration Act of 1924), which severely reduced the number of immigrants to America from southern and eastern Europe who, Harry Laughlin testified, were racially inferior than the Nordic immigrants from England and Germany.

The Carnegie Institution Department of Genetics scientists at Cold Spring Harbor made many important contributions to the sciences of genetics, medicine, and the then-infant science of molecular biology. In 1962 its facilities merged with those of The Brooklyn Institute's Biological Laboratory to create what is known today as Cold Spring Harbor Laboratory.

Charles B. Davenport Residence.

In 1944 Barbara McClintock discovered transposons ("jumping genes"), for which she received the 1983 Nobel Prize in Physiology or Medicine. In 1952 the experiments of Alfred Hershey and Martha Chase at the laboratory confirmed DNA as the genetic material. The laboratory is also known for the work of Max Delbrück and Salvador Luria on phage and molecular genetics. Another CSHL scientist Richard J. Roberts received a Nobel prize for the co-discovery of introns and RNA splicing. [3]

Nobel laureate James D. Watson (who co-discovered the double helix structure of DNA with Francis Crick and first presented it at the CSHL symposium on viruses) served as the Laboratory's Director and President for 35 years. He focused the lab on cancer research in part by creating a tumor virus group that continues its research up to today. Since 1987 CSHL is a NCI-designated cancer center. Plants genetics research at the Laboratory was reinvigorated in the 1980s. In 1990, the program of neuroscience research at CSHL was significantly expanded with the completion of the Arnold and Mabel Beckman Laboratory. With the construction of several new laboratory buildings in 2009 CSHL aims to create a new program on quantitative biology.

Since 1994 cancer biologist Bruce Stillman leads the laboratory, serving as President from 2003. Stillman is member of the National Academy of Sciences and a Fellow of the Royal Society. In October 2007 Watson retired as Chancellor under pressure as a result of controversial remarks about race made to The Sunday Times in the U.K.[1][2].

[edit] Courses and meetings

Aside from its research mission, the laboratory is host to world-class scientific conferences on a variety of topics. The first annual Cold Spring Harbor Laboratory Symposium on Quantitative Biology was held in 1934. The Symposium in 1960, Biological Clocks, was arguably the founding moment of the field of chronobiology. Now, over 24 meetings, in addition to the Symposium, for between 200 and 500 scientists, are held annually. At the Banbury Center discussion-style meetings for at most 36 invited participants are held. These elite meetings cover often controversial topics in molecular biology and neuroscience.

Salvador Luria and Max Delbrück founded the Phage Course in 1948, a course that trained many of the leaders of the new field of molecular genetics. The courses proliferated under Watson's guidance and each year some 28 advanced courses are held for graduate students and postdoctoral fellows who travel to CSHL from throughout the world.

The laboratory also offers programs for students in high school and college in biotechnology and biology. The lab is particularly well known for its contributions towards the training of young scientists, notably through the establishment of its Undergraduate Research Program in 1959, its Dolan DNA Learning Center in 1988, and the founding of the Watson School of Biological Sciences in 1998. Since 1990 Partners for the Future allows seniors from high schools throughout Long Island to conduct original research with the aid of a scientist mentor.