George W. Beadle, chairman of the division of biology, and acting dean of the faculty at Caltech, leaves the Institute next month to become chancellor of the University of Chicago.

"The University of Chicago is to be sincerely congratulated," said Caltech President L. A. DuBridge, "on securing as its leader so great a scholar, teacher, and administrator as George W. Beadle. Under his leadership the University of Chicago, already one of the nation's great educational institutions, is certain to attain new heights of educational distinction. The whole nation will profit from such a development.

"At the same time, the loss of Dr. Beadle is a most serious blow to the California Institute of Technology. In the past 14 years he has built here one of the greatest research centers in biological science in the country, and he has brought distinction to the entire Institute. In his new capacity as dean of the faculty..."
he was about to launch a vigorous new program of
educational advancement. He cannot be replaced.

"Dr. and Mrs. Beadle were beloved members of
the Caltech faculty and they carry with them into
their new endeavors the best wishes of a host of
friends and admirers in southern California."

Dr. Beadle has been head of the division of biology
at Caltech since 1946, and has been serving as acting
dean of the faculty since last year. In 1958 he won
the Nobel Prize in medicine with Dr. Edward L.
Tatum (now of the Rockefeller Institute in New
York) for their discovery that genes act by regulating
definite chemical events.

How genes work

The Beadle-Tatum discovery gave science its first
proof of how genes actually work. Before 1941 there
were some indications that genes controlled chemical
reactions, but this was not a widely accepted fact.
In that year, though, Beadle and Tatum, working at
Stanford University, made the significant discovery
that the synthesis of vitamins and amino acids in
the living cell is under the control of the genes. This
in turn suggested that each of the biochemical reac-
tions of a cell is governed by a particular gene.

This discovery opened up a whole new field of
research which has led to new knowledge of genes
themselves, to new knowledge in biochemistry, and
even in bacteriology—where, for the first time, it
made possible the study of bacterial genes. During
World War II the application of genetic principles
resulted in a fourfold increase in penicillin produc-
tion, as well as the development of new means of
assaying vitamins and amino acids in food and
tissues.

In making their discovery the men used the red
bread mold \textit{Neurospora crassa} (subjecting it to x-rays
and ultraviolet light to produce genetic mutations).
They have since been identified not only with the
discovery, but with the addition of this new tool for
genetic research.

A native of Nebraska, Beadle was born in Wahoo
in 1903. He got his BS in 1926 and his MS in 1927
from the University of Nebraska School of Agri-
culture, then went to Cornell University, where he
became interested in genetics. After receiving his PhD
in 1931, he came to Caltech as a National Research
Council fellow. He became an Institute research fel-
low in 1932, and instructor in biology in 1935. In that
same year he went to the University of Paris to work
with Dr. Boris Ephrussi, whom he had met at Cal-
tech. While there he made his first important discov-
ery—that a gene controls the eye color of the fruit
fly, \textit{Drosophila}, by producing a particular chemical
substance.

After a year on the biology faculty at Harvard,
Beadle went to Stanford as professor of biology in
1937. He returned to Caltech in 1946 to succeed the
late Thomas Hunt Morgan as chairman of the division
of biology.

In his 14 years at the Institute, Beadle, with
boundless enthusiasm and unflagging energy, has
built the biology division into one of the best in the
country. As acting dean of the faculty for the past
year he has been directing the program, financed by
the Carnegie Corporation of New York, to extend
scholarship and research at the Institute in the hu-
manities, the social sciences, and public affairs.

Not that administration occupies all his time and
talents. He is equally as active, and as adept, as fund-
raiser, teacher and public lecturer. He is past presi-
dent of the American Association for the Advance-
ment of Science, and of the Genetics Society of
America. He was a member of President Eisenhower's
Science Advisory Committee. He was chairman of
the National Academy of Sciences' committee on the
Genetic Effects of Atomic Radiation, and chairman
of the American Cancer Society's Scientific Advisory
Council.

He belongs to the Royal Society of London, and
to the Danish Royal Academy of Sciences. In 1958-59
he was appointed Eastman Visiting Professor at the
University of Oxford, England. He is co-author with
Dr. A. H. Sturtevant (Thomas Hunt Morgan profes-
sor of genetics at Caltech) of \textit{An Introduction to}
\textit{Genetics}. Name all the possible honors and awards
that can come to a biologist and he has most of them.

All of this professional activity still leaves Beadle
with plenty of time for an active private life as well.
Since his home (which used to belong to T. H. Mor-
gan) is located directly across the street from his
office on campus, there is a good deal of blending of
his private and professional activities. He is a success-
ful gardener, but a good many of the lovely flowers—
and the corn—that he raises in his home garden are
grown for genetic studies too. So are the Siamese
cats he raises.

Beadle leaves the Institute for his new position
next month. Mrs. Beadle and their 17-year-old son,
Redmond, follow at the end of the school year.

An exciting future

"Caltech is a wonderful place," says Beadle. "I am
grateful to have been here and to have had a small
part in its growth during these past 14 years. Leaving
it is painful. But Chicago is a great institution, too,
with a long history of educational leadership. Its
future is exciting to contemplate, and I am looking
forward with enthusiasm to making whatever con-
tribution I can."

As chancellor of a university with 8,000 students,
over 800 faculty, over 55,000 alumni, and an academic
budget of over $32,000,000, Beadle will have an op-
portunity to make plenty of contributions—and make
them he will. Chicago's future is even more exciting
to contemplate now that Beadle's there.

\textit{January, 1961}