COVER LEGEND

The laboratory mouse, the fancy-bred descendant of the common house mouse (Mus musculus), is an excellent emblem for cancer research. Over 30 million mice were used in biomedical research in 1971 in the U.S. alone. Cancer research used a large proportion, especially of the genetically inbred strains that have been developed since the early years of this century (cf. C. E. Keeler, The Laboratory Mouse, Cambridge, Mass.: Harvard University Press, 1931).

The Jackson Laboratory of Bar Harbor, Maine (formerly The Roscoe B. Jackson Memorial Laboratory), is the origin of many mouse strains and is the largest research laboratory devoted to mammalian genetics in the world. Founded in 1929 by Clarence Cook Little, the laboratory was named after a Hudson motorcar magnate who summered at Bar Harbor. In addition to being an outstanding center for cancer research, the laboratory is also engaged in important programs of teaching and of production of many inbred and mutant strains of mice. The present director is Dr. Earl L. Green, and the present staff includes Dr. George D. Snell and Dr. Elizabeth S. Russell. A warm description of The Jackson Laboratory, by Barbara Culliton, appeared in Science, 177: 871, 1972. One of the important discoveries in cancer emanating from The Jackson Laboratory was the nonchromosomal influence in mammary tumors in mice (Science, 78: 465, 1933). Biology of the Laboratory Mouse, by the Staff of The Jackson Laboratory (Ed. 2. New York: McGraw-Hill Book Co., 1966), is a basic reference.

Predictability of cancer incidence and types among inbred strains of mice is demonstrated in the pictured four white female albino "look alikes," studied by staff members of The Jackson Laboratory. Left to right, the first mouse (A/HeJ) will almost certainly develop a mammary tumor. The second mouse (AKR/J) will surely die at an early age with lymphatic leukemia. The third mouse (BALB/cJ) probably will not develop mammary cancer unless she has been suckled by a foster mother. If she develops lung tumors, they will appear later in life than those of A/He mice. The fourth mouse (SJL/J) will almost certainly die with a form of reticulum-cell sarcoma similar to Hodgkin's disease. These female mice were all born at approximately the same time in the same mouse room at The Jackson Laboratory.

The aerial view of The Jackson Laboratory was taken in August 1972. It shows the main laboratory complex with two newly constructed wings in the foreground; left is the new Clarence Cook Little Library-Conference Center; right is the new Mammalian Genetics Laboratory. We are indebted to Dr. Green and The Jackson Laboratory for the illustrations.