

The mouse: from pet to paradigm
The Mouse and the Ear: A Brief History

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Varieties of mice - called 'fancy mice' - were kept as household pets in China and Japan from at least the 17th to the early 20th century. They were primarily valued for the varied colors and patterns of their coats. These mice are described in a book entitled *Chingan-sodategusa* published in Japan in 1787 that included a description of the 'waltzing mouse', sometimes called the Nankin mouse. As late as the 1850's, the waltzing mouse was considered to be the result of confinement for untold centuries in small cages (Lysenkoism?) but it is now recognized as an inner ear mutant. These mice became objects of scientific inquiry in Europe through W. Haacke's article in A.E. Brehm's 1890 *Tierleben*, and as a separate communication in 1895. Bernard Rawitz, in 1899, was the first to report the abnormalities of the waltzing mouse². They were introduced to North American science by Abbie Lathrop from her farm in Granby, Mass. and became a subject for genetic study through the efforts of William Castle of Harvard. Robert Yerkes, a Harvard graduate student, published his doctoral thesis of 1902. *The Dancing Mouse: a Study in Animal behavior*, in 1907; this is the first North American monograph detailing and correlating inner ear malformations with behavior. During the first half of the 20th century, many investigators went on to establish the underlying genetics of several of these strains, and used these mutants to characterize pathological anatomy and physiology of genetic deafness. Among the many who have worked productively in this area during the first half of the 20th century are M. S. Deol, W. H. Gates, Hans Griineberg, C. C. Little, and E. M. Lord. These investigators established the foundation for our current use of the mouse as a model for the study of genetic deafness and the normal and abnormal cell and developmental biology of the ear.