



## OBITUARY

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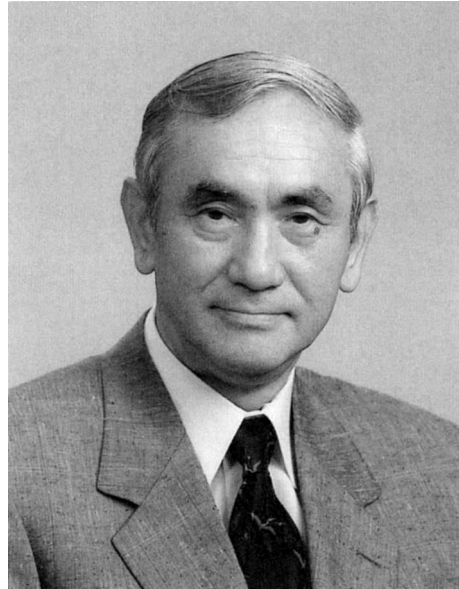
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### **Takuji Takeuchi (1930–1996)**

Prof. Takuji Takeuchi, a pioneer in the field of developmental genetics of mouse pigmentation, passed away on January 2, 1996, at the age of 65. Professor Takeuchi, who was granted the title of professor emeritus immediately after he retired in 1993, had been on the faculty of Biological Institute, Faculty of Science, Tohoku University for 23 years.

He graduated from Tohoku University in 1954. While he was studying in the graduate school of Biological Institute, Faculty of Science, Tohoku University, he was appointed assistant professor at Fukushima Prefectural Medical School in Fukushima in 1958. In 1960, he went abroad to the Department of Zoology at Rochester University. He then moved to the laboratory of Professor M. Foster at the Department of Genetics, University of Michigan, Ann Arbor. It was during this period that he began to investigate the mechanism of mouse pigment cell differentiation. On returning to Japan, he was appointed associate professor at Miyagi University of Education in Sendai in 1965. Following 5 years at the university, he started his faculty career in Tohoku University as an associate professor in biology at Biological Institute, Faculty of Science (1970–1979). He was then promoted to professor at the College of General Education of the same university. Concurrently, he continued to serve as a professor at the Biological Institute. In 1985, he was appointed professor of animal embryology at Biological Institute, Faculty of Science, Tohoku University.

Professor Takeuchi had constantly focused his research on the genetic regulation of pigment cell differentiation using many mouse mutant strains. Amongst many loci that affect pigmentation, he was keenly interested in the loci responsible for agouti color formation. His model for signal transduction in the agouti pattern formation constructed from a number of experiments using agouti and extension series of alleles has played an important role in analyzing the function of these genes and in elucidating the process that is also affected by many factors such as melanocyte stimulating hormone, cAMP and so on. These genes have been cloned recently by several other groups. Their results thus far fairly match his model. Professor Takeuchi was also devoted to the functional analysis of melanin biosynthesis. Tyrosinase is the key enzyme for melanin-pigment synthesis in pigment cells. Professor Takeuchi cloned the mouse tyrosinase gene and succeeded in the rescue of albino phenotype by introducing a cloned tyrosinase cDNA into an albino mutant strain. This became one of the strongest proofs that the albino(*c*) locus encodes the structural gene for tyrosinase.

We sincerely regret the passing of Professor Takeuchi, who warmly encouraged us to study developmental genetics. He was thoughtful, fair and just. He was always delighted to offer help and friendship. We, his students, colleagues and friends, will never forget his contribution to our research and our individual needs. We have lost a distinguished human being.

Hiroaki Yamamoto  
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