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STUDIES ON *CYSTICERCUS FASCIOLARIS*,
ESPECIALLY ON THE DIFFERENCE OF SUSCEPTIBILITY
AMONG UNIFORM STRAINS OF THE MOUSE

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(Summary of Master's thesis directed by Dr. J. YAMASHITA)

Cysticercus fasciolaris is the larval form or the bladder worm of *Taenia taeniaeformis* and is parasitic usually in the liver of animals of genus *Rattus*. In the literature up to this time, however, no established theory has been formulated regarding the susceptibility of genus *Mus* to this larval parasite.

The present author conducted an investigation on the susceptibility of experimental animals. The animals used were: laboratory mouse *Mus musculus*, strains A, AKR, BALB/c, CF #1, gpc, fm, C3H/He, CFW, SM, dba, dd and C57BL/6; albino rat *Rattus norvegicus norvegicus*, strains Wister and Gifu; vole *Microtus montebelli montebelli*; and Mongolian gerbil *Meriones unguiculatus*. Young animals were used in view of the age resistance to infection with the bladder worm. They were inoculated orally with the eggs of *Taenia taeniaeformis* obtained from experimentally infected cats. After the inoculation the animals were divided into several groups and were killed at regular intervals to be examined macro- and microscopically for the development of the parasite and host tissue reactions. The results obtained were as follows:

1. In rat strains Wister and Gifu, the bladder worm developed enough to be capable of infecting cats. The same results were obtained in the experiment with the mouse strains A and AKR.
2. In the other mouse strains examined, the bladder worm developed to some extent in the early stage of infection, and thereafter turned to degeneration and organization. Similarly, the parasite which developed in the liver of voles manifested degeneration and organization in the same manner.
3. Mongolian gerbils did not show any susceptibility to the parasite.
4. The author, therefore, concluded that the strains A and AKR should be listed as suitable intermediate hosts of *Taenia taeniaeformis* and that there are differences of susceptibility among the uniform strains of the mouse examined.