

as 1.5 gm. of raw liver daily enabled the animals (9) to nurse their young successfully, 26 animals (45% of the 57 born) being weaned at 21 days of age. The success of raw liver in imparting the ability to lactate is further demonstrated in that third generation animals (2 males and 4 females on each diet) were considerably heavier than the parent generation had been at the same age, the males remained fertile longer than the second generation males, the females had normal oestrus cycles and they were able to nurse their young successfully without additional supplement to the diet.

Fifteen first generation animals reared on the diets supplemented by 0.5 gm. of dried whole liver in addition to yeast and cod liver oil grew at a faster rate than 32 control animals. Lactation was also improved by the dried liver supplement in that the percentage of the young which were weaned was approximately twice that of control animals (45% as against 26%) and the young were considerably heavier when weaned. The influence of the whole liver does not reside in the added protein or fat since growth and lactation were not appreciably influenced by supplementing the diets of a like number of animals with fat-free liver or liver fat equivalent in amount to the dried whole liver supplement.

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**Attempts to Immunize Rabbits Against a Larval Cestode,
Cysticercus Pisiformis.***

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Cysticercus pisiformis is the larval form of *Taenia pisiformis* (*serrata*), a tapeworm found in the intestine of the dog. The larvae begin development in the liver of the rabbit and later migrate to the mesenteries, where they form typical cysticerci. Rabbits were injected with *Taenia pisiformis* material and subsequently fed with onchospheres of this species. Two cc. of a 1% suspension of fresh or powdered worm material in physiological saline solution were injected intraperitoneally, subcutaneously, or intravenously at intervals of 2 or 3 days for a total of 6 injections. From 3 to 19 weeks after the last injection the control and injected rabbits were fed equal amounts of a uniform suspension of mature onchospheres by

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stomach tube. They were autopsied 3 to 6 weeks later, during the period when the larvae were migrating from the liver to the mesenteries in the control animals.

Development of the larvae was totally inhibited in a few of the rabbits which had received injections of adult worm material. In most instances the difference in the condition presented by the livers of the control and injected animals was one of degree; in only a few cases were larvae found to be migrating in the experimental animals; while in the control rabbits migration of the larvae frequently occurred or the larvae in the liver were larger than those in the rabbits which had received injections. The data were derived from 73 animals, of which number 34 were controls. The results of one experiment are shown in Table I.

TABLE I.
Number of cysts and migrating larvae present in liver at autopsy.

Injected Rabbits	Total Larvae	Living Cysts		Migrating Larvae	Small Dead Cysts
		Large	Small		
42	3	3	—	—	—
44	14	2	6	—	6
40	15	7	16	—	2
41	28	—	10	—	18
43	30	23	7	—	—
Aver.	20	7	6	—	5
Controls					
47	26	18	7	1	—
48	27	15	11	—	1
49	38	3	21	—	14
38	42	35	3	4	—
46	58	46	12	—	—
Aver.	38	23	11	1	3

A number of animals were found to have been infected previous to purchase. When this occurred among the controls, some evidence of a degree of protection against superinfection was observed.