TABLE I.
Protein Intake and Kidney Weight in Young Rats.

Protein eaten per rat per day.	Average kidney weight.	Average body weight.	Number of animals.
gm.	mg.	gm.	
2.52	646	159	25
4.39	835	199	18
10.44	963	149	29

The same diets were also given to adult rats from the time they were 346 days of age until they were 400 days old. Table II shows that the increase in the consumption of protein had little effect on the weight of the kidney in these older rats.

TABLE II.
Protein Intake and Kidney Weight in Adult Rats.

Protein eaten per rat per day.	Average kidney weight.	Average body weight.	Number of animals.
gm.	mg.	gm.	
2.14	1034	351	22
4.10	1102	398	13
7.13	1145	299	26

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Do High Protein Diets Increase Weight of Kidney Because They Increase Nitrogen Excretion?*

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The experiments cited in the preceding note[1] served as controls for experiments in which the same order of magnitude of increase in nitrogen consumption was obtained by the administration of urea instead of protein. The results given in Table I suggest that the simple hypothesis of a work hypertrophy may be inadequate as an explanation for the increased kidney weight in young rats, and demonstrate that in adult rats a marked increase in nitrogen consumption may have no effect on the weight of the kidney.

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TABLE I.

The effect on kidney weight in young and adult rats of increase in nitrogen consumption derived from addition of protein or from addition of urea.

Diet.	Young Rats.		Adult Rats.	
	Nitrogen eaten per rat per day.	Average kidney weight.	Nitrogen eaten per rat per day.	Average kidney weight.
	mg.	mg.	mg.	mg.
18% protein	402	646	344	1034
31% protein	700	835	656	1102
Urea + 18% protein	746	729	467	1033
70% protein	1680	963	1140	1145
Urea + 18% protein	1810	838	858	1035

[1] MacKay, L. L., MacKay, E. M., and Addis, T., PROC. SOC. EXP. BIOL. AND MED., 1927, xxiv, 335.

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Genital System Responses to Daily, Pituitary Transplants.

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The daily transplantation of pituitary tissue from full-grown rats into immature female rats hastens development.[1] Daily, pituitary homeotransplants, the donors being adults, likewise hastens the growth of the genital system in the immature male rat. Nine animals from 4 litters have been treated, each having 1 or more littermate control. Results gained from 1 of these litters illustrate the typical response to the transplants.

Protocol. Of a litter of 4 males daily pituitary homeotransplants were begun in 2 on the 14th day of life, 2 serving as controls. The animals were nearly identical in weight.

One treated and 1 control were autopsied 10 days later (age 24 days). *Treated animals:* Weight, 44 gm.; weight of both testes, 0.254 gm.; of genital system exclusive of testes, 0.480 gm. *Control:* Weight, 43 gm.; weight of testes, 0.240 gm.; of genital system exclusive of testes, 0.249 gm.

The remaining 2 animals were autopsied at the age of 31 days, the treated animals thus having received 17 transplants. *Treated*