with those of the controls. Other endocrine glands were studied and were similar in their weights and in histological structure to those of the controls. Although the experimental animals gained a little faster than the others, at autopsy, the average difference was too small to be regarded as significant. A summary of these data is given in Table I.

Conclusion. The negative results obtained from the feeding of massive doses of charcoal adsorbate, prepared from beef adrenal cortex may indicate that the substance in the adrenal cortex, which stimulates the reproductive system, is a different hormone from that demonstrated by Harrop[3] as affecting the metabolism of salt and water and it may not be extracted by the methods at present in use for extracting the latter. The excellent condition of the experimental animals is evidence that the substance is not toxic.

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Effect of Stimulus of Suckling Upon Galactin Content of the Rat Pituitary.

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In a previous experiment we were able to demonstrate that the stimulus of suckling and/or the removal of milk from the mammary glands markedly decreased the galactin content of the post-partum rat pituitary gland.

Selye *et al.*[1] have shown that the act of suckling prevented the involution of the mammary glands of the rat during a period of 14 days, even though the milk ducts were ligated. Turner and Reineke,[2] working with 2 goats, suspended milking on one side of the udder about 30 days after parturition, while the other side was milked regularly. Histological sections of biopsy specimens taken 65 days after the beginning of the experiment revealed that the alveolar structure was still well defined on the unmilked side. The procedure

[3] Harrop, G. A., *Johns Hopkins Hosp. Bull.*, 1936, **59**, 11 and 25.

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[1] Selye, H., Collip, J. B., and Thomson, D. L., *Endocrin.*, 1934, **18**, 237.

[2] Turner, C. W., and Reineke, E. P., *Mo. Agr. Exp. Sta. Res. Bul.*, 1936, 235.

employed by Selye in his work gave us a technique whereby we could determine if the decrease in the galactin content of the rat pituitary gland under the influence of suckling was due to the stimulus of suckling or to the removal of milk from the mammary glands.

In 11 rats, 36 hours postpartum, the litters were removed and the primary milk duct of each mammary gland was ligated, making it impossible to remove milk from the mammary glands. Twelve hours later the litters were returned to their mothers and the young allowed to nurse for 3 hours. The mothers were then sacrificed, their pituitaries removed and weighed. The pituitaries were then assayed by injecting them intradermally over the crop gland of the common pigeon. The results are summarized in Table I.

TABLE I.
Effect of Stimulus of Suckling upon Galactin Content of the Rat Pituitary.

Rat No.	Body Wt., gm.	Total Pituitary Wt., mg.	Bird Units per Pituitary Gland	Bird Units per mg. Pituitary Tissue	Bird Units per 100 gm. Body Wt.
58	253	9.7	6.50	.67	2.57
57	241	12.6	5.87	.47	2.44
53	215	13.6	6.12	.45	2.85
56	192	10.9	3.67	.34	1.91
51	182	9.5	5.00	.54	2.75
60	180	9.1	4.75	.52	2.64
62	175	9.9	6.00	.61	3.43
63	170	7.6	5.00	.66	2.94
61	160	7.5	5.12	.68	3.20
54	151	9.7	3.67	.38	2.43
52	150	6.7	5.50	.82	3.67
Average	188	9.7	5.20	.56	2.80

Pituitary glands from rats in which the litters were removed 36 hours after parturition and then sacrificed 15 hours later contained, on the average, 9.2 bird units per pituitary gland, as compared with 5.2 bird units per pituitary gland from rats in which the young nursed but secured no milk. This value of 5.20 bird units per pituitary gland is somewhat higher than the value, 3.06 bird units per pituitary gland observed in rats in which the young were allowed to suckle and remove the milk.

Conclusion. The stimulus of suckling definitely decreases the galactin content of the rat pituitary gland even when no milk is removed.