mine whether changes would appear similar to those seen in the hypophysectomized rat—that is, thecal luteinization.

Six virgin guinea pigs, weighing 136-321 gm., received various amounts of A.P.L. (200-700 units per day for 6-14 days); the ovaries of these animals were enlarged, but showed no signs of follicle maturation or corpus luteum formation. The thecal cells, however, had changed into luteal cells.

These experiments seem to support the conception that species differences in the reaction to A.P.L may be due to differences in the ability of the pituitary to furnish the complementary substance necessary for the normal reaction of A.P.L. on the ovary.

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A Lactation Hormone of the Adrenal Cortex.*

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One of us[1] showed that adrenalectomized rats could bear young if treated with cortin. No attempt was made to raise the young. Carr[2] found that cortical extract made according to the Swingle and Pfiffner method did not support lactation. Swingle and Pfiffner[3] have recently shown that their extract will support lactation in the dog.

Extract made according to our method which removes fatty substances by chilling to —12°C. does not enable adrenalectomized rats to supply milk (B, Table I) even when used in large amounts (C), yet it is potent as far as the cortin content is concerned. On the other hand, if the chilling is not carried below 3°C., our extract supports lactation (D). The material chilled out between 3 and —12°C. contains a substance necessary for milk production since if an extract of this material is added to cortin and injected into adrenalectomized mother rats, they raise a much larger proportion of their young (E).

* Aided by a grant from the Carnegie Corporation of New York to the Carnegie Institution of Washington.

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[2] Carr, J. L., PROC. SOC. EXP. BIOL. AND MED., 1931, **29**, 131.

[3] Swingle, W. W., and Pfiffner, J. J., *Med.*, 1932, **11**, 371.

TABLE I.
Effect of Cortical Extracts on Lactation.

	Daily Injections	No. Mothers	Young Born	Young Reared	% Reared
A	Stock animals	27	157	113	72
B	Cortin 2 cc. of 1-40	9	42	1	2
C	Cortin 2 cc. of 1-80	4	30	4	13
D	Cortical extract 2 cc., 1-80	13	89	57	64
E	1 cc. lactation hormone + 1 cc. cortin (1-30)	5	33	17	51

The evidence indicates the existence of a new hormone in the adrenal cortex which supports lactation. *Cortilactin* is the name suggested for this new hormone.

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Further Experiments on Induction of Ovulation in Toads.*

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The authors have been interested in the problem of specificity of the maturity hormone of the anterior lobe of the hypophysis. Previously we[1] have reported that heteroplastic hypophysis implants from frogs may be used to induce ovulation in toads, thus proving the non-specificity of the maturity hormone in anurans. Kuyper, Pfeiffer and Wills,[2] on the other hand, were unable to produce ovulation in toads using injections of hebin (prepared from pregnancy urine). In our present experiments, we wished to further test the specificity of the hormone by implanting into toads, hypophyses from 2 different vertebrate classes. Garpike and albino rats were used.

A series of 6 *Bufo americanus* females were given daily implants of 2 to 4 hypophyses from garpike *(Lepidosteus platystomus Rafinesque* and *L. osseus L.)*. Ovulation occurred in 5 animals between the second and sixth day. The sixth female died of an infection without ovulating. The best results were obtained by implanting 4

* Aided by a grant from the Committee for Research in Problems of Sex of the National Research Council; grant administered by Prof. Emil Witschi.

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[2] Kuyper, A. C., Pfeiffer, C. A., and Wills, I. A., PROC. SOC. EXP. BIOL. AND MED., 1933, **30**, 413.