

and a confirmatory +3 response on the next higher dosage group.

*Conclusion.* No anterior-pituitary-like thyrotropic activity could be demonstrated in beef, sheep or hog ovaries.

### 8840 C

#### Presence of Estrin in Rat Pregnancy Urine.\*

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Many efforts have been made to demonstrate the presence of estrin in the urine of pregnant rats, particularly because of the wide use of this animal in the study of the physiological effects of estrogenic substances. We have previously made several unsuccessful attempts. Since it has been learned that acid hydrolysis greatly increases the yield of estrin from human pregnancy urine it seemed worth while to repeat the experiment.

The urine was collected by placing towels in the cages and covering them with screening. Record was kept of the number of animals and the length of time spent in the cages; the results are

TABLE I.

Material Injected	Rat/Days Urine Inj'd per Rat	No. Rats Inj'd	Results
Normal Female Urine	70	2	1 Negative 1 Weakly Positive
"    "    "	35	4	All Negative
1st Week Pregnancy	37.5	1	Positive
"    "    "	26.25	4	All Negative
2nd "    "	49	1	Positive
"    "    "	37	1	"
"    "    "	26	2	"
"    "    "	24	2	1 Positive 1 Weakly Positive
"    "    "	13	2	Both Negative
3rd "    "	60	1	Positive
"    "    "	52.5	1	"
"    "    "	30	2	"
"    "    "	27.5	2	"
"    "    "	24.5	3	"
"    "    "	15.5	4	All Negative
Hydrolyzed Plac.	48 Plac. per Rat	1	Negative
"    "    "	24 "    "    "	2	"
Unhydrolyzed Plac.	48 "    "    "	1	"
"    "    "	24 "    "    "	2	"

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therefore expressed in rat-days of urine. The towels were extracted twice for 12 hours with alcohol, the alcohol removed by evaporation and the sludge hydrolyzed for 2 hours with 10% hydrochloric acid. Following hydrolysis, the material was extracted with ether in a continuous extractor for 12 hours. The ether solution was washed with sodium bicarbonate solution and placed in olive oil. The divided dosage method of Marrian was used for the assay.

It happened to be convenient to assay rat placentae for estrin at the same time. One hundred and ninety-two placentae from rats 21 days pregnant were finely ground and refluxed twice for 24 hours with ethyl alcohol. This extract was purified by treatment with petroleum ether and with acetone. It was then divided and one-half subjected to acid hydrolysis. The results of both experiments are shown in Table I.

*Conclusion.* Small, but demonstrable amounts of estrin were found in the urine of pregnant rats; no estrin could be demonstrated in rat placentae.

## 8841 P

### Phagocytic Activity of Bone-Marrow Cells.

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In view of the fact that there is a vigorous opsonic response to the parenteral injection of antigenic fractions of *Brucella* cells, an unusual opportunity is offered for measuring the phagocytic activity of the various types of bone marrow cells collected directly from the marrow, or as they are found in the peripheral blood in myelogenous leukemia.

Studies have been made on the phagocytic activity of marrow cells aspirated from the cavity of the femur of normal guinea pigs, and those immunized to *Brucella*, and on marrow cells in the peripheral blood of one human case of chronic myelogenous leukemia.

The cells in the blood of the pigs were measured for their *Brucella* phagocytic activity *in vitro* prior to the collection and examination of marrow cells. The cells in the whole blood of normal pigs