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The pressor compounds of the pituitary gland.By **ALBERT C. CRAWFORD** and **ZENO OSTENBERG**.*[From the Division of Pharmacology, Stanford University Medical School.]*

The pituitary gland of cattle contains several pressor principles, one or more of which dialyze and at least one which does not dialyze through parchment paper. The non-dialyzable compound or compounds can be purified by lead subacetate and the filtrate, freed from lead, does not give the biuret reaction, at least in dilutions which give a pressor reaction, but yields a white benzoate (Baumann-Schotten method). The depressor principle readily dialyzes, but apparently depressor compounds form on long standing of the non-dialyzable portion.

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Note on the action of epinephrin on the guinea-pig uterus.By **E. BARBARA WILL** and **ALBERT C. CRAWFORD**.*[From the Division of Pharmacology, Stanford University Medical School.]*

On the isolated horn of the non-pregnant guinea-pig uterus suspended in oxygenated Locke's solution (Dale's modification), epinephrin (0.9 mg. in 500 c.c. at 41° C.) produced relaxation. Longitudinal strips also relaxed. Circular strips gave slight imperfect contractions. Direct inspection of the intact uterus showed that the intravenous injection of epinephrin produced blanching with contraction of the circular fibers. Diminution in the diameter of the horn and elongation was observed. This would suggest that the difference in action of epinephrin on the

non-pregnant and pregnant uteri of some animals may really be due to a relative increase in the development of the circular fibers. On the uterine horn in early pregnancy, epinephrin also caused relaxation. Circular strips contracted. Later in pregnancy the circular fibers gave a more marked response. On longitudinal strips taken from the same horn, epinephrin caused an increased tone with increase in number and strength of what Pettenger calls the "remittent contractions," but a suspension of what is called the intermittent contraction. Of course it is a question whether the so-called "remittent contractions" are not due to the presence of circular fibers. Direct inspection of the pregnant uterus in situ showed that epinephrin caused blanching and constriction of the circular fibers, with probably relaxation of longitudinal fibers. An oxidized solution of epinephrin, without pressor action, made by passing air through a solution of epinephrin for two days, caused marked increase in frequency of contractions. Experiments on the longitudinal fibers (during late pregnancy) are as yet incomplete, but would indicate that epinephrin caused relaxation.