with large quantities of 21-AOP but not with 3-AP. There was only a slight and scarcely significant preventive action against the increase of the uterine weight when large quantities of 21-AOP were given; but with antifibromatogenic quantities of 3-AP the uterine weight dropped considerably.

With 3-AP growth of the mammary glands was rather enhanced, as in former work with 3-ceto-steroids.[12,13,14] There was some androgenic action with 1040 to 1670 μg of 3-AP per day as evidenced by the slight enlargement, of the clitoris in 4 out of 9 animals.

The antifibromatogenic action of large quantities of 3-AP was as unexpected as was the estrogenic action of large quantities of androgens.[15] It would be idle to speculate now about the mechanism of similar paradoxical statements. We wish only to mention that pregnenolone has been tentatively assumed to play a role in the biogenesis of steroid hormones[16] and has been subsequently found in the testicle of the pig.[17]

Summary. With quantities of 3-acetate-pregnenolone about 30 to 50 times those of the antifibromatogenic minimum of progesterone, estrogen-induced abdominal fibroids can be prevented in the guinea pig to a very considerable degree. This is the first statement of an antifibromatogenic activity of a steroid with an hydroxyl group at C_3. There was only a slight diminution of the fibromatogenic effect when quantities of 21-acetoxy-pregnenolone as large as 50 to 80 times those of progesterone were given.

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12 Lipschutz, A., and Vargas, L., *Endocrinology*, 1941, **28**, 669.

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16559

Failure of Oral Saccharine to Influence Blood Sugar.

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A number of investigators have employed saccharine in examining the possibility that a sweet taste results in an alteration in blood sugar level. Various authors have claimed that an increase, [1,2] a decrease,[3] or no significant change[4,5] in blood sugar followed drinking a saccharine solution. The most recent report by Kun and Horvath,[3] and the only one presenting statistically significant data, shows a drop in blood sugar. We were interested in employing this technique as a means of maintaining a low blood sugar but in the face of earlier conflicting evidence, it was planned first to repeat the work under conditions duplicating as nearly as possible those described by Kun and Horvath.

1 Syllaba, G., *Guy's Hosp. Rep.*, 1930, **80**, 230.

2 Pannhorst, R., *Z. f. klin. Med.*, 1935, **127**, 688.

3 Kun, E., and Horvath, I., PROC. SOC. EXP. BIOL. AND MED., 1947, **66**, 175.

4 Althausen, T. L., and Wever, G. K., PROC. SOC. EXP. BIOL. AND MED., 1937, **35**, 517.

5 Fischer, F., and Schroter, A., *Dtsch. Med. Wschr.*, 1935, **61**, 1354.

TABLE I.
Blood Sugar Values at 10-Minute Intervals After Oral Administration of Saccharine to Fasting Subjects.

Subject	10 min.	20 min.	30 min.	40 min.	50 min.
1	110*	98	105	104	102
2	91	98	98	93	97
3	110	107	99	95	101
4	97	95	91	99	97
5	107	108	108	98	104
6	105	102	104	102	99
7	105	106	105	107	109
8	101	97	98	105	106
9	95	96	94	98	95
10	103	101	100	98	95
Mean	102.4	100.8	100.2	99.9	100.5

* Blood sugar values expressed as % of control level.

Methods. The 10 subjects used were departmental personnel who were familiar with the purpose of the experiment and had no apprehension concerning the procedure. All were in good health. On the morning of the test, each subject appeared at the laboratory without breakfast and was made to lie quietly on a cot for 20 to 30 minutes before the first blood sample was taken. Two control blood samples were taken 10 minutes apart and after the second, 50 mg of saccharine in 80 ml of water was drunk over a period of 5 minutes. Ten minutes after the subject began drinking the saccharine solution, the third blood sample was drawn and 4 additional samples were taken at 10 minute intervals. Duplicate determinations of blood sugar were made on each sample by the micro method of Hagedorn and Jensen.[6]

Results and Discussion. In the accompanying table, the average of the 4 determinations on the first 2 blood samples is taken as the control value. All other values on each subject are then expressed as per cent of his own control. The greatest single variation from a control is 10% and the greatest mean variation for all subjects at any one time period after saccharine is 2.4%.

Why Kun and Horvath obtained consistent and significant lowering of blood sugar and all others, including ourselves, did not, we are unable to explain. The mean control value of all subjects was 97.8 mg%, which is a usual fasting value for the blood sugar as determined by the method used. Therefore, one could not say that other factors raised the blood sugar in our experiments and thus obscured a lowering due to the sweet taste, nor could one account for the absence of a hypoglycemic response in terms of an abnormally low initial blood sugar level.

Summary. Oral administration of saccharine to 10 normal subjects, fasted and at rest, did not influence the blood sugar during the subsequent 50 minutes.

[6] Hagedorn, H. C., and Jensen, B. N., *Biochem. Z.*, 1923, **137**, 92.

16560

Enzymatic Inactivation of Serum Vasoconstrictor.*

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It has been the practice for many years to abolish the vasoconstrictor properties of serum or defibrinated blood to be used in the perfusion of isolated organs, by passing the blood through oxygenated lungs. The mechanism of this action is not known.

Our studies on the identification of the substance which causes the vasoconstriction led us to investigate the action of cell-free protein extracts from lung tissue on highly purified preparations of serum vasoconstrictor. The results of this study, which are reported in this paper, indicate that the

* A preliminary report of this paper was published in *Federation Proceedings*, 1948, **7**, 180.