vented examination. The other yielded negative blood cultures up to 14 weeks.

Over a period of several weeks, recently captured sandflies were applied to the belly and eyebrows of 2 monkeys. One was bitten by 70 out of 242, and the other by 84 out of 335. Blood cultures up to 4 months were negative.

Two monkeys were inoculated intraäbdominally and endermally on the eyebrow, with suspensions of 10 batches totalling 340 wild females and 5 males. One monkey died within 20 days and was negative. The other received an additional suspension of 70 females and yielded only negative blood cultures up to 4 months.

Summary. Sandflies *(P. verrucarum* and *P. noguchii)* fed on patients showing many bartonellæ in blood films became infected with a bartonella-like organism not as yet identified. A similar infection was found in only one of the wild sandflies examined.

Transmission experiments with sandflies and rhesus monkeys resulted negatively, but were too limited to be conclusive.

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A Color Test for Pentoses.

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One drop (0.05 cc.) of a pentose solution (l-arabinose, d-arabinose, xylose or ribose) containing 0.05 mg. or more of the sugar is placed in a test tube. 0.5 cc. of benzidine solution (1 gm. benzidine in 25 cc. glacial acetic acid. This solution keeps for 4 days) is added and the mixture is brought to vigorous boiling. The test tube is then put in cold water. Within a few seconds a very stable cherry red color develops. Glucose, fructose and galactose give yellow to brown colors with the benzidine solution. Even large amounts of hexoses, however, do not interfere with the test. There is only a slight delay in the formation of the red color (0.1 mg. of arabinose and one mg. of glucose). As little as 10 gamma of pentose may be detected. For instance urine specimens containing 0.1 mg. of arabinose per cc. gave a distinct red color when 0.1 cc. of urine was added to 0.5 cc. of benzidine solution. Normal and abnormal urinary constituents do not interfere with the test. Too large amounts of proteins may be removed from pathological urines by adding

an equal volume of 10% trichlor acetic acid, mixing, and heating to 95°. The filtered urine may then be tested.

When testing for pentose in urine, the urine (0.1 cc.) and benzidine solution (0.5 cc.) is brought to vigorous boiling. The mixture is cooled under tap water and 1 cc. of distilled water is added. In the presence of pentose a pink to red color is shown immediately, whereas if pentose is absent the mixture has a yellowish brown color.

This color test is also given by vitamin B_2 (riboflavin), by the yellow oxidation enzyme of Warburg and Christian, and by nucleic acids owing to the ribose content of all of these compounds. It is negative, however, with gum arabic since this pentosan is not hydrolyzed by the benzidine-acetic acid solution. The test is highly specific for pentoses.

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Direct Effect of Adrenal Cortical Hormone upon Blood Pressure in Shock Induced by Intestinal Manipulation.

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The writers[1] have repeatedly called attention to the slow but steady decline in blood pressure which occurs in adrenalectomized dogs after withdrawal of cortical hormone, and have pointed out that following administration of hormone to animals prostrate from adrenal insufficiency the rise in arterial pressure from shock levels to normal is one of the first and most dramatic changes observed during recovery. The fall in pressure is not a terminal event but is one of the earliest changes from normal exhibited by the animal not receiving hormone.

During the past year we have performed 4 different types of experiments on adrenalectomized dogs, the results of which show that the cortical hormone exerts a direct effect upon blood pressure which is distinct and separable from the action of this hormone upon blood volume, and fluid and electrolyte distribution. Table I gives the essential data obtained from a representative case in one type of

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