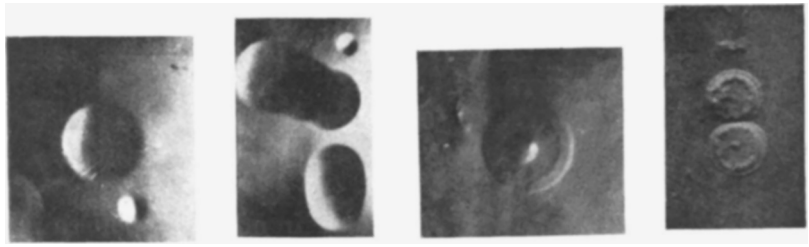

FIG. 1. FIG. 2. FIG. 3. FIG. 4.

Fig. 1. Typical large flat colony compared to the ordinary virulent streptococcus colony. *Fig. 2.* Variant forms of large flat colony and a virulent streptococcus colony. *Fig. 3.* Flat colony with central nipple and irregular raised periphery as may be seen after 48 hours. *Fig. 4.* Flat colony showing errosion which may also occur after 48 hours.

cus. However, upon cultivation in broth of a pH 6.5 and upon rapid mouse passage a few of the flat, translucent colonies eventually appear. On mouse passage they are recovered first from the peritoneal exudate rather than the heart's blood and apparently always predominate in the former. The organisms forming the flat colonies were found to be encapsulated when taken directly from the mouse, in contrast to non-encapsulated forms of the ordinary virulent streptococcus under similar circumstances.

There is some variation in the appearance as well as the behavior of these large colonies on different sorts of solid media. Agar enriched with some body fluid seems to stabilize them. Often on ordinary agar the colonies are seen to develop areas of erosion. Opacities also appear, as well as a central nipple and an irregular raised periphery.

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The Hyperglycemic Effect of Vasopressin, Oxytocin and Pituitrin.

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Doctor Oliver Kamm and his associates kindly furnished us with experimental lots of their vasopressin and oxytocin and we were enabled to study in normal unanesthetized dogs and rabbits the changes in blood sugar following the intravenous injection of these 2 principles, as also the commercial pituitrin (obstetrical, Parke, Davis & Co.). We found that vasopressin, oxytocin and pituitrin

caused a very definite hyperglycemia. The rise of blood sugar with oxytocin is more prolonged but not as high as with vasopressin. The hyperglycemia after pituitrin is intermediate in degree between that of vasopressin and oxytocin. These 3 substances behave differently in their hyperglycemic activity after treatment with 2 N sodium hydroxide in the cold. In the case of vasopressin the sugar raising property is practically completely destroyed whereas the oxytocin and pituitrin are only partially injured in respect to this property. The extent of destruction appears to be less with pituitrin than with oxytocin. This may be due to the larger amount of protein present in the pituitrin.

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Orientation of Cylindroid Particles in Gelatin-Serum Gels.

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The phenomenon here described has been observed during the study of the cataphoresis of red cells and rouleaux in gelatin-serum sols and gels. The method of preparation of the suspension has been described elsewhere.[1]

The red cells of the horse, since they do not become coated with proteins in the manner of quartz particles when suspended in a soft gelatin-serum (2 to 3% gelatin) gel, have the remarkable property of migrating through a protein sol or gel. If cylindroids, consisting of red cells in rouleaux formation, are moved back and forth through such a sol or gel, by virtue of their cataphoretic mobility, no orientation of these cylindroid bodies occurs during the cataphoretic migration.

At the same time the gelatin and serum protein micellae are also in movement, as well as the liquid in the cataphoresis cell.[2] As gelation proceeds, the speed of the cylindroid bodies becomes much slower. In spite of the fact that the cylindroids have been moved back and forth in the cell over a considerable period, *i. e.*, 10 minutes, and even though they are apparently subjected to a laminary liquid stream, the orientation of the cylindroids is still at random

[1] Freundlich and Abramson, *Z. Phys. Chem.*, 1928, cxxxiii, 52. Abramson, *J. Gen. Phys.*, 1928, xi, 743.

[2] Abramson, "Colloid Symposium Monograph No. 6," in press.