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A sporozoan found in the peptic glands of the common mouse.

By **E. E. TYZZER.**

[*From the Laboratory of the Caroline Brewer Croft Fund Cancer Commission of Harvard University.*]

This organism occurs frequently in the gastric glands of tame mice, but has not yet been found in wild mice, of which only a small number have been examined. It is extracellular in all stages of its development thus far observed. It presents structural characteristics without which it would be impossible for it to develop on the surface of the secreting gland-epithelium, and also produces structural changes in the gastric mucosa so that it is to be considered a true parasite. It is evident, from the morphological study of the various forms present, that this parasite has an asexual and a sexual mode of reproduction. All forms during their growth possess a definite limiting membrane at one point of which is a knob-like projection which represents an organ of attachment, evidently analogous to the epimerite of the Gregarinida. This projection gives to the organism a somewhat flask-shaped form. Occasionally a delicate thread extends outward from this projection, but I have been unable to determine whether or not this belongs to the structure of the organism. One or more globules, which are stained either by Sudan III or by osmic acid, are found in each organism. In ordinary preparations these appear as vacuoles. The developmental stages are briefly outlined in the following description.

Cryptosporidium muris, spec. nov. (unclassified). Development extracellular. In form flask-shaped, either spheroidal or ellipsoidal. All forms, during the period of growth, possess a relatively thin limiting membrane, an organ of attachment (epimerite?), and each contains one or more globules of fat which during segmentation are to be found in the residual body.

Schizont, after division of its chromatin, segments into eight banana-shaped merozoites, each possessing a demonstrable nucleus with a single karyosome. The substance of the organism is nearly all utilized in the development of the merozoites. Residual mass small and contains fat globule.

Microgametocyte smaller than schizont (never exceeds 5 × 3.5 microns). Division of chromatin followed by formation of sixteen or more microgametes which usually develop at the surface of the organism farthest from the organ of attachment. The larger portion of microgametocyte is left as a rounded residual body in which there is usually a fat globule.

Macrogamete or sporont, characterized by iodophilic granules and by the development of a dense capsule. Process of maturation and fertilization not determined. The entire organism is transformed into a single ellipsoidal spore which measures 7 × 5 microns and contains four sporozoites. Sporozoites about ten microns in length, slender, fusiform, without demonstrable internal structure. They lie parallel one with another within the capsule of the spore, and are bent in U shape around the centrally situated residual material.

Habitat. — Gastric glands of *Mus musculus*.

Since no description of this organism has been found, the above name *Cryptosporidium muris* is offered. No evidence has been obtained indicating that this organism represents a portion of the life cycle of any of the hitherto described parasites of the mouse, and it seems probable that it passes through its entire developmental cycle in the gastric glands. All the mice in certain cages are infected with this parasite, and since the ripe spores are found in the feces it is possible that infection follows the ingestion of contaminated food.

The systematic position of the organism appears uncertain. In its possession of an organ of attachment and of iodophilic granules, it resembles the gregarines. In its morphology, in the lack of motion in the adult, and in sexual dimorphism it resembles the coccidia. If it is to be included in the latter group, it may possibly belong to the Family Asporocystidæ (Döflein).