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British Folliculinidæ (Ciliata, Heterotricha)

While examining plates submerged in sea water at Cullercoats, I have come across two species of Folliculinidæ which, to my knowledge, have not been reported so far from Great Britain. They are *Folliculinopsis* (*Folliculina*) *producta* Wright and *Folliculina simplex* Dons. The *Folliculinopsis producta* forms are remarkable for their large size and extreme elongation of the body, the overall length of my specimens ranging from 2,000 μ to 2,600 μ (2·0–2·6 mm.); and a few specimens were as long as 3 mm., a large size indeed for a simple non-colonial protozoon. The biology of these two species has been worked out and is being published elsewhere.

Sixteen well-marked species of Folliculinids are known from the Continent[1,2] and ten species from the United States[3], while only three species have been recorded from Great Britain so far[4,5,6], namely, *Folliculina ampulla* Müller (Plymouth and Port Erin), *Folliculina elegans* Clap. and Lach. (Port Erin), and *Parafolliculina hirundo* Kent (Channel Islands). The present two species from Cullercoats bring the number of British Folliculinidæ to five.

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Entamœba sp. from the Syrian Hamster (*Cricetus auratus*)

During the course of work on experimental infections of *Entamœba histolytica* in rats, it was noticed that rats sometimes developed spontaneous infections with an amœba showing characters differing from those of *E. histolytica*. An examination of hamsters, which were housed in the same room, revealed the presence of a similar amœba. Hitherto there has been no report of an amœba parasitic in the hamster.

All observations were made on fresh material, and also on fixed and stained smears made from hamsters used for tests of leishmanicidal drugs.

Amœbic infection was found in fifty hamsters (59 per cent) of eighty-five examined; of these, thirty-seven harboured only the trophic amœbæ, while thirteen also had cysts. Pseudopodia consisted of ectoplasm, clearly demarcated from the endoplasm, and in stained specimens presented a homogeneous structure. In a fresh smear the rounded forms had a diameter of 17–28 μ. The spherical nucleus varied in size between 3·50 and 5·75 μ; it contained a compact, rather irregularly shaped karyosome which occupied a very eccentric position, being frequently situated near the nuclear membrane. The peripheral chromatin consisted of a layer of fine granules more or less in contact with one another. The endoplasm was vacuolated; food vacuoles contained bacteria, plant debris, and other Protozoa, chiefly trichomonads. *Sphærita* was also present in some cases.

The ripe cysts contained eight nuclei, the karyosomes of which were usually strongly eccentric. Chromatoid bodies, not commonly present, were elongated with irregular ends. The cysts ranged in size from 12·5 to 22 μ in diameter, with an average size of 17 μ. No evidence of races of larger or smaller dimensions has yet been obtained.

Experiments were performed to determine whether the amœbæ from the hamster were infective to rats. Suspensions of cæcal contents of infected hamsters were administered orally to young rats each receiving 0·25 ml., containing eighteen cysts. The rats were isolated in cages, special precautions being taken to prevent accidental contamination, and the cæca examined after ten days. Nine of eleven inoculated animals developed amœbic infections, while normal control animals kept under identical conditions all remained free from infection.

The amœbæ from the hamster thus proved to be infective to rats. The morphology of the trophic amœbæ and cysts was unaltered in the second host. The amœbæ were found to survive for a time in Dobell and Laidlaw's horse-serum and Ringer egg medium[1], but did not multiply and died after twenty-four hours.

The amœba was apparently non-pathogenic, although two of the experimentally infected rats showed slight diarrhœa. From these observations it would seem that the rats might acquire their infection from hamsters kept in the laboratory.

Fuller details of this investigation will be published elsewhere.

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Isotropy in the *J* Striation of Striated Muscle

Frey-Wyssling[1], following Hürthle, explains the isotropy of the *J* striation in muscle as the crossing of micellar structure. C. E. Hall, M. A. Jakus and F. O. Schmitt[2] established by electron micrographs that myofibrils are composed of parallel bundles of filaments lying axial with the fibrils both in the *Q* and *J* striations. On the basis of their experiments these authors put forward two hypotheses to explain