

strain no mutant with a *thr<sup>+</sup> pro<sup>+</sup> his<sup>+</sup> Sm<sup>r</sup>* phenotype was found. One day after the administration of the second strain, recombinants with such a phenotype appeared and their number increased up to the tenth day, at the end of the experiment. We conclude that genetic transfer between interfertile strains of enterobacteria may take place in the alimentary tract of poultry.

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### CHEMICAL AND AETHIOLOGICAL OBSERVATIONS ON KERATOCONJUNCTIVITIS SINUSITISES IN BIRDS

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This preliminary study concerning keratoconjunctivitis sinusitises in birds, reveals the very important place of mycoplasma in the genesis of these diseases in chickens, turkeys, pheasants and partridges.

The association of some viruses increases the intensity of the pathological process.

The bacteria most frequently isolated from the lesions are *Escherichia coli* and *Pseudomonas aeruginosa* (10<sup>7</sup> to 10<sup>9</sup> bacteria per gram of tissue).

The causal agent, free of bacteria, can be cultivated in chicken embryo fibroblastes (C. E. F.) The infected C. E. F. are able to reproduce kerato-conjunctivitis sinusitis in chickens inoculated per conjunctival or intra-sinusal route or per contact.

This observation reveals that the interfering bacteria have in fact a secondary place in the aetiology of K. C. S.

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### REARING TECHNIQUES FOR AXENIC BIRDS

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It is absolutely necessary that the animal stock used for experimentations is as reliable as possible. With this end in view, the Avian Pathology Station (I. N. R. A.) has perfected a technique of germfree poultry production.