

this production defects are associated with general non specific reaction mechanisms. These mechanisms are independant of the extend and magnitude of specific characters. 5-HT injection prior to coccidial challenge inhibits, partly but significantly, these general troubles without noticeable alteration of the parasitic disease *per se*.

SENSITIVITY OF *EIMERIA* OOCYSTES TOWARDS TEMPERATURE

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BACTERIAL CONJUGATION IN THE INTESTINAL TRACT OF THE BROILER

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Several mechanisms of genetic exchange are known in bacteria and have been extensively studied *in vitro*.

In spite of its great possible ecological significance, genetic transfer *in vivo* has been little studied.

Conjugal transfer of genes between interfertile strains of *Escherichia coli* has been demonstrated in the mouse intestine, but such a transfer has not been reported in poultry.

In order to investigate this possibility, we contaminated axenic (« germ-free ») chicken with an Hfr and an F⁻ strain of *E. coli*. The Hfr was thr⁻ and Streptomycin sensitive, the F⁻ strain was a Streptomycin resistant pro⁻ his⁻ double auxotroph.

In one experiment we inoculated the F⁻ strain first and the Hfr one week later. In another experiment, the Hfr strain was given first.

Faeces were collected daily and appropriate dilutions were plated on LB medium to determine the total number of *E. coli*, and on minimal medium containing glucose and streptomycin to obtain the number of thr⁺ pro⁺ his⁺ Sm^r recombinants.

During the period when the chicken were monocontaminated with either the Hfr or the F⁻