# Application of subtractive suppressive hybridization (SSH) to identify host-specific virulence factors of enterohaemorrhagic *Escherichia coli* (EHEC) strains of serogroup O26

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Enterohaemorragic *Escherichia coli* (EHEC) strains are responsible for food poisoning in humans in developed countries via consumption of vegetal and animal foodstuffs contaminated by ruminant faeces. The clinical conditions vary from undifferentiated diarrhoea to haemorrhagic colitis with, in 10 % of the cases, apparition of renal sequelae that can lead to death. Most EHEC strains are present in the gut of healthy ruminants, but some of them, belonging to O26, O111, O118 serogroups f.i., are also responsible for digestive disorders in calves.

The aim of this research work is to identify factors implicated in initial attachment and in host specificity (man or cattle) of O26 EHEC strains by applying subtractive suppressive hybridisation (SSH) technique on one bovine O26 EHEC strain with one bovine O26 non-pathogenic strain, on the one hand, and with one human O26 EHEC strain, on the other hand, to amplify the genes specific to the bovine O26 EHEC strain. More than 2000 clones have been obtained so far in each SSH experiment. Differential screening is being performed to select specific fragments to the tester. These one are being compared by size and restriction profile and analysed by sequencing and BLAST. The distribution of potentially "bovine" specific genes will be studied amongst *E. coli* belonging to different serotypes and pathotypes.

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