Bovine enteric coronavirus belongs to the monogeneric Coronaviridae family; it induces very severe, often fatal diarrhoea in young calves. Described for the first time in the USA (1) an antigenically different strain F15 was isolated in France (2–3). The complete nucleotide sequence of the BECV F15 genome located between the S and M structural genes has been determined from 4 overlapping cDNA clones. This sequence is 962 nucleotide long. Two open reading frames (ORF) corresponding to the unique regions of the subgenomic mRNA 5 and mRNA 6 were identified. ORF 5 of 327 nucleotides encodes a polypeptide of 12,807 daltons (NS2); ORF 6 of 252 nucleotides encodes a polypeptide of 9,585 daltons (NS23). NS2 amino acid sequence is 53.2% homologous with 12,400 daltons (ORF 5a) coronavirus MHV-JHM polypeptide (4) and NS3 amino acid sequence is 61.5% homologous with the 10,200 daltons (ORF 5B) MHV-JHM polypeptide (4). The regions of homology involved in regulating the synthesis of the subgenomic mRNAs 5, 6 and 7 are underlined.

REFERENCES