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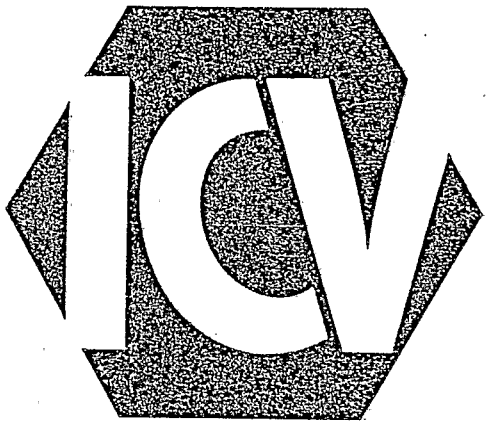
VIIIth INTERNATIONAL CONGRESS OF VIROLOGY



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IUMS-SYMPOSIUM ON NEW DEVELOPMENTS IN DIAGNOSIS AND CONTROL OF INFECTIOUS DISEASES

An Interdivisional Meeting of the International Union of Microbiological Societies (IUMS)

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ABSTRACTS

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P70-007

THE GLYCOPROTEIN OF MARBURG VIRUS IS N- AND O-GLYCOSYLATED

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Marburg virus is an enveloped, negative-stranded RNA virus and constitutes together with Ebola virus a new virus family, the Filoviridae. Both viruses are highly pathogenic for humans and cause a severe hemorrhagic disease. The glycoprotein (GP) is a highly glycosylated membrane protein with a molecular weight of at least 150 kd. The sugar part of the protein amounts to about 30% of the total

P70-008

ANTIGENIC CHARACTERIZATION OF HANTAVIRUSES ISOLATED IN YUGOSLAVIA

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Two viruses have been isolated from yellow - neck field mice (Apodemus flavicollis) and bank vole (Cletrhrionomys glareolus), captured in endemic areas of HFRS in Yugoslavia. Viruses were isolated directly in Vero E-6 cells and partially characterized based upon the sero-

Developing experimental models of Crimean-Congo haemorrhagic fever virus (CCHFV) using strains and hosts from West Africa

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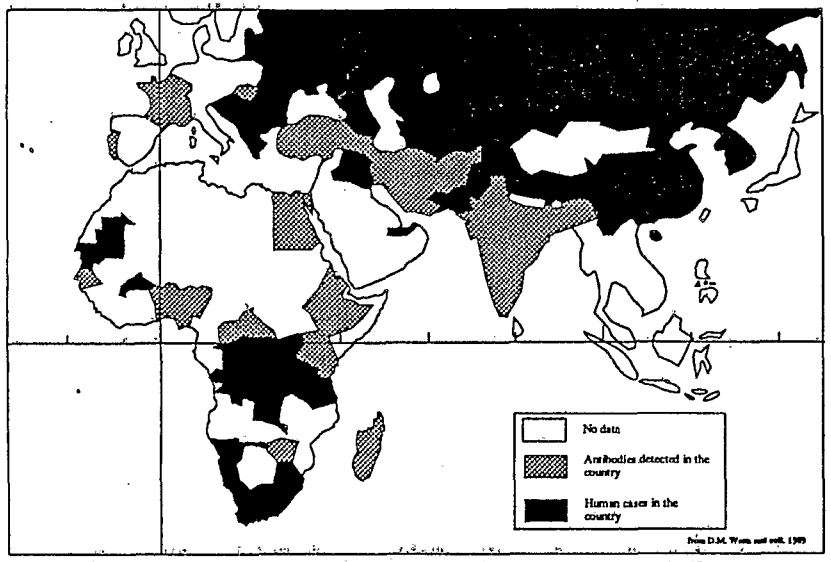
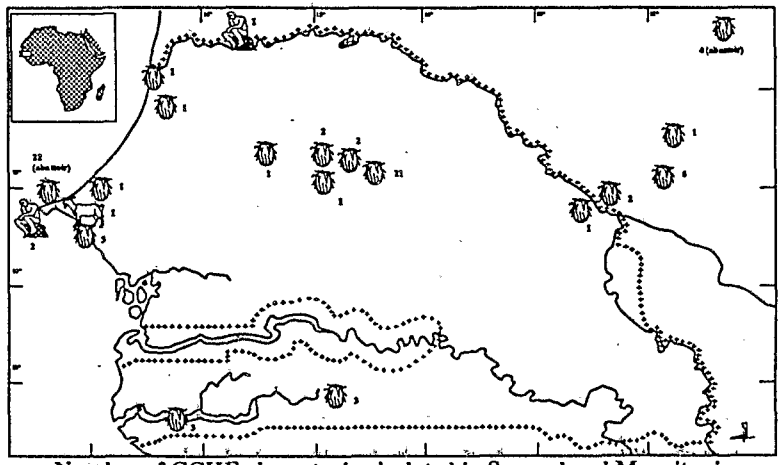


Geographical distribution of Crimean Congo Hemorrhagic Fever

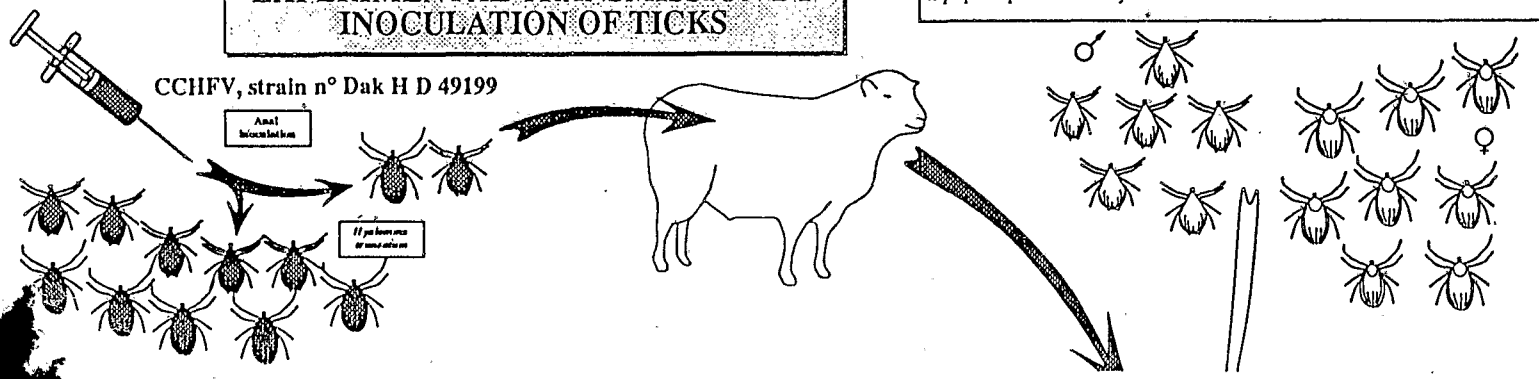


Number of CCHF virus strains isolated in Senegal and Mauritania
(data from CRORA 1990)

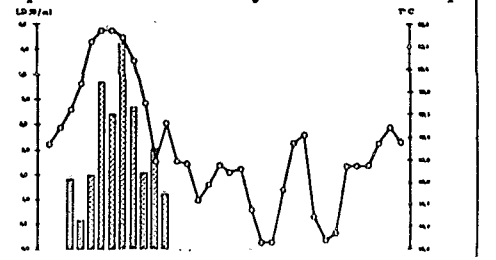
Ticks (*Hyalomma truncatum, Amblyomma variegatum*) naturally and experimentally infected with CCHFV have been monitored for virus replication throughout stadial development.
Sheep were infected with CCHFV either by infestation of experimentally infected ticks or by inoculation. Viremia, including reisolation using suckling mice and serological response (IgM capture & IgG Elisa) have been monitored over 6 months.
Pathogenic and immunological responses were observed in pregnant ewes and their offspring.
Experimental transmission to laboratory rabbits by naturally infected ticks has been carried out.
Wild rodents (*Mastomys erythroleucus* and *Arvicanthis niloticus*) as well as hedgehog (*Erinaceus albiventris*), guinea fowl, domestic chicken and laboratory mice were studied.
The intensity and pattern of the serological response varied with hosts and inoculation route. Virus reisolation occured in some cases (*Mastomys*, rabbit, guinea pig, mouse). Certain domestic and peridomestic animals that were naturally infected appeared to replicate the virus occasionaly at a low titer and develop variable immunity. Pathogenicity seems to be limited, with no major clinical involvment in any of the species studied. These results combined with field observations (serosurveys and virus isolations) are used to propose a putative natural cycle of CCHFV in the west african environment.

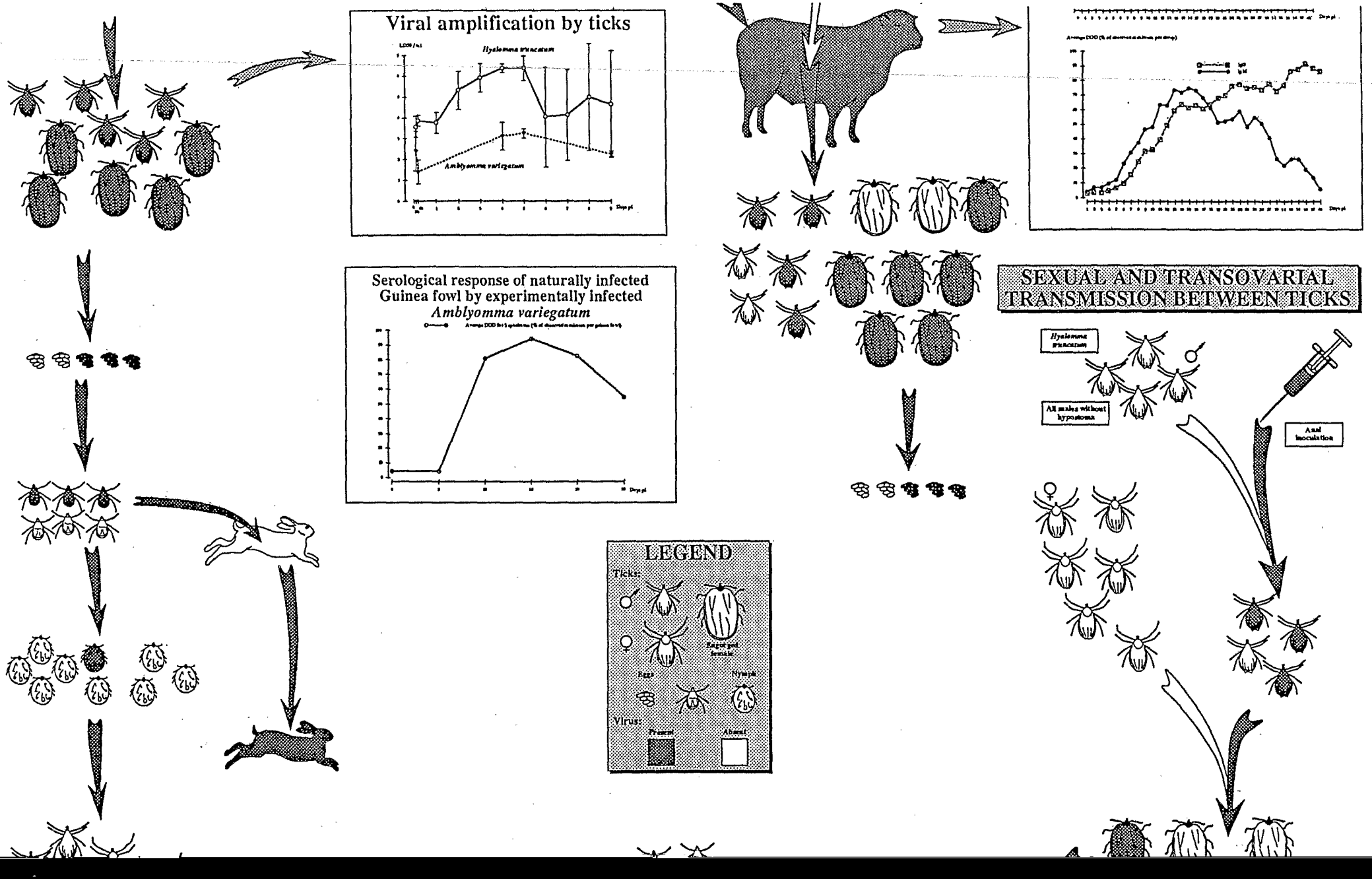
EXPERIMENTAL TRANSMISSION BY INOCULATION OF TICKS

CCHFV, strain n° Dak H D 49199



Clinical, virological and serological response of naturally infected sheep




Viral amplification by ticks
Hyalomma truncatum
Amblyomma variegatum
Serological response of naturally infected Guinea fowl by experimentally infected Amblyomma variegatum
SEXUAL AND TRANSOVARIAL TRANSMISSION BETWEEN TICKS
Hyalomma truncatum
All males without hyposoma
Anal inoculation
LEGEND
Ticks:
Virus:
Present
Absent