Virus Name: Kannamangalam		Abbreviation: KANV
Status **Possible Arbovirus**	Select Agent **No**	SALS Level **2**

SALS Basis
Results of SALS surveys and information from the Catalogue.

Other Information

Antigenic Group
Ungrouped

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation	Accession Number	Original Date Submitted
CMC 7840-41; VRC 66415		11/8/1984

Family	Genus
Not listed	**Not listed**

Information From	Address
Arbovirus Res. Off., Microbiol. Dept.	**Christian Med. Coll. (CMC) Hosp., Vellore-4, N. Arcot, Tamil Nadu, India**

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)	Isolated at Institute	
D.E. Carey	**Virus Research Centre, Poona - CMC, Vellore**	
Host Genus **Corvus splendens Vieillot (house crow)**	Species	Host Age/Stage

Sex
Not Answered

Isolated From	Isolation Details
Serum/Plasma	

Signs and Symptoms of Illness	Arthropod

Time Held Alive before Inoculation

Collection Method	Collection Date
Trap	**8/23/1963**

Place Collected (Minimum of City, State, Country)
Kannamangalam, Vellore Tk., N. Arcot, India

Latitude	Longitude
12° 55' N	**79° 8' E**

Macrohabitat	Microhabitat	Method of Storage until Inoculated
Throughout India, Pakistan, Burma, Ceylon (3)	**Towns and villages, in close association with man (3)**	**Sera from two crows pooled and stored at -50dC**

Footnotes

Section III - Method of Isolation

Inoculation Date
9/4/1963

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
No

Other Reasons
This is the first isolation of this agent

Homologous Antibody Formation by Source Animal
Not tested

Test(s) Used

Footnotes

Section IV - Virus Properties

Physicochemical

Pieces (number of genome segments)	Infectivity	Sedimentation Coefficients(s) (S)
Percentage wt, of Virion Protein	Lipid	Carbohydrate
Virion Polypeptides: Number	Details	
Non-virion Polypeptides: Number	Details	
Virion Density	Sedimentation Coefficients(s) (S)	
Nucleocapsid Density	Sedimentation Coefficients(s) (S)	

Stability of Infectivity (effects)

pH (infective range)

Lipid Solvent (ether - % used to test)	After Treatment Titer	Control Titer
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate) **1.0%**	After Treatment Titer **<1.0 dex**	Control Titer **3.7 dex**

Other (formalin, radiation)

Virion Morphology

Shape	Dimensions	
Mean nm	Range nm	
Measurement Method	Surface Projections/Envelope	Nucleocapsid Dimensions, Symmetry

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
Inclusion Bodies	Other	

Hemagglutination

Hemaggiutination	Antigen Source	Erythrocytes (species used)
No	**SMB ext. by sucrose-acetone**	**Goose****
pH Range	pH Optimum	
Temperature Range	Temperature Optimum	

Remarks
SMB tr. by alk. aqueous extraction with and without protamine treatment also tested for HA. ** Others used for HA detection included human O, chicken, guinea pig, mouse, rat and sheep.

Serologic Methods Recommended
CF

Footnotes
SMB tr. by alk. aqueous extraction with and without protamine treatment also tested for HA. ** Others used for HA detection included human O, chicken, guinea pig, mouse, rat and sheep.

Section V - Antigenic Relationship and Lack of Relationship to Other Viruses

In complement-fixation tests performed in Vellore, non-reactive with hyperimmune mouse sera to the Group A virus, Sindbis; Group B viruses, dengue, Japanese encephalitis, West Nile; other arboviruses including Chittoor (Bunyamwera), Sathuperi (Simbu) and Umbre (Turlock); still other agents isolated previously in Vellore and believed to be arboviruses though not at the time identified or grouped; and to the LGV-ornithosis viruses.
In complement-fixation tests carried out in the laboratories of the Yale Arbovirus Research Unit, New Haven, non-reactive with grouping hyperimmune mouse ascitic fluids of arbovirus groups A, B, C, Guama, Bunyamwera, Simbu, California, Anopheles A, Anopheles B, Turlock, Capim, Tacaribe, VSV, Quaranfil, Kaisodi and Qalyub. In addition, hyperimmune mouse ascitic fluid of Kannamangalam was non-reactive when tested with antigens of nearly all of the arboviruses in the Yale Arbovirus Research Unit's collection.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Primary chick embryo cell cultures

Cell system (a)	Virus passage history (b)	Evidence of Infection						
		CPE			PLAQUES			Growth Without CPE
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)	+/- (g)
Vero (CL)	P24 SM1					No plaques (4)		
LLC-MK2 (CL)						No plaques (4)		
PS (CL)						No plaques (4)		
C6/36 (CL)			No CPE (4)					

Section VII - Natural Host Range (Additional text can be added below table)

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Corvus splendens	1/49		Vellore, Tamil Nadu, India
Man	Nil	0/30 CF	

Section VIII - Susceptibility to Experimental Infection (include viremia)

Experimental host and age	Passage history and strain	Inoculation Route-Dose	Evidence of infection	AST (days)	Titer log10/ml
Mice (nb)	SM 8	ic	100% mortality		
Mice (nb)		ip	No illness		
Mice (nb)		sc			
Mice (wn)		ic	No illness		
Mice (wn)		ip	No illness		
Mice (nb)	SM 11	ic			3.9

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmision by bite (d)		Assay of arthropod, log10/ml (e)		
	Feeding	Injected	Days	°C	Host	Ratio	Whole	Organ	System

Section X - Histopathology

Character of lesions (specify host)

Inclusion Bodies — Intranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human Disease

In Nature	Residual	Death
Subclinical	Overt Disease	
Clinical Manifestations		
Number of Cases	Category (i.e. febrile illness, etc.)	

Section XII - Geographic Distribution

Known (Virus detected)
India

Suspected (Antibody only detected)

Section XIII - References

1. Carey, D.E., et al. 1971. Indian J. Med. Res., 59:1708-1711.
2. Carey, D.E., et al. 1968. Indian J. Med. Res., 56:1340-1352.
3. Salim Ali, The Book of Indian Birds. 7th Ed. Bombay Natural History Society. Bombay, India. c. 1964.
4. Calisher, C.H., et al. Personal communication. 1983.

Remarks