Virus Name: Connecticut	Abbreviation: CNTV

Status
Possible Arbovirus

Select Agent
No

SALS Level
3

SALS Basis
Isufficient experience with virus; i.e., experience factor from SALS surveys was less than 500 in laboratory facilities with low biocontainment.

Other Information

Antigenic Group
Sawgrass Group

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
Ar-1152-78

Accession Number

Original Date Submitted
10/11/1984

Family
Rhabdoviridae

Genus
Not listed

Information From
Andrew J. Main

Address
Yale Arbovirus Research Unit (YARU), 60 College Street, New Haven, Connecticut, 06510, USA

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
Andrew J. Main

Isolated at Institute
YARU

Host Genus
Ixodes (Ixodes) dentatus

Species

Host Age/Stage
21 nymphs

Sex
Not Answered

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod
Engorged

Time Held Alive before Inoculation
2 days

Collection Method
Unknown

Collection Date
8/22/1978

Place Collected (Minimum of City, State, Country)
Lyme (New London County) Connecticut, USA

Latitude
41° 21' N

Longitude
72° 20' W

Macrohabitat
Advanced old field with Smilax and Juniperus virginianus

Microhabitat
Eastern cottontail (Sylvilagus floridanus) (nonviremic)

Method of Storage until Inoculated
Revco at -80dC

Footnotes

Section III - Method of Isolation

Inoculation Date
5/10/1979

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
Not tried

Other Reasons
Virus distinct from any available in laboratory

Homologous Antibody Formation by Source Animal

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)	After Treatment Titer	Control Titer

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 **5.8-7.4**	pH Optimum	
Temperature Range **4dC, 22dC, 37dC**	Temperature Optimum	

Remarks

Serologic Methods Recommended
CF, NT

Footnotes

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

Complement-fixation Test:

	Ascitic Fluids		
Antigens	**Connecticut**	**Sawgrass**	**New Minto**
Connecticut	256/128 [a]	32/64	0
Sawgrass	16/32	128/32	32/32
New Minto	4/16	0	256/512

[a] Serum titer/antigen titer; 0 = <4/<4

Neutralization Test (Suckling Mouse, ic):

	Ascitic Fluids		
Virus	**Connecticut**	**Sawgrass**	**New Minto**
Connecticut (5.1) [b]	> 3.5 [c]	1.1	0.9
Sawgrass (4.3)	2.5	> 2.5	1.3
New Minto (5.2)	1.9	1.8	> 3.7

[b] Dex of LD50

[c] LNI in dex

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn mice

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)	SM 4				6		3.2(d)		
BHK-21 (CL)					8		4.0		
BHK-21 (CL)			No CPE					- (2)	
E6 (CL)		6	CPE	6.0(d) (2)					
C6/36 (CL)			No CPE					- (2)	
Vero (CL)					8-9	Plaques (2)			

(d) Expressed in dex

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
Ixodes dentatus - larvae	0/160		Connecticut, USA
nymphs	1/85		
adult males	0/28		
adult females	0/41		
Other tick species- larvae	0/11,496		
nymphs	0/2,017		
adult males	0/3,308		
adult females	0/3,243		
Sylvilagus floridanus		4/14 NT	

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)	AR-1152-78, SM 4	ic 0.02	Paralysis, death	3	6.0
Mice (nb)		ip 0.02	None		
Mice (nb)		sc 0.02	None		
Mice (wn)		ic 0.04	None		
Mice (wn)		ip 0.04	None		
Mice (wn)		sc 0.04	None		
rabbit (ad)		sc 0.2	None (viremia not detected)		
guinea pig (ad)		sc 0.1	CF, NT antibody (viremia not detected)		

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)
Connecticut, USA

Suspected (Antibody only detected)

Section XIII - References

1. Main, A.J. and Carey, A.B. 1980. J. Med. Ent. 17:473-476.
2. Kerschner, J. Personal communication. 1983.

Remarks