

Virus Name: Wyeomyia		Abbreviation: WYOV
Status Probable Arbovirus	Select Agent No	SALS Level 2
SALS Basis Results of SALS surveys and information from the Catalogue.		
Other Information		
Antigenic Group Bunyamwera		

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation Original	Accession Number	Original Date Submitted 2/21/1985
Family Bunyaviridae	Genus Bunyavirus	
Information From M. Roca-Garcia	Address	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) M. Roca-Garcia, (1)	Isolated at Institute Villavicencio, Meta, Colombia	
Host Genus Wyeomyia melanocephala	Species	Host Age/Stage Adult
Sex Female		
<u>Isolated From</u>	<u>Isolation Details</u>	
Signs and Symptoms of Illness	Arthropod	
Time Held Alive before Inoculation		
Collection Method Caught by hand	Collection Date 8/11/1940	
Place Collected (Minimum of City, State, Country) "El Horizonte" reg. Villavicencio, Meta, Colombia		
Latitude 5° N	Longitude 74° W	
Macrohabitat Rural community, hilly terrain, rain forest vegetation	Microhabitat Out-of-doors under shade, pastures; about 1000 feet sea level	Method of Storage until Inoculated
Footnotes		

Morphogenesis

Site of Constituent Formation in Cell	Site of Virion Assembly	Site of Virion Accumulation
---------------------------------------	-------------------------	-----------------------------

Inclusion Bodies	Other
------------------	-------

Hemagglutination

Hemagglutination Yes	Antigen Source SMB ext. by sucrose-acetone	Erythrocytes (species used) Goose
--------------------------------	--	---

pH Range 6.0-7.2	pH Optimum
----------------------------	------------

Temperature Range 4dC, 22dC and 37dC	Temperature Optimum
--	---------------------

Remarks
Low-titered HA may be produced with the BeAr 671 (Brazil) strain.

Serologic Methods Recommended
NT and CF

Footnotes
Low-titered HA may be produced with the BeAr 671 (Brazil) strain.

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

Wyeomyia has been placed in the Bunyamwera Group [9] . For relation to viruses within the Bunyamwera group consult the respective Catalogue cards.
SIRACA has antigenically classified Wyeomyia virus as a distinct virus type and placed it in the Wyeomyia complex, one of four complexes comprising the Bunyamwera serogroup [18] .
It is possible that isolates listed under "Natural Host Range" represent a complex of closely-related viruses.

Section VI - Biologic Characteristics

Virus Source (all VERTEBRATE isolates)
Blood (M) (3)

Lab Methods of Virus Recovery (ALL ISOLATIONS)
Newborn and weanling mice

Cell system (a)	Virus passage history (b)	Evidence of Infection							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		
HeLa (CL)			CPE (13)						
BHK-21 (CL)	MB 208	2	4+	8.3* (15)		Plaques (14)			
Vero (CL)	P-206				3	2 mm	7.4* (17)		
LLC-MK2 (CL)					3	2 mm	6.9 (17)		

* Expressed in dex

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Man (blood)	1	10/59 NT	Darien, Panama (3)
Man		8/30 NT	Trinidad (4)
Wild birds		1/100 NT	
Wyeomyia melanocephala	1		Meta, Colombia (1)
Wyeomyia spp.; Wy aporonoma; Wy complosa; Wy melanocephala; Limatus spp.; Trichoprosopon spp.; Tr digitatum; Tr leucopus; Tr longipes; Coquillettidia arribalzagai; Psorophora cingulata and Anopheles spp.			Pacific lowlands, Colombia (5)
Psorophora ferox and Aedes fulvus			Magdalena Valley, Colombia (6)
Aedes (Och) spp.; Aedes fulvus and Psorophora ferox			Magdalena Valley, Colombia (7)
Psorophora spp.; Ps ferox and Culex nigripalpus			Almirante, Panama (8, 16)
Aedes scapularis; Psorophora spp.; Ps albipes; Ps ferox; Trichoprosopon digitatum; Tr longipes; Limatus spp.; Li durhamii; Li flavisetosus and Culex amazonensis			Trinidad (4)
Aedes septemstriatus; Ae serratus; Ae sexlineatus; undif. Sabethini and Trichoprosopon digitatum			Belem, Brazil (10)
Wyeomyia sp.; Wy aporonoma; Aedes argyrothorax; Hemagogus leucocelaneus; Anopheles nimbus and Limatus spp.			Belem, Brazil (11)
Aedes taeniorhynchus			French Guiana (12)
Wyeomyia occulta	1		French Guiana (19)

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)	MB 20	ic 0.02	Paralysis and death(1)	5	5.0
Mice (nb)		ip 0.06	Paralysis and death(1)	6	5.0
Mice (nb)		sc			
Mice (wn)		ic 0.03	Paralysis and death(1)	6	5.0
Mice (wn)		ip 0.5	Immunity		
rhesus monkey (ad)		ic 1.0	None		
rhesus monkey (ad)		sc 3.0	None		
Didelphis marsupialis (ad)		ic 0.1	None		
Didelphis marsupialis (ad)		sc 2.0	None		
guinea pigs (ad)		repeated	None		
rabbits (ad)	repeated	None			

Section IX - Experimental Arthropod Infection and Transmission

Arthropod species & virus source(a)	Method of Infection log10/ml (b)		Incubation period (c)		Transmission 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 BodiesIntranuclear

Organs/Tissues Affected

Category of tropism

Section XI - Human DiseaseIn Nature
Reported

Residual

Death

Subclinical

Overt Disease

Clinical Manifestations
Fever (R)

Number of Cases

Category (i.e. febrile illness, etc.)
Febrile illness**Section XII - Geographic Distribution**

Known (Virus detected)

Colombia, Panama, Trinidad, Brazil, French Guiana

Suspected (Antibody only detected)

Section XIII - References

1. Roca-Garcia, M. 1944. J. Infect. Dis. 75:160.
2. Theiler, M. 1957. Proc. Soc. Exp. Biol. Med. 96:380-382.
3. Sriranghose, et al. 1965. Science 149:863-864.
4. Aitken, T.H.G., et al. 1968. Am. J. Trop. Med. Hyg. 17:886-888.
5. Sanmartin, C. Personal communication.
6. Morales, A. and Vidales H. 1962. Lozania No. 13, 1.
7. Groot, H. 1964. Rev. Acad. Colombiana Cienc. Exactas Fis. Natur 12:197-217.
8. Galindo, P., et al. 1966. Am. J. Trop. Med. Hyg. 15:385-400.
9. Casals, J. and Whitman, L. 1960. Am. J. Trop. Med. Hyg. 9:73-77.
10. Causey, O.R., et al. 1961. Am. J. Trop. Med. Hyg. 10:227-249.
11. Causey, O.R. Personal communication.
12. Serie, C. Personal communication.
13. Buckley, S.M. 1964. Proc. Soc. Exp. Biol. Med. 116:354-358.
14. Bergold, G.H. 1968. J. Gen. Virol. 2:273-284.
15. Karabatsos, N. and Buckley, S.M. 1967. Am. J. Trop. Med. Hyg. 16:99-105.
16. Peralta, P.H. and Shelokov, A. 1966. Am. J. Trop. Med. Hyg. 15:369-378.
17. Stim, T.B. 1969. J. Gen. Virol. 5:329-338.
18. Calisher, C.H., et al. 1985. Intervirology. To be submitted.
19. Digoutte, J.P. et al. Rapport Annuel De l'Institut Pasteur De La Guyane Francaise. 1975. p. 21.

Remarks