

Virus Name: Pacora		Abbreviation: PCAV
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 J19	Accession Number	Original Date Submitted 10/22/1984
Family Bunyaviridae	Genus Bunyavirus-like	
Information From E. de Rodaniche	Address P.O. Box 4092, Panama 5, Republic of Panama	
Information Footnote Reviewed by editor		

Section II - Original Source

Isolated By (name) Enid de Rodaniche	Isolated at Institute Gorgas Memorial Lab.	
Host Genus Culex dunni	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 Light traps, in resting places	Collection Date 10/16/1958	
Place Collected (Minimum of City, State, Country) Pacora district of Panama		
Latitude 9° N	Longitude 79° W	
Macrohabitat Ground, breeds in water densely covered with water plants	Microhabitat	Method of Storage until Inoculated Sealed tubes in dry ice box in lab. See remarks
Footnotes		

Section III - Method of Isolation

Inoculation Date
10/21/1958

Animal (Details will be in Section 6)
nb mice

Route Inoculated ic and ip	Reisolation Not tried
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Other Reasons
No immunity in stockmice. Five other isolates of same virus in same place.

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) 50%	After Treatment Titer 1.5 dex	Control Titer 6.0 dex
Lipid Solvent (chloroform)	After Treatment Titer	Control Titer
Lipid Solvent (deoxycholate)	After Treatment Titer	Control Titer

Other (formalin, radiation)

Virion Morphology

Shape Bunyavirus-like particles	Dimensions Thin-section electron microscopy (3).	
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

Hemagglutination Yes	Antigen Source SMB ext. by sucrose-acetone and sonication	Erythrocytes (species used) Goose
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pH Range	pH Optimum 6.0
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Temperature Range 27dC	Temperature Optimum
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Remarks

Six isolations of this virus were made from C. dumni collected in Oct. '58 in same place.

Serologic Methods Recommended

CF, HI

Footnotes

Six isolations of this virus were made from C. dumni collected in Oct. '58 in same place.

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

Antigens of J19 did not react with grouping sera of group A, B, C, Guama, Bunyamwera, Phlebotomus fever or Tacaribe. Ho. Serum (ho. titer 1:32 or more) gave no positive HI reactions with the following antigens from the WHO Reference Center collection: Aura, Bebaru, chikungunya, EEE, Getah, Highlands J, Middelburg, Mucambo, o'nyong-nyong, Pixuna, Semliki Forest, Sindbis, WEE, Bussuquara, dengue 1, 2, 3, 4, Japanese B, Kokobera, Modoc, St. Louis, Stratford, Uganda S, Rio Bravo, Usutu, Wesselsbron, West Nile, yellow fever, Powassan, MML, Marituba, Murutucu, Nepuyo, Oriboca, Anopheles A, Bakau, Batai, Bunyamwera, Cache Valley, Germiston, Guaroa, Ilesha, Kairi, Maguari, Tensaw, Taiassui, Bwamba, California enceph., Melao, Tahyna, trivittatus, Guajara, Bimiti, Catu, Guama, Moju, 63A49, Koongol, Bujaru, Chagres, Karimabad, Salehabad, Icoaraci, Itaporanga, Naples phlebot. fever, Sicilian phlebot. fever, Akabane, Buttonwillow, Ingwavuma, Sathuperi, BeAn 84785, Umbre, Lanjan, Thogoto, Tacaiuma, Witwatersrand. By CF tests, J19 antigen did not react with grouping ascitic fluids of Groups A, B, C, Guama, Capim, Bunyamwera, Simbu, California, Turlock, Anopheles A, Anopheles B, VSV, Tacaribe, Phlebotomus fever, Quaranfil, Kaisodi, Qalyub, nor with specific hyperimmune mouse ascitic fluids of IbH11306, IbAn17143, IbH9978, IbAn17854, IbAn10065, IbAn20433, Bwamba, Oropouche, California, Punta Toro, IbH11480, I11414, IP4081, Tataguine, Agua Preta, rabies, LCM, CoAr 3319, Marco, Sawgrass, Guaroa, Naples, IPD A/401, Changuinola, Trinita, Ieri, Bahig. There were no cross CF reactions between Panama viruses La Joya, D50, Bocas and J19 ascitic fluid (ho. CF = 32) was negative with antigens of Chenuda, Tataguine, Kwatta, Soldado, Thogoto, TR61469, IP4081, Wad Medani, Palyam, Ganjam, Witwatersrand, Quaranfil, Tribec, Koongol, Timbo, Bhanja, Lebombo, Semunya, Mossuril, Nyamaninni, Piry, Kaisodi, Kern Canyon, Lagos bat, Eretmapodites 147, Hart Park, Lanjan, SAA 4511, ectromelia. J19 ascitic fluid (ho. CF = 128) negative with antigens of Bushbush, Capim, Guajara, Tacaiuma, Anopheles A, Chaco, Aruac, Patois, Bertioga, Acara, Benfica, Oropouche, Lukuni, Anopheles B, Borraccia, Turlock, Tacaribe, Amapari, Tamiami, Pichinde, Machupo, Changuinola, MARU11079, Buenaventura, Marco, Ieri, Trinita, Sawgrass, Silverwater, Agua Preta, Naples, Guama, Soldado, CTF, Pacui, rabies, Farallon, Cotia, Klamath, LCM, Johnston Atoll, Belem, Navarro, Hughes, EHD-NJ, California, Punta Toro, Melao, Mirim, Jurona, Tembe, TR85 603, La Joya, D 50. [1]

By mouse protection tests with J19 antiserum and live virus strains J19 was found identical to J33, J34, J53, J54 and J55, all isolated from C. dumni captured near Pacora in Panama in October 1958. The virus J134 (La Joya) was not neutralized. Dr. R.E. Shope carried out all serological tests with nonlocal viruses.

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							Growth Without CPE +/- (g)
		CPE			PLAQUES				
		Day (c)	Extent (d)	Titer TCD50/ml (e)	Day (c)	Size (f)	Titer PFU/ml (e)		

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
Culex dunni	6		Farm near Pacora, Province of Panama, Panama (2)

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) Republic of Panama
Suspected (Antibody only detected)

Section XIII - References

1. Shope, Robert E. Personal communication. 2. Galindo, Pedro. Personal communication. 3. Harrison, A., et al. Personal communication. 1982

Remarks

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