Virus Name: Altamira		Abbreviation: ALTV
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
Changuinola

SECTION I - Full Virus Name and Prototype Number

Prototype Strain Number / Designation
BeAr 264277

Accession Number

Original Date Submitted
8/6/1984

Family
Reoviridae

Genus
Orbivirus

Information From
F. Pinheiro and Amelia P.A.T. Rosa

Address
Instituto Evandro Chagas, FSESP, Ministry of Health, CP-621, 66.000-Belem, Para, Brazil

Information Footnote
Reviewed by editor

Section II - Original Source

Isolated By (name)
F. Pinheiro and Amelia P.A.T. Rosa

Isolated at Institute
Instituto Evandro Chagas

Host Genus
Lutzomyia sp. (1)

Species

Host Age/Stage
Adult

Sex
Female

Isolated From

Isolation Details

Signs and Symptoms of Illness

Arthropod

Time Held Alive before Inoculation
1 Hour

Collection Method
Human bait, night

Collection Date
7/30/1974

Place Collected (Minimum of City, State, Country)
Km. 46, Altamira-Itaituba, Para, Brazil

Latitude
3° 12' S

Longitude
52° 12' W

Macrohabitat
Tropical rain forest

Microhabitat
Ground

Method of Storage until Inoculated
Liquid nitrogen and -60dC electrical freezer

Footnotes

Section III - Method of Isolation

Inoculation Date
5/16/1975

Animal (Details will be in Section 6)
nb mice

Route Inoculated
Intracerebral

Reisolation
No

Other Reasons
First strain of this virus isolated in our laborat

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) **1:1000**	After Treatment Titer **3.0 dex**	Control Titer **4.2 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 + sonication**	**Goose**

pH Range	pH Optimum
5.8-7.0	

Temperature Range	Temperature Optimum
25dC-27dC	

Remarks
****Green monkey erythrocytes also tested**

Serologic Methods Recommended
CF, NT

Footnotes
****Green monkey erythrocytes also tested**

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

Related by CF to Irituia and to other members of the Changuinola group as follows (tests performed at the Institute Evandro Chagas):

	Serum					
Antigen	**Irituia**	**Gurupi**	**Ourem**	**Caninde**	**Jamanxi**	**Altamira**
Irituia	16/16 [a]	16/16	>128/16	>128/16	>128/16	16/16
Gurupi	16/16	32/16	>128/16	>128/16	>128/16	16/16
Ourem	4/16	16/16	>128/64	>128/16	>128/16	16/16
Caninde	16/64	16/64	>128/64	>128/64	>128/64	16/16
Jamanxi	8/4	16/4	>128/4	>128/4	>128/16	16/16
Altamira	8/4	16/4	>128/4	>128/4	>128/16	16/16

[a] Antibody titer/antigen titer

Results of neutralization tests performed in infant mice (ic route) at the Evandro Chagas Institute were as follows:

	Ascitic Fluid or Serum					
Virus	**Irituia(5i) [b]**	**Gurupi (5i) [b]**	**Ourem (4i) [b]**	**Caninde (5i) [c]**	**Jamanxi (3i) [c]**	**Altamira (4i) [c]**
Irituia	3.0 [d]				<1.0	0.8
Gurupi		2.5			<0.3	<0.3
Ourem			3.9		<1.0	<0.9
Caninde				3.0	0.8	0.4
Jamanxi	0.2	0.3	0	0.5	3.0	0
Altamira	1.1	1.2	1.0	1.0	0.9	<3.1

[b] Ascitic fluid

[c] Serum

[d] LNI expressed 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)	SMB 4	6th	4+	6.5 [e]				

[e] 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. tsted Test used	Country and region
Lutzomyia sp. (females)	1/35 (1,194 insects)		Km.46, Altamira -Itaituba, Para, Brazil
Lutzomyia sp . (males)	0/6 (282 insects)		

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)	SMB 2	ic 0.02	Death	3.7	
Mice (nb)		ip 0.02	Survived		
Mice (nb)		sc			
Mice (wn)		ic 0.03	Survived		
Mice (wn)		ip 0.03	Survived		
Mice (nb)	SMB 4	ic 0.02	Death	5.6	6.2
Mice (nb)		ip 0.02	Survived		
hamsters(23 day)		ic 0.1	Antibody		
hamsters(23 day)		ip 0.1	Antibody		

Section IX - Experimental Arthropod Infection and Transmission

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)
Para State, Brazil

Suspected (Antibody only detected)

Section XIII - References

1. Travassos da Rosa, A.P.A., et al. 1984. Intervirology 21:38-49.

Remarks