Virus Name: **Tanga** **Abbreviation:** **TANV**

Status: Possible Arbovirus **Select Agent:**
SALS Level: 2 **SALS Basis:** S **HEPA Filtration:**
Antigenic Group: Ungrouped
Taxonomic status: *Not listed*
Other Information: None.

Section I - Full Virus Name and Prototype Number

Full Virus Name: **Prototype Number:**
Tanga MP 1329
Information from: J.P. Woodall **Date:**
* 10/24/1984
Address: N.Y. State Dept. of Health, New Scotland Ave., Albany, New York 12201
*
Reviewed by editor

Section II - Original Source

Isolated by: Woodall and Williams (1) **at:** E. African Virus Res. Inst., Entebbe
Genus and species: Anopheles funestus (pool of 191 mosqitoes) **Sentinel** X
Age/Stage: Adult **Sex:** F

Isolated From	Isolation detail

Signs and symptoms of illness:
Arthropod engorged X **depleted** **gravid**
Time held alive before inoculation:
Collection date: 3/12/1962 **Method:** Knockdown with pyrethrum spray
Place collected: Magila Mission, Tanga Prov., Tanzania
Latitude: 5° 10' " S **Longitude:** 38° 40' " E
Macrohabitat: Savannah
Microhabitat: Native huts
Method of storage until inoculated: Colled with wet ice
Footnotes:

Section III - Method of Isolation and Validity

Inoculation Date:
Animal: nb mice **Embryonated egg:** **Tissue Culture:**
(Details in Section VI - Biologic Char.)
Route inoculated: ic, ip and sc **Reisolation:** Yes
Other reasons:
Homologous antibody formation by ***source animal*** **(See Section II):**
Test used: HI **CF** **NT**
Other:
Footnotes:

Section IV - Virus Properties

Physicochemical:
RNA: **DNA:** **Single Strand:** **Double Strand:**
Pieces: **Infectivity:** **Sedimentation coefficient(s): /strong>**
Percentage wt. of virion protein **, lipid** **carbohydrate**
Virion polypeptides:
Number: **Details:**
Non-virion polypeptides:
Number: **Details:**
Virion density:
Sedimentation coefficient:
Nucleocapsid density **Sedimentation coefficient:**

Stability of infectivity **(effects) pH**
Lipid solvent:
(ether) 1:1 **After treatment titer** 2.7 dex **Control titer** 6.7 dex
(chloroform) **After treatment titer** **Control titer**
Detergent:
(deoxycholate) **After treatment titer** **Control titer**
Other (formalin, radiation):

Virion morphology:
ShapeBunyavirus-like (6) **Dimensions** 78-108 nm
Mean (nm) **range (nm)** **how meansured**
Surface projections, envelope envelope observed
Nucleocapsid dimensions, symmetry

Morphogenesis:
Site of constituent formation in cell
Site of virion assembly
Inclusion bodies
Other

Hemaggiutination:
HemaggiutinationNo **Antigen source** SMB ext. by fluorocarbon; sucrose-acetone + protamine
Erthrocytes Goose **pH range** **pH optimum**
Temperature optimum **range**
Remarks
Serologic methods recommended CF
Footnotes:

Section V - Antigenic Relationship And Lack of Relationship To Other Viruses

HI -	hyperimmune mouse serum failed to react with 4-6 units of 5 group A and 11 group B antigens.
CF -	this serum screened at 2-fold dilns. (1:10-1:160) against listed antigens (1:10), and fluorocarbon-extracted mouse brain antigen screened (1:10-1:20) against listed antisera (1:10). Homologous system titred 160/64.

Negative results obtained in CF tests when Tanga antigen was tested against the following antisera:

Bunyamwera group:	Bunyamwera, Germiston, Ilesha, Shokwe;
Bwamba group:	Bwamba, Pongola;
Simbu group:	Ingwavuma, Simbu;
Others:	
African Horse Sickness Group:	African horse sickness;
Bluetongue Group:	bluetongue;
California Group:	Lumbo;
CHF-Congo Group:	Congo;
Kemerovo Group:	Chenuda, Wad Medani;
Mossuril Group:	Mossuril;
Nairobi Sheep Disease Group:	Nairobi sheep disease;
Nyamanini Group:	Nyamanini;
Nyando Group:	Nyando;
Quaranfil Group:	Quaranfil;
Tete Group:	Tete;
Thogoto Group:	Thogoto;
Rabies Serogroup:	Lagos bat;
Ungrouped:	Tataguine, Lebombo, Orungo; Witwatersrand; herpes simplex.

Negative results obtained in CF tests when Tanga antiserum was tested against the followinng antigens:

Bunyamwera group:	Bunyamwera, Germiston, Shokwe;
Bwamba group:	Bwamba, Pongola;
Simbu group:	Ingwavuma, Simbu;
Ungrouped:	Tataguine, Lebombo, Orungo; Witwatersrand.

Okala virus is related to Tanga virus by IFA. Only Okola virus reacted by IFA with antibodies to Anhembi, Birao, Cache Valley, Northway, Tensaw, Tlacotalpan and Santa Rosa viruses. Antibody to Tanga and Okola viruses did not react by IFA with antigens of these viruses [6] .

Section VI - Biologic Characteristics

Virus source (all VERTEBRATE isolates): Blood (M)(LV), cerebrospinal fluid (M), CNS (M)(LV), heart (LV), liver (LV), spleen (LV), kidney (LV)
Lab Methods of Virus Recovery (ALL ISOLATIONS): Newborn and weanling mice, baby chicks, chick embryos, guinea pigs, primates, horses, primary avian cell cultures.
Susceptibility of Cell Culture Systems:

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)		

Section VII - Natural Host Range

Vertebrate (species and organ) and arthropod	No. isolations/No. tested	No. with antibody/No. tested Test used	Country and region
Man		2/20 NT	Magila Mission, Tanzania
Man		3/20 NT	Entebbe, Uganda
Anopheles funestus	1/191		Magila Mission, Tanzania

Section VIII - Susceptibility To Experimental Infection (Record 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	5+	8.2
Mice (nb)		ip			
Mice (nb)		sc			
Mice (wn)		ic 0.03	Death	8+	6.5+
Mice (wn)		ip 0.1	Antibody		

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
Aedes aegypti, SMB 1		Intrathoracically inoculated; multiplication, serial mosquito passage (but no transmission to mice) (2).	-	-	-	-	-	-	-

Section X - Histopathology

Character of lesions:
Inclusion bodies:
Cytoplasmic:(M) (LV) Intranuclear: (M) (LV)
Organs-tissues affected:
Category of tropism:

Section XI - Human Disease

Human disease:	**In nature:**	**(S)**	**(R)**
	Death:	**(S)**	**(R)**
	Residua:	**(S)**	**(R)**
Laboratory infections:	**Subclinical:**	**(S)**	**(R)**
	Overt Disease:	**(S)**	**(R)**

Clinical manifestations:
Category: **No. of cases:**

Section XII - Geographic Distribution

Known (virus):
Tanzania
Suspected (antibody):
Uganda

Section XIII - References

1. Woodall, J.P. and Williams, M.C. 1967. E. Afr. Med. J. 44:83-86.
2. Ardoin, P.M.L. and Simpson, D.I.H. 1967. J. Med. Ent. 4:189-191.
3. Zeller, H. et al. 1989. II. Arch. Virol. Submitted.

Section XIV - Remarks