



This form should be used for all taxonomic proposals. Please complete all those modules that are applicable (and then delete the unwanted sections).

For guidance, see the notes written in blue and the separate document "Help with completing a taxonomic proposal"

Please try to keep related proposals within a single document; you can copy the modules to create more than one genus within a new family, for example.

MODULE 1: **TITLE, AUTHORS, etc**

<b>Code assigned:</b>	<b>2016.002a-dM</b>	(to be completed by ICTV officers)			
<b>Short title:</b> One new genus ( <i>Almendravirus</i> ), including 5 new species, in the family <i>Rhabdoviridae</i> . (e.g. 6 new species in the genus <i>Zetavirus</i> )					
<b>Modules attached</b> (modules 1 and 10 are required)	1 <input checked="" type="checkbox"/>	2 <input checked="" type="checkbox"/>	3 <input checked="" type="checkbox"/>	4 <input type="checkbox"/>	5 <input type="checkbox"/>
	6 <input type="checkbox"/>	7 <input type="checkbox"/>	8 <input type="checkbox"/>	9 <input type="checkbox"/>	10 <input checked="" type="checkbox"/>

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**List the ICTV study group(s) that have seen this proposal:**

A list of study groups and contacts is provided at <http://www.ictvonline.org/subcommittees.asp> . If in doubt, contact the appropriate subcommittee chair (fungal, invertebrate, plant, prokaryote or vertebrate viruses)

ICTV *Rhabdoviridae* SG

**ICTV Study Group comments (if any) and response of the proposer:**

10 members have advised support for the proposal; 2 members have not responded.

Date first submitted to ICTV:

June 2016

Date of this revision (if different to above):

**ICTV-EC comments and response of the proposer:**

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MODULE 2: **NEW SPECIES**

creating and naming one or more new species.

If more than one, they should be a group of related species belonging to the same genus. All new species must be placed in a higher taxon. This is usually a genus although it is also permissible for species to be “unassigned” within a subfamily or family. Wherever possible, provide sequence accession number(s) for **one** isolate of each new species proposed.

Code	<b>2016.002aM</b>	(assigned by ICTV officers)
<b>To create 5 new species within:</b>		
Genus:	<i>Almendravirus</i> (new)	Fill in all that apply. • If the higher taxon has yet to be created (in a later module, below) write “ <b>(new)</b> ” after its proposed name. • If no genus is specified, enter “ <b>unassigned</b> ” in the genus box.
Subfamily:		
Family:	<i>Rhabdoviridae</i>	
Order:	<i>Mononegavirales</i>	
<b>Name of new species:</b>	<b>Representative isolate: (only 1 per species please)</b>	<b>GenBank sequence accession number(s)</b>
<i>Puerto Almendras almindravirus</i> (type species)	Puerto Almendras virus (PTAMV; strain Lo-39)	KF534749
<i>Arboretum almindravirus</i>	Arboretum virus (ABTV; strain Lo-121)	KC994644
<i>Rio Chico almindravirus</i>	Rio Chico virus (RCHV; strain GAM-195)	KX228197
<i>Balsa almindravirus</i>	Balsa virus (BALV; strain CoB 76)	KX228198
<i>Coot Bay almindravirus</i>	Coot Bay virus (CBV; strain EVG5-53)	KX228196

**Reasons to justify the creation and assignment of the new species:**

- Explain how the proposed species differ(s) from all existing species.
  - If species demarcation criteria (see module 3) have previously been defined for the genus, **explain how the new species meet these criteria.**
  - If criteria for demarcating species need to be defined (because there will now be more than one species in the genus), please state the proposed criteria.
- Further material in support of this proposal may be presented in the Appendix, Module 9

**Species demarcation criteria will be defined as follows (see also module 3):**

Viruses assigned to different species within the genus *Almendravirus* have several of the following characteristics: A) minimum amino acid sequence divergence of 5% in N proteins; B) minimum sequence divergence of 10% in the L proteins; C) minimum amino acid sequence divergence of 15% in G proteins; D) significant differences in genome organization as evidenced by numbers and locations of ORFs; E) can be distinguished in virus neutralisation tests; and F) occupy different ecological niches as evidenced by differences in hosts and or arthropod vectors.

The viruses assigned to the new genus *Almendravirus* have genomes (**Figure 1**) containing the five canonical rhabdovirus structural protein genes (N, P, M, G and L) and share the common feature of an additional long ORFs between the G and L genes that encodes a class 1A viroporin-like protein (**Figure 2**). Almendraviruses form a monophyletic group based on well-supported ML trees generated from complete L protein sequences (**Figure 3**). They are capable of replication in mosquito cells *in vitro* but appear to be unable to replicate in mammalian cell cultures or in suckling mice and so may be mosquito-specific viruses<sup>1,2</sup>. Known characteristics of the viruses of

taxonomic significance are summarized here. The basis of assignment of the viruses as 5 distinct species in this genus is described under the genus proposal (**module 3**).

#### ***Puerto Almendras almendravirus***

Puerto Almendras virus (PTAMV) was isolated from a pool of mosquitoes (*Psorophora albigena*) collected at Puerto Almendras, Peru, in 2009<sup>2</sup>. The complete PTAMV genome (11,876 nt) has been sequenced (**Figure 1**)<sup>2</sup>. The genome is typical of almendraviruses, comprising five genes encoding the canonical rhabdovirus structural proteins (N, P, M, G and L) and an additional long ORF (U1) between the G and L genes that encodes an 80-aa (9.5 kDa) class 1A viroporin-like protein (**Figure 2**). Phylogenetic analysis of L protein sequences (**Figure 3**) and amino acid sequence identity in the N, L and G proteins (**Figure 4**) indicate that PTAMV lies in the almendravirus clade and is most closely related to Arboretum virus (ABTV; see below).

#### ***Arboretum almendravirus***

Arboretum virus (ABTV) was isolated from a pool of mosquitoes (*Aedes [Ochlerotatus] fulvus*) collected at Puerto Almendras, Peru, in 2009. The complete ABTV genome (11,482 nt) has been sequenced (**Figure 1**)<sup>2</sup>. The genome is typical of almendraviruses, comprising five genes encoding the canonical rhabdovirus structural proteins (N, P, M, G and L) and an additional long ORF (U1) between the G and L genes that encodes a 73-aa (8.9 kDa) class 1A viroporin-like protein (**Figure 2**). Phylogenetic analysis of L protein sequences (**Figure 3**) and amino acid sequence identity in the N, L and G proteins (**Figure 4**) indicate that ABTV lies in the almendravirus clade and is most closely related to PTAMV.

#### ***Rio Chico almendravirus***

Rio Chico virus (RCHV) was isolated from a pool of unidentified mosquitoes collected near Gamboa, Central Panama, in 2012<sup>1</sup>. Complete coding regions (11,286 nt) of the RCHV genome have been sequenced with only the 3' and 5' ends incomplete (**Figure 1**)<sup>1</sup>. The genome is typical of almendraviruses, comprising five genes encoding the canonical rhabdovirus structural proteins (N, P, M, G and L) and an additional long ORF (U1) between the G and L genes that encodes a 51-aa (6.1 kDa) class 1A viroporin-like protein (**Figure 2**). Phylogenetic analysis of L protein sequences (**Figure 3**) and amino acid sequence identity in the N, L and G proteins (**Figure 4**) indicate that RCHV lies in the almendravirus clade and is most closely related to BALV.

#### ***Balsa almendravirus***

Balsa virus (BALV) was isolated from a pool of mosquitoes (*Psorophora albigena*) collected in San Bernardo, Cordoba Province, Colombia, in 2013<sup>1</sup>. The complete BALV genome (11,287 nt) has been sequenced (**Figure 1**)<sup>1</sup>. The genome is typical of almendraviruses, comprising five genes encoding the canonical rhabdovirus structural proteins (N, P, M, G and L) and an additional long ORF (U1) between the G and L genes that encodes a 72-aa (8.4 kDa) class 1A viroporin-like protein (**Figure 2**). BALV also contains an alternative long ORF (Px) near the start of the P gene that encodes an 81-aa (9.8 kDa) basic protein. ORF Px is present in two available BALV strains<sup>1</sup>. Phylogenetic analysis of L protein sequences (**Figure 3**) and amino acid sequence identity in the N, L and G proteins (**Figure 4**) indicate that BALV lies in the almendravirus clade and is most closely related to RCHV.

#### ***Coot Bay almendravirus***

Coot Bay virus (CBV) was isolated from a pool of mosquitoes (*Anopheles quadrimaculatus*) collected near Coot Bay in the Everglades National Park, Florida, USA, in 2013<sup>1</sup>. Complete coding regions (10,869 nt) of the RCHV genome have been sequenced with only the 3' and 5' ends incomplete (**Figure 1**)<sup>1</sup>. The genome is typical of almendraviruses, comprising five genes encoding the canonical rhabdovirus structural proteins (N, P, M, G and L) and an additional long

ORF (U1) between the G and L genes that encodes a 59-aa (6.8 kDa) class 1A viroporin-like protein (**Figure 2**). Phylogenetic analysis of L protein sequences (**Figure 3**) and amino acid sequence identity in the N, L and G proteins (**Figure 4**) indicate that CBV lies centrally in the almendravirus clade and is distantly related to all other viruses.

Each of these viruses meet species demarcation criteria A, B and C, establishing them as members of distinct species. BALV can also be distinguished from other viruses based on a difference in genome organisation (criterion D). No data is available on antigenic relationships and all viruses were isolated from mosquitoes of various species so demarcation criteria E and F cannot yet be usefully applied.

MODULE 3: **NEW GENUS**

creating a new genus

Ideally, a genus should be placed within a higher taxon.

Code	<b>2016.002bM</b>	(assigned by ICTV officers)
<b>To create a new genus within:</b>		
Subfamily:		Fill in all that apply. • If the higher taxon has yet to be created (in a later module, below) write “ <b>(new)</b> ” after its proposed name. • If no family is specified, enter “ <b>unassigned</b> ” in the family box
Family:	<i>Rhabdoviridae</i>	
Order:	<i>Mononegavirales</i>	

naming a new genus

Code	<b>2016.002cM</b>	(assigned by ICTV officers)
<b>To name the new genus: <i>Almendravirus</i></b>		

Assigning the type species and other species to a new genus

Code	<b>2016.002dM</b>	(assigned by ICTV officers)
<b>To designate the following as the type species of the new genus</b>		
<i>Puerto Almendras almenrdavirus</i>		Every genus must have a type species. This should be a well characterized species although not necessarily the first to be discovered
The new genus will also contain any other new species created and assigned to it (Module 2) and any that are being moved from elsewhere (Module 7b). <b>Please enter here the TOTAL number of species (including the type species) that the genus will contain:</b>		
<b>5 Species:</b> <i>Puerto Almendras almendravirus</i> (type species) <i>Arboretum almendravirus</i> <i>Rio Chico almendravirus</i> <i>Balsa almendravirus</i> <i>Coot Bay almendravirus</i>		

**Reasons to justify the creation of a new genus:**

Additional material in support of this proposal may be presented in the Appendix, Module 9

The *Rhabdoviridae* is a large and diverse family of viruses. There are currently 11 approved genera in the *Rhabdoviridae*. However, many rhabdoviruses remain unclassified. Here, we propose the establishment of a new genus (*Almendravirus*) that will include 5 new species. Each of the viruses to be assigned to the proposed genus were isolated in the Americas from mosquitoes. Almendravirus genomes are similar in size (~10,900 – 11,900 nt) and feature an additional long ORF (U1) between the G and L genes that encoding a class 1A viroporin-like protein (**Figure 1; Figure 2**). The viruses form a distinct, deeply rooted clade in a well-supported (BSP  $\geq$  80) tree based on available full length L protein (RdRp) sequences of most animal rhabdoviruses (**Figure 3**)<sup>1</sup>. Each of the viruses has been shown to be capable of replication in mosquito cells *in vitro* but was unable to replicate in mammalian cell cultures or in suckling mice, suggesting the viruses may be mosquito-specific<sup>1,2</sup>. No antigenic analyses have been reported for members of the genus.

**Origin of the new genus name:**

The name is derived as a siglum from Puerto Almendras virus, one of the foundation members of the genus which we assign to the type species.

**Reasons to justify the choice of type species:**

Puerto Almendras virus (type species *Puerto Almendras almendravirus*) is one of the better characterized members of the genus<sup>2</sup>.

**Species demarcation criteria in the new genus:**

If there will be more than one species in the new genus, list the criteria being used for species demarcation and explain how the proposed members meet these criteria.

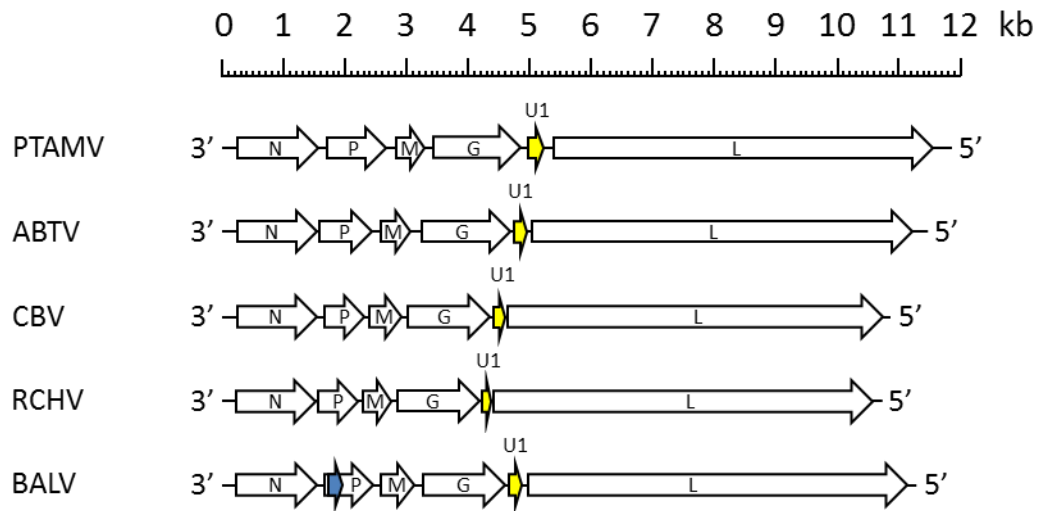
Viruses assigned to different species within the genus *Almendravirus* have several of the following characteristics: A) minimum amino acid sequence divergence of 5% in N proteins; B) minimum sequence divergence of 10% in the L proteins; C) minimum amino acid sequence divergence of 15% in G proteins; D) significant differences in genome organization as evidenced by numbers and locations of ORFs; E) can be distinguished in serological tests; and F) occupy different ecological niches as evidenced by differences in hosts and or arthropod vectors.

**References:**

1. Contreras MA, Eastwood G, Guzman H, Popov V, Savit C, Uribe S, Kramer LD, Wood TG, Widen SG, Fish D, Tesh RB, Vasilakis N, Walker PJ, Almendravirus: A proposed new genus of rhabdoviruses isolated from mosquitoes in tropical regions of the Americas. *American Journal of Tropical Medicine and Hygiene* (submitted).
2. Vasilakis N, Castro-Llanos F, Widen SG, Aguilar PV, Guzman H, Guevara C, Fernandez R, Auguste AJ, Wood TG, Popov V, Mundal K, Ghedin E, Kochel TJ, Holmes EC, Walker PJ, Tesh RB, 2014. Arboretum and Puerto Almendras viruses: two novel rhabdoviruses isolated from mosquitoes in Peru. *Journal of General Virology* 95: 787-792.
3. Walker PJ, Firth C, Widen SG, Blasdel KR, Guzman H, Wood TG, Paradkar PN, Holmes EC, Tesh RB, Vasilakis N, 2015. Evolution of genome size and complexity in the Rhabdoviridae. *PLoS Pathogens* 11: e1004664.



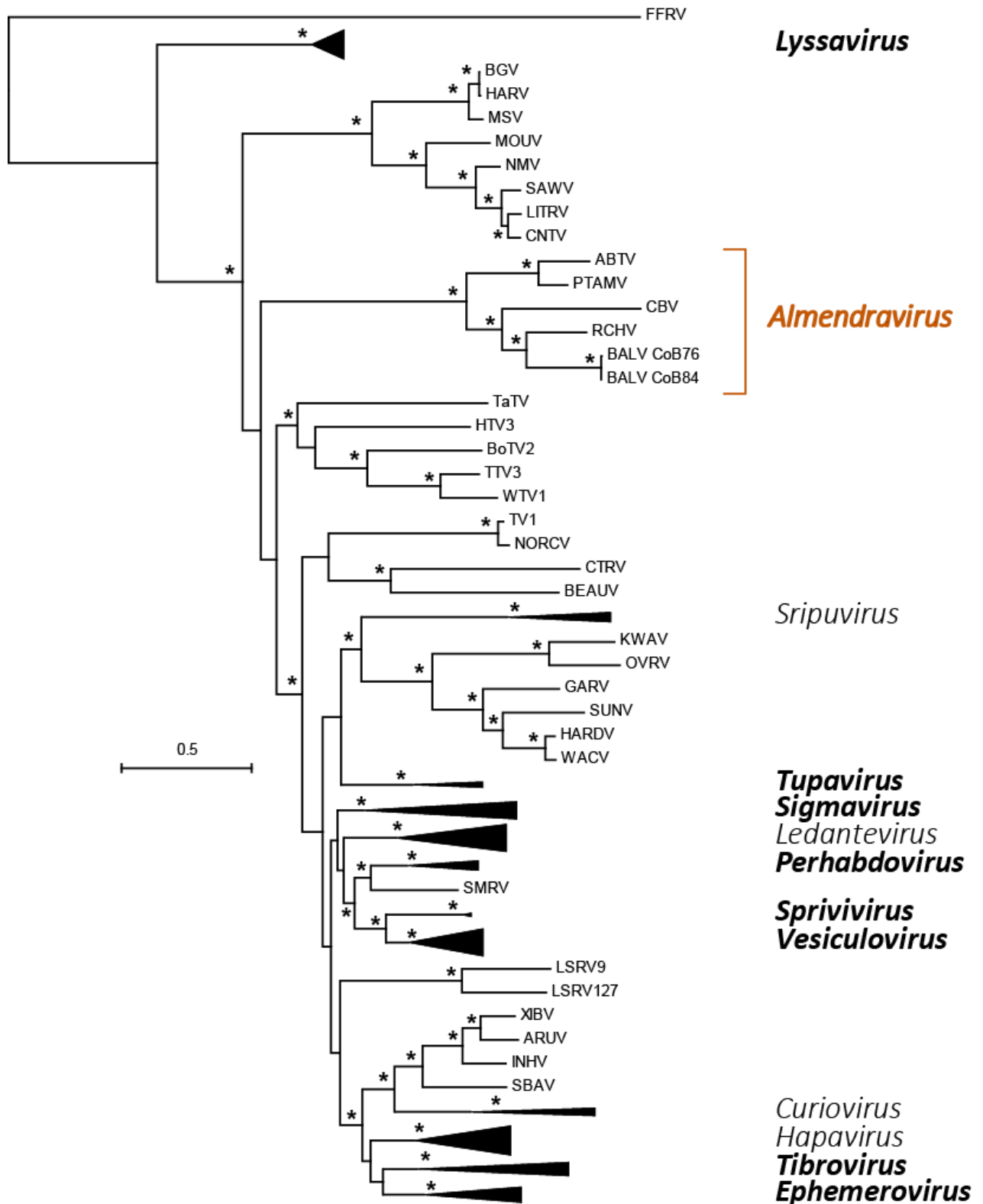
**Annex:**



**Figure 1.** Genome organisations of almendraviruses. The U1 ORFs (yellow) each encode class 1A viroporin-like proteins.

ABTV U1	MDSLTLILSIIIEIFFLIVIIILLIYRIYIDKKNYFKHWKSYIASMYSKLNNTINNOEYKKDDCHESDRLTVSKWV
PTAMV U1	MNDKSDSNNTLLILEIIEFILIIILICMMIYLWYQSRFQSNKLCCKVNMVYNVNIENLEKYIMTKCNSSLDSRTVSKWV
BALV U1	MSWENIINNILLMFVVIILIVILLKLTISDTPIKVMPVYRMDSKSDIANNKVSEKKYAVSKHDPANWSRL
CBV U1	MEIIDILILIVLSVLSITLIFYILKTNSIRDILCESIKKLDIIVKNNVVKKDDYFSKLI
RCHV U1	MDVISVILWTIADIILFAFIIILFFYKNHRKDETETTVPYKRHEPTSSYY

**Figure 2.** Almendravirus class 1A viroporin-like U1 proteins. Predicted transmembrane domains (grey shade) and clusters of basic residues in the C-terminal domain (shaded black) are shown.



**Figure 3.** ML phylogenetic tree of 137 animal rhabdovirus L protein sequences. Branches comprising viruses assigned to existing genera (named in bold italics) or proposed new genera (named light italics)<sup>3</sup> have been condensed. The clade representing the proposed new genus *Almendravirus* is highlighted (orange). Horizontal branch lengths are drawn to a scale of amino acid substitutions/site, and all bootstrap support values (BSP)  $\geq 80\%$  are shown by the \* symbol. The tree is rooted on fecal fox rhabdovirus (FFRV, based on the position observed in a broader analysis that included more distant members of the *Rhabdoviridae* (i.e., including members of the genera *Novirhabdovirus*, *Cytorhabdovirus* and *Nucleorhabdovirus*) and in other publications.

Cytorhabdovirus, novirhabdovirus and nucleorhabdovirus outgroup sequences were excluded from the tree as they were too divergent to establish a reliable rooting. The ML tree was generated as described in Walker *et al.* (2015) PLoS Pathogens 11 (2): e1004664<sup>3</sup>. Virus abbreviations and Genbank accession numbers are as listed in **Table 1**.

	PTAMV	ABTV	CBV	RCHV	BALV
PTAMV	100				
ABTV	48.3	100			
CBV	16.6	17.9	100		
RCHV	19.2	19.2	27.2	100	
BALV	15.2	15.2	21.9	26.5	100

**Figure 4A.** Almendravirus N protein amino acid sequence identity (%; as estimated in MEGA6 by p-distance).

	PTAMV	ABTV	CBV	RCHV	BALV
PTAMV	100				
ABTV	65.1	100			
CBV	42.9	42.5	100		
RCHV	46.9	47.1	46.3	100	
BALV	46.2	44.8	45.2	55.0	100

**Figure 4B.** Almendravirus L protein amino acid sequence identity (%; as estimated in MEGA6 by p-distance).

	PTAMV	ABTV	CBV	RCHV	BALV
PTAMV	100				
ABTV	37.6	100			
CBV	23.4	24.2	100		
RCHV	25.1	25.8	26.6	100	
BALV	25.6	24.4	25.4	27.5	100

**Figure 4C.** Almendravirus G protein amino acid sequence identity (%; as estimated in MEGA6 by p-distance).

**Table 1.** Rhabdoviruses for which genome sequences have been used in this proposal.

Virus	Abbrev.	Strain	Rhabdovirus genus	Species	Genome size (nt)	GenBank accession
fecal fox rhabdovirus	FFRV	S40	not classified		15541+	KF823814
Puerto Almendras virus	PTAMV	LO-39	<i>Almendravirus</i> *	<i>Puerto Almendras almendravirus</i>	11876	KF534749
Arboretum virus	ABTV	LO-121	<i>Almendravirus</i> *	<i>Arboretum almendravirus</i>	11492	KC994644
Rio Chico virus	RCHV	GAM-195	<i>Almendravirus</i> *	<i>Rio Chico almendravirus</i>	11286+	KX228197
Balsa virus	BALV	CoB 76	<i>Almendravirus</i> *	<i>Balsa almendravirus</i>	11287	KX228198
Coot Bay virus	CBV	EVG5-53	<i>Almendravirus</i> *	<i>Coot Bay almendravirus</i>	10869	KX228196
Tacheng tick virus 3	TTV3	TC255 (seq)	not classified		partial	KM817640
Wuhan tick virus 1	WTV1	X78-2 (seq)	not classified		10306+	KM817660
Bole tick virus 2	BoTV2	BL076	not classified		11843	KM817629
Huangpi tick virus 3	HTV3	H124-2 (seq)	not classified		13169+	KM817630
Taishun Tick virus	TaTV	BL198 (seq)	not classified		11280+	KM817643
Long Island tick rhabdovirus	LITRV	LS1	not classified		11176	KJ396935
Connecticut virus	CNTV	Ar1152-78	not classified		11169+	KM205020
Sawgrass virus	SAWV	64A-1247	not classified		11216	KM205013
New Minto virus	NMV	579	not classified		11156+	KM205009
Moussa virus	MOUV	D24	unassigned sp.	<i>Moussa virus</i>	11526	FJ985749
Muir Springs virus	MSV	76V-23524	not classified		12580	KM204990
Bahia Grande virus	BGV	TB4-1054	not classified		12639	KM205018
Harlingen virus	HARV	PV01-3828	not classified		12626	KM205003
Ikoma virus	IKOV	RV2508	<i>Lyssavirus</i>	<i>Ikoma lyssavirus</i>	11902	JX193798
West Caucasian bat virus	WCBV	NZ86	<i>Lyssavirus</i>	<i>West Caucasian bat lyssavirus</i>	12278	EF614258
Shimoni bat virus	SBV	N613	<i>Lyssavirus</i>	<i>Shimoni bat lyssavirus</i>	12045	GU170201
Lagos bat virus	LBV	0406SEN	<i>Lyssavirus</i>	<i>Lagos bat lyssavirus</i>	12016	EU293108
Mokola virus	MOKV	RV1035	<i>Lyssavirus</i>	<i>Mokola lyssavirus</i>	11939	KF155006
rabies virus	RABV	HN10	<i>Lyssavirus</i>	<i>Rabies lyssavirus</i>	11932	EU643590
Australian bat lyssavirus	ABLV	96-1256	<i>Lyssavirus</i>	<i>Australian bat lyssavirus</i>	11918	AF081020
Bokeloh bat lyssavirus	BBLV	21961	<i>Lyssavirus</i>	<i>Bokeloh bat lyssavirus</i>	11900	JF311903
European bat lyssavirus 2	EBLV2	RV1333	<i>Lyssavirus</i>	<i>European bat lyssavirus 2</i>	11930	EF157977
Khujand virus	KHUV		<i>Lyssavirus</i>	<i>Khujand lyssavirus</i>	11903	EF614261
Aravan virus	ARAV		<i>Lyssavirus</i>	<i>Aravan lyssavirus</i>	11918	EF614259
Duvenhage virus	DUVV	86132SA	<i>Lyssavirus</i>	<i>Duvenhage lyssavirus</i>	11976	EU293119
European bat lyssavirus 1	EBLV1	RV9	<i>Lyssavirus</i>	<i>European bat lyssavirus 1</i>	11966	EF157976
Irkut virus	IRKV	J426	<i>Lyssavirus</i>	<i>Irkut lyssavirus</i>	11980	EF614260
Ozernoe virus	OZEV	OI56	not classified		11980	FJ905105
North Creek virus #	NORCV	954	not classified		partial	KF360973
Riverside virus	RISV	Drava-1	not classified		11713	KU248085
Beaumont virus	BEAUV	6	not classified		partial	KF310911
Culex tritaeniorhynchus rhabdovirus	CTRV	GHK	not classified		11190	LC026102
Merida virus	MERDV	Mex-07	not classified		11798	KU194360
Shayang fly virus 2	SFV2	YYY1-8	not classified		12291+	KM817635
Wuhan fly virus 2	WV2	YYY1-3	not classified		12247+	KM817646
Wuhan house fly virus 1	WHFV1	YYY2-4	not classified		12651+	KM817648
<i>Drosophila melanogaster</i> sigmavirus	DMeSV	HAP23	<i>Sigmavirus</i>	<i>Drosophila melanogaster sigmavirus</i>	12390+	GQ375258
<i>Drosophila obscura</i> sigmavirus	DOBSV	10A	<i>Sigmavirus</i>	<i>Drosophila obscura sigmavirus</i>	12676+	NC022580
Pararge aegeria rhabdovirus	PAeRV		not classified		13062	KR822826
Fikirini virus	FKRV	KEN352	not classified		11139+	KC676792
Kolente virus	KOLEV	DakArK7292	not classified		11120	KC984953
Oita virus	OITAV	296-1972	not classified		11355+	KM204998
Kumasi rhabdovirus	KRV	M35	not classified		11072	KJ179955
Wuhan louse fly virus 5	WLFV5	BFJSC-5	not classified		11103+	KM817654
Mount Elgon bat virus	MEBV	BP846	not classified		10941+	KM205026
Kern Canyon virus	KCV	M03790	not classified		11528+	KM204992
Le Dantec virus	LDV	DakHD763	not classified		11450+	KM205006
Yongjia tick virus 2	YTV2	YJ1-2	not classified		10833	KM817662
Nkolbisson virus	NKOV	YM 31-65	not classified		10942+	KM205017
Nishimuro virus	NISV		not classified		10881+	AB609604
Barur virus	BARV	6235	not classified		10853+	KM204983
Fukuoka virus	FUKV	FUK-11	not classified		10863	KM205001
Keuraliba virus	KEUV	DakAnD5314	not classified		11457+	KM205021
hybrid snakehead virus	HSV	C1207	not classified		11545	KC519324
<i>Siniperca chuatsi</i> rhabdovirus	SCRV		not classified		11545	DQ399789
dolphin rhabdovirus	DRV	pxV1	not classified		11141	KF958252
eel virus European X	EVEX	153311	<i>Perhabdovirus</i>	<i>Anguillid perhabdovirus</i>	11806	FN557213
perch rhabdovirus	PRV	J424	<i>Perhabdovirus</i>	<i>Perch perhabdovirus</i>	11487+	JX679246
<i>Scophthalmus maximus</i> rhabdovirus	SMRV		not classified		11492	HQ003891

pike fry rhabdovirus	PFRV	F4	<i>Sprivirus</i>	<i>Pike fry sprivirus</i>	11097	FJ872827
spring viremia of carp virus	SVCV	VR-1390	<i>Sprivirus</i>	<i>Carp sprivirus</i>	11019	AJ318079
Malpais Spring virus	MSPV	85-488NM	not classified		11019	KC412247
Chandipura virus	CHNV	CIN0451	<i>Vesiculovirus</i>	<i>Chandipura vesiculovirus</i>	11120	GU212856
Isfahan virus	ISFV	91026-167	<i>Vesiculovirus</i>	<i>Isfahan vesiculovirus</i>	11088	AJ810084
Perinet virus	PERV	DakArMg802	not classified		11103+	HM566195
Jurona virus	JURV	BeAr40578	not classified		11121+	KM204996
Yug Bogdanovac virus	YBV	Yu4-76	not classified		11202	JF911700
Radi virus	RADV	ISS PhI-166	not classified		11068+	KM205024
vesicular stomatitis New Jersey virus	VSNJV	NJ89GAS	<i>Vesiculovirus</i>	<i>New Jersey vesiculovirus</i>	11123	JX121110
Carajas virus	CARV	BeAr411391	<i>Vesiculovirus</i>	<i>Carajas vesiculovirus</i>	10716+	KM205015
Maraba virus	MARV	BeAr411459	<i>Vesiculovirus</i>	<i>Maraba vesiculovirus</i>	11135	HQ660076
vesicular stomatitis Alagoas virus	VSAV	Indiana 3	<i>Vesiculovirus</i>	<i>Alagoas vesiculovirus</i>	11070	EU373658
Cocal virus	COCV	TRVL40233	<i>Vesiculovirus</i>	<i>Cocal vesiculovirus</i>	11003	EU373657
Morreton virus	MORV	CoAr191048	not classified		11181+	KM205007
vesicular stomatitis Indiana virus	VSIV	98COE	<i>Vesiculovirus</i>	<i>Indiana vesiculovirus</i>	11161	AF473864
Klamath virus	KLAV	M-1056	not classified		11478+	KM204999
tupaia rhabdovirus	TUPV		<i>Tupavirus</i>	<i>Tupaia tupavirus</i>	11440	AY840978
Durham virus	DURV	CC228-C5	<i>Tupavirus</i>	<i>Durham tupavirus</i>	11092+	FJ952155
Niakha virus	NIAV	DakArD88909	not classified		11124	KC585008
Sripur virus	SRIV	733646	not classified		11290+	KM205023
Almpiwar virus	ALMV	MRM4059	not classified		11156	KJ399977
Chaco virus	CHOV	BeAn42217	not classified		11397+	KM205000
Sena Madureira virus	SMV	BeAn303197	not classified		11422+	KM205004
Timbo virus	TIMV	BeAn41787	not classified		partial	na
Kwatta virus	KWAV	A-57	not classified		11211+	KM204985
Oak Vale virus	OVV	K13965	not classified		11220	JF705877
Garba virus	GARV	DakAnB439a	not classified		10821+	KM204982
Sunguru virus	SUNV	UG#41	not classified		11056	KF395226
Harrison Dam virus	HARDV	CS75	not classified		11284+	KJ432573
Walkabout Creek virus	WACV	CS1056	not classified		11214	KJ432572
Lepeophtheirus salmonis rhabdovirus 9	LSRV-9		not classified		11681+	KJ958535
Lepeophtheirus salmonis rhabdovirus 127	LSRV-127		not classified		11519+	KJ958536
Xiburema virus	XIBV	BeAr362159	not classified		12240	KJ636781
Aruac virus	ARUV	TRVL9223	not classified		11906+	KM204987
Inhangapi virus	INHV	BeAr177325	not classified		12026	KM204991
Santa Barbara virus	SBV	Ar775619	not classified		12162	KM350503
Itacaiunas virus	ITAV	BeAr427036	not classified		12536+	KM204984
Iri virus	IRIV	BeAr408005	not classified		13070	KM204995
Curionopolis virus	CURV	BeAr440009	not classified		13170	KM204994
Rochambeau virus	RBUV	CaAr16102	not classified		13593	KM205012
Kamese virus	KAMV	MP6186	not classified		13209	KM204989
Mossuril virus	MOSV	SAAr1995	not classified		13106+	KM204993
Flanders virus	FLAV	61-7484	unassigned sp.	<i>Flanders virus</i>	13038	KM205002
Hart Park virus	HPV	AR7C	not classified		13104	KM205011
Mosqueiro virus	MOV	BeAr185559	not classified		12957	KM205014
Landjia virus	LJAV	DakAnB769d	not classified		13695+	KM205010
Manitoba virus	MANV	Mn936-77	not classified		13784+	KM205008
Gray Lodge virus	GLOV	BFN3187	not classified		12403	KM205022
Marco virus	MCOV	BeAn40290	not classified		13294+	KM205005
Joinjakaka virus	JOIV	AusMK7937	not classified		13155	KM205016
Ngaingan virus	NGAV	MRM14556	unassigned sp.	<i>Ngaingan virus</i>	15764	NC013955
La Joya virus	LJV	J-134	not classified		15721	KM204986
Wongabel virus	WONV	CS264	unassigned sp.	<i>Wongabel virus</i>	13196	NC011639
Ord River virus	ORV	OR1023	not classified		13189+	KM205025
Parry Creek virus	PCV	OR189	not classified		13205+	KM204988
Bivens Arm virus	BAV	UF-10	not classified		13288+	KM205019
Tibrogargan virus	TIBV	CS132	<i>Tibrovirus</i>	<i>Tibrogargan tibrovirus</i>	13298	GQ294472
Sweetwater Branch virus	SWBV	UF-11	not classified		13141+	KM204997
Coastal Plains virus	CPV	DPP53	<i>Tibrovirus</i>	<i>Coastal Plains tibrovirus</i>	13203	GQ294473
Ekpoma-1 virus	EKV-1		not classified		12,659+	KP324827
Ekpoma-2 virus	EKV-2		not classified		12,674+	KP324828
Bas Congo virus	BASV	BASV-1	not classified		11892+	JX297815
Koolpinyah virus	KOOLV	DPP833/819	not classified		16133	KM085029
Kotonkan virus	KOTV	IbAr23380	<i>Ephemerovirus</i>	<i>Kotonkan ephemerovirus</i>	15870	HM474855
Yata virus	YATV	DakArB2181	not classified		14479	KM085030
Adelaide River virus	ARV	DPP61	<i>Ephemerovirus</i>	<i>Adelaide River ephemerovirus</i>	14627	JN935380
Obodhiang virus	OBOV	SudAr1154-64	<i>Ephemerovirus</i>	<i>Obodhiang ephemerovirus</i>	14717	HM856902
Kimberley virus	KIMV	CS368	not classified		15442	JQ941664
bovine ephemeral fever virus	BEFV	BB7721	<i>Ephemerovirus</i>	<i>Bovine fever ephemerovirus</i>	14900	AF234533

\* Taxonomic assignments proposed here.

+ Complete coding sequences only.

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