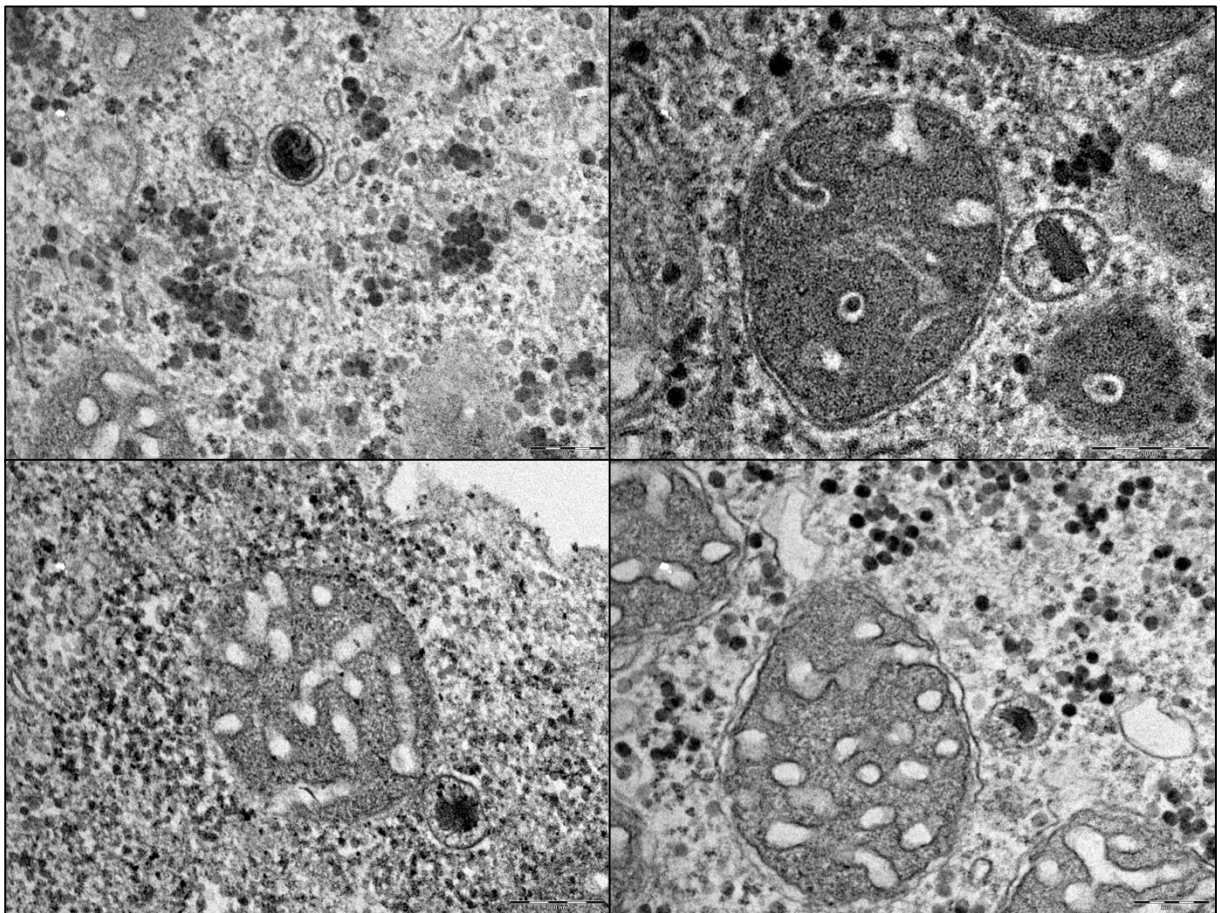


SUPPLEMENTARY DATA

Pacmanvirus, a new giant icosahedral virus at the crossroads between *Asfarviridae* and *Faustoviruses*.

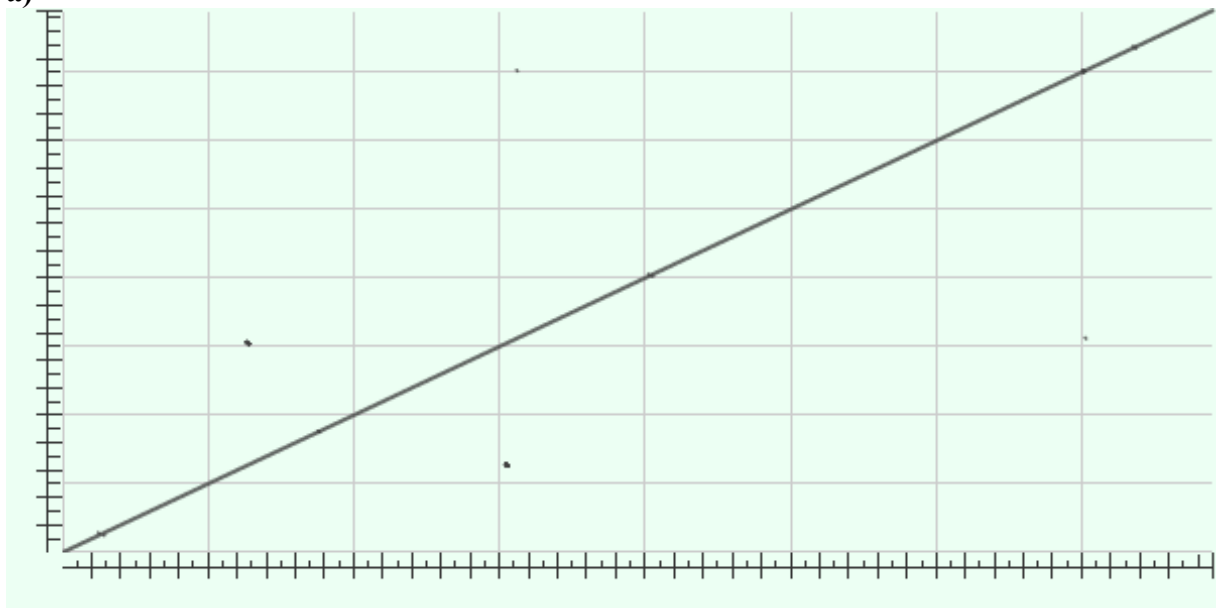
Julien Andreani ¹, Jacques Yaacoub Bou Khalil ¹, Madhumati Sevvana², Samia Benamar¹, Fabrizio Di Pinto ¹, Idir Bitam ³, Philippe Colson ¹, Thomas Klose², Michael G Rossmann², Didier Raoult ¹ and Bernard La Scola ^{1#}



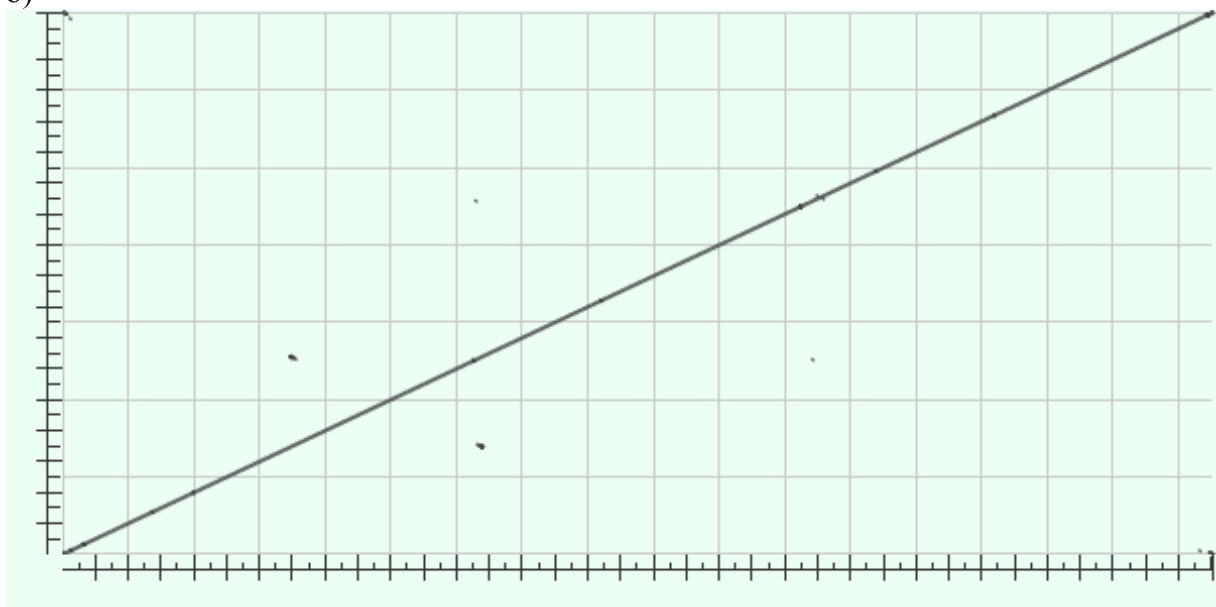
Supplementary figure S1. Ultrathin sections of Pacmanvirus in the early time of infections.

All of this pictures were taken 15 and 30 minutes post-infection and show close interaction between virus particles and mitochondria without clear membrane fusion.

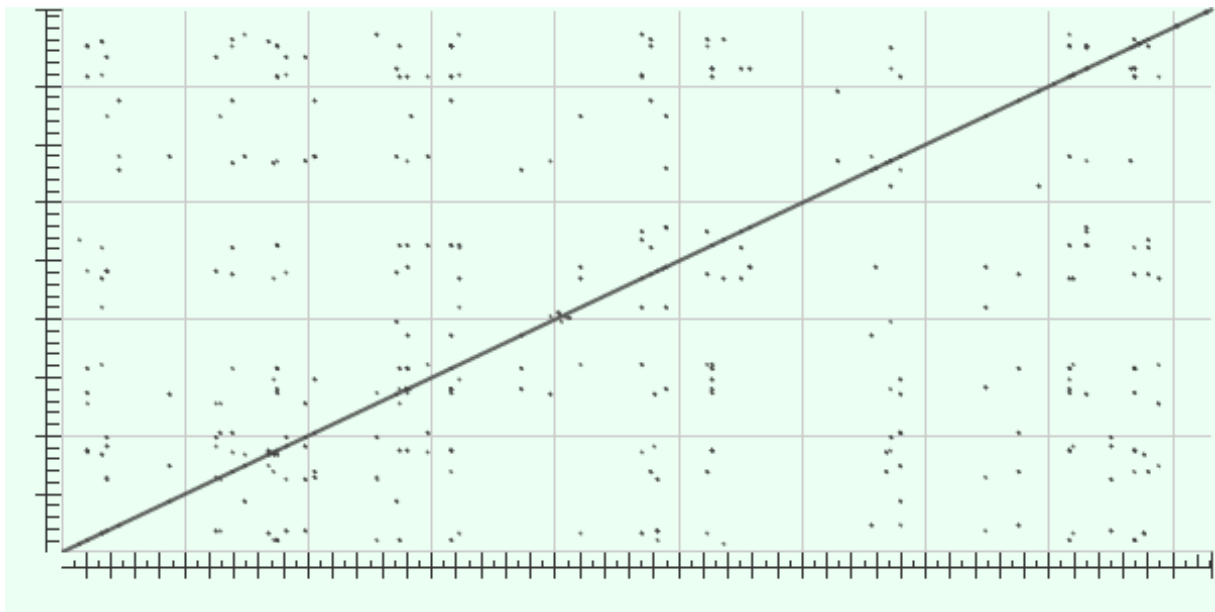
a)



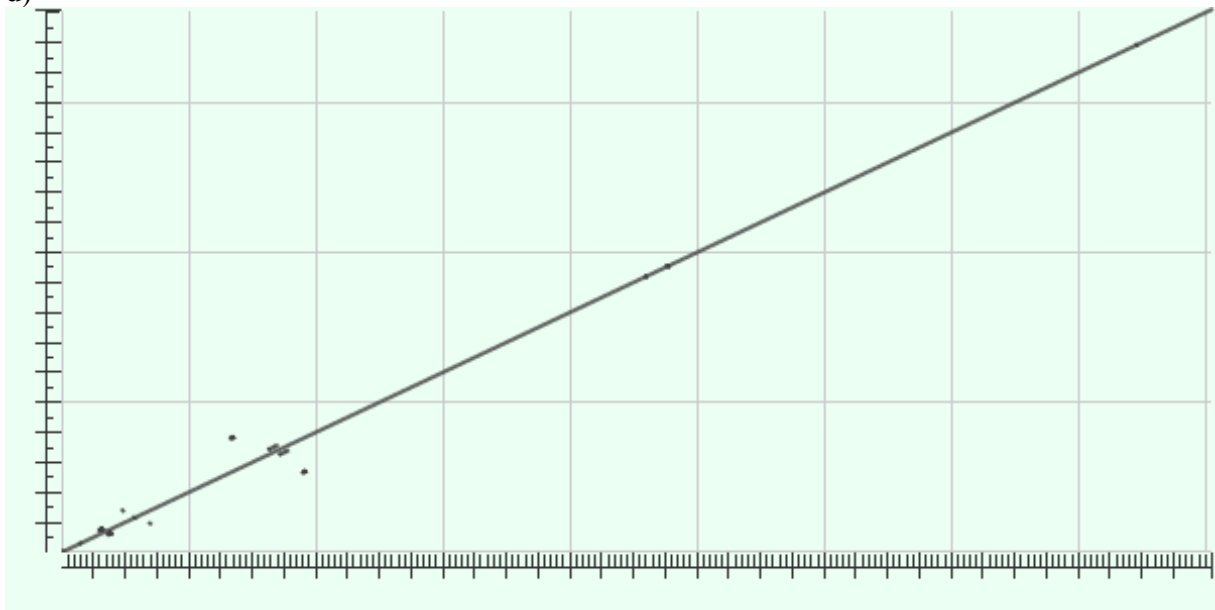
b)



c)

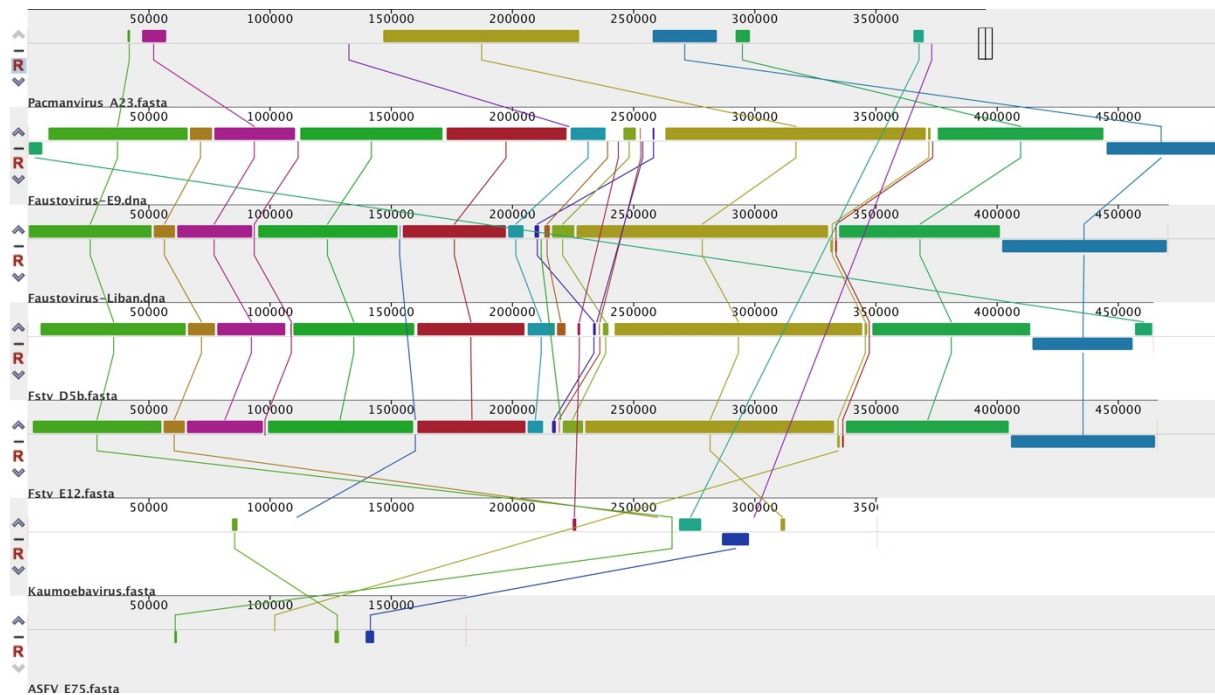


d)



Supplementary figure S2. Dot plot generates on different whole genome.

A) Dot plot of Pacmanvirus A23 against itself. B) Kaumobebavirus. C) Faustovirus strain E12.
D) *African swine fever virus* strain E75.



Supplementary figure S3: MAUVE comparison.

Multiple Genome Alignment on ASFV strain E75, Kaumobavirus, Pacmanvirus and one Faustovirus for each lineage: D with Faustovirus D5b, E12 for lineage M, Liban for lineage L, Faustovirus lineage E9. Fstv is an abbreviation of Faustovirus.

Supplementary table 1: Proteins predicted share by the current group and their functions.
We suppress the hypothetical protein in the columns

Members	Annotated functions
All	D5 primase-helicase
	DNA-directed RNA polymerase, subunit 2 (Rbp2)
	Ribonucleotide reductase small subunit
	FtsJ-like methyltransferase
	Putative Transcription Factor IIB
	Pre-mRNA-splicing factor ATP-dependent RNA helicase
	ERCC4 domain-containing protein
	VV A32 virion packaging ATPase
	VLTF3 late transcription factor protein
	Putative VV A8L-like transcription factor
	Similar to 60-62 kDa protein
	ATP-dependent DNA ligase
	DNA-directed RNA polymerase subunit 1 (Rpb1)
	Putative mRNA-capping enzyme
	Helicase D6/D11 putative
	YqaJ endonuclease
	RNA polymerase II subunit 5 (Rpb5)
	DNA topoisomerase II
	RNA polymerase II subunit 3 (Rpb3/Rpb11)
	Cysteine protease
	Proliferating cell nuclear antigen-like protein
	VV A18-like helicase
	AP endonuclease 2
	Transcription factor S-II-related protein
Faustovirus, ASFV, Pacmanvirus.	Deoxyuridine 5'-triphosphate nucleotidohydrolase
	Ubiquitin-conjugating enzyme E2
	Replication origin-binding protein
	Putative Major Capsid Protein chaperone
	Putative VV VLTF2-like transcription factor
	mRNA-decapping protein g5R