Supplementary figures:

Comprehensive analysis of single molecule sequencing-derived complete genome and whole transcriptome of *Hyposidra talaca* nuclear polyhedrosis virus

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Supplementary Figure legends

Supplementary Figure S1: Flowchart showing pipeline used for ORFs detection and annotation of the HytaNPV genome.

Supplementary Figure S2: Expression of HytaNPV ORFs at 24h and 72h using RNA-seq data.

Supplementary Figure S3: Comparison of HytaNPV against other baculoviruses used for biopesticides. Heatmap showing amino acid identity (%) resulting from blastp (evalue <= 1) of HytaNPV protein sequences against protein sequences of all complete baculovirus genomes.

Supplementary Figure S4: Alignment of repeat sequences from HytaNPV and that observed in BusuNPV.

Supplementary Figure S5: Alignment of F and F-like proteins across baculoviruses. The multiple-sequence alignment was carried out using Clustal Omega[1] and visualized using Jalview software[2]. Cartoon of conserved regions (SP – signal peptide; FP – fusion peptide; S-S disulfide bridge; TM – transmembrane domain) of SeMNPV F protein shown at the bottom was adapted from Westenberg et al.[3]. Order of protein sequences appear on the left was determined by Clustal Omega's algorithm. A1 – Alphabaculovirus group I, B – Betabaculovirus; A2 – Alphabaculovirus group II. Amino acid conservation was highlighted in blue.

Supplementary Figure S6: Alignment of DNA sequences upstream of *polyhedrin* gene of AcMNPV, BusuNPV, SujuNPV and HytaNPV showing a conserved core promoter region.

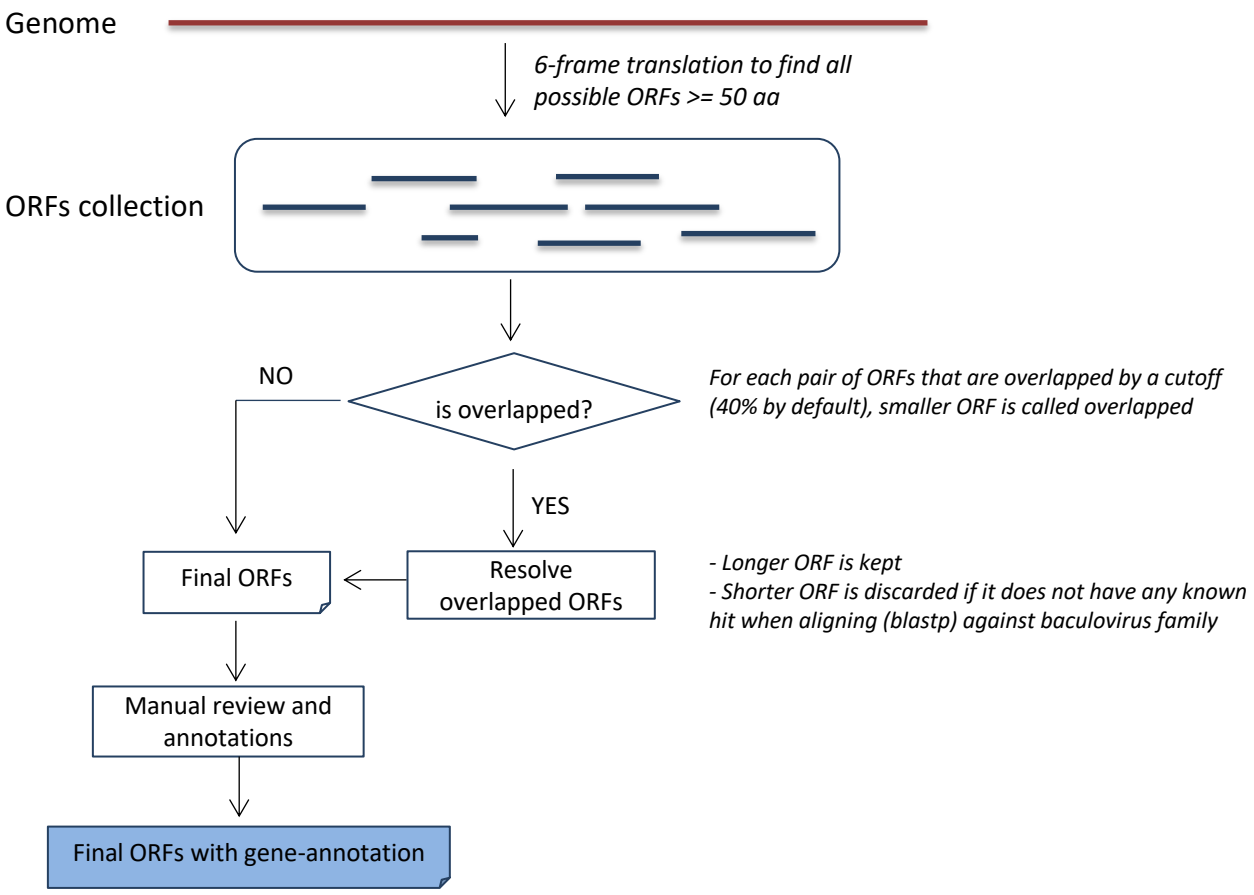
Reference:

1 Sievers, F. *et al.* Fast, scalable generation of high-quality protein multiple sequence alignments using Clustal Omega. *Mol Syst Biol* **7**, 539, doi:10.1038/msb.2011.75 (2011).

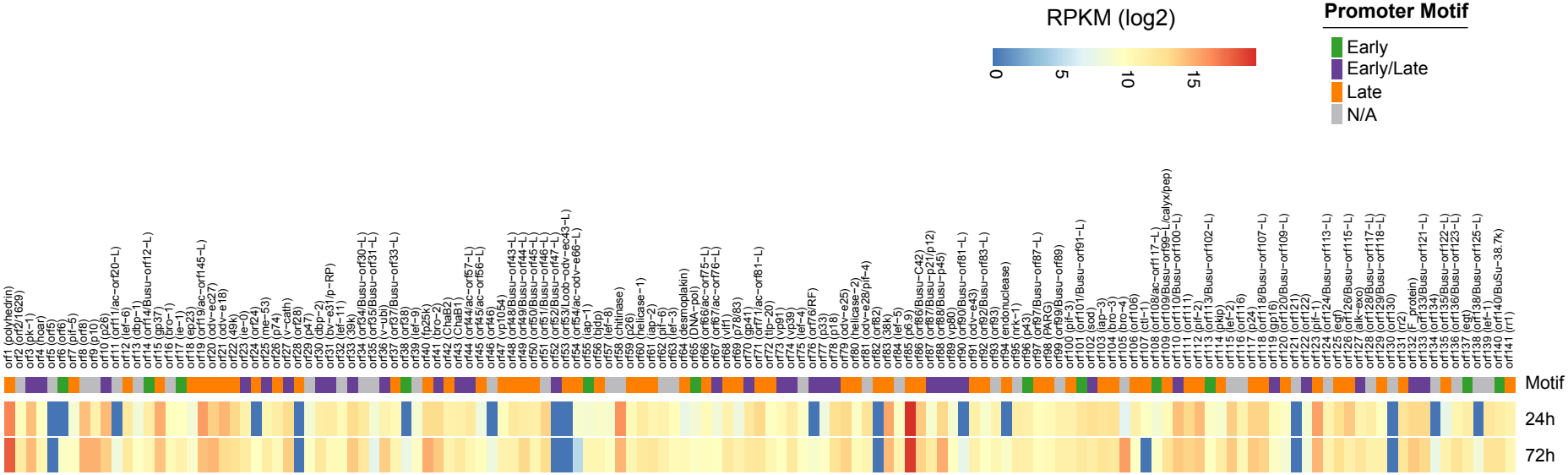
2 Clamp, M., Cuff, J., Searle, S. M. & Barton, G. J. The Jalview Java alignment editor. *Bioinformatics* **20**, 426-427, doi:10.1093/bioinformatics/btg430 (2004).

3 Westenberg, M. *et al.* Functional analysis of the putative fusion domain of the baculovirus envelope fusion protein F. *J Virol* **78**, 6946-6954, doi:10.1128/JVI.78.13.6946-6954.2004 (2004).

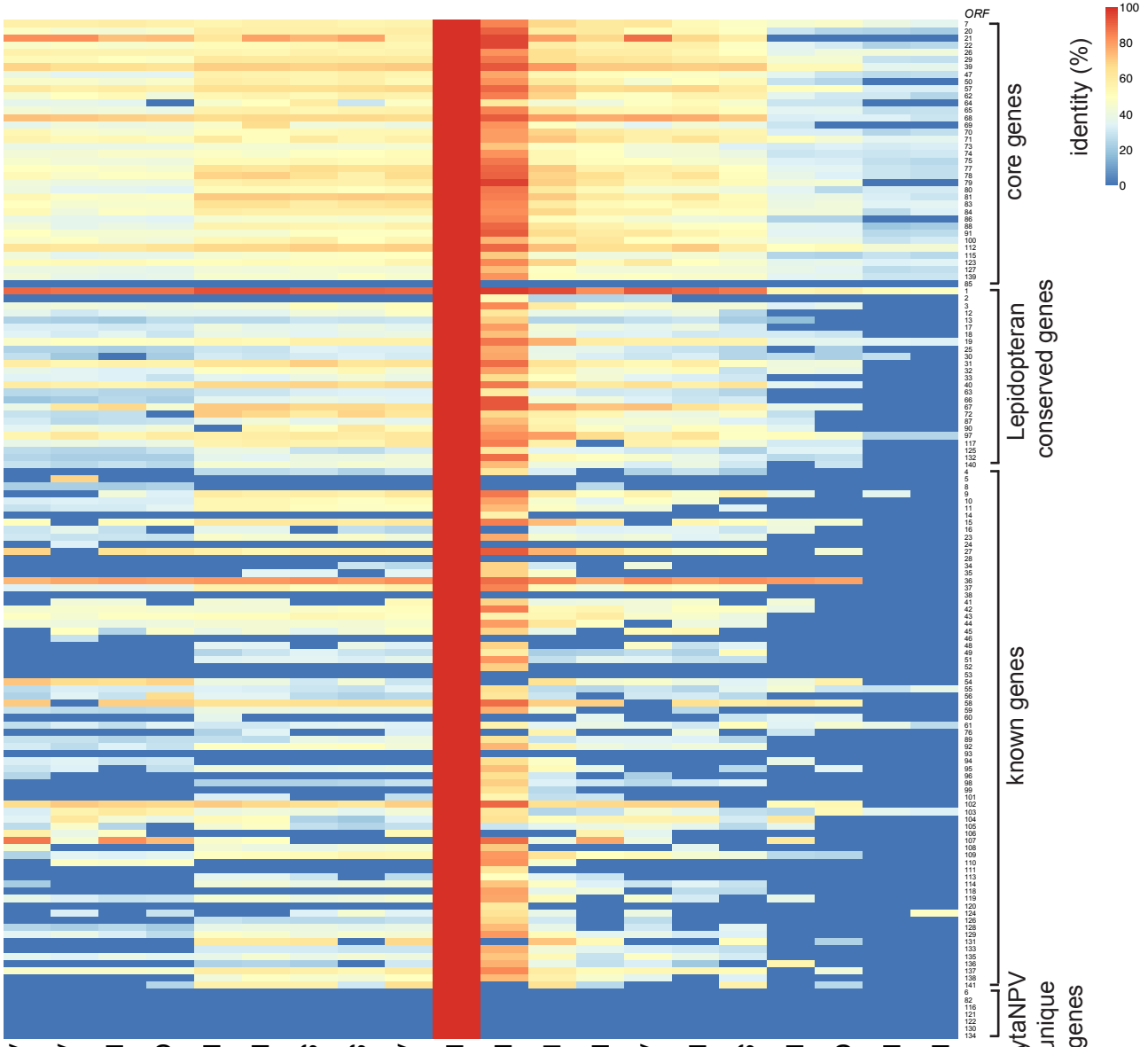
Supplementary Figure S1



Supplementary Figure S2

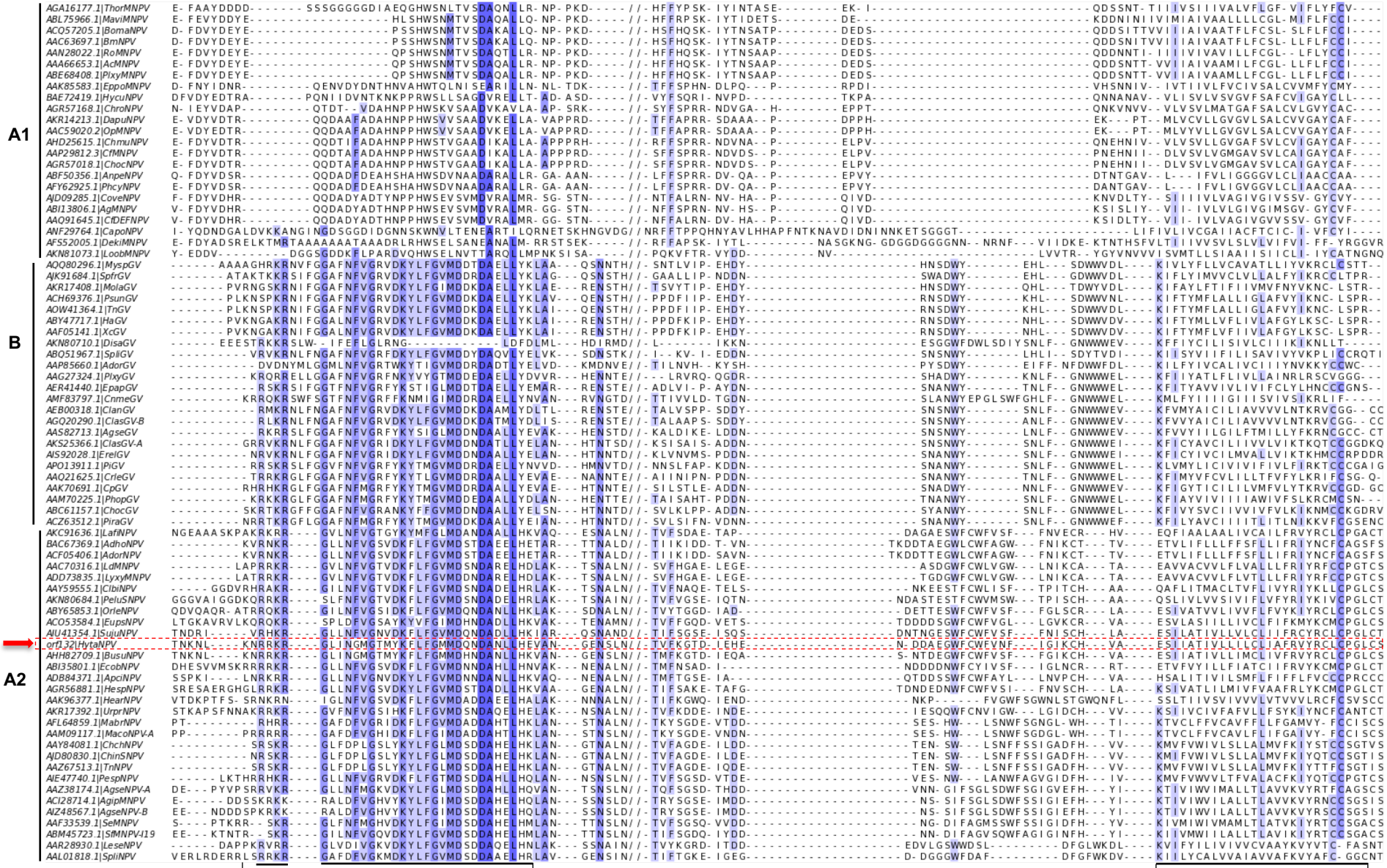


Supplementary Figure S3



Supplementary Figure S4

Supplementary Figure S5



Supplementary Figure S6