

## Supplementary Figure Legends

### **Figure S1: Workflow of differential abundance analysis of viral RNA and DNA** (Related to Figure 2)

Workflow of mapping procedure to quantify viral RNA/DNA sequences from post-mortem tissue samples and estimate differential viral abundance.

### **Figure S2: Differential viral abundance, AD vs. PA, PSP (MAYO TCX)** (Related to Figure 2, and section “Increased HHV-6A and HHV-7 are not ubiquitous features of neurodegeneration”)

Differential viral RNA analysis of the MAYO TCX cohort showing comparison of AD with Controls, and neuropathological control groups with PSP or PA.

(Viruses with an FDR < 0.1 in at least one comparison are shown in figure)

(P-values shown in cells with FDR < 0.1)

### **Figure S3: Virus / host protein regulatory networks in the APFC** (Related to Figure 5, and section “Virus-host protein networks indicate perturbation of cellular nucleotide pools, tRNA synthesis and protein translation”)

Viral interactions with host proteins in the APFC for species that were implicated in the viral RNA differential abundance analysis for that region.

## Supplementary Files

**Table S1:** Preclinical AD and Control network summary (Related to Figure 1)

**Table S2:** Differential viral RNA / DNA abundance analysis (Related to Figure 2)

**Table S3:** Viral RNA abundance correlations with AD traits (Related to Figure 3)

**Table S4:** v QTL associations (Related to Figure 4)

**Table S5:** vQTL-set associations with AD traits (Related to Figure 4)

**Table S6:** Virus-host mRNA networks (Related to Figure 5)

**Table S7:** Gene enrichment analysis of virus-host subnetworks (Related to Figure 5)

**Table S8:** AD / AD Trait associations with cell fractions (Related to Figure 6)

**Table S9:** Viral abundance / cell fractions (Related to Figure 6)

**Table S10:** miR-155xAPP/PS1 mouse transcriptome summary (Related to Figure 6)

**Table S11:** Virus-host protein networks (Related to Figure 5, Figure S3, and section “Virus-host protein networks indicate perturbation of cellular nucleotide pools, tRNA synthesis and protein translation”)

Figure S1, Related to Figure 2

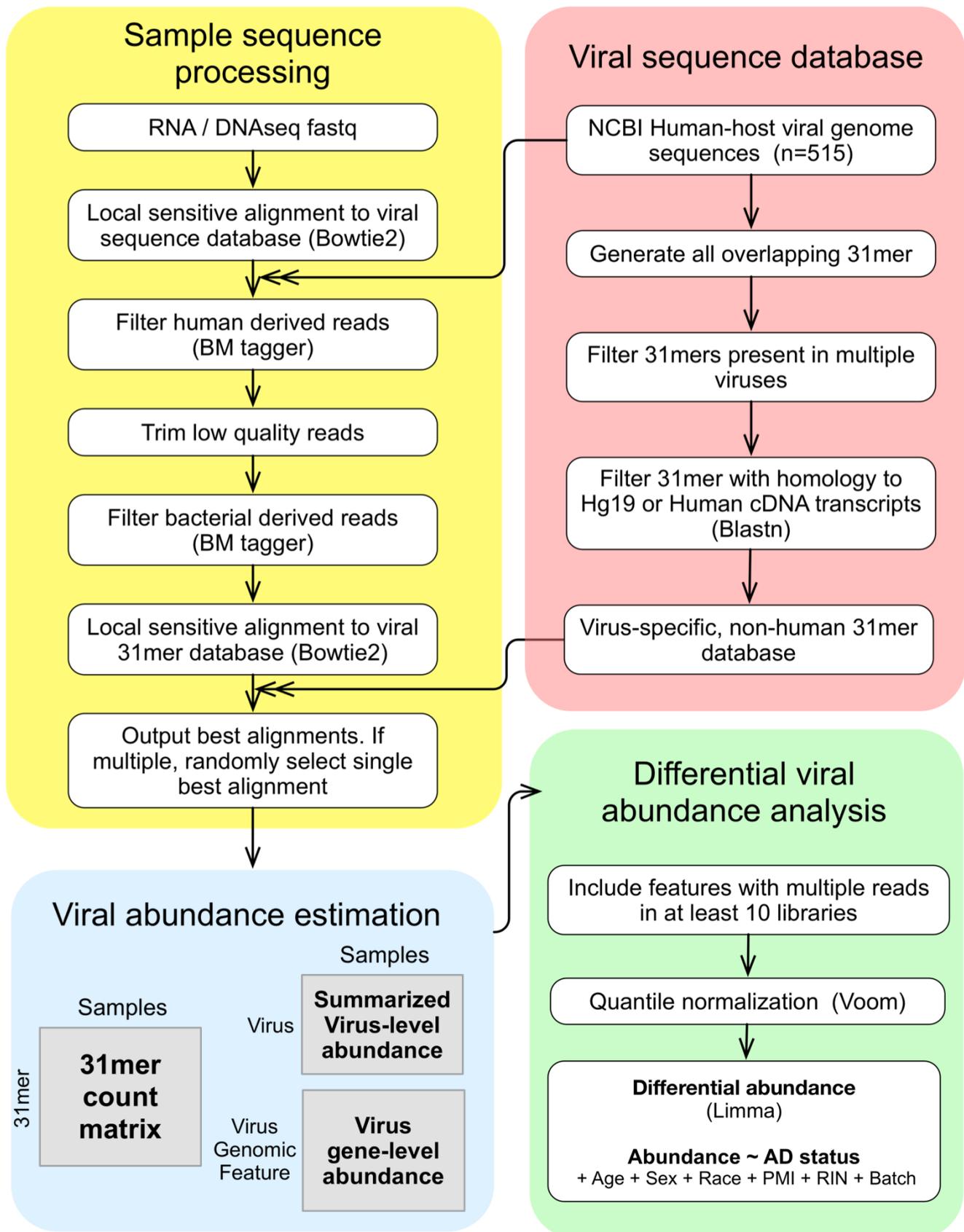


Figure S2, Related to Figure 2, and section “Increased HHV-6A and HHV-7 are not ubiquitous features of neurodegeneration”

