Scientists develop gene-editing technology that eliminates EV-A71 RNA viruses

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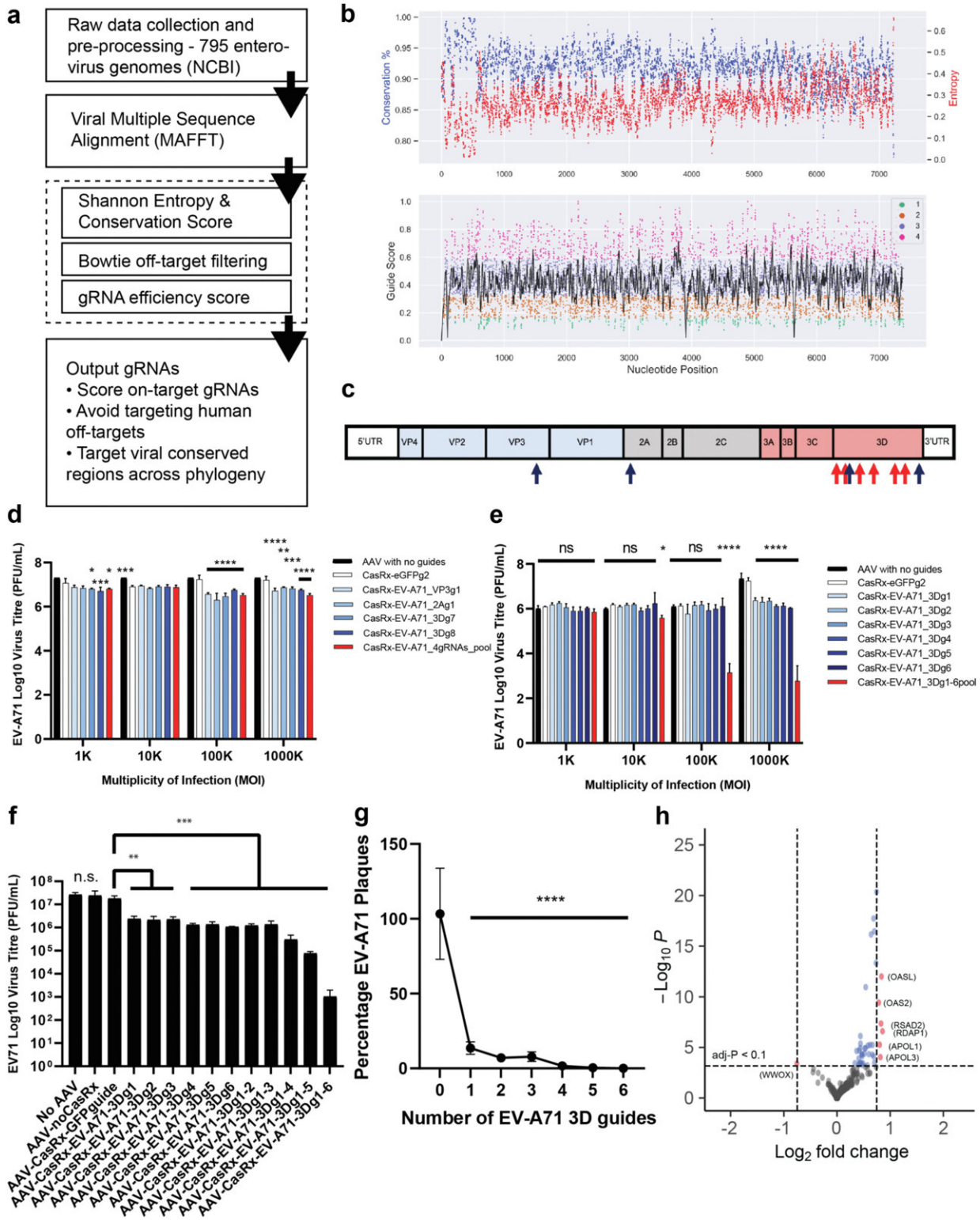

CRISPR-CasRx gRNAs design strategy generates gRNAs with potent and specific antiviral activity in cells. a. Schematic of bioinformatics pipeline for

gRNA prediction and scoring, as applied to enterovirus genomes. b. Visualization of scores and gRNAs against 795 enterovirus target genomic sequences. Top: Entropy Score (red) for each nucleotide of aligned viral genomes. Percentage of Conservation (blue) for each nucleotide among aligned viral genomes. Bottom: gRNAs on-target efficacy score along the target enterovirus, color-coded and divided into four quartiles. c. Designed gRNAs against the enterovirus RNA genome. Blue arrows: gRNAs with high scores. Red arrows: gRNAs with medium/low scores. d. Assessment of gRNA pools. 10K RD cells were seeded in each well of a 96-well plate and transduced with indicated AAVs. After 72 h, the cells were subjected to EV-A71 infection at MOI of 1 for 12 h, and the supernatant was then harvested for virus plaque assay (two-way ANOVA, p