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### A Single Variation in the Influenza A Virus Genomic RNA Shows a Different Secondary Structure

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The influenza A viruses which are the most severe and common among the influenza viruses have 8 segmented RNA genomes. Each RNA segment has highly conserved 3' and 5' terminal sequence except a single U→C variation especially in the 4 position of the 3' terminal of the 3 segments encoding own RNA polymerase. These conserved terminals make a partially double-stranded duplex, which are involved in initiation and termination of transcription, switch from transcription to replication as well as packaging. The secondary structure of the two influenza genomic RNAs with the U and C variation are studied by NMR spectroscopy. The single nucleotide change makes a different secondary structure shifting the base pair, which might be recognized by the influenza virus RNA polymerase to regulate the transcription rate so that the multiple turn-over RNA polymerase be made in less amount than other structural viral proteins.