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Supplemental Information

The Effect of RNA Secondary Structure on the Self-Assembly of Viral Capsids

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SUPPLEMENTARY MATERIAL

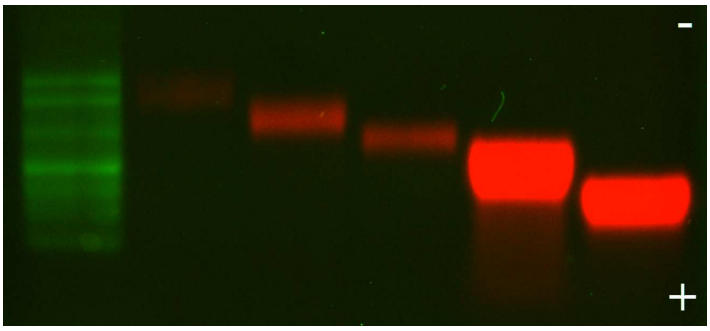

FIGURE S1. Electrophoretic gel analysis of fractionated polyU. From left to right: double-stranded (ds)DNA ladder, 5000-7000, 4000-5000, 2500-4000, 1500-2500 and 500-1500 nt polyU RNAs. The decrease in band intensity for higher molecular weight polyU molecules is due to the fact that an equal mass of polyU was loaded per lane, resulting in many fewer RNAs in the higher molecular weight fractions and, subsequently, a decreased fluorescence signal.

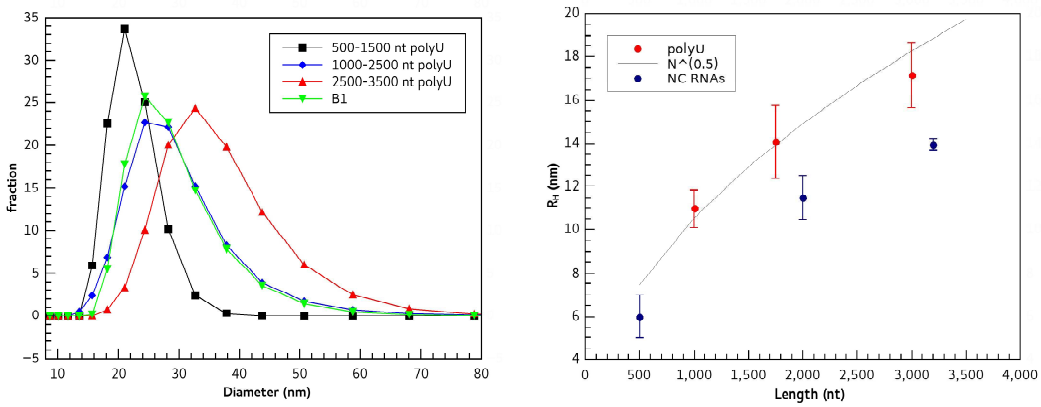

FIGURE S2. Left) Raw DLS data of polyU RNAS of varying length and BMV RNA1. The fraction of molecules of a given hydrodynamic diameter (nm) is plotted for each sample. The distributions are broad, yet the average size is consistent. Right) Plot showing how the hydrodynamic radius of polyU and normal-composition (NC) RNAs varies with nt length. Theoretical points show $N^{1/2}$ scaling. Note that although the raw data exhibits a large standard deviation, the standard deviation of the mean (error bars) is relatively small, indicating that the average size is reproducible across measurements.