

**S5 Fig. Tertiary structures of top-ranked and enriched aptamers.** Here, we show the N40 variable region of the aptamers, including the flanking 5' (TAGGGAAGAGAAGGACATATGAT) and 3' (TTGACTAGTACATGACCACTTGA) regions. Secondary structures were predicted considering the flanking regions, at 25°C, 100 mM Na<sup>+</sup>, and 3 mM Mg<sup>+2</sup>, using the Mfold web server. A 3-D ssRNA model was built through RNAcomposer server and using VMD molefacture and PSF builder the ssRNA structure was transformed into a ssDNA structure. Finally, the structure was minimized using Namd software.