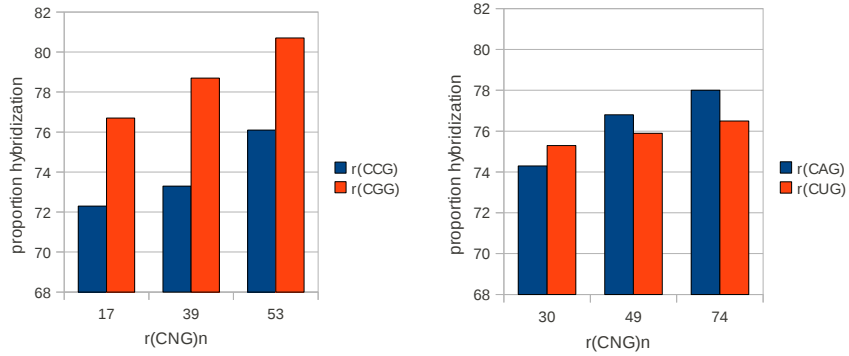


Figure 1: **Comparison of RNA, DNA and mixed Mixed energy parameters for stacking.** In 7 of 16 cases, the mixed parameters are between the DNA and the RNA parameters, in 4 cases they are on the DNA, in 5 cases outside both parameters.



$$\begin{aligned} \Delta G_{\text{RNA parameters}}(CCG)_3 &= -9.1 \\ \Delta G_{\text{DNA parameters}}(CCG)_3 &= -6.2 \\ \Delta G_{\text{mixed parameters}}r(CCG)_3 &= -6.5 \\ \Delta G_{\text{mixed parameters}}r(CGG)_3 &= -7.3 \end{aligned}$$

$$\begin{aligned} \Delta G_{\text{RNA parameters}}(CAG)_3 &= -7.6 \\ \Delta G_{\text{DNA parameters}}(CAG)_3 &= -5.0 \\ \Delta G_{\text{mixed parameters}}r(CAG)_3 &= -5.4 \\ \Delta G_{\text{mixed parameters}}r(CUG)_3 &= -5.2 \end{aligned}$$

Figure 2: Mixed energy parameters can explain different R-loop formation propensities of poly-trinucleotides. Proportion of hybridization for different lengths of $r(CCG)$ and $r(CGG)$ (left), and $r(CAG)$ and $r(CUG)$ trinucleotide repeats. The bigger energy difference between the reverse complements on the left hand side explains the difference in hybridization, while the smaller difference on the right hand side explains the statistically insignificant difference in hybridization. Bar diagrams adapted from [10].