

Selective Targeting of the T-T/U-U Mismatch

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Nucleic acid mismatches and internal loops are pervasive structures in nature. Developing agents that can bind them is an important area of research. This poster will describe simple, easily synthesized heteroaromatic compounds that are designed to bind internal loops and mismatches. The strategy is to utilize the unpaired Watson-Crick edges to provide selectivity in binding with an intercalator to provide binding affinity/proximity. Using DNA as a model for RNA, initial targets are DNA T-T mismatches and duplexes incorporating symmetric 6-base internal loops containing the desired T-T mismatch.

