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(54) **Title:** APTAMERS AND SMALL MOLECULE LIGANDS

Figure 1a

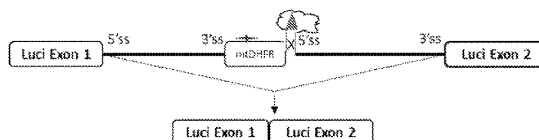
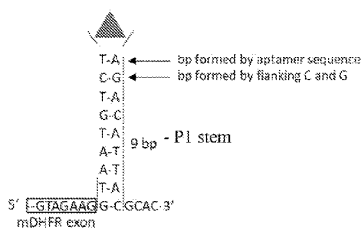


Figure 1b



(57) **Abstract:** The present disclosure provides aptamers that bind to certain small molecules. Also contemplated are riboswitches and polynucleotide cassettes for regulating the expression of a target gene, wherein the polynucleotide cassettes comprise the aptamers disclosed herein. Further provided are small molecules that bind to the aptamers disclosed herein and are modulators of target gene expression where the target gene contains a riboswitch comprising an aptamer described herein.

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