

gonucleotide comprise alternating deoxyribonucleotides and LNA nucleotides. In some embodiments, the 5' nucleotide of the oligonucleotide is a deoxyribonucleotide. In some embodiments, the nucleotides of the oligonucleotide comprise alternating LNA nucleotides and 2'-O-methyl nucleotides. In some embodiments, the 5' nucleotide of the oligonucleotide is a LNA nucleotide. In some embodiments, the nucleotides of the oligonucleotide comprise deoxyribonucleotides flanked by at least one LNA nucleotide on each of the 5' and 3' ends of the deoxyribonucleotides.

**[0024]** In some embodiments, the single stranded oligonucleotide comprises modified internucleotide linkages (e.g., phosphorothioate internucleotide linkages or other linkages) between at least two, at least three, at least four, at least five or more nucleotides. In some embodiments, the single stranded oligonucleotide comprises modified internucleotide linkages (e.g., phosphorothioate internucleotide linkages or other linkages) between all nucleotides.

**[0025]** In some embodiments, the nucleotide at the 3' position of the oligonucleotide has a 3' hydroxyl group. In some embodiments, the nucleotide at the 3' position of the oligonucleotide has a 3' thiophosphate. In some embodiments, the single stranded oligonucleotide has a biotin moiety or other moiety conjugated to its 5' or 3' nucleotide. In some embodiments, the single stranded oligonucleotide has cholesterol, Vitamin A, folate, sigma receptor ligands, aptamers, peptides, such as CPP, hydrophobic molecules, such as lipids, ASGPR or dynamic polyconjugates and variants thereof at its 5' or 3' end.

**[0026]** According to some aspects of the invention compositions are provided that comprise any of the oligonucleotides disclosed herein, and a carrier. In some embodiments, compositions are provided that comprise any of the oligonucleotides in a buffered solution. In some embodiments, the oligonucleotide is conjugated to the carrier. In some embodiments, the carrier is a peptide. In some embodiments, the carrier is a steroid. According to some aspects of the invention pharmaceutical compositions are provided that comprise any of the oligonucleotides disclosed herein, and a pharmaceutically acceptable carrier.

**[0027]** According to other aspects of the invention, kits are provided that comprise a container housing any of the compositions disclosed herein.

**[0028]** According to some aspects of the invention, methods of increasing expression of UTRN in a cell are provided. In some embodiments, the methods involve delivering any one or more of the single stranded oligonucleotides disclosed herein into the cell. In some embodiments, delivery of the single stranded oligonucleotide into the cell results in a level of expression of UTRN that is greater (e.g., at least 50% greater) than a level of expression of UTRN in a control cell that does not comprise the single stranded oligonucleotide.

**[0029]** According to some aspects of the invention, methods of increasing levels of UTRN in a subject are provided. According to some aspects of the invention, methods of treating a condition (e.g., muscular dystrophies, including DMD, BMD, and myotonic dystrophy) associated with decreased levels of UTRN in a subject are provided. In some embodiments, the methods involve administering any one or more of the single stranded oligonucleotides disclosed herein to the subject.

#### BRIEF DESCRIPTION OF TABLES

**[0030]** Table 1: Hexamers that are not seed sequences of human miRNAs

**[0031]** Table 2: Oligonucleotide sequences made for testing. RQ (column 3) and RQ SE (column 4) shows the activity of the oligo relative to a control well (usually carrier alone) and the standard error or the triplicate replicates of the experiment. [oligo] is shown in nanomolar for in vitro experiments and in milligrams per kilogram of body weight for in vivo experiments. The Formatted Sequence column sequence of each oligonucleotide, including any modified nucleotides, is shown in Table 4.

**[0032]** Table 3: A listing of oligonucleotide modifications

**[0033]** Table 4: Formatted oligonucleotide sequences made for testing showing nucleotide modifications. The table shows the sequence of the modified nucleotides, where InaX represents an LNA nucleotide with 3' phosphorothioate linkage, omeX is a 2'-O-methyl nucleotide, dX is a deoxy nucleotide. An s at the end of a nucleotide code indicates that the nucleotide had a 3' phosphorothioate linkage. The “-Sup” at the end of the sequence marks the fact that the 3' end lacks either a phosphate or thiophosphate on the 3' linkage. The Formatted Sequence column shows the sequence of the oligonucleotide, including modified nucleotides, for the oligonucleotides tested in Table 2.

**[0034]** Table 5: Cell lines

#### DETAILED DESCRIPTION OF CERTAIN EMBODIMENTS OF THE INVENTION

**[0035]** Aspects of the invention provided herein relate to the discovery of polycomb repressive complex 2 (PRC2)-interacting RNAs. Polycomb repressive complex 2 (PRC2) is a histone methyltransferase and a known epigenetic regulator involved in silencing of genomic regions through methylation of histone H3. Among other functions, PRC2 interacts with long noncoding RNAs (lncRNAs), such as RepA, Xist, and Tsix, to catalyze trimethylation of histone H3-lysine-27. PRC2 contains four subunits, Eed, Suz12, RbAp48, and Ezh2. Aspects of the invention relate to the recognition that single stranded oligonucleotides that bind to PRC2-associated regions of RNAs (e.g., lncRNAs) that are expressed from within a genomic region that encompasses or that is in functional proximity to the UTRN gene can induce or enhance expression of UTRN. In some embodiments, this upregulation is believed to result from inhibition of PRC2 mediated repression of UTRN.

**[0036]** As used herein, the term “PRC2-associated region” refers to a region of a nucleic acid that comprises or encodes a sequence of nucleotides that interact directly or indirectly with a component of PRC2. A PRC2-associated region may be present in a RNA (e.g., a long non-coding RNA (lncRNA)) that that interacts with a PRC2. A PRC2-associated region may be present in a DNA that encodes an RNA that interacts with PRC2. In some cases, the PRC2-associated region is equivalently referred to as a PRC2-interacting region.

**[0037]** In some embodiments, a PRC2-associated region is a region of an RNA that crosslinks to a component of PRC2 in response to in situ ultraviolet irradiation of a cell that expresses the RNA, or a region of genomic DNA that encodes that RNA region. In some embodiments, a PRC2-associated region is a region of an RNA that immunoprecipitates with an antibody that targets a component of PRC2, or a region of genomic DNA that encodes that RNA region. In some