

CLAIMS

1. An adenosine deaminase acting on ribonucleic acid (RNA) (ADAR) recruiting molecule comprising a double-stranded RNA duplex, wherein the double-stranded RNA duplex comprises two RNA strands hybridized to form a duplex, wherein:
 - (a) the two RNA strands are not connected to one another by means of a hairpin;
 - (b) each of the two RNA strands forming the duplex has a 5' terminal nucleotide that is complementary to a 3' terminal nucleotide of the other RNA strand, wherein the terminal nucleotide is the terminal nucleotide of the duplex;
 - (c) at least one of the two RNA strands forming the duplex comprises at least one nucleoside modification and/or at least one backbone modification; and
 - (d) the double-stranded RNA duplex comprises at least one base pair mismatch, wherein the mismatch is not positioned at either terminal nucleotide base pair of the duplex.
2. The ADAR recruiting molecule of claim 1, further comprising a single-stranded guide nucleic acid, optionally wherein the single-stranded guide nucleic acid comprises at least one nucleoside modification and/or at least one backbone modification.
3. The ADAR recruiting molecule of claim 1 or claim 2, wherein the double-stranded RNA duplex and/or the single-stranded guide nucleic acid comprises at least one nucleoside modification and at least one backbone modification.
4. The ADAR recruiting molecule of any one of claims 1-3, wherein the at least one nucleoside modification of the double-stranded RNA duplex comprises a 2'-aminoethyl, a 2'-deoxy-2'-fluoro- β -d-arabinonucleic acid, a 2'-O-methyl, a 2'-O-methoxyethyl (2'O-MOE), or a 2'-fluoro modification.
5. The ADAR recruiting molecule of any one of claims 1-4, wherein the at least one backbone modification of the double-stranded RNA duplex and/or the single-stranded guide nucleic acid comprises a phosphorothioate modification.

6. The ADAR recruiting molecule of any one of claims 1-5, wherein the at least one backbone modification of the double-stranded RNA duplex is positioned within 1-5 nucleotides of the terminal nucleotide of the RNA strand on which it is located and/or wherein the at least one backbone modification of a single-stranded guide nucleic acid is positioned within 1-5 nucleotides of the terminal nucleotide of the single-stranded guide nucleic acid.
7. The ADAR recruiting molecule of any one of claims 1-6, wherein the double-stranded RNA duplex and/or the single-stranded guide nucleic acid comprises more than one nucleoside modification and/or more than one backbone modification.
8. The ADAR recruiting molecule of any one of claims 1-7, further comprising an additional moiety.
9. The ADAR recruiting molecule of any one of claims 1-8, further comprising a linker.
10. The ADAR recruiting molecule of any one of claims 2-9, wherein the single-stranded guide nucleic acid comprises three consecutive non-modified nucleotides.
11. The ADAR recruiting molecule of claim 10, wherein at least one of the three consecutive non-modified nucleotides pairs with a nucleotide adjacent to a target adenosine in the target sequence.
12. The ADAR recruiting molecule of claim 11, wherein the middle nucleotide of the three consecutive non-modified nucleotides is opposite the target adenosine.
13. The ADAR recruiting molecule of claim 12, wherein a nucleotide opposite a target adenosine comprises:
 - (a) cytosine (C);
 - (b) a natural or modified nucleotide which does not base pair with adenosine (A);and/or

(c) a natural or modified nucleotide which base pairs with guanine (G) or inosine (I).

14. The ADAR recruiting molecule of any one of claims 1-13, wherein each RNA strand of the double-stranded RNA duplex and/or the single-stranded guide nucleic acid is fewer than or equal to 100 nucleotides in length.

15. The ADAR recruiting molecule of any one of claims 2-14 for use in therapy.

16. The ADAR recruiting molecule for use according to claim 15, wherein the therapy comprises deaminating a target nucleic acid in a subject, wherein the ADAR recruiting molecule is to be administered to the subject, wherein the ADAR recruiting molecule comprises a single-stranded guide nucleic acid comprising a sequence which is sufficiently complementary to the target nucleic acid to hybridize with the target nucleic acid.

17. The ADAR recruiting molecule for use according to claim 16, wherein the target nucleic acid comprises a target adenosine.

18. Use of the ADAR recruiting molecule of any one of claims 2-14 in the manufacture of a medicament for treating a disease or disorder in a subject, wherein the ADAR recruiting molecule is to be administered to the subject, wherein the ADAR recruiting molecule comprises a single-stranded guide nucleic acid comprising a sequence which is sufficiently complementary to a target nucleic acid sequence to hybridize with the target nucleic acid, wherein the disease or disorder is selected from: Cystic fibrosis, Hurler Syndrome, alpha-1-antitrypsin (A1AT) deficiency, Parkinson's disease, Alzheimer's disease, albinism, Amyotrophic lateral sclerosis, Asthma, beta-thalassemia (β -thalassemia), Cadasil syndrome, Charcot-Marie-Tooth disease, Chronic Obstructive Pulmonary Disease (COPD), Distal Spinal Muscular Atrophy (DSMA), Duchenne/Becker muscular dystrophy, Dystrophic Epidermolysis bullosa, Epidermyolysis bullosa, Fabry disease, Factor V Leiden associated disorders, Familial Adenomatous Polyposis, Galactosemia, Gaucher's Disease, Glucose-6-phosphate dehydrogenase, Haemophilia, Hereditary Hematochromatosis, Hunter Syndrome, Huntington's disease, Inflammatory Bowel Disease (IBD), Inherited polyagglutination

syndrome, Leber congenital amaurosis, Lesch-Nyhan syndrome, Lynch syndrome, Marfan syndrome, Mucopolysaccharidosis, Muscular Dystrophy, Myotonic dystrophy types I and II, neurofibromatosis, Niemann-Pick disease type A, B, and C, NY-eso1 related cancer, Peutz-Jeghers Syndrome, Phenylketonuria, Pompe's disease, Primary Ciliary Disease, Prothrombin mutation related disorders, such as the Prothrombin G20210A mutation, Pulmonary Hypertension, Retinitis Pigmentosa, Sandhoff Disease, Severe Combined Immune Deficiency Syndrome (SCID), Sickle Cell Anemia, Spinal Muscular Atrophy, Stargardt's Disease, Tay-Sachs Disease, Usher syndrome, X-linked immunodeficiency, Sturge-Weber Syndrome, and cancer.

19. The use of claim 18, wherein the target nucleic acid comprises a target adenosine.

20. The use of claim 19, wherein the disease or disorder is related to a point mutation, wherein the deamination of the target adenosine alters the point mutation thereby treating the disease or disorder.