WHAT IS CLAIMED IS:

1. A fusion protein comprising:

an RNA effector protein that targets mRNA(s) of an active allele of a gene associated with a haploinsufficiency disorder; and

a regulon moiety that stimulates and/or stabilizes the mRNA(s).

2. The fusion protein of claim 1, wherein the RNA effector protein is a Cas effector protein selected from the group consisting of Cas9, Cas12, Cas13, and Cas14.

3. The fusion protein of claim 2, wherein the RNA effector protein is Cas13b.

4. The fusion protein of claim 2 or claim 3, wherein the Cas effector protein is a catalytically inactive Cas protein.

5. The fusion protein of any one of the preceding claims, wherein the regulon moiety is PABPC1 or NAT10.

6. The fusion protein of any one of the preceding claims, further comprising a linker and/or a spacer.

7. The fusion protein of any one of the preceding claims, further comprising a nuclear export signal and/or an epitope tag.

8. The fusion protein of any one of the preceding claims, wherein the RNA effector protein is N terminal to the regulon moiety.

9. The fusion protein of any one of the preceding claims, wherein the RNA effector protein is C terminal to the regulon moiety.

10. The fusion protein of claim 1 comprising or consisting of SEQ ID NO: 48 or SEQ ID NO: 49 or a polypeptide having at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% sequence identity to SEQ ID NO: 48 or SEQ ID NO: 49.

11. A polynucleotide encoding the fusion protein of any one of the preceding claims.

12. A vector comprising the polynucleotide of claim 11.

13. A cell comprising the vector of claim 12.

14. A system comprising:

a fusion protein comprising:

an RNA effector protein that targets mRNA(s) of an active allele of a gene associated with a haploinsufficiency disorder; and

a regulon moiety that stimulates and/or stabilizes the mRNA(s); and

a gRNA that forms a complex with the RNA effector protein and comprises a complementarity region that hybridizes with the mRNA(s) of the active allele.

15. The system of claim 13, wherein the RNA effector protein is a Cas effector protein selected from the group consisting of Cas9, Cas12, Cas13, and Cas14.

16. The system of claim 14, wherein the Cas effector protein is Cas13b.

17. The system of claim 14 or claim 15, wherein the Cas effector protein is a catalytically inactive Cas effector protein.

18. The system of any one of the preceding claims, wherein the regulon moiety is PABPC1 or NAT10.

19. The system of any one of the preceding claims, wherein the fusion protein further comprises a linker and/or a spacer.

20. The system of any one of the preceding claims, wherein the fusion protein further comprises a nuclear export signal and/or an epitope tag.

21. The system of any one of the preceding claims, wherein the RNA effector protein is N terminal to the regulon moiety.

22. The system of any one of the preceding claims, wherein the RNA effector protein is C terminal to the regulon moiety.

23. The system of any one of the preceding claims, wherein the fusion protein comprises or consists of SEQ ID NO: 48 or SEQ ID NO: 49 or a polypeptide having at least

80%, at least 85%, at least 90%, at least 95%, or at least 99% sequence identity to SEQ ID NO: 48 or SEQ ID NO: 49.

24. The system of any one of the preceding claims, wherein the gRNA targets an mRNA encoding MeCP2, SCN1A, SYNGAP1, SHANK3, CHD2, or PTEN.

25. The system of any one of the preceding claims, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16 , SEQ ID NO: 17, SEQ ID NO: 18, and combinations thereof.

26. The system of any one of the preceding claims, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 10, SEQ ID NO: 15, SEQ ID NO: 17, and combinations thereof.

27. The system of any one of the preceding claims, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA encoding an amino acid selected from the group consisting of SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, and combinations thereof.

28. The system of any one of the preceding claims, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA selected from the group consisting of SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, and combinations thereof.

29. The system of any one of the preceding claims, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA encoding an amino acid selected from the group consisting of SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, and combinations thereof.

30. The system of any one of the preceding claims, wherein the gRNA is selected from the group consisting of SEQ ID NO: 55, SEQ ID NO: 56, SEQ ID NO: 57, SEQ ID NO: 58,

SEQ ID NO: 59, SEQ ID NO: 60, SEQ ID NO: 61, SEQ ID NO: 62, SEQ ID NO: 63, SEQ ID NO: 64, SEQ ID NO: 65, SEQ ID NO: 66, SEQ ID NO: 67, SEQ ID NO: 68, SEQ ID NO: 69, SEQ ID NO: 70, SEQ ID NO: 71, and SEQ ID NO: 72.

31. One or more polynucleotide(s) encoding the system of any one of the preceding claims.

32. One or more vector(s) comprising the polynucleotide(s) of claim 31.

33. A cell comprising the vector(s) of claim 32.

34. A complex comprising:

a fusion protein comprising:

an RNA effector protein that targets mRNA(s) of an active allele of a gene associated with a haploinsufficiency disorder; and

a regulon moiety that stimulates and/or stabilizes the mRNA(s),

bound to a gRNA comprising a complementarity region that hybridizes with the mRNA(s) of the active allele.

35. The complex of claim 34, wherein the RNA effector protein is dCas13b and the regulon moiety is PABP1 or NAT10.

36. The complex of claim 34 or 35, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16 , SEQ ID NO: 17, SEQ ID NO: 18, and combinations thereof.

37. The complex of claim 34 or 35, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 10, SEQ ID NO: 15, SEQ ID NO: 17, and combinations thereof.

38. The complex of claim 34 or 35, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA encoding an amino acid selected from the group

consisting of SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, and combinations thereof.

39. The complex of claim 34 or 35, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA selected from the group consisting of SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, and combinations thereof.

40. The complex of claim 34 or 35, wherein the gRNA comprises a complementarity region designed to hybridize to an mRNA encoding SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, and combinations thereof.

41. A complex comprising:

a fusion protein comprising:

an RNA effector protein that targets mRNA(s) of an active allele of a gene associated with a haploinsufficiency disorder; and

a regulon moiety that stimulates and/or stabilizes the mRNA(s),

bound to a gRNA and the mRNA.

42. The complex of claim 41, wherein the RNA effector protein is dCas13b and the regulon moiety is PABP1 or NAT10.

43. The complex of claim 41 or 42, wherein the mRNA is selected from the group consisting of SEQ ID NO: 1, SEQ ID NO: 2, SEQ ID NO: 3, SEQ ID NO: 4, SEQ ID NO: 5, SEQ ID NO: 6, SEQ ID NO: 7, SEQ ID NO: 8, SEQ ID NO: 9, SEQ ID NO: 10, SEQ ID NO: 11, SEQ ID NO: 12, SEQ ID NO: 13, SEQ ID NO: 14, SEQ ID NO: 15, SEQ ID NO: 16 , SEQ ID NO: 17, SEQ ID NO: 18, and combinations thereof.

44. The complex of claim 41 or 42, wherein the mRNA encodes an amino acid selected from the group consisting of SEQ ID NO: 4, SEQ ID NO: 6, SEQ ID NO: 10, SEQ ID NO: 15, SEQ ID NO: 17, and combinations thereof.

45. The complex of claim 41 or 42, wherein the mRNA is selected from the group consisting of SEQ ID NO: 19, SEQ ID NO: 20, SEQ ID NO: 21, SEQ ID NO: 22, SEQ ID NO: 23, SEQ ID NO: 24, and combinations thereof.

46. The complex of claim 41 or 42, wherein the mRNA is selected from the group consisting of SEQ ID NO: 25, SEQ ID NO: 26, SEQ ID NO: 27, SEQ ID NO: 28, SEQ ID NO: 29, SEQ ID NO: 30, SEQ ID NO: 31, SEQ ID NO: 32, SEQ ID NO: 33, SEQ ID NO: 34, SEQ ID NO: 35, SEQ ID NO: 36, and combinations thereof.

47. The complex of claim 41 or 42, wherein the mRNA encodes an amino acid selected from the group consisting of is selected from the group consisting of SEQ ID NO: 37, SEQ ID NO: 38, SEQ ID NO: 39, SEQ ID NO: 40, SEQ ID NO: 41, and combinations thereof.

48. A pharmaceutical composition comprising:

the fusion protein or system of any one of the preceding claims.

49. The pharmaceutical composition of claim 48, further comprising a pharmaceutically acceptable carrier.

50. A pharmaceutical composition comprising:

one or more nucleic acids encoding the fusion protein or system of any one of the preceding claims.

51. A viral vector comprising one or more nucleic acids encoding the fusion protein or system of any one of the preceding claims.

52. The viral vector of claim 51, wherein the viral vector is an adeno-associated viral vector.

53. A nanoparticle or liposome comprising the fusion protein or system of any one of the preceding claims or one or more nucleic acids encoding the fusion protein or system of any one of the preceding claims.

54. An in vitro method of stimulating or stabilizing mRNA(s), the method comprising:

contacting the mRNA(s) with the fusion protein or system of any one of the preceding claims.

55. Use of the fusion protein or system of any one of the preceding claims in the manufacture of a medicament for stimulating or stabilizing mRNA(s), wherein the medicament is to be contacted with the mRNA(s) *in vivo* or *ex vivo*.

56. Use of a fusion protein or a nucleic acid encoding a fusion protein comprising:

an RNA effector protein that targets mRNA(s) of an active allele of a gene associated with a haploinsufficiency disorder; and

a regulon moiety that stimulates and/or stabilizes the mRNA(s); and

a gRNA or a nucleic acid encoding a gRNA designed to form a complex with the RNA effector protein and comprising a complementarity region designed to hybridize with the mRNA of the active allele

in the manufacture of a medicament for treating or preventing a haploinsufficiency disorder in a subject.

57. The use of claim 56, wherein the RNA effector protein is a Cas effector protein selected from the group consisting of a Cas9, Cas12, Cas13, and Cas14.

58. The use of claim 57, wherein the Cas effector protein is Cas13b.

59. The use of claim 57 or 58, wherein the Cas effector protein is a catalytically inactive Cas protein.

60. The use of any one of the preceding claims, wherein the regulon moiety is PABPC1 or NAT10.

61. The use of any one of the preceding claims, wherein the fusion protein further comprises a linker and/or a spacer.

62. The use of any one of the preceding claims, wherein the fusion protein further comprises a nuclear export signal and/or an epitope tag.

63. The use of any one of the preceding claims, wherein the RNA effector protein is N terminal to the regulon moiety.

64. The use of any one of the preceding claims, wherein the RNA effector protein is C terminal to the regulon moiety.

65. The use of any one of the preceding claims, wherein the fusion protein comprises or consists of SEQ ID NO: 48 or SEQ ID NO: 49 or a polypeptide having at least 80%, at least 85%, at least 90%, at least 95%, or at least 99% sequence identity to SEQ ID NO: 48 or SEQ ID NO: 49.

66. The use of any one of the preceding claims, wherein the haploinsufficiency disorder is selected from the group consisting from 5qsyndrome,Adams-Oliver syndrome 1, Adams-Oliver syndrome 3, Adams-Oliver syndrome 5,Adams-Oliver syndrome 6, Alagille syndrome 1, Autoimmune lymphoproliferative syndrome type IA, Autoimmune lymphoproliferative syndrome type V, Autosomal dominant deafness-2A,Brain malformations with or without urinary tract defects (BRMUTD), Carney complex type 1,CHARGE syndrome, Cleidocranial dysplasia, Currarino syndrome, Denys-Drash syndrome/Frasier syndrome, Developmental delay, intellectual disability, obesity, and dysmorphic features(DIDOD), DiGeorge syndrome (TBXI-associated), Dravet syndrome, Duane-radial raysyndrome, Ehlers-Danlos syndrome (classic-like), Ehlers-Danlos syndrome (vascular type),Feingold syndrome 1, Frontotemporal lobar degeneration with TDP43 inclusions (FTLD-TDP),GRN-related, GLUT I deficiency syndrome, Greig cephalopolysyndactyly syndrome, Hereditary hemorrhagic telangiectasia type 1, Holoprosencephaly 3, Holoprosencephaly 4,Holoprosencephaly 5, Holt-Oram syndrome, Hypoparathyroidism, sensorineural deafness, andrenal disease **(**HDR**),** Kleefstra syndrome 1, Klippel-Trenaunay syndrome (AAGF-related), Leri-Weill dyschondrosteosis, Marfan syndrome, Mental retardation and distinctive facial features with or without cardiac defects (MRFACD), Mental retardation, autosomal dominant 1, Mental retardation, autosomal dominant 19, Mental retardation, autosomal dominant 29, Nail-patella syndrome (NPS), Phelan-McDermid syndrome, Pitt-Hopkins syndrome, Primary pulmonary hypertension 1, Rett syndrome (congenital variant), Smith-Magenis syndrome (RAII associated), Sotos syndrome 1, Sotos syndrome 2, Stickler syndrome type I, Supravalvular aorticstenosis, SYNGAPI-related intellectual disability, Treacher Collins syndrome, Trichorhinophalangeal syndrome type I, Ulnar-mammary syndrome, van der Woude syndrome1, Waardenburg syndrome type 1, W aardenburg syndrome type 2A, and Waardenburg syndrometype 4C.

67. The use of any one of the preceding claims, wherein the haploinsufficiency disorder is a CNS haploinsufficiency disorder.

68. The use of claim 67, wherein the CNS haploinsufficiency disorder is selected from the group consisting of episodic ataxia, familial hemiplegia migraine, CDKL5 deficiency disorder, CHD2 myoclonic encephalopathy, familial focal epilepsy with variable loci, FOXG1 syndrome, benign familial neonatal seizures, Rett syndrome, Dravat syndrome, SCN2A-epileptic encephalopathy, SCN2A-developmental encephalopathy, SCN8A-epileptic encephalopathy, SC8A familial infantile epilepsy, early infantile epileptic encephalopathy, myoclonic-atonic epilepsy, early infantile epileptic encephalopathy, SYNGAP1-related intellectual disability, tuberous sclerosis,

Lennox-Gastaut Syndrome, FoxG1 syndrome, KCNQ2-related epileptic encephalopathy, PCDH19-related epilepsy, SLC6A1-related myoclonic-astatic epilepsy, STXBP1-related epileptic encephalopathy, SYNGAP1 syndrome, and combinations thereof.

69. The use of any one of the preceding claims, wherein the haploinsufficiency disorder is Dravet Syndrome or Rett syndrome.

70. The use of any one of the preceding claims, wherein the subject has a haploinsufficiency in a gene selected from the group consisting of *AGGFI, ARHGAP31, BMPR2, CHD7, COL2Al, COL3Al, CTLA4, CTNNBI, DLL4, EHMTI, ELN,ENG, FAS, FBNI, FOXGI, GATA3, GLI3, GRN, IRF6, JAGI, KCNQ4, LMXIB, MBD5,MED13L, MITF, MNXI, MYCN, NFIA, NFIX, NOTCH!, NSDI, PAX3, PHIP, PRKARIA,RAil, RBPJ, RPS14, RUNX2, SALL4, SCNIA, SETBPI, SHANK3, SHH, SHOX,SLC2Al/GLUT1, SOXI0, SYNGAPI, TBXI, TBX3, TBX5, TCF4, TCOFI, TGIFI, TNXB,TRPSI, WTI, ZIC2,* and combinations thereof.

71. The use of any one of the preceding claims, wherein the subject has a haploinsufficiency in a gene selected from the group consisting of *SCN1A, SCN2A, SCN8A, SCN12A5, SPTAN1, CDKL5, CHD2, FOXG1, KCNQ2, PCDH19, SLC6A1, STXBP1, SYNGAP1, CACNA1A, DEPDC5, MECP2, TSC1, TSC2,* and combinations thereof.

72. The use of any one of the preceding claims, wherein the subject has mutation selected from the list in Table 4 and combinations thereof.

73. The use of any one of the preceding claims, wherein the subject has a mutation selected from the list in Table 6 and combinations thereof.

74. The use of any one of the preceding claims, wherein the subject is a mammal.

75. The use of claim 74, wherein the subject is a human.

76. The use of any one of the preceding claims, wherein the fusion protein and gRNA are to be administered as part of a pharmaceutical composition.

77. The use of any one of the preceding claims, wherein a viral vector comprising nucleic acid sequence(s) encoding the fusion protein and gRNA is to be administered to the subject.

78. The use of any one of the preceding claims, wherein a nanoparticle or liposome comprising the fusion protein and gRNA or nucleic acid sequence(s) encoding the fusion protein and gRNA is to be administered to the subject.