We claim:

1. A composition comprising a nucleic acid encoding a fusion protein, the fusion protein comprising a first RNA-binding polypeptide and a second RNA-binding polypeptide, wherein the first RNA-binding polypeptide is a *Pumilio* and FBF Homology Family (PUF) polypeptide, *Pumilio*-based assembly (PUMBY) peptide, or RNA-binding domain thereof, wherein the second RNA-binding polypeptide comprises RNA-nuclease activity, wherein the second RNA-binding polypeptide comprises a Zinc Finger CCCH-Type Containing 12A (ZC3H12A) polypeptide, and wherein the ZC3H12A polypeptide comprises SEQ ID NO: 42.

2. The composition of claim 1, wherein the ZC3H12A polypeptide comprises SEQ ID NO: 43.

3. The composition of claim 1, wherein the ZC3H12A polypeptide is capable of binding RNA.

4. The composition of claim 3, wherein the ZC3H12A polypeptide is capable of binding and cleaving RNA.

5. The composition of claim 1, wherein the nucleic acid comprises a promoter.

6. The composition of claim 5, wherein the promoter is a constitutive promoter or a tissue-specific promoter.

7. The composition of claim 1, wherein the fusion protein comprises a nuclear localization signal (NLS), a nuclear export signal (NES) or tag.

8. A vector comprising the composition of claim 1.

9. The vector of claim 8, wherein the vector is selected from the group consisting of: adeno-associated virus, retrovirus, lentivirus, and adenovirus.

10. An in vitro cell comprising the vector of claim 8.

11. The vector of claim 8, wherein the vector is selected from the group consisting of: nanoparticle, micelle, liposome, lipoplex, polymersome, polyplex, and dendrimer.