WHAT IS CLAIMED IS:

1. A particle, comprising:
(a) a membrane comprising a phospholipid bilayer with a glycoprotein on an external side; and
(b) a therapeutic protein cargo disposed in a core of the particle on an inside of the membrane, wherein the therapeutic protein cargo forms a fusion protein with a non-viral plasma membrane recruitment domain, and wherein the fusion protein does not comprise a Gag protein or an Arc protein.
2. The particle of claim 1, wherein the plasma membrane recruitment domain is a pleckstrin homology (PH) domain.
3. The particle of claim 1, wherein the plasma membrane recruitment domain is a human plasma membrane recruitment domain.
4. The particle of claim 2, wherein the PH domain is selected from the group consisting of a pleckstrin homology domain of phospholipase Cδ1 (PLCδ1), pleckstrin homology domain of Akt1 (Akt1) or a mutant thereof, pleckstrin homology domain of PDPK1 (PDPKI), pleckstrin homology domain of Dappl, pleckstrin homology domain of Grp1, pleckstrin homology domain of OSBP, pleckstrin homology domain of Btk1, pleckstrin homology domain of FAPP1, pleckstrin homology domain of PKD, pleckstrin homology domain of PHLPP1, pleckstrin homology domain of SWAP70, and a pleckstrin homology domain of MAPKAP1.
5. The particle of claim 2, wherein the PH domain is selected from the group consisting of a pleckstrin homology domain of human phospholipase Cδ1 (hPLCδ1), pleckstrin homology domain of human Akt1 (hAkt1) or a mutant thereof**,** pleckstrin homology domain of Homo sapiens PDPK1 (hPDPKI), pleckstrin homology domain of Human Dappl, pleckstrin homology domain of Mouse Grp1, pleckstrin homology domain of Human Grp1, pleckstrin homology domain of Human OSBP, pleckstrin homology domain of Human Btk1, pleckstrin homology domain of Human FAPP1, pleckstrin homology domain of Human PKD, pleckstrin homology domain of Human PHLPP1, pleckstrin homology domain of Human SWAP70, and a pleckstrin homology domain of Human MAPKAP1.
6. The particle of claim 2, wherein the PH domain is a Pleckstrin homology (PH) domain of Akt1 or a Pleckstrin homology domain of phospholipase Cδ1 (PLCδ1).

7. The particle of claim 2, wherein the PH domain is a mutant Pleckstrin homology domain of AKT that comprises an amino acid substitution relative to a corresponding wild type Pleckstrin homology domain of Akt1.

8. The particle of claim 1, wherein the plasma membrane recruitment domain comprise an amino acid sequence of CD9, CD47, CD63, or CD81.

9. The particle of claim 1, wherein the plasma membrane recruitment domain comprises the amino acid sequence set forth in any one of SEQ ID NOs: 1-11 or 42-44.

10. The particle of claim 1, wherein the glycoprotein is a virally derived-glycoprotein.

11. The particle of claim 10, wherein the virally derived glycoprotein comprises a viral envelope protein.

12. The particle of claim 11, wherein the viral envelope protein is selected from the group consisting of a vesicular stomatitis virus glycoprotein (VSVG), GP64, GP160, RD114, BaEVTR, BaEVTRless, FuG-E, FuG-E (P440E), ecotropic MLV ENV, amphotropic MLV ENV, and a MLV10A1.

13. The particle of claim 11, wherein the viral envelope protein comprises a vesicular stomatitis virus glycoprotein (VSVG).

14. The particle of claim 11, wherein the viral envelope protein comprises the amino acid sequence set forth in any one of SEQ ID NOs: 13-18.

15. The particle of claim 1, wherein the particle further comprises a single-chain variable fragment, a nanobody, or a darpin on the external surface.

16. The particle of claim 1, wherein the particle does not comprise a Gag protein.

17. The particle of claim 1, wherein the particle does not further comprise a viral protein or a polynucleotide encoding the viral protein.

18. The particle of claim 1, wherein the particle does not comprise an exogenous GAG protein, an exogenous Pol protein, a polynucleotide encoding the exogenous GAG protein, or a polynucleotide encoding the exogenous Pol protein.

19. The particle of claim 1, wherein the therapeutic cargo further comprise a nuclear localization sequence.

20. The particle of claim 1, wherein the therapeutic cargo comprises a gene editing reagent.

21. The particle of claim 20, wherein the gene editing reagent comprises a zinc finger (ZF), transcription activator-like effector (TALE), a CRISPR-based genome editing or modulating protein;

or a ribonucleoprotein complex (RNP) comprising the CRISPR-based genome editing or modulating protein.

22. The particle of claim 20, wherein the gene editing reagent comprises an RNA guided protein.

23. The particle of claim 20, wherein the gene editing reagent comprises a guide RNA.

24. The particle of claim 1, wherein the therapeutic cargo is fused to N-terminus or C-terminus of the plasma membrane recruitment domain.

25. The particle of claim 1, wherein the therapeutic cargo is fused to the plasma membrane recruitment domain via a linker.

26. A method of engineering a target cell, the method comprising contacting the target cell with the particle of claim 1.

27. A method of engineering a population of target cells, the method comprising:
contacting the population of target cells with the particle of claim 1.

28. The method of claim 27, wherein the contacting results in an increased delivery of the therapeutic cargo relative to that upon contacting with a corresponding virus like particle that lacks a fusion of the therapeutic cargo.

29. The method of claim 27, wherein the therapeutic cargo comprises a gene editing reagent or a nucleic acid encoding the gene editing reagent.

30. The method of claim 29, wherein the delivery of the gene editing reagent results in an increased modification of the population of target cells relative to that upon contacting with a corresponding virus like particle that lacks a fusion of the therapeutic cargo.