CLAIMS

1. A method of making a mixture comprising a disassembled particle, wherein the method comprises:

(a) providing a mixture comprising a particle and a denaturant, wherein the particle comprises:

(i) a proteinaceous exterior comprising a plurality of Anellovirus ORF1 molecules, and

(ii) a nucleic acid molecule; and

(b) incubating the mixture under conditions suitable for:

disassembly of the proteinaceous exterior, and

dissociation of the nucleic acid molecule from the proteinaceous exterior.

2. The method of claim 1, wherein the Anellovirus ORF1 molecules were made in mammalian cells.

3. The method of claim 1 or 2, wherein the conditions suitable for disassembly of the proteinaceous exterior comprises one or more of: a predetermined conductivity, a detergent (e.g., SDS (e.g., 0.1% SDS), Tween, or Triton), a chaotropic agent (e.g., urea), a high salt solution (e.g., a solution comprising NaCl, e.g., at a concentration of at least about 1M, e.g., at least about 0.5, 0.6, 0.7, 0.8, 0.9, 1.0, 1.1, 1.2, 1.3, 1.4, 1.5, 2, 3, 4, or 5M), or conditions involving a predetermined temperature.

4. The method of any of claims 1 to 3, wherein the mixture comprises a population of the particles.

5. The method of any of claims 1 to 4, wherein the incubating of (b) results in at least 50% or 60% of the population of particles being disassembled.

6. The method of any of claims 1 to 5, further comprising a step of (c) removing (partially or completely) the nucleic acid molecule from the mixture, e.g., by washing.

7. The method of any of claims 1 to 6, wherein the nucleic acid molecule is endogenous or exogenous to a host cell, optionally wherein the host cell is a human cell.

8. The method of any of claims 1 to 7, wherein the mixture comprises a chaotropic agent, optionally wherein the chaotropic agent is urea.

9. A mixture obtainable by the method of any of claims 1 to 8, the mixture comprising:
a plurality of Anellovirus ORF1 molecules, and
a chaotropic agent, optionally wherein the chaotropic agent is urea.

10. The mixture of claim 9, said mixture comprising:
a plurality of Anellovirus ORF1 molecules, and
a chaotropic agent, optionally wherein the chaotropic agent is urea;
further wherein optionally at least 50% or 60% of the population of particles is disassembled.

11. The mixture of claim 9 or 10, wherein a plurality of Anellovirus ORF1 molecules in the mixture are comprised in capsomers, or wherein the mixture comprises a plurality of pentamers or decamers comprising the Anellovirus ORF1 molecules.

12. The mixture of any of claims 9-11, wherein the Anellovirus ORF1 molecules comprise an arginine-rich region.

13. The mixture of any of claims 9-12, wherein the Anellovirus ORF1 molecules comprise a jelly-roll domain.

14. The mixture of any of claims 9-13, wherein the Anellovirus ORF1 molecules each comprise a tagging moiety, optionally wherein the tagging moiety comprises chitin binding

protein (CBP), maltose binding protein (MBP), glutathione-S-transferase (GST), and poly(His) tag.

15. The mixture of any of claims 9-14, wherein the Anellovirus ORF1 molecule is an Alphatorquevirus, Betatorquevirus, or Gammatorquevirus ORF1 molecule.

16. A method of making an anellovector, the method comprising:

(a) providing a mixture comprising a plurality of Anellovirus ORF1 molecules, wherein at least 75%, 80%, 90%, 95%, 96%, 97%, 98%, 99%, or 100% of the plurality of ORF1 molecules are not comprised in a particle comprising about 40-80 (e.g., about 60) copies of an ORF1 molecule;

(b) subjecting the mixture to conditions suitable for in vitro assembly of the Anellovirus ORF1 molecules; and

(c) incubating the Anellovirus ORF1 molecules with a plurality of genetic elements, under conditions suitable for assembly of the Anellovirus ORF1 molecules into one or more anellovectors each enclosing one or more of the genetic elements.

17. A method of making an anellovector, the method comprising:

(a) providing a mixture comprising a plurality of Anellovirus ORF1 molecules and subjecting the mixture to denaturing conditions (e.g., providing a denaturant as part of the mixture, e.g., contacting the mixture with a denaturant), wherein at least 75%, 80%, 90%, 95%, 96%, 97%, 98%, 99%, or 100% of the plurality of ORF1 molecules are not comprised in a particle comprising about 40-80 (e.g., about 60) copies of an ORF1 molecule;

(b) subjecting the mixture to non-denaturing conditions (e.g., reducing the concentration of the denaturant to a level) suitable for in vitro assembly of the Anellovirus ORF1 molecules (e.g., by dialysis); and

(c) incubating the Anellovirus ORF1 molecules with a plurality of genetic elements, under conditions suitable for assembly of the Anellovirus ORF1 molecules into one or more anellovectors each enclosing one or more of the genetic elements.