CLAIMS

1. A circular polyribonucleotide comprising an open reading frame comprising a sequence encoding an immunogen and a sequence encoding a multimerization domain.

2. The circular polyribonucleotide of claim 1, wherein the open reading frame comprises, arranged in the following 5'-to-3' order:

(a) a first sequence encoding an immunogen and second sequence encoding a multimerization domain;

(b) a first sequence encoding an immunogen, a second sequence encoding a multimerization domain, and a third sequence encoding an immunogen;

(c) a first sequence encoding an immunogen, a second sequence encoding a multimerization domain, a third sequence encoding an immunogen, and a fourth sequence encoding a multimerization domain;

(d) a first sequence encoding an immunogen, a second sequence encoding a multimerization domain, and a third sequence encoding a multimerization domain;

(e) a first sequence encoding a multimerization domain and second sequence encoding an immunogen;

(f) a first sequence encoding a multimerization domain, a second sequence encoding an immunogen, and a third sequence encoding a multimerization domain;

(g) a first sequence encoding a multimerization domain, a second sequence encoding an immunogen, a third sequence encoding a multimerization domain, and a fourth sequence encoding an immunogen; or

(h) a first sequence encoding a multimerization domain, a second sequence encoding a multimerization domain, and a third sequence encoding an immunogen.

3. The circular polyribonucleotide of claim 1, wherein the multimerization domain or each multimerization domain comprises:

(a) a T4 foldon domain;

(b) a ferritin domain;

(c) a β-annulus peptide;

(d) an AaLS peptide; or

(e) a lumazine synthase domain.

4. The circular polyribonucleotide of claim 1, wherein the open reading frame comprises, arranged in the following 5'-to-3' order:

(a) a first sequence encoding an immunogen and second sequence encoding a T4 foldon domain;

(b) a first sequence encoding an immunogen and second sequence encoding a ferritin domain;

(c) a first sequence encoding an immunogen and second sequence encoding a β-annulus peptide;

(d) a first sequence encoding an immunogen and second sequence encoding an AaLS peptide;

(e) a first sequence encoding an immunogen, a second sequence encoding a T4 foldon domain, and a third sequence encoding an immunogen;

(f) a first sequence encoding an immunogen, a second sequence encoding a T4 foldon domain, and a third sequence encoding a ferritin domain; or

(g) a first sequence encoding an immunogen, a second sequence encoding a ferritin domain, and a third sequence encoding a T4 foldon domain.

5. The circular polyribonucleotide of claim 1, wherein each immunogen is, independently, operably linked to a secretion signal sequence.

6. The circular polyribonucleotide of claim 1 or claim 2, wherein the open reading frame is operably linked to an IRES.

7. The circular polyribonucleotide of claim 1 or claim 2, wherein the circular polyribonucleotide further comprises a second open reading frame encoding a second polypeptide operably linked to a second IRES.

8. The circular polyribonucleotide of claim 7, wherein the second polypeptide is a polypeptide immunogen.

9. The circular polyribonucleotide of claim 7, wherein the second polypeptide is a polypeptide adjuvant.

10. The circular polyribonucleotide of claim 1 or claim 2, wherein the circular polyribonucleotide further comprises a non-coding ribonucleic acid sequence that is an innate immune system stimulator.

11. The circular polyribonucleotide of claim 10, wherein the innate immune system stimulator is selected from a GU-rich motif, an AU-rich motif, a structured region comprising dsRNA, or an aptamer.

12. An immunogenic composition comprising the circular polyribonucleotide of claim 1 or claim 2 and a pharmaceutically acceptable excipient.

13. The immunogenic composition of claim 12, wherein the composition further comprises a second circular polyribonucleotide.

14. The immunogenic composition of claim 13, wherein the second circular polyribonucleotide comprises an open reading frame encoding an immunogen.

15. The immunogenic composition of claim 13, wherein the second circular polyribonucleotide comprises an open reading frame encoding a polypeptide adjuvant.

16. The immunogenic composition of claim 13, wherein the second circular polyribonucleotide comprises a non-coding ribonucleic acid sequence that is an innate immune system stimulator.

17. Use of the circular polyribonucleotide or immunogenic composition of claim 1 or claim 12 in the manufacture of a medicament for inducing an immune response against an immunogen in a subject.

18. Use of the circular polyribonucleotide or immunogenic composition of claim 1 or claim 12 in the manufacture of a medicament for treating or preventing a disease, condition, or disorder in a subject.

19. The use according to claim 17, wherein an adjuvant is to be further administered to the subject.

20. The use according to claim 17, wherein a polypeptide immunogen is to be further administered to the subject.