CLAIMS

WHAT IS CLAIMED IS:

1. A genetically-modified *Vibrio natriegens* bacterial cell having a genetic modification with respect to a parent *Vibrio natriegens* bacterial cell of a strain selected from the group consisting of: *Vibrio natriegens* bacterial strain deposited under accession number NCIMB 857, *Vibrio natriegens* bacteria strain deposited under accession number ATCC 14048, *Vibrio natriegens* bacteria strain deposited under accession number DSM 759, and *Vibrio natriegens* bacteria strain deposited under accession number NBRC 15636; wherein the genetic modification is a modification of a chromosome 1 gene that has a polynucleotide sequence of SEQ ID NO: 1 prior to the modification and wherein the modification results in reduced expression of a polypeptide encoded by the polynucleotide sequence of SEQ ID NO: 1, as compared to a level of expression of the polypeptide encoded by the polynucleotide sequence of SEQ ID NO: 1 in the parent *Vibrio natriegens* bacterial cell.

2. The genetically-modified *Vibrio natriegens* bacterial cell of claim 1, wherein the genetically-modified *Vibrio natriegens* bacterial cell further comprises a genetic modification to one or more genes of the parent *Vibrio natriegens* bacterial cell, wherein the one or more genes are selected from the group consisting of: a DAM gene, a DNS gene, a KDO gene, a KdsD gene, a gutQ gene, a kdsA gene, a kdsB gene, a waaA gene, a msbA gene, a yhiD gene, an lpxL gene, an lpxM gene, and any combination thereof.

3. The genetically-modified *Vibrio natriegens* bacterial cell of claim 2, wherein the genetically-modified *Vibrio natriegens* bacterial cell comprises the genetic modification to the DNS gene.

4. The genetically-modified *Vibrio natriegens* bacterial cell of claim 3, wherein upon transformation of a template plasmid into the genetically-modified *Vibrio natriegens* bacterial cell, the genetically-modified *Vibrio natriegens* bacterial cell expresses the template plasmid with a reduced amount of plasmid multimers or concatemers, relative to an amount of plasmid multimers or concatemers produced in the same amount of time upon transformation of the template plasmid into the parent *Vibrio natriegens* bacterial cell.

5. The genetically-modified *Vibrio natriegens* bacterial cell of claim 2, wherein the genetically-modified *Vibrio natriegens* bacterial cell comprises the genetic modification to the DAM gene.

6. The genetically-modified *Vibrio natriegens* bacterial cell of claim 2, wherein the genetically-modified *Vibrio natriegens* bacterial cell comprises the genetic modification to the KdsD gene, the lpxL gene, or the lpxM gene.

7. The genetically-modified *Vibrio natriegens* bacterial cell of claim 1, wherein the parent *Vibrio natriegens* bacterial strain is the *Vibrio natriegens* bacterial strain deposited under accession number NCIMB 857.

8. The genetically-modified *Vibrio natriegens* bacterial cell of claim 1, wherein the genetic modification comprises a deletion of the polynucleotide sequence of SEQ ID NO: 1, or a base substitution in the polynucleotide sequence of SEQ ID NO: 1.

9. The genetically-modified *Vibrio natriegens* bacterial cell of claim 1, wherein upon culturing the genetically-modified *Vibrio natriegens* bacterial cell in a growth medium, the genetically-modified *Vibrio natriegens* bacterial cell replicates with reduced secretion of endotoxin into the growth medium, as compared to an amount of endotoxin secreted by replicating an *E. coli* K12 or B strain derivative lacking the genetic modification in the growth medium for the same amount of time.

10. The genetically-modified *Vibrio natriegens* bacterial cell of claim 1, wherein upon transformation of a template plasmid into the genetically-modified *Vibrio natriegens* bacterial cell, the genetically-modified *Vibrio natriegens* bacterial cell:
    (a) replicates the template plasmid at an increased level, or
    (b) expresses a transgene encoded by the template plasmid at an increased level,
    as compared to a level of template plasmid replication or transgene expression, respectively, produced in the same amount of time upon transformation of the template plasmid into *E. coli* K12 or B strain derivative lacking the genetic modification.

11. The genetically-modified *Vibrio natriegens* bacterial cell of claim 10, wherein upon transformation of the template plasmid into the genetically-modified *Vibrio natriegens* bacterial cell, the genetically-modified *Vibrio natriegens* bacterial cell replicates the template plasmid at the increased level, relative to the level of template plasmid replication produced in the same amount of time upon transformation of the template plasmid into the *E. coli* K12 or B strain derivative lacking the genetic modification.

12. The genetically-modified *Vibrio natriegens* bacterial cell of claim 11, wherein upon transformation of the template plasmid into the genetically-modified *Vibrio natriegens* bacterial cell, the genetically-modified *Vibrio natriegens* bacterial cell replicates the template plasmid at a level that is at least 200% greater than the level of template plasmid replication produced in the

same amount of time upon transformation of the template plasmid into the *E. coli* K12 or B strain derivative lacking the genetic modification.

13. The genetically-modified *Vibrio natriegens* bacterial cell of claim 1, wherein upon culturing the genetically-modified *Vibrio natriegens* bacterial cell in a growth medium, the genetically-modified *Vibrio natriegens* bacterial cell has a cellular replication rate that is at least 150% faster than a replication rate of a bacterial cell of an *E. coli* K12 or B strain derivative lacking the genetic modification that is replicated in the growth medium for the same amount of time, as measured by optical density at 600 nm.

14. The genetically-modified Vibrio natriegens bacterial cell of claim 13, wherein upon culturing the genetically-modified Vibrio natriegens bacterial cell in the growth medium, the genetically-modified Vibrio natriegens bacterial cell replicates with a doubling time of less than 22 minutes, as measured by optical density at 600 nm.

15. A method of making a genetically-modified *Vibrio natriegens* bacterial cell, the method comprising:

(a) obtaining a parent *Vibrio natriegens* bacterial cell of a strain selected from the group consisting of: a *Vibrio natriegens* bacterial strain deposited under accession number NCIMB 857, a *Vibrio natriegens* bacteria strain deposited under accession number ATCC 14048, a *Vibrio natriegens* bacteria strain deposited under accession number DSM 759, and a *Vibrio natriegens* bacteria strain deposited under accession number NBRC 15636; and

(b) performing a modification of a chromosome 1 gene of the parent *Vibrio natriegens* bacterial cell that has a polynucleotide sequence of SEQ ID NO: 1 prior to the modification, thereby generating the genetically-modified *Vibrio natriegens* bacterial cell.

16. The method of claim 15, wherein upon transformation of a template plasmid into the genetically-modified *Vibrio natriegens* bacterial cell, the genetically-modified *Vibrio natriegens* bacterial cell expresses the template plasmid with a reduced amount of plasmid multimers or concatemers, relative to an amount of plasmid multimers or concatemers produced in the same amount of time upon transformation of the template plasmid into the parent *Vibrio natriegens* bacterial cell.

17. The method of claim 15, wherein the parent *Vibrio natriegens* bacterial cell is the *Vibrio natriegens* bacterial strain deposited under accession number NCIMB 857.

18. A method of replicating a template plasmid with reduced occurrence of plasmid multimers or concatemers in a genetically-modified *Vibrio* bacterial cell, the method comprising:

(a) obtaining the genetically-modified *Vibrio* bacterial cell, wherein the genetically-modified Vibrio bacterial cell comprises a genetic modification with respect to a parent *Vibrio natriegens* bacterial cell of a strain selected from the group consisting of: a *Vibrio natriegens* bacterial strain deposited under accession number NCIMB 857, a *Vibrio natriegens* bacteria strain deposited under accession number ATCC 14048, a *Vibrio natriegens* bacteria strain deposited under accession number DSM 759, and a *Vibrio natriegens* bacteria strain deposited under accession number NBRC 15636; wherein the genetic modification is a modification of a chromosome 1 gene that has a polynucleotide sequence of SEQ ID NO: 1 prior to the modification and wherein the modification results in reduced expression of a polypeptide encoded by the polynucleotide sequence of SEQ ID NO: 1, as compared to a level of expression of the polypeptide encoded by the polynucleotide sequence of SEQ ID NO: 1 in the parent *Vibrio natriegens* bacterial cell;

(b) transforming the template plasmid into the genetically-modified *Vibrio* bacterial cell, thereby replicating the template plasmid in the genetically-modified *Vibrio* bacterial cell;

wherein the template plasmid is replicated in the genetically-modified *Vibrio* bacterial cell with reduced levels of plasmid multimers or concatemers, relative to an amount of plasmid multimers or concatemers produced in the same amount of time upon transformation of the template plasmid into a bacterial cell of a parent *Vibrio natriegens* bacterial cell lacking the genetic modification.