WHAT IS CLAIMED IS:

1. A method for generating a cell line suitable for dietary consumption, the method comprising:

(a) introducing into a population of cells an exogenous nucleic acid sequence comprising a first polynucleotide encoding a gene of interest located between a 5' inverted terminal repeat (ITR) and a 3' inverted terminal repeat (ITR), and a second polynucleotide encoding a selection marker located outside of the 5' ITR and the 3' ITR,

(b) selecting a transduced cell from the population of cells using the selection marker; and

(c) culturing the transduced cells under conditions sufficient to expand the transduced cells.

2. The method of claim 1, further comprising a second selecting step.

3. The method of claim 2, wherein the second selecting step comprises using the second selection marker to further select the transduced cell.

4. The method of any one of claims 1-3, wherein the second selecting step is performed 1 day, 2 days, 3 days, 4 days, 5 days, 6 days, 7 days, 8 days, 9 days, 10 days, 11 days, 12 days, 13 days, 14 days, 15 days, 16 days, 17 days, 18 days, 19 days, 20 days, 21 days, 22 days, 23 days, 24 days, 25 days, 26 days, 27 days, 28 days, 29 days, or 30 days after the first selecting step.

5. The method of any one of claims 1-4, wherein the episomal polynucleotide encoding the selection marker remains in the cell following introduction for at most 10 days, at most 11 days, at most 12 days, at most 13 days, at most 14 days, at most 15 days, at most 16 days, at most 17 days, at most 18 days, at most 19 days, at most 20 days, at most 21 days, at most 22 days, at most 23 days, at most 24 days, at most 25 days, at most 26 days, at most 27 days, at most 28 days, at most 29 days, or at most 30 days.

6. The method of any one of claims 1-5, wherein the cell line is derived from: livestock, poultry, or game animal species.

7. The method of any one of claims 1-6, wherein the cell line comprises cells selected from: fibroblasts, mesenchymal cells, chondrocytes, myoblasts, myocytes, satellite cells, side population cells, muscle derived stem cells, myofibroblasts, mesenchymal stem cells, myogenic pericytes, or mesoangioblasts.

8. The method of any one of claims 1-7, wherein the 5' ITR and the 3' ITR are transposon ITRs, and wherein the first polynucleotide is integrated into the genome while the second polynucleotide episomal.