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- (54) **VIRAL VECTORS ENCODING MULTIPLE HIGHLY HOMOLOGOUS NON-VIRAL POLYPEPTIDES AND THE USE OF SAME**
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- (58) **Field of Classification Search**  
None  
See application file for complete search history.

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- (57) **ABSTRACT**  
The present invention relates to compositions and methods for creation of vector nucleic acid sequences (e.g., retroviral nucleic acid sequences) that comprise two or more exogenous nucleic acid sequences that encode highly homologous (e.g., identical) polypeptide sequences, yet wherein at least one of the exogenous nucleic acid sequences has been mutated using degenerate codons for purpose of reducing homology between the two or more exogenous nucleic acid sequences while maintaining the encoded polypeptide sequence. Preferred nucleic acid sequences include those encoding multi-chimeric immune receptor (CIR) genes. Specific nucleic acid sequences of such CIR genes are also disclosed.

**19 Claims, 42 Drawing Sheets**  
**Specification includes a Sequence Listing.**