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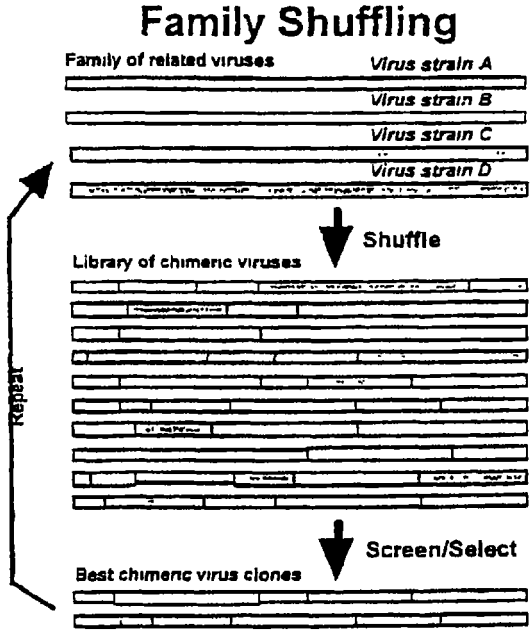
(54) Title: METHODS AND COMPOSITIONS FOR ENGINEERING OF ATTENUATED VACCINES



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(57) Abstract: This invention provides attenuated vaccines, and methods of obtaining attenuated vaccines. The vaccines of the invention include recombinant viral, bacterial, parasite, and other organisms that are evolved to exhibit increased attenuation without loss of effectiveness

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as a vaccine. The methods involve the creation of libraries of recombinant nucleic acids (e.g., whole or partial genomes, or particular nucleic acids) which are introduced into the vaccine viruses or other organisms, followed by screening and/or selection for those viruses or organisms that are attenuated.