Methods Of Making Unbiased Phage Libraries

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The Invention

Described herein is a method of preparing an unbiased library of phage variants,comprising (a) preparing a population of “acceptor phage”; (b) removing an endogenoustarget gene and inserting gene variants into the acceptor phage genomes; (c) enriching therecombined phages; and (d) expressing the library for selection. The acceptor phage is a lyticphage comprising a synthetic genome wherein the target gene of interest is flanked byrecombinase sites. The acceptor phage infects a first host bacteria expressing arecombination plasmid facilitating recombination. The phages then infect a second hostbacteria expressing a counterselection system that accumulates recombined phage variantsand selecting against non-recombined phages. The accumulated phage variants infect a thirdhost bacteria. The phage library may then be sequenced and characterized.

Additional Information

For More Information About the Inventors

- Srivatsan Raman

Tech Fields

- Research Tools : Detection

For current licensing status, please contact Jennifer Gottwald at jennifer@warf.org or 608-960-9854