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(54) Title: COMPOSITIONS AND METHODS FOR TUMOR-TARGETED DELIVERY OF EFFECTOR MOLECULES

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ATG GTA CGT AGC TCC TCT CGC ACT CCG TCC GAT AAG CCG GTT GCT
M  V  R  S  S  S  R  T  P  S  D  K  P  V  A

CAT GTA GTT GCT AAC CCT CAG GCA GAA GGT CAG CTG CAG TGG CTG
H  V  V  A  N  P  Q  A  E  G  Q  L  Q  W  L

AAC CGT CGC GCT AAC GCC CTG CTG GCA AAC GGC GTT GAG CTC CGT
N  R  R  A  N  A  L  L  A  N  G  V  E  L  R

GAT AAC CAG CTC GTG GTA CCT TCT GAA GGT CTG TAC CTG ATC TAT
D  N  Q  L  V  V  P  S  E  G  L  Y  L  I  Y

TCT CAA GTA CTG TTC AAG GGT CAG GGC TGC CCG TCG ACT CAT GTT
S  Q  V  L  F  K  G  Q  G  C  P  S  T  H  V

CTG CTG ACT CAC ACC ATC AGC CGT ATT GCT GTA TCT TAC CAG ACC
L  L  T  H  T  I  S  R  I  A  V  S  Y  Q  T

AAA GTT AAC CTG CTG AGC GCT ATC AAG TCT CCG TGC CAG CGT GAA
K  V  N  L  L  S  A  I  K  S  P  C  Q  R  E

ACT CCC GAG GGT GCA GAA GCG AAA CCA TGG TAT GAA CCG ATC TAC
T  P  E  G  A  E  A  K  P  W  Y  E  P  I  Y

CTG GGT GGC GTA TTT CAA CTG GAG AAA GGT GAC CGT CTG TCC GCA
L  G  G  V  F  Q  L  E  K  G  D  R  L  S  A

GAA ATC AAC CGT CCT GAC TAT CTA GAT TTC GCT GAA TCT GGC CAG
E  I  N  R  P  D  Y  L  D  F  A  E  S  G  Q

GTG TAC TTC GGT ATT ATC GCA CTG TAA
V  Y  F  G  I  I  A  L  *
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(57) Abstract: The present application discloses the preparation and use of attenuated tumor-targeted bacteria vectors for the delivery of one or more primary effector molecule(s) to the site of a solid tumor. The primary effector molecule(s) of the invention is used in the methods of the invention to treat a solid tumor cancer such as a carcinoma, melanoma, lymphoma, or sarcoma. The invention relates to the surprising discovery that effector molecules, which may be toxic when administered systemically to a host, can be delivered locally to tumors by attenuated tumor-targeted bacteria with reduced toxicity to the host. The application also discloses the delivery of one or more optional effector molecule(s) (termed secondary effector molecules) which may be delivered by the attenuated tumor-targeted bacteria in conjunction with the primary effector molecule(s).

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