

Fig. 1A

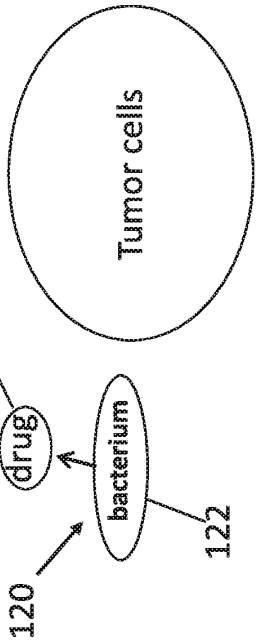


Fig. 1C

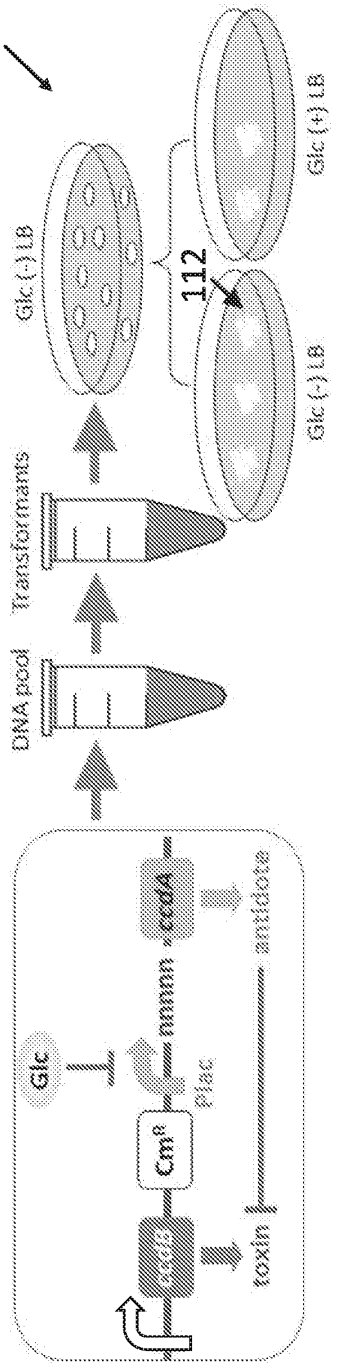


Fig. 1B

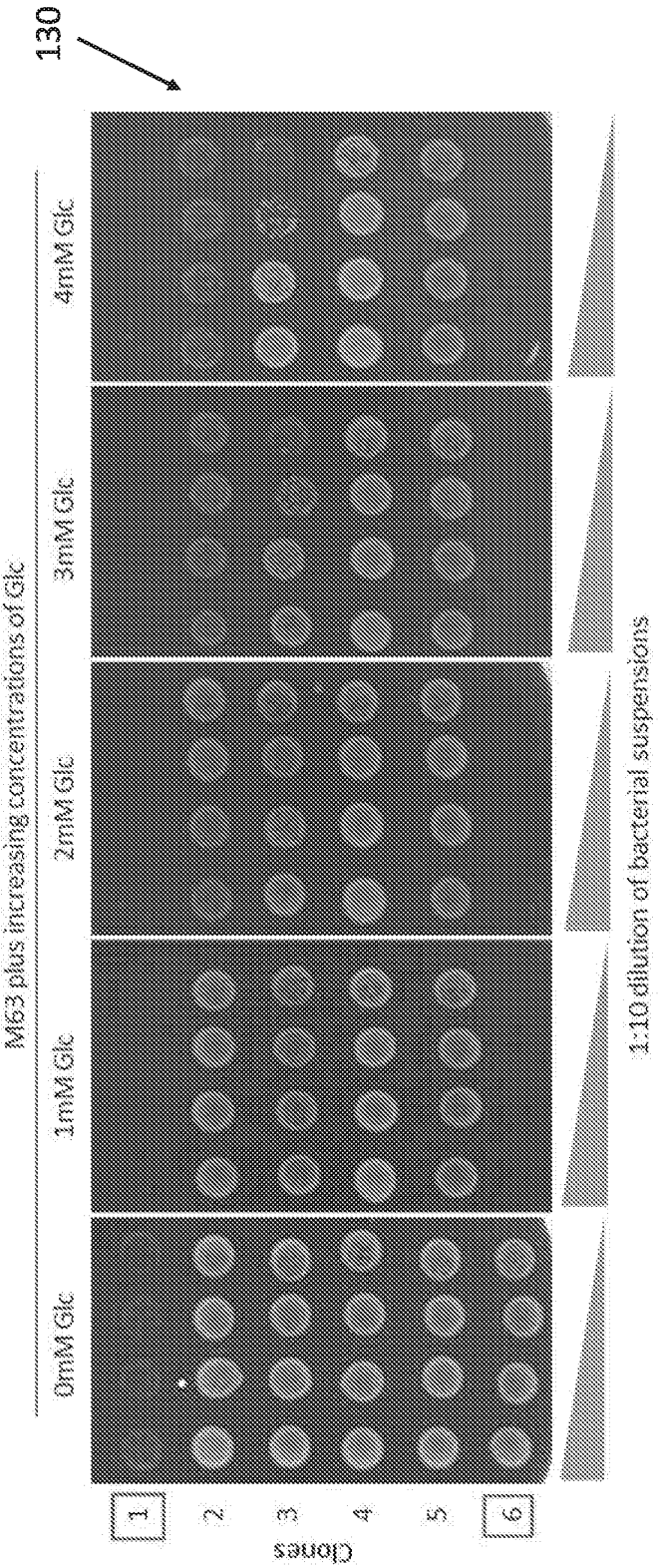

130
M63 plus increasing concentrations of Glc
0mM Glc
1mM Glc
2mM Glc
3mM Glc
4mM Glc
Clones
1
2
3
4
5
6
1:10 dilution of bacterial suspensions

Fig. 1D

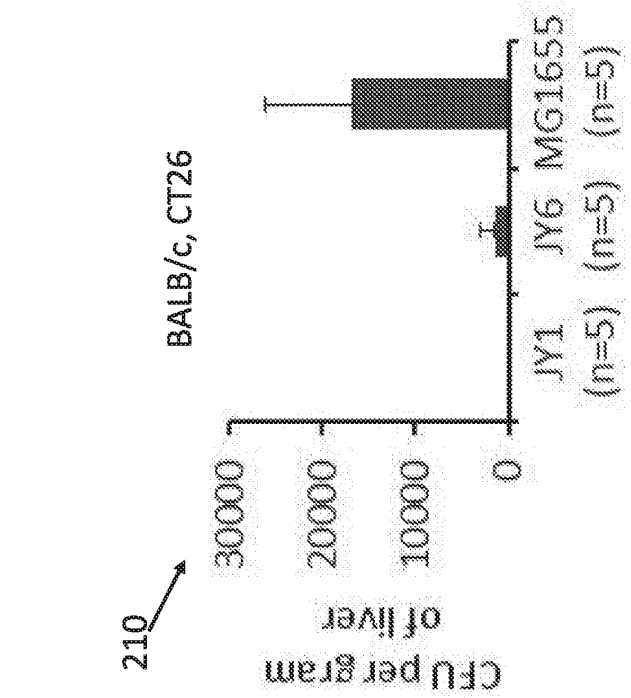

210
CFU per gram of liver
30000
20000
10000
0
BALB/c, CT26
JY1 (n=5)
JY6 (n=5)
MG1655 (n=5)

Fig. 2B

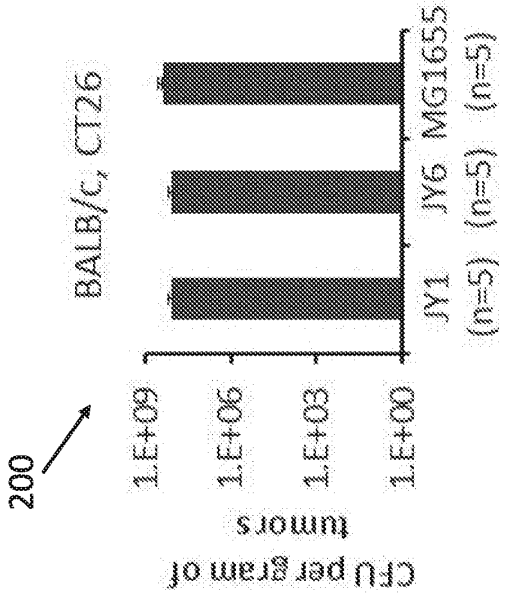

200
CFU per gram of tumors
1.E+09
1.E+06
1.E+03
1.E+00
BALB/c, CT26
JY1 (n=5)
JY6 (n=5)
MG1655 (n=5)

Fig. 2A

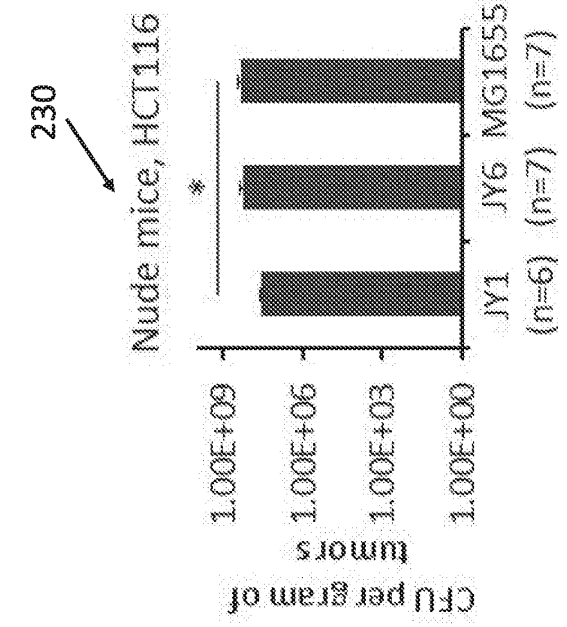

230
Nude mice, HCT116
*
CFU per gram of tumors
1.00E+09
1.00E+06
1.00E+03
1.00E+00
JY1 (n=6)
JY6 (n=7)
MG1655 (n=7)

Fig. 2D

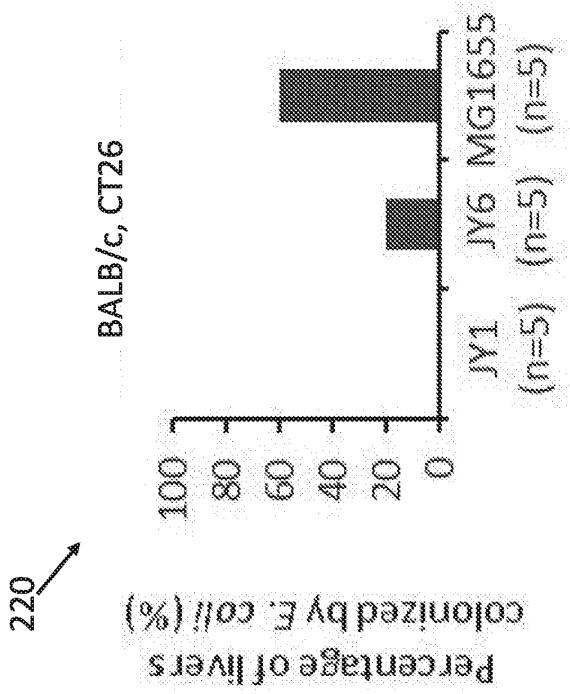

220
BALB/c, CT26
Percentage of livers colonized by E. coli (%)
100
80
60
40
20
0
JY1 (n=5)
JY6 (n=5)
MG1655 (n=5)

Fig. 2C

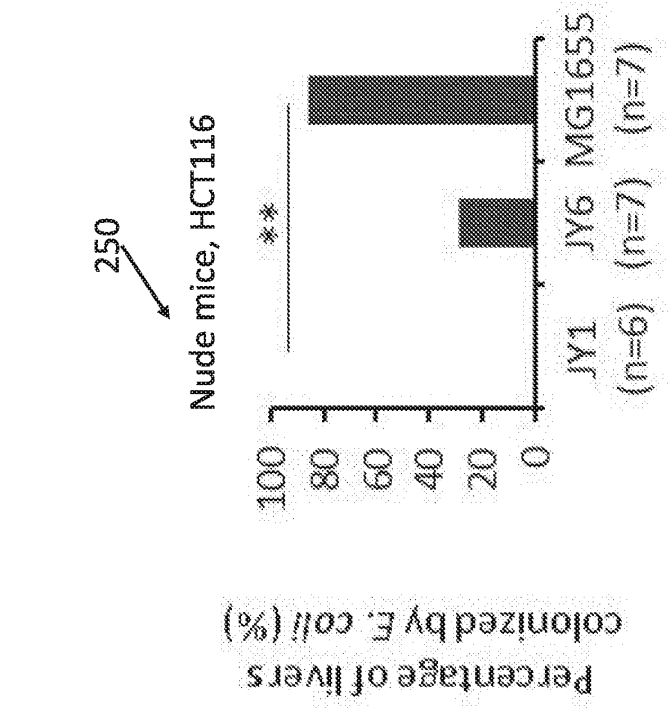

250
Nude mice, HCT116
**
100
80
60
40
20
0
JY1 (n=6)
JY6 (n=7)
MG1655 (n=7)
Percentage of livers colonized by E. coli (%)

Fig. 2F

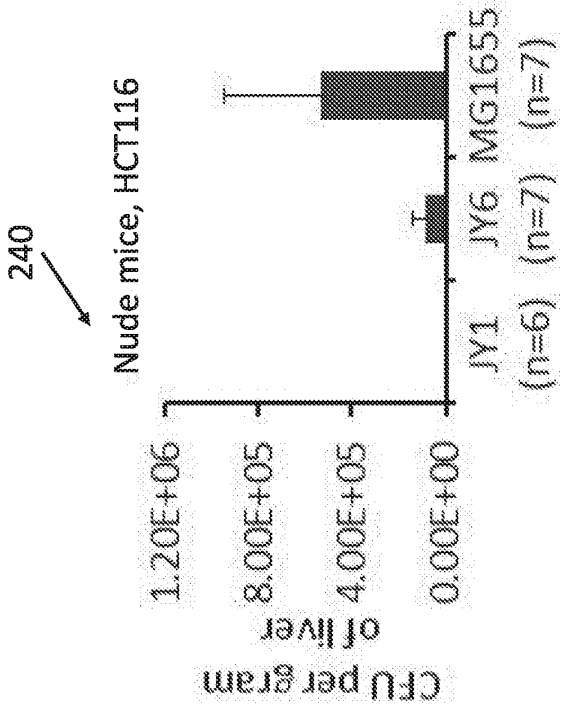

240
Nude mice, HCT116
1.20E+06
8.00E+05
4.00E+05
0.00E+00
JY1 (n=6)
JY6 (n=7)
MG1655 (n=7)
CFU per gram of liver

Fig. 2E

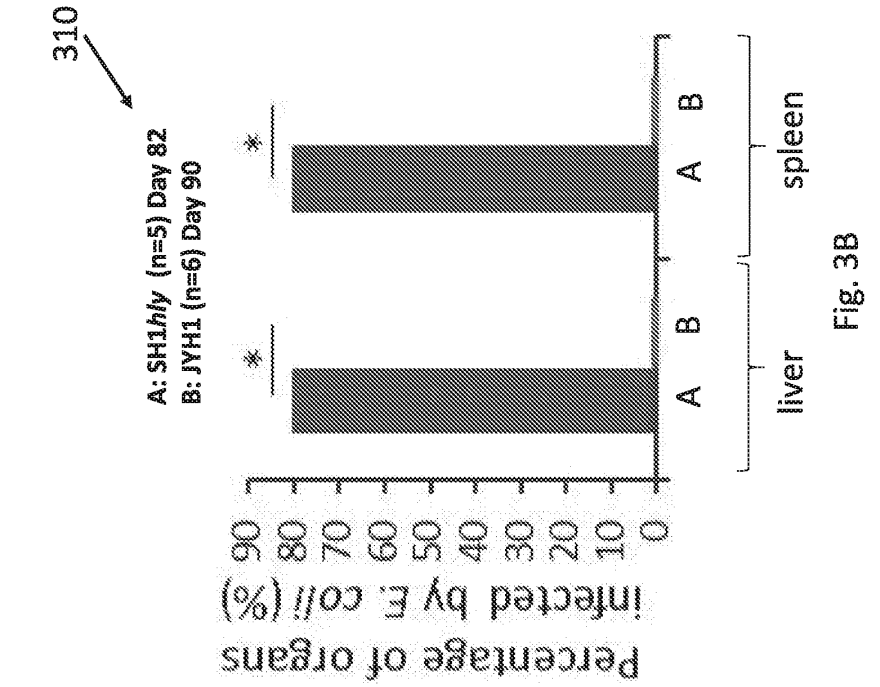

310
A: SH1hly (n=5) Day 82
B: JYH1 (n=6) Day 90
Percentage of organs infected by E. coli (%)
90
80
70
60
50
40
30
20
10
0
*
*
A
B
A
B
liver
spleen

Fig. 3B

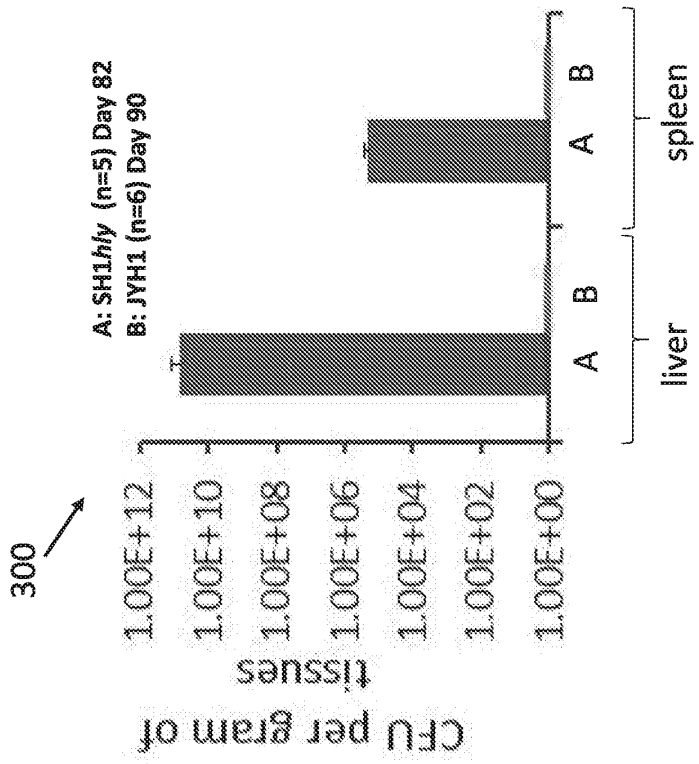

300
A: SH1hly (n=5) Day 82
B: JYH1 (n=6) Day 90
CFU per gram of tissues
1.00E+12
1.00E+10
1.00E+08
1.00E+06
1.00E+04
1.00E+02
1.00E+00
A
B
A
B
liver
spleen

Fig. 3A



Fig. 3C



Fig. 3D

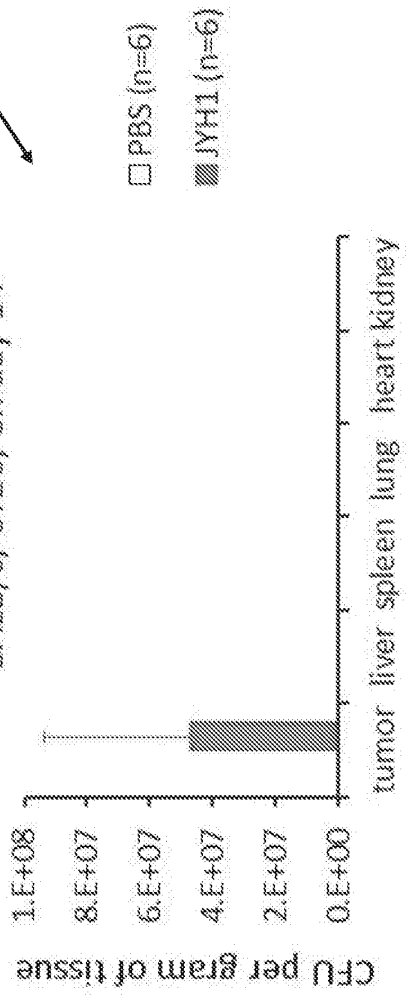

400
BALB/c, CT26, on day 14
PBS (n=6)
JYH1 (n=6)
CFU per gram of tissue
1.E+08
8.E+07
6.E+07
4.E+07
2.E+07
0.E+00
tumor liver spleen lung heart kidney

Fig. 4

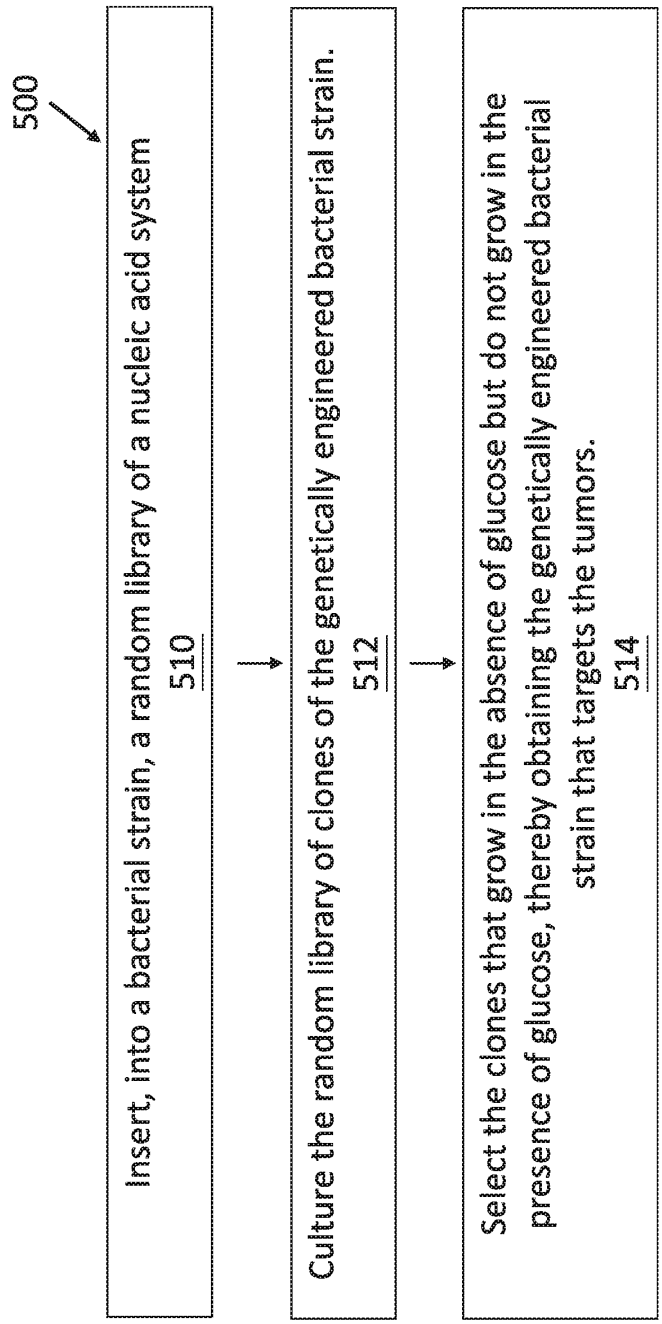

500
Insert, into a bacterial strain, a random library of a nucleic acid system
510
Culture the random library of clones of the genetically engineered bacterial strain.
512
Select the clones that grow in the absence of glucose but do not grow in the presence of glucose, thereby obtaining the genetically engineered bacterial strain that targets the tumors.
514

Fig. 5

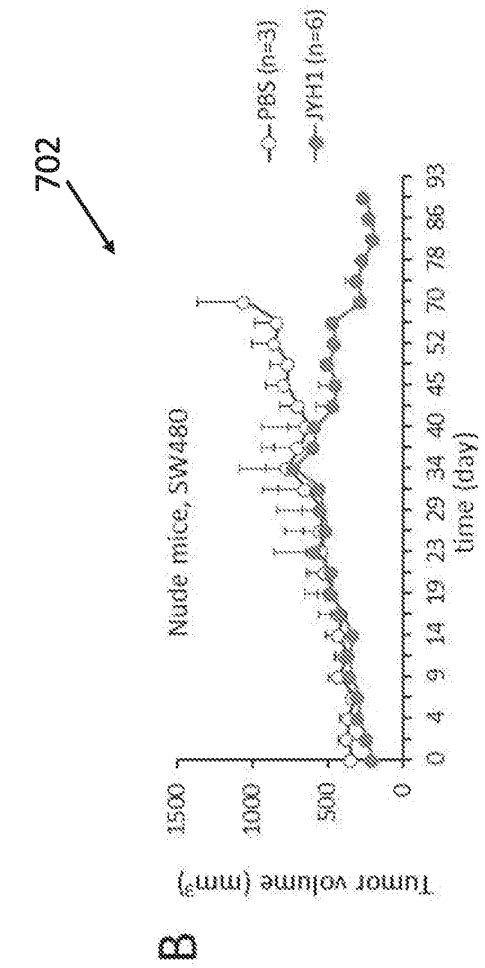

700
A
Tumor volume (mm³)
2500
2000
1500
1000
500
0
Nude mice, HCT116
PBS (n=6)
JY1 (n=5)
JYH1 (n=10)
0 2 4 6 8 10 12 14 16 18 20 22 24 26
time (day)
702
B
Tumor volume (mm³)
1500
1000
500
0
Nude mice, SW480
PBS (n=3)
JYH1 (n=6)
0 4 9 14 19 23 29 34 40 45 52 70 78 86 93
time (day)

Fig. 6A

Fig. 6B

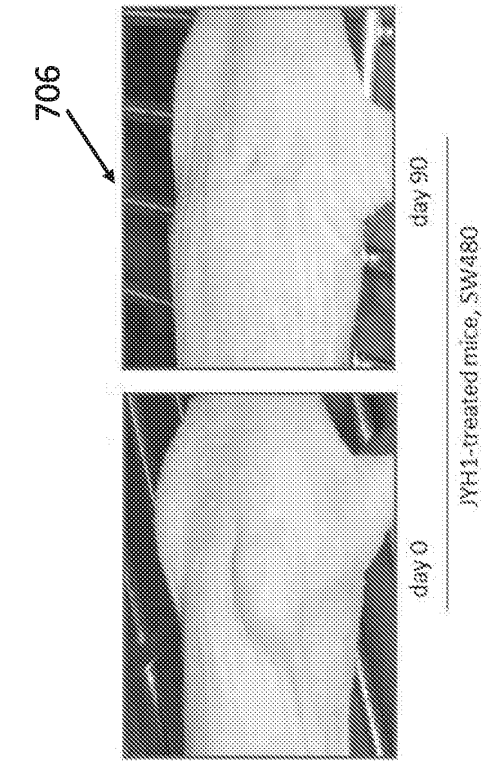

706
day 0
day 90
JYH1-treated mice, SW480

Fig. 6D

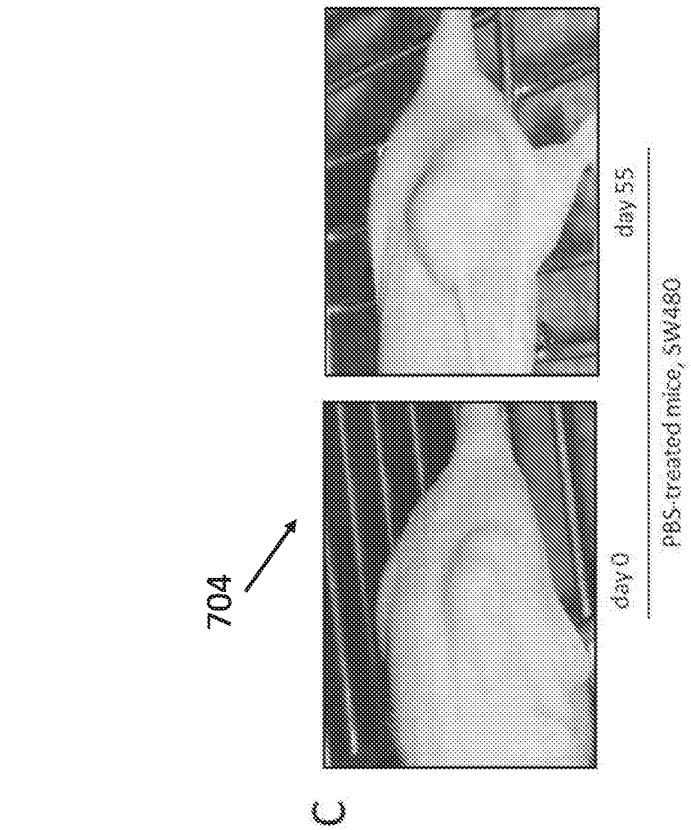

C
704
day 0
day 55
PBS-treated mice, SW480

Fig. 6C

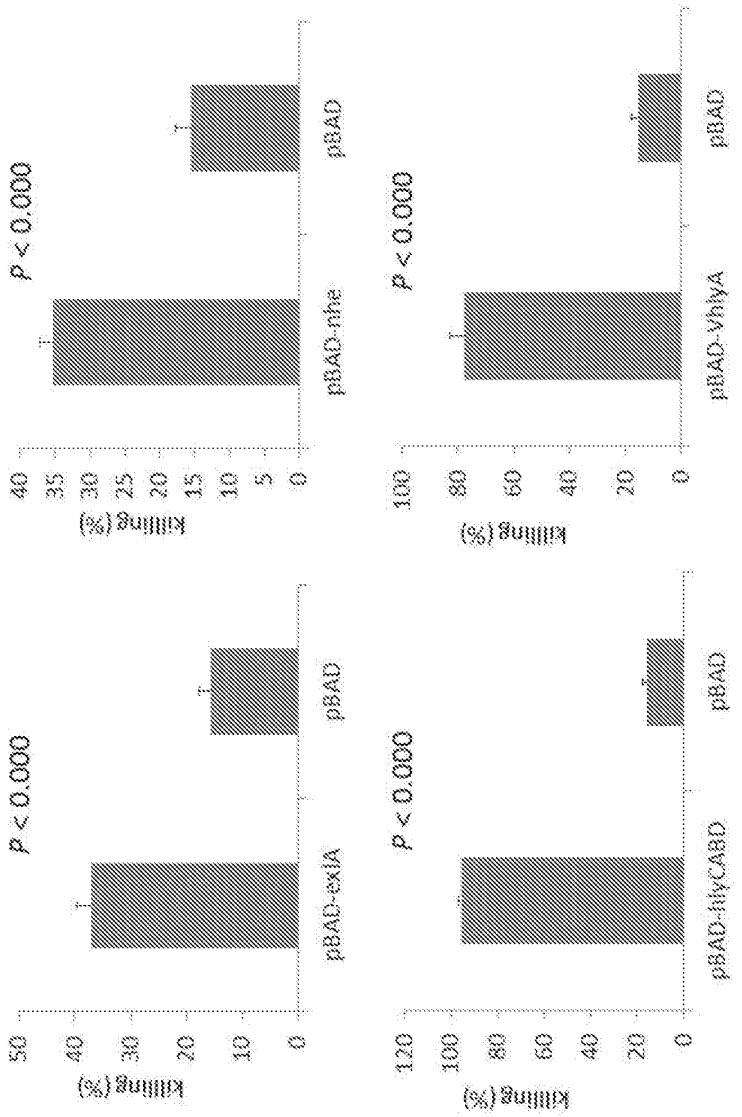

P < 0.000
killing (%)
pBAD-nhe
pBAD
P < 0.000
killing (%)
pBAD-VhlyA
pBAD
P < 0.000
killing (%)
pBAD-exlA
pBAD
P < 0.000
killing (%)
pBAD-hlyCABD
pBAD

Fig. 7

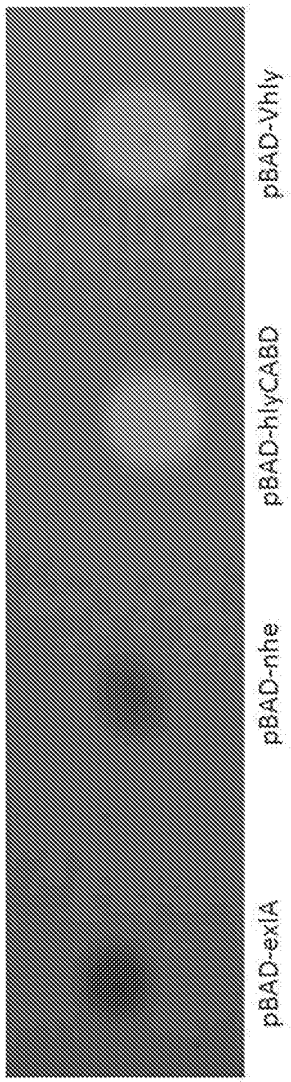


Fig. 8

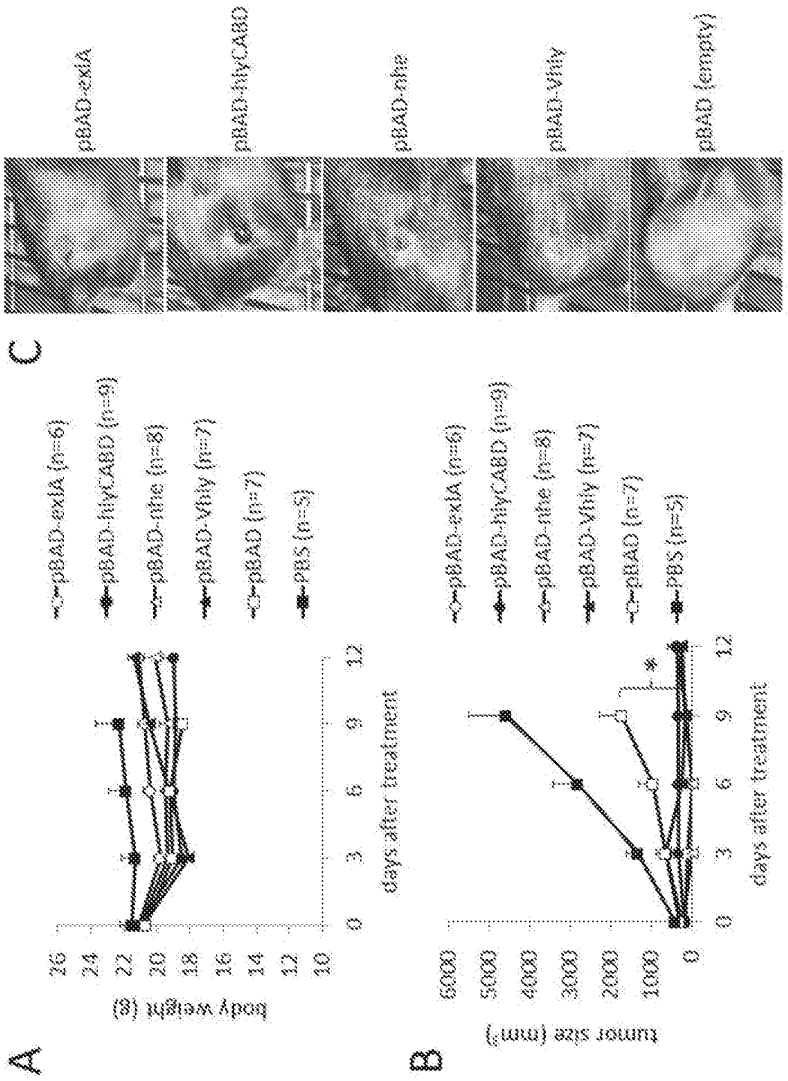

A
body weight (g)
days after treatment
pBAD-exlA (n=6)
pBAD-hlyCABD (n=9)
pBAD-nhe (n=8)
pBAD-Vhly (n=7)
pBAD (n=7)
PBS (n=5)
B
tumor size (mm³)
days after treatment
*
C
pBAD-exlA
pBAD-hlyCABD
pBAD-nhe
pBAD-Vhly
pBAD (empty)

Fig. 9

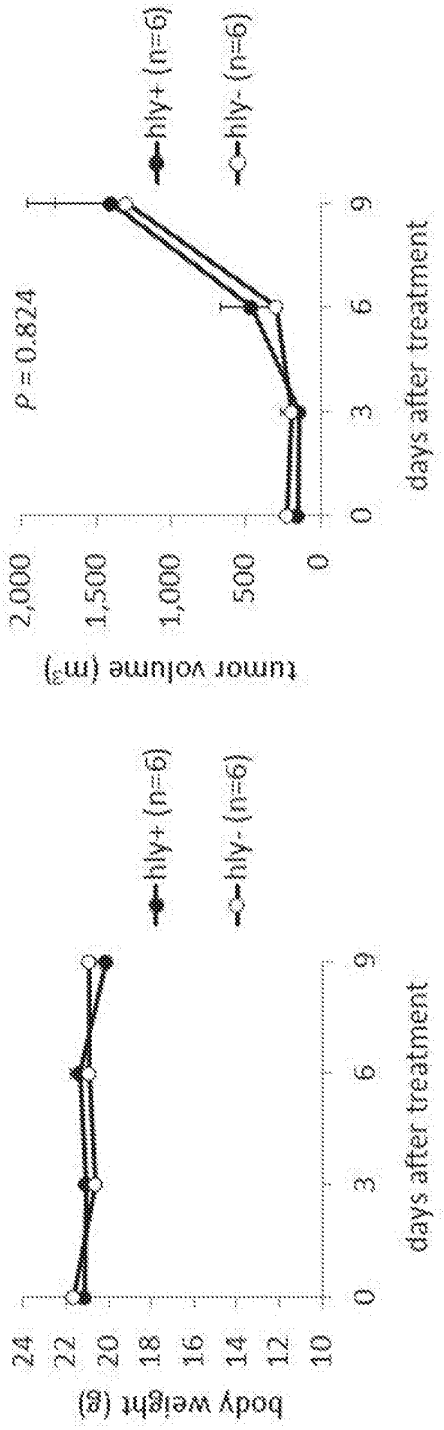

tumor volume (m³)
2,000
1,500
1,000
500
0
p = 0.824
hly+ (n=6)
hly- (n=6)
0
3
6
9
days after treatment
body weight (g)
24
22
20
18
16
14
12
10
hly+ (n=6)
hly- (n=6)
0
3
6
9
days after treatment

Fig. 10