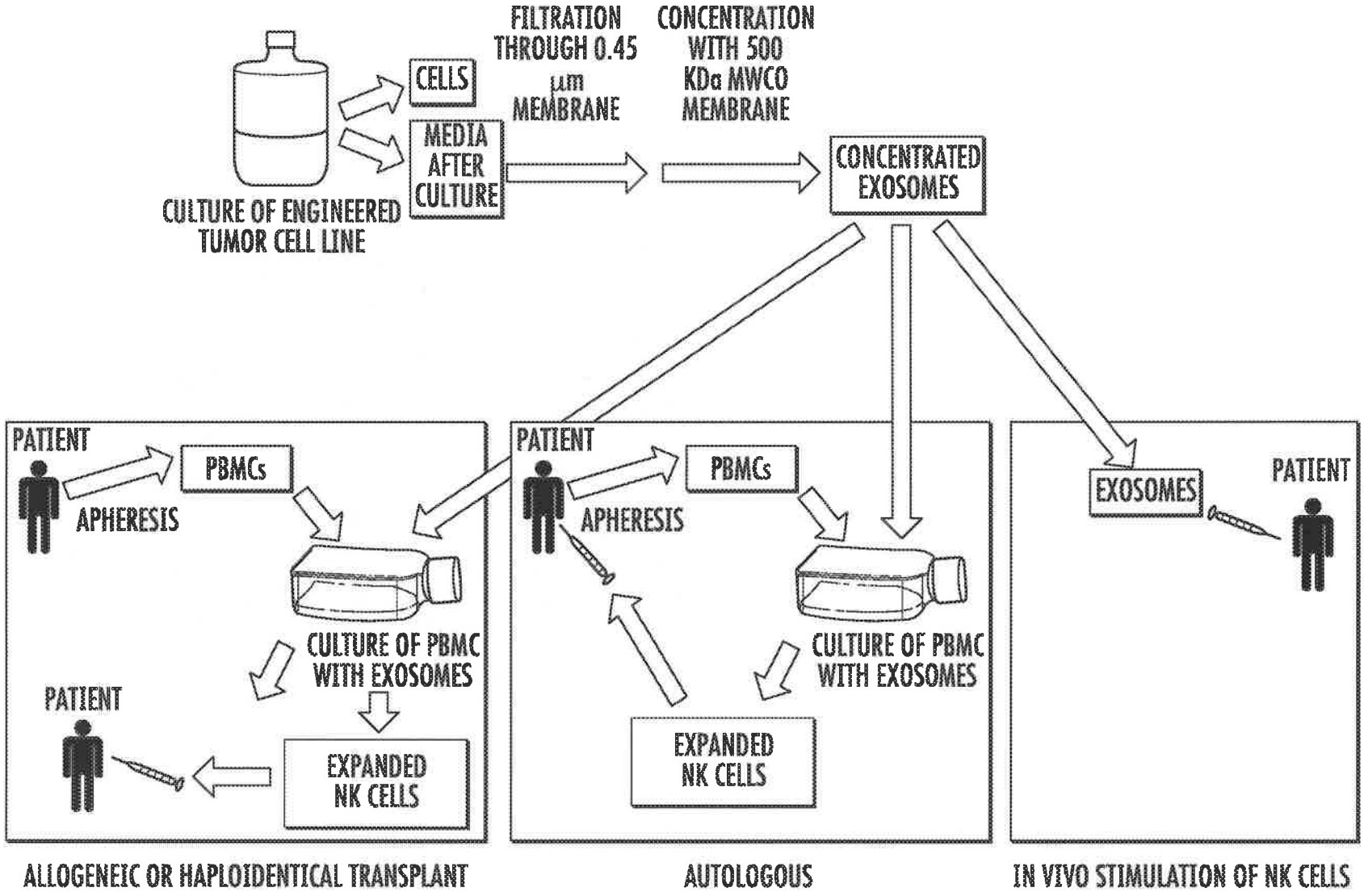

CULTURE OF ENGINEERED TUMOR CELL LINE
CELLS
MEDIA AFTER CULTURE
FILTRATION THROUGH 0.45 μm MEMBRANE
CONCENTRATION WITH 500 KDa MWCO MEMBRANE
CONCENTRATED EXOSOMES
PATIENT
PBMCs
APHERESIS
CULTURE OF PBMC WITH EXOSOMES
EXPANDED NK CELLS
PATIENT
EXOSOMES
PATIENT
ALLOGENEIC OR HAPLOIDENTICAL TRANSPLANT
AUTOLOGOUS
IN VIVO STIMULATION OF NK CELLS

FIG. 1

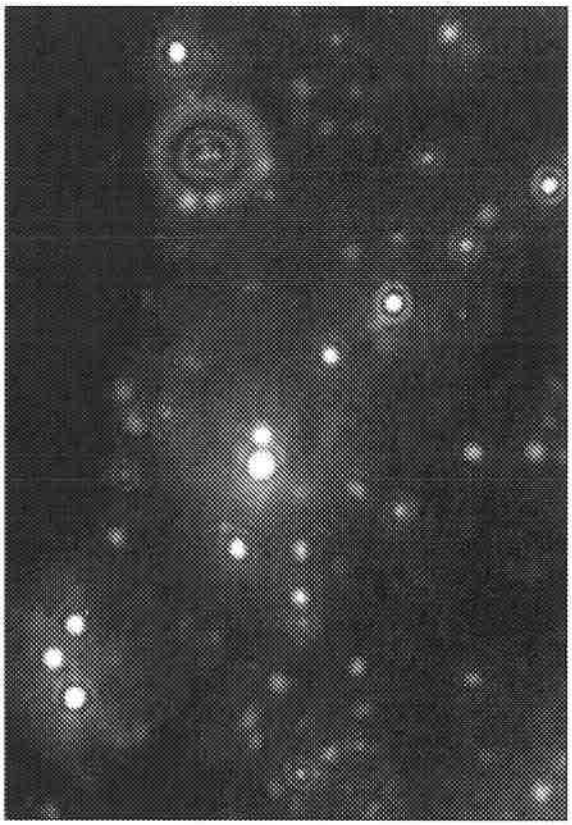


FIG. 2A

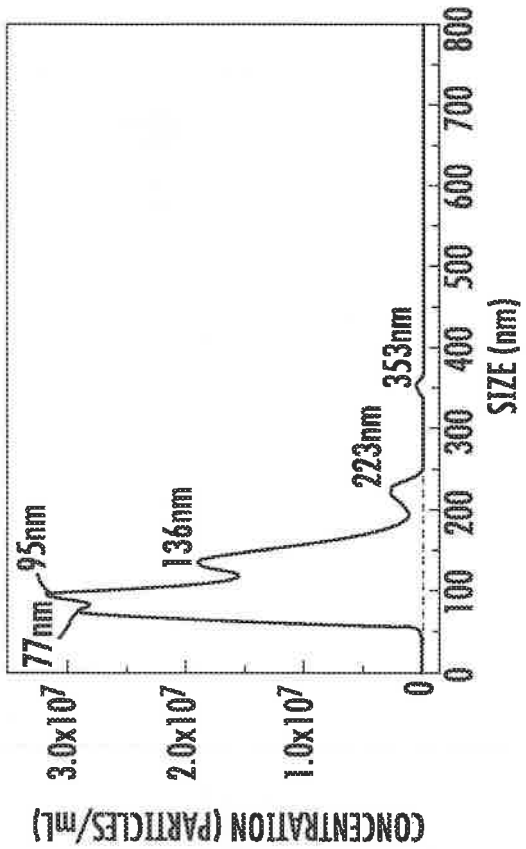

CONCENTRATION (PARTICLES/mL)
3.0x10^7
2.0x10^7
1.0x10^7
0
77nm
95nm
136nm
223nm
353nm
0
100
200
300
400
500
600
700
800
SIZE (nm)

FIG. 2B

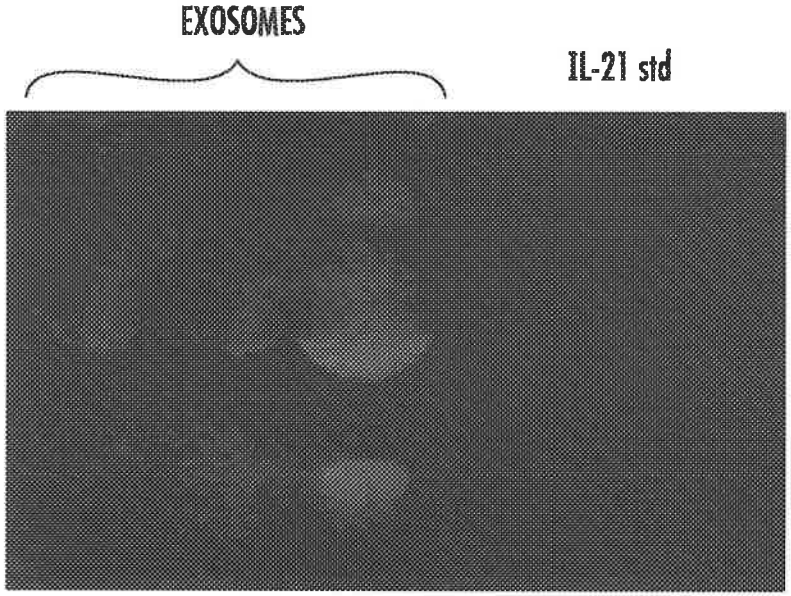

EXOSOMES
IL-21 std

FIG. 2C

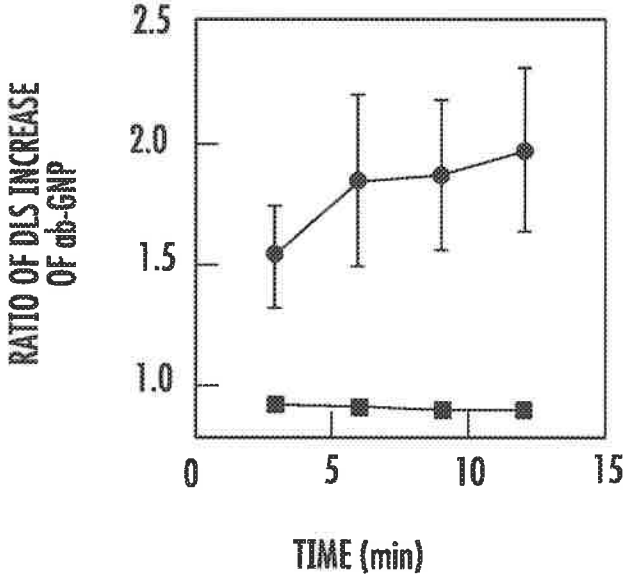

RATIO OF DLS INCREASE OF ab-GNP
2.5
2.0
1.5
1.0
0
5
10
15
TIME (min)

FIG. 2D

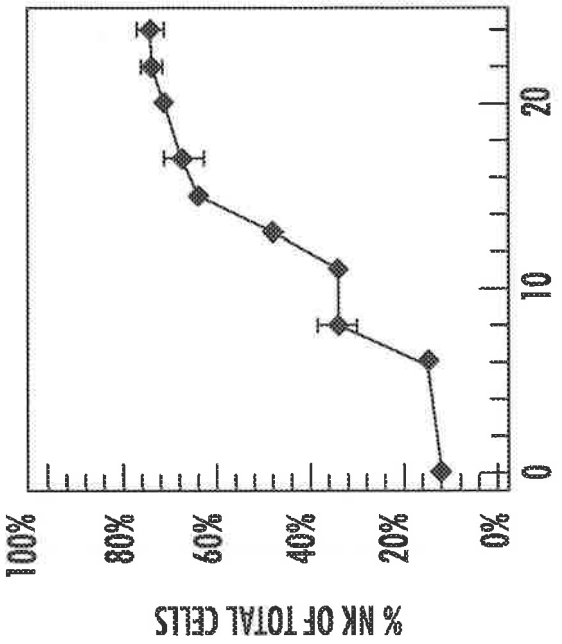

% NK OF TOTAL CELLS
100%
80%
60%
40%
20%
0%
0
10
20
DAYS IN CULTURE

FIG. 3B

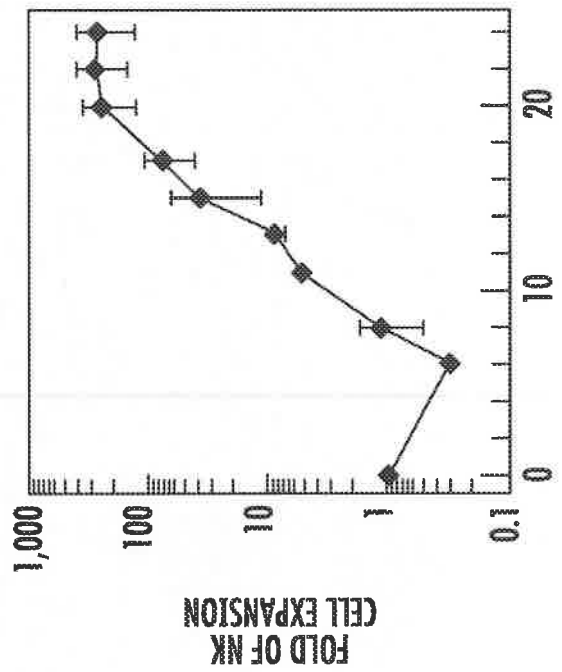

FOLD OF NK
CELL EXPANSION
1,000
100
10
1
0.1
0
10
20
DAYS IN CULTURE

FIG. 3A

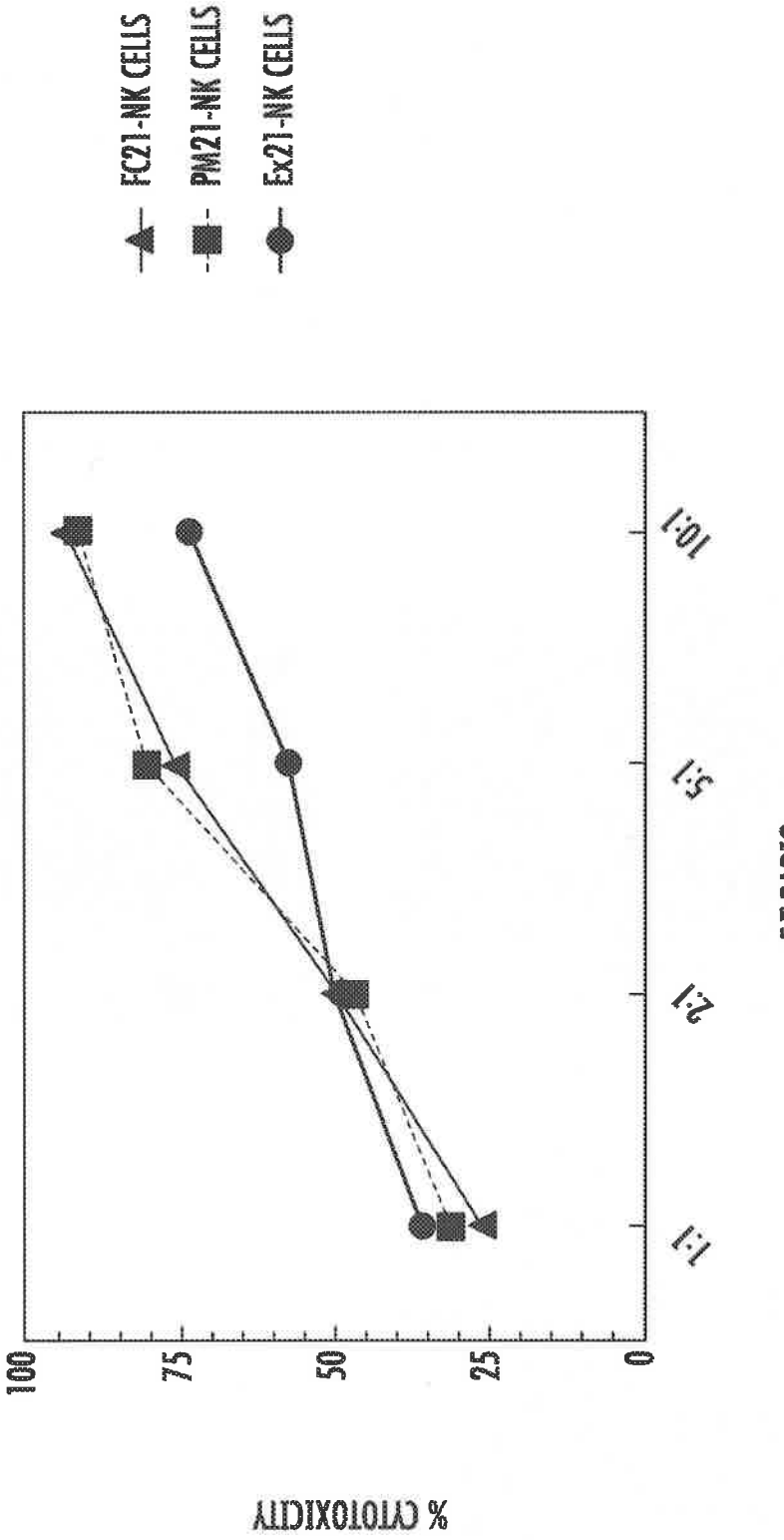

FC21-NK CELLS
PM21-NK CELLS
Ex21-NK CELLS
% CYTOTOXICITY
100
75
50
25
0
1:1
1:2
1:5
1:10
E:T RADIO

FIG. 4

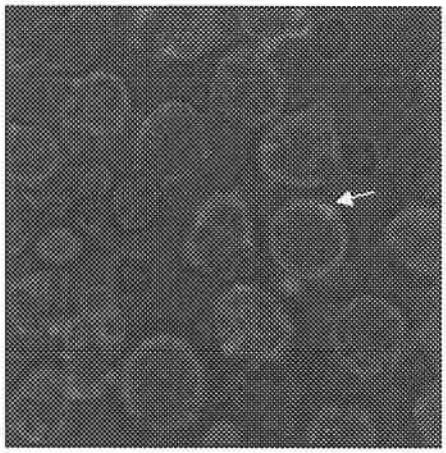


FIG. 5A

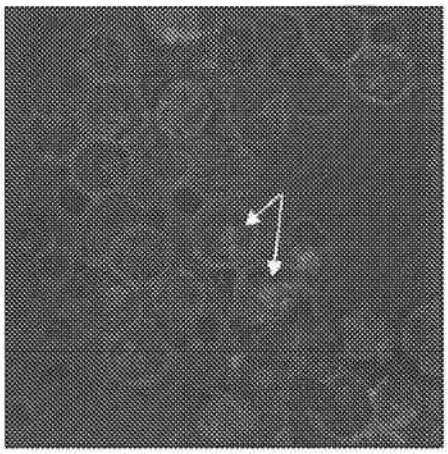


FIG. 5B

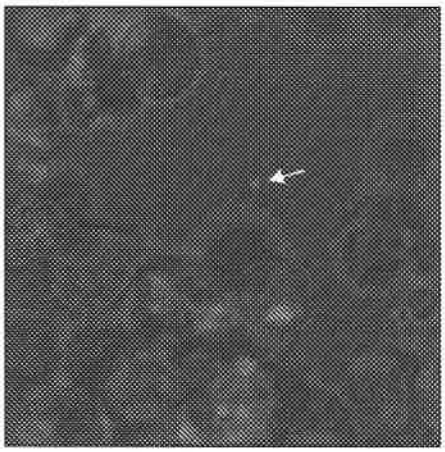


FIG. 5C

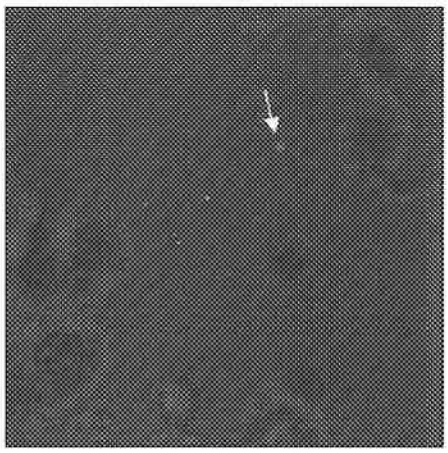


FIG. 5D

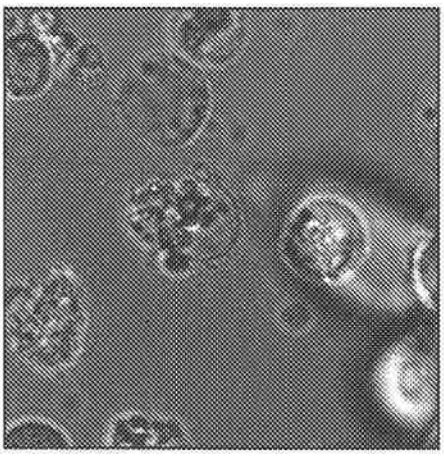


FIG. 5E