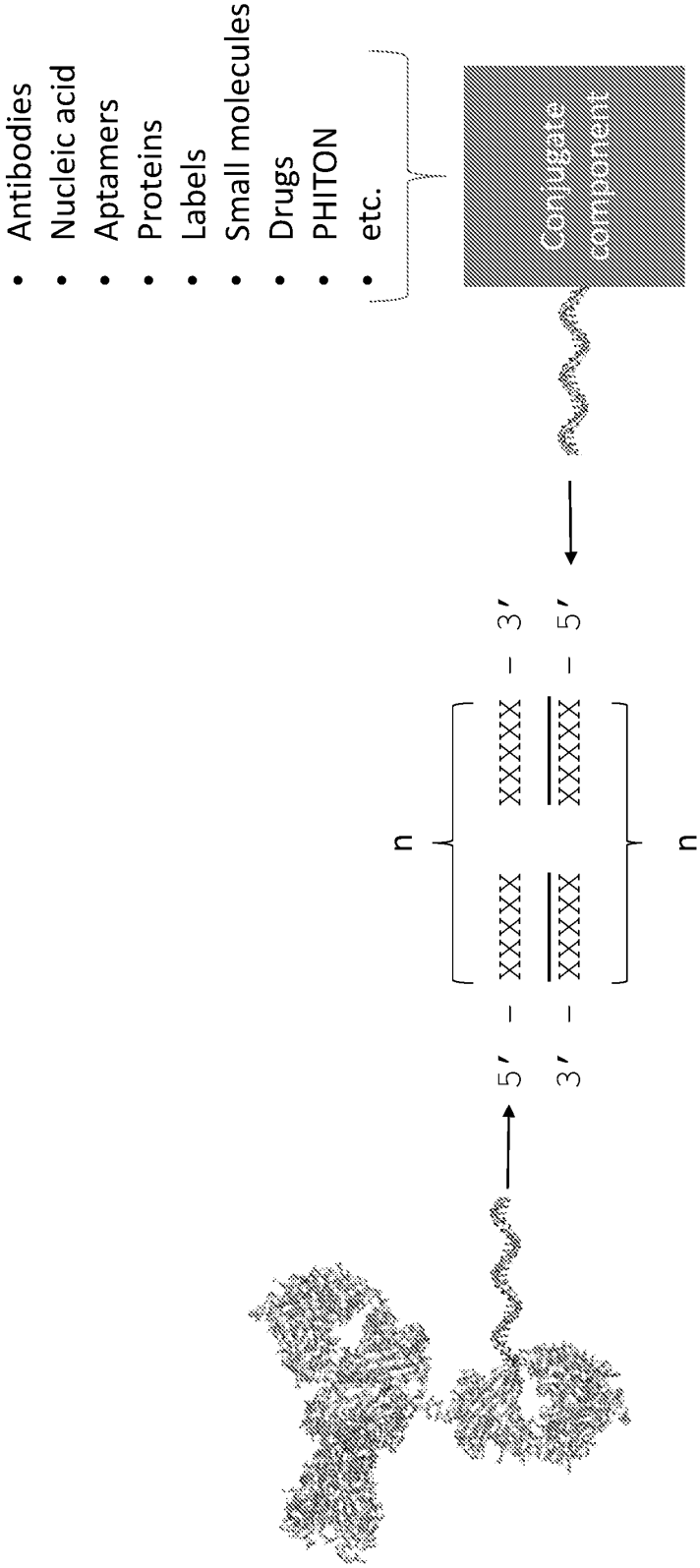

Antibodies
Nucleic acid
Aptamers
Proteins
Labels
Small molecules
Drugs
PHITON
etc.
Conjugate component
5′ – XXXXX – 3′
3′ – XXXXX – 5′
n
n
Where X and X̄ are complementary

FIG. 1

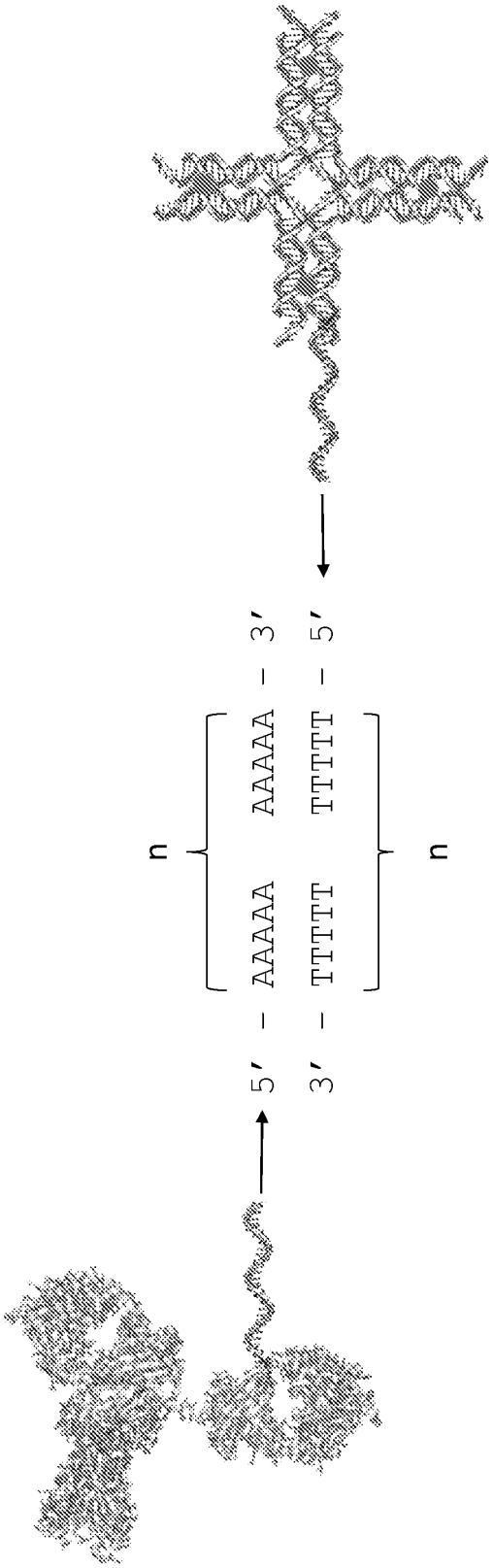


FIG. 2

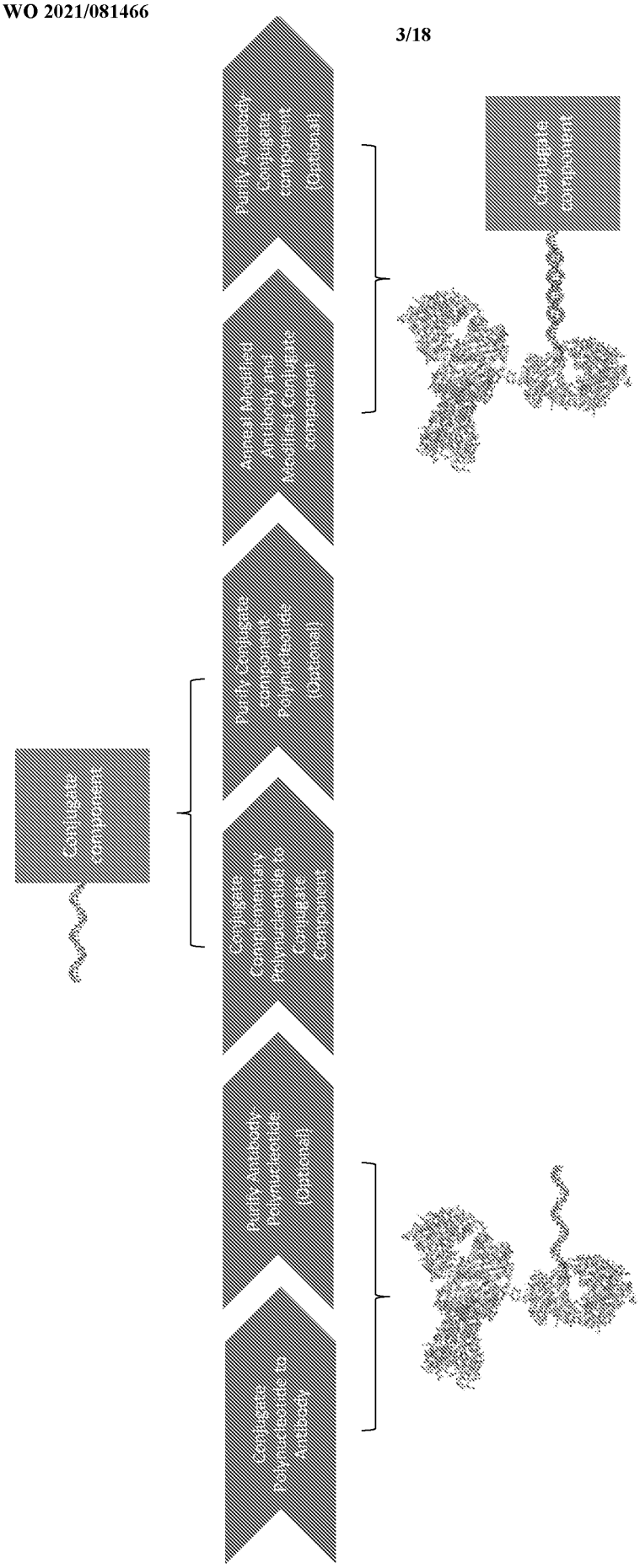

Conjugate component
Cell-free Conjugation Reaction
Purified Conjugate
Cell-free Expression Reaction
Purified Antibody Polypeptide
Conjugate component
Cell-free Conjugation Reaction
Purified Conjugate
Cell-free Expression Reaction
Purified Antibody Polypeptide

FIG. 3

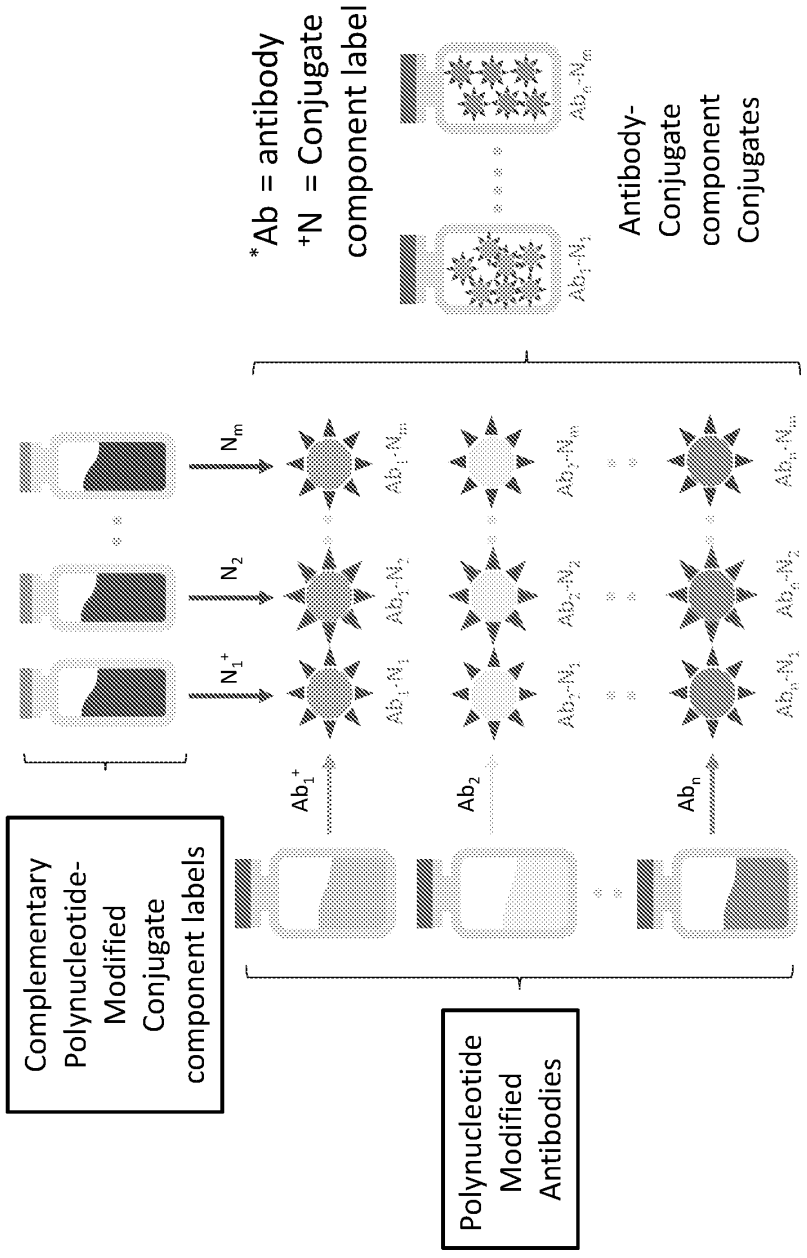

*Ab = antibody
+N = Conjugate component label
Antibody-Conjugate component Conjugates
Complementary Polynucleotide-Modified Conjugate component labels
Polynucleotide Modified Antibodies

FIG. 4

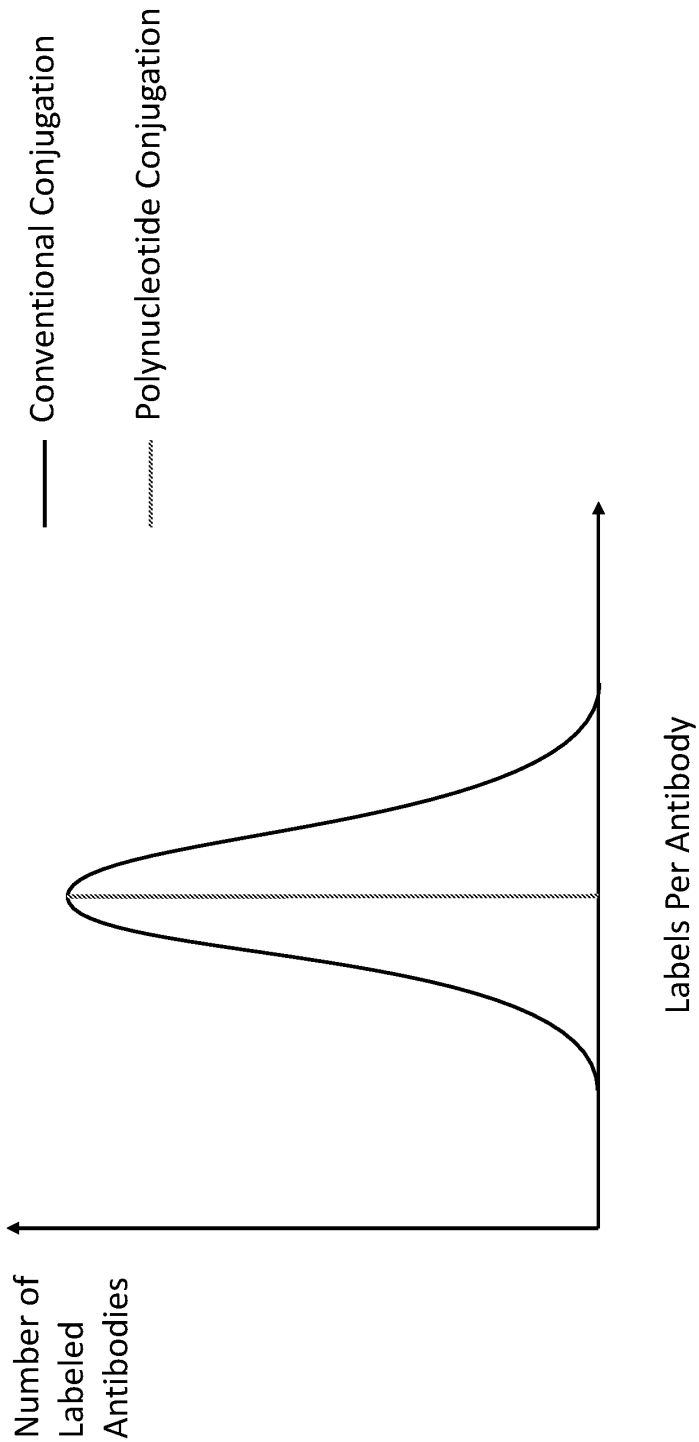

Conventional Conjugation
Polynucleotide Conjugation
Number of Labeled Antibodies
Labels Per Antibody

FIG. 5

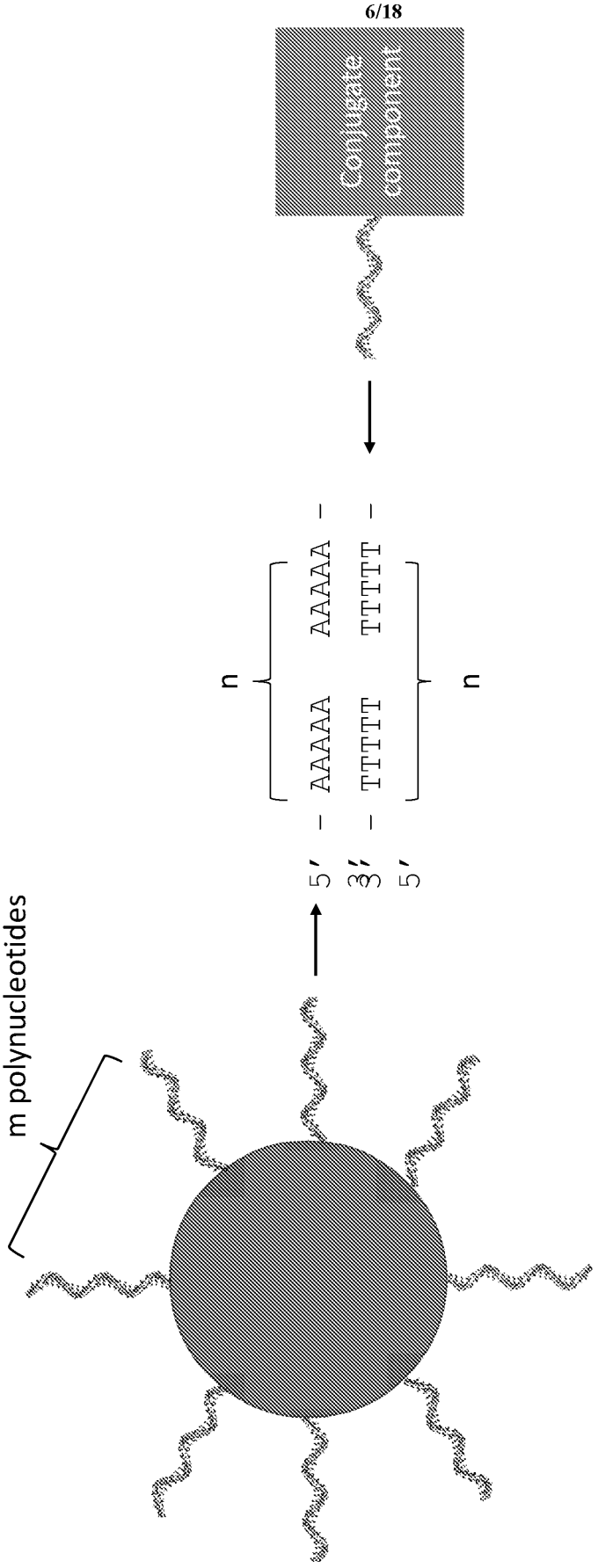

Conjugate component
m polynucleotides
5′ – AAAAA – n
3′ – TTTTT –
5′ – AAAAA – n
TTTTT

FIG. 6

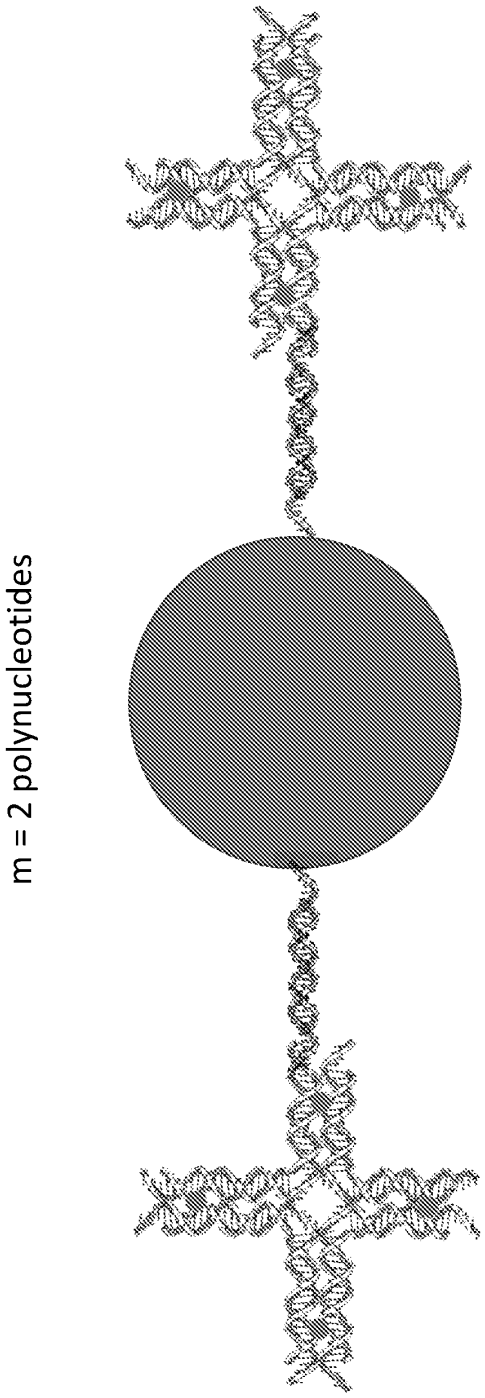


FIG. 7

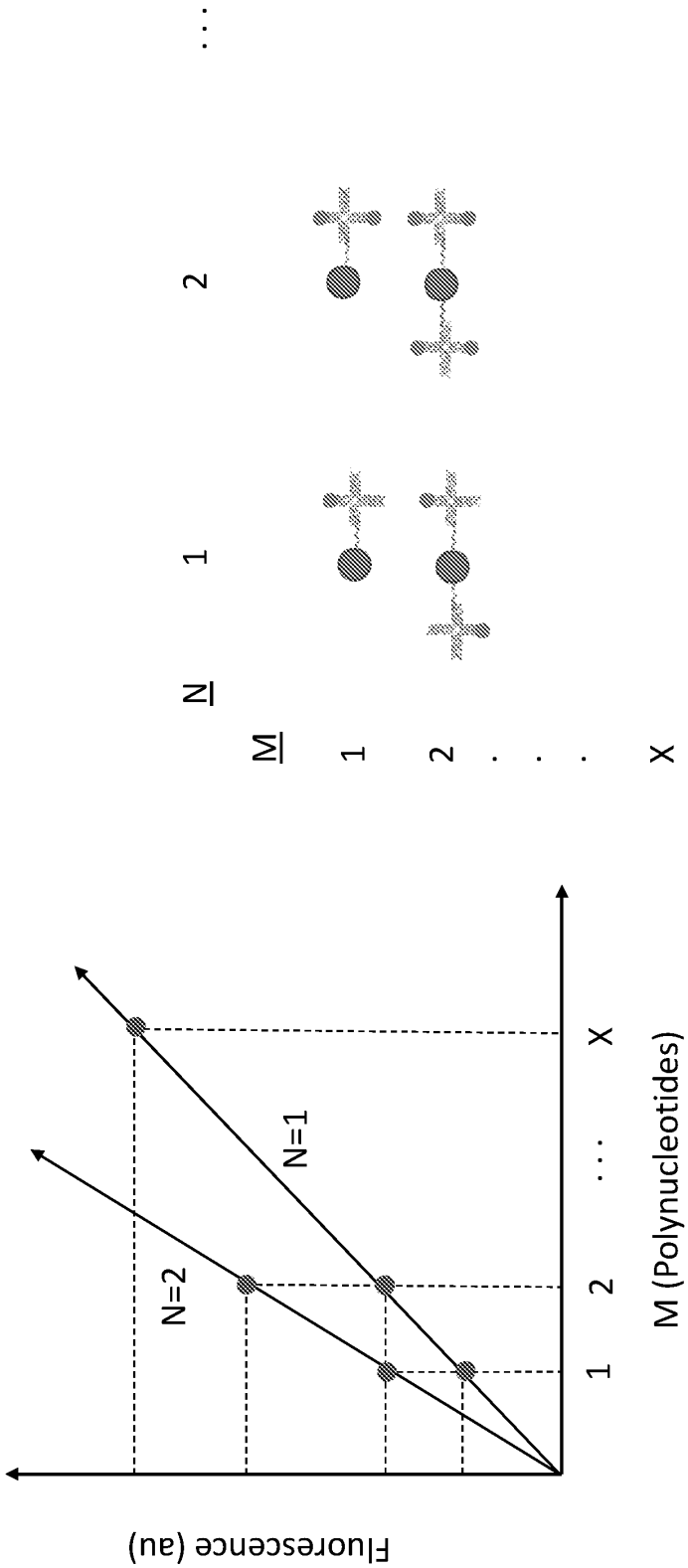
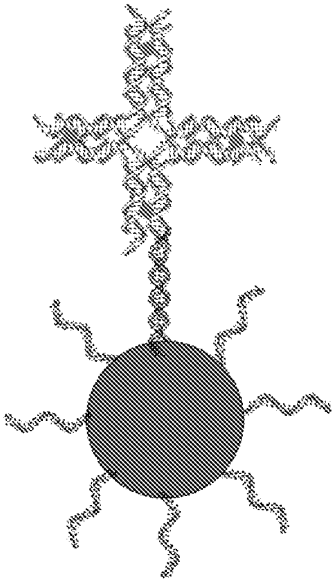
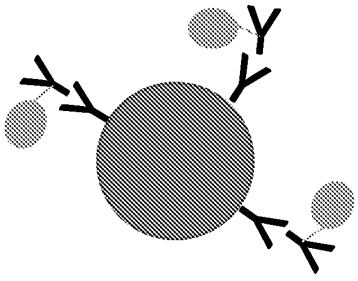


FIG. 8



PHITON beads



anti-antibody beads

FIG. 9

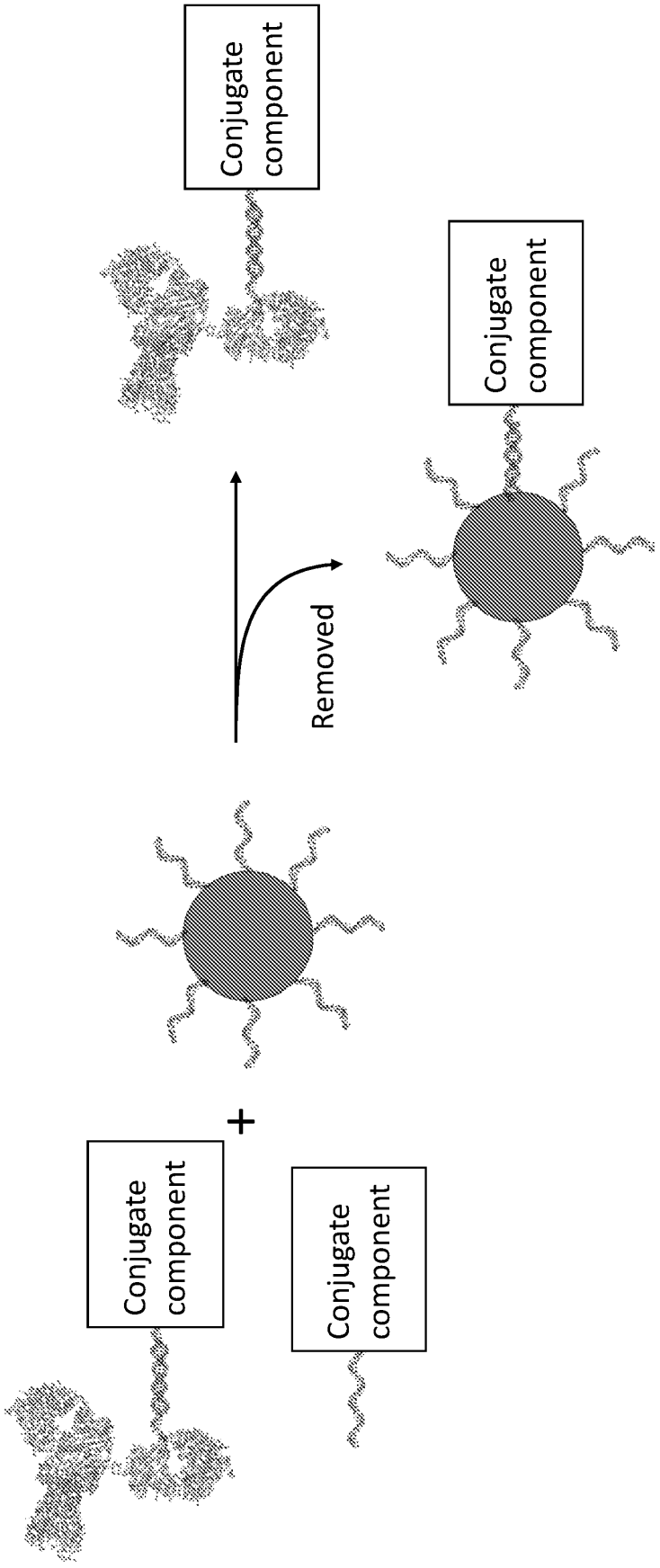

Conjugate component
Conjugate component
Removed
+
Conjugate component
Conjugate component

FIG. 10

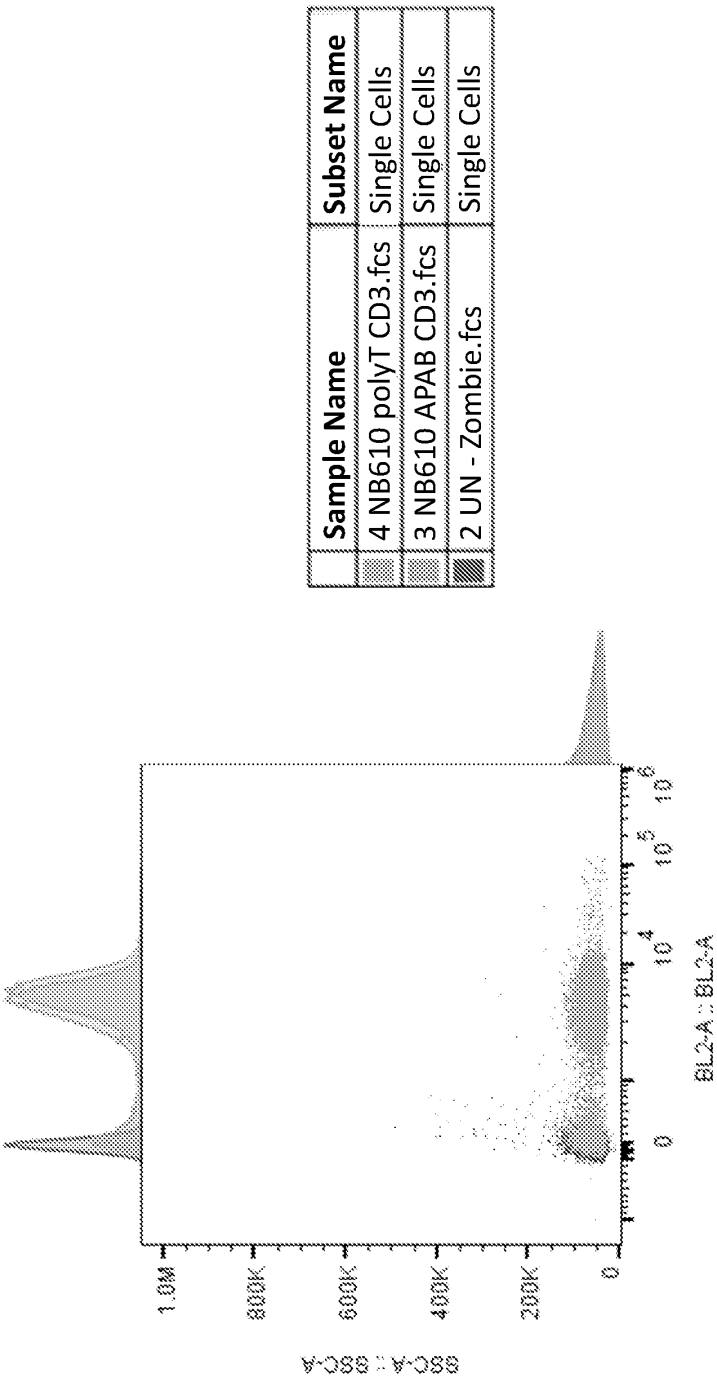

Sample Name
Subset Name
4 NB610 polyT CD3.fcs
Single Cells
3 NB610 APAB CD3.fcs
Single Cells
2 UN - Zombie.fcs
Single Cells
SSC-A :: SSC-A
1.0M
800K
600K
400K
200K
0
BL2-A :: BL2-A
0
10^4
10^5
10^6

FIG. 11

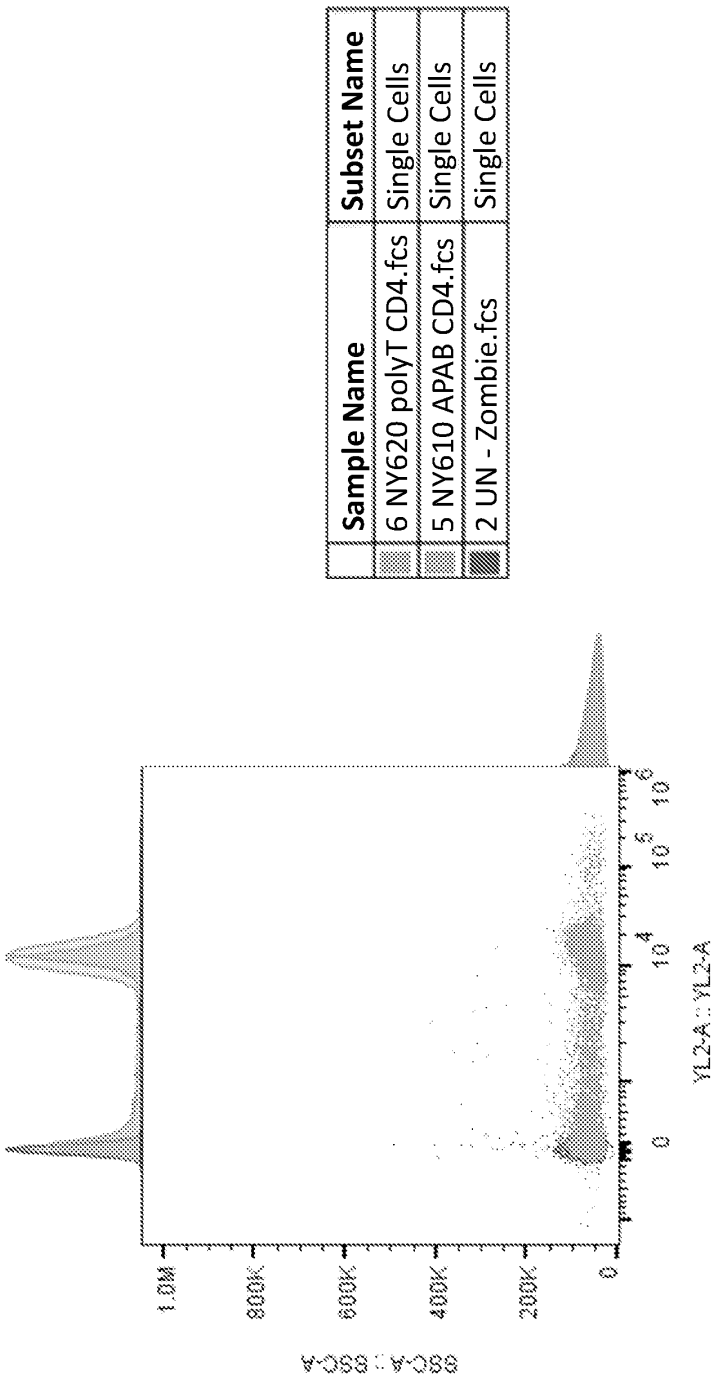

Sample Name
Subset Name
6 NY620 polyT CD4.fcs
Single Cells
5 NY610 APAB CD4.fcs
Single Cells
2 UN - Zombie.fcs
Single Cells
SSC-A :: SSC-A
YL2-A :: YL2-A
M1
1.0M
800K
600K
400K
200K
0
10^4
10^5
10^6

FIG. 12

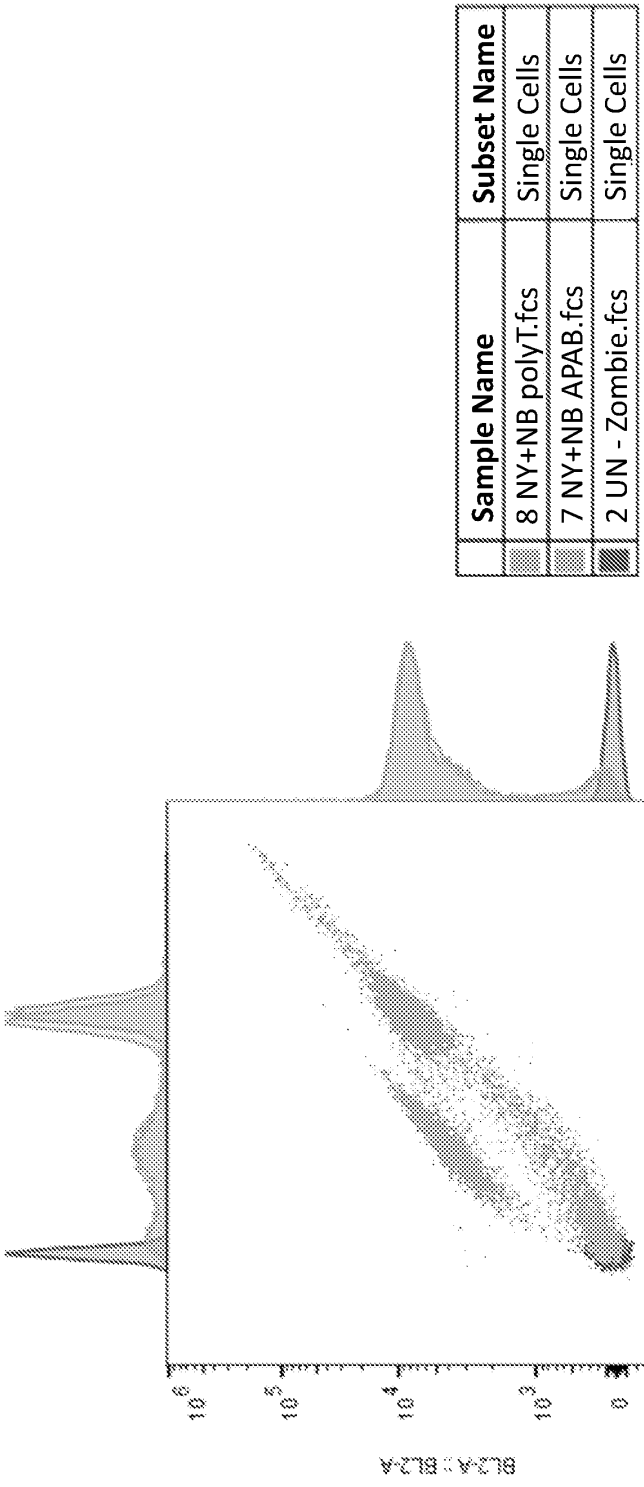

Sample Name
Subset Name
8 NY+NB polyT.fcs
Single Cells
7 NY+NB APAB.fcs
Single Cells
2 UN - Zombie.fcs
Single Cells
BL3-A : BL2-A
YL3-A : YL2-A

FIG. 13

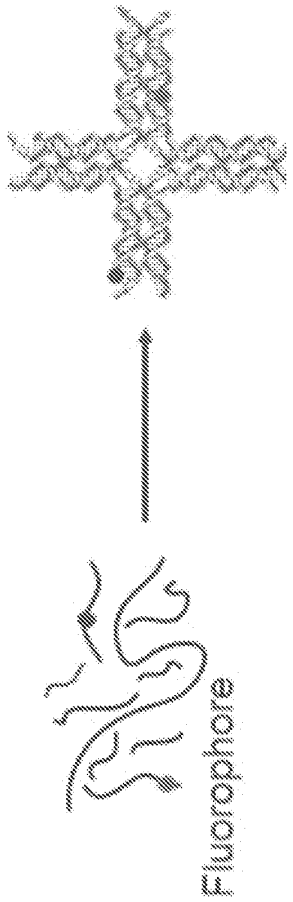


FIG. 14

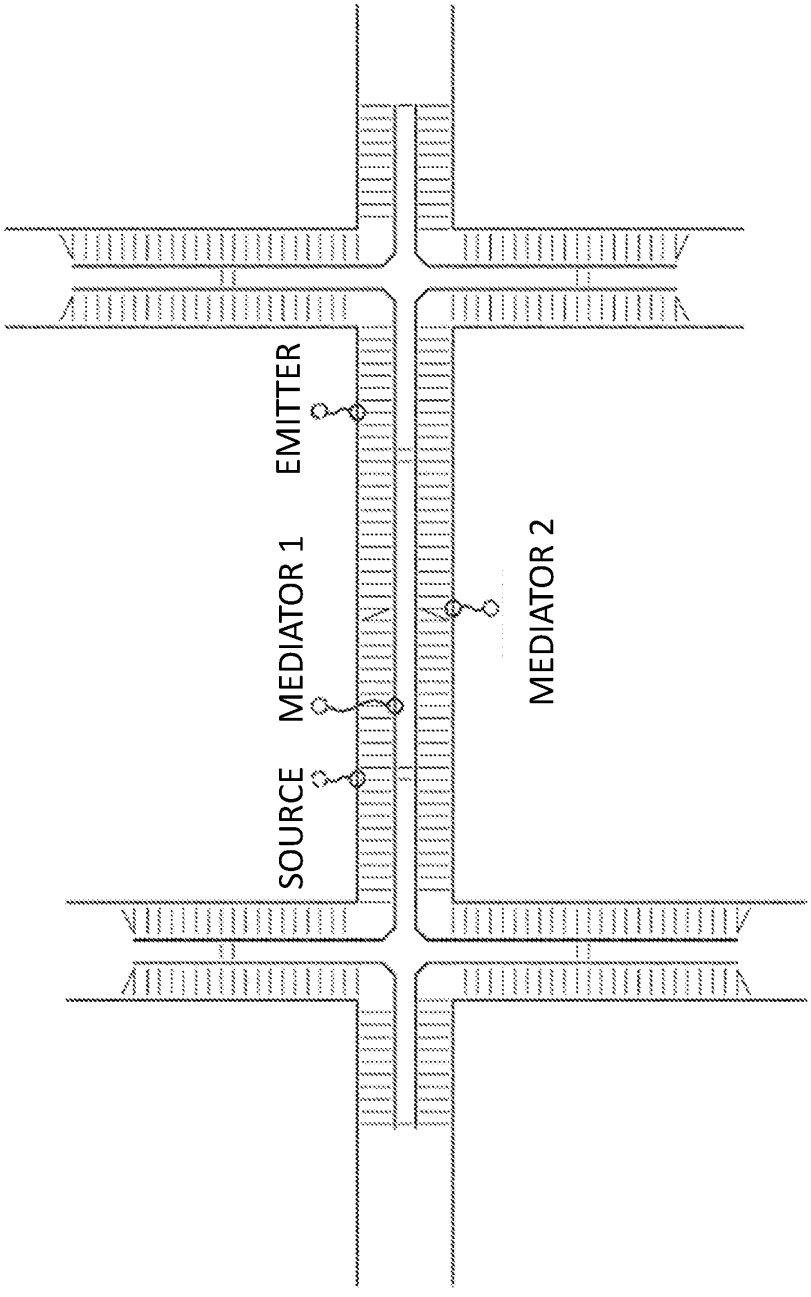


FIG. 15

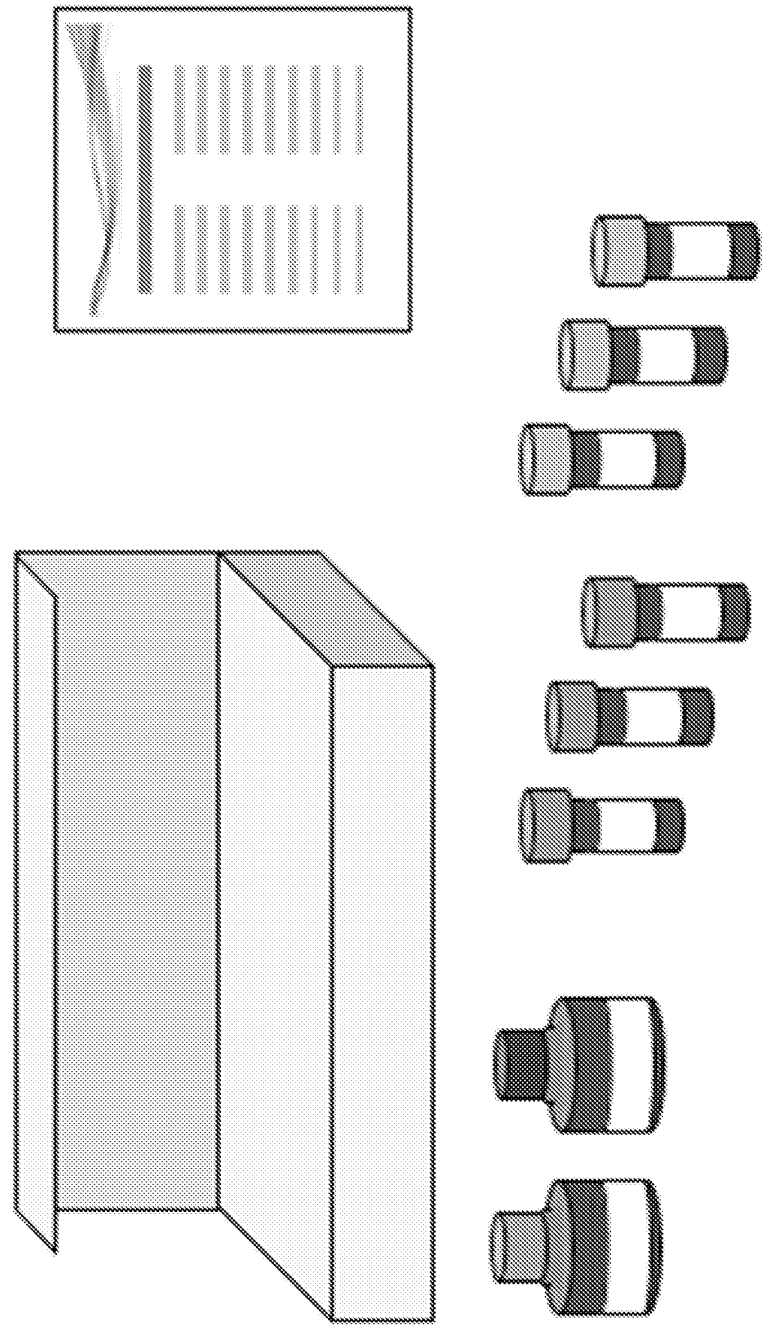


FIG. 16

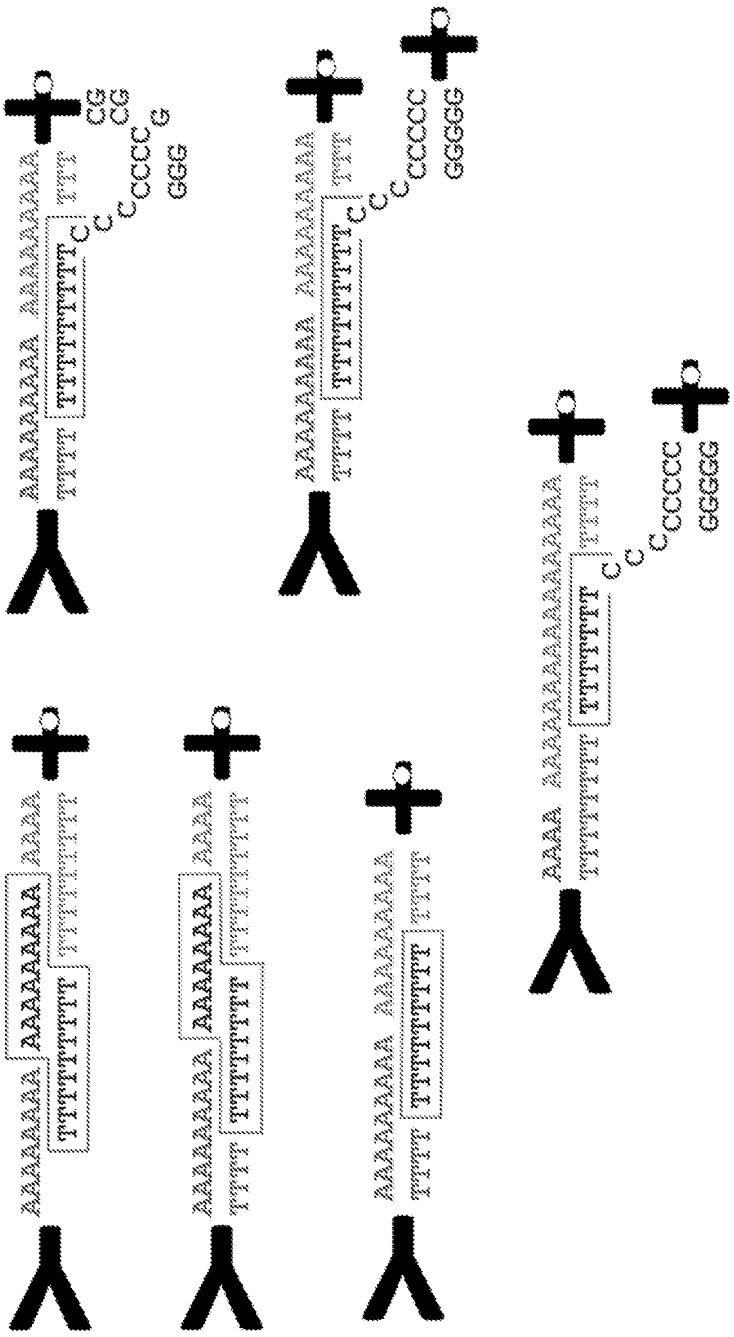

AAAAAAAA AAAAAAAA AAAA
TTTTTTTTTT TTTTTTTTTT
AAAAAAAA AAAAAAAA AAAA
TTTT TTTTTTTTTT TTTT
AAAAAAAA AAAAAAAA AAAA
TTTT TTTTTTTTTT TTTT
AAAAAAAA AAAAAAAA AAAA
TTTT TTTTTTTTTT TTTT
AAAAAAAA AAAAAAAA AAAA
TTTT TTTTTTTTTT TTTT
AAAAAAAA AAAAAAAA AAAA
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AAAA AAAAAAAAAAAAAAAA
TTTTTTTT TTTTTTTTTT TTTT
C C CCCCC
GGGGG

FIG. 17

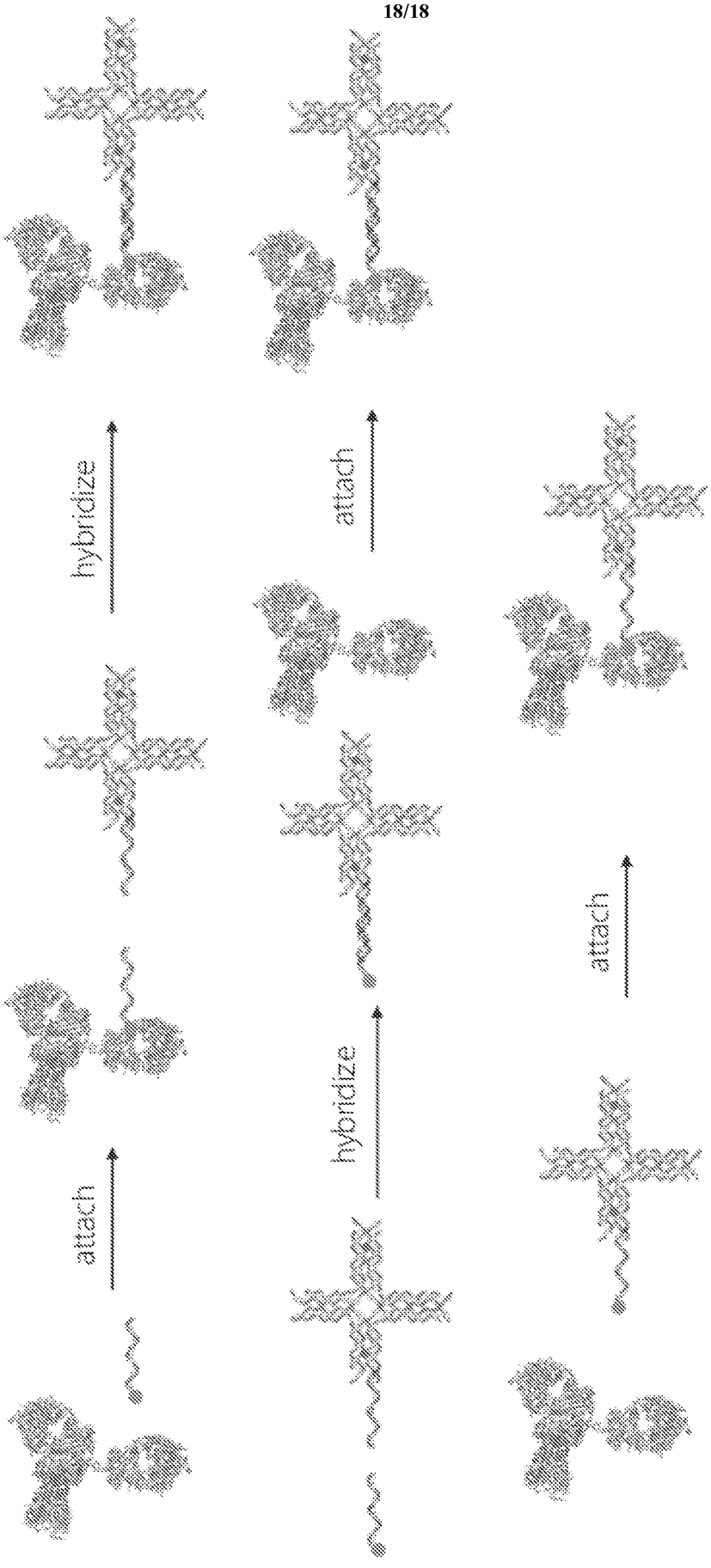


FIG. 18