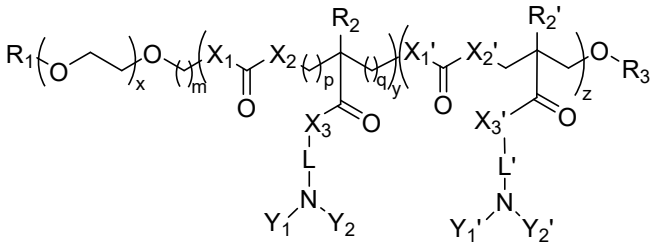
WHAT IS CLAIMED IS:

1. A polymer of the formula:



(I)

wherein:

R_1 is hydrogen, $alkyl_{(C\leq 8)}$, substituted $alkyl_{(C\leq 8)}$, or a thiol reactive group;

m is an integer from 1 to 8;

p and q are each independently 1, 2, or 3;

x is an integer from 10 to 200;

y is an integer from 20 to 200;

z is an integer from 0 to 200;

wherein the monomer of either y or z is randomly distributed in the polymer;

X_1, X_2, X_1', and X_2' are each independently O or NR_a, wherein:

R_a is $alkyl_{(C\leq 6)}$ or substituted $alkyl_{(C\leq 6)}$;

R_2 and R_2' are each independently hydrogen, $alkyl_{(C\leq 8)}$, or substituted $alkyl_{(C\leq 8)}$;

R_3 is hydrogen, $alkyl_{(C\leq 8)}$, or substituted $alkyl_{(C\leq 8)}$;

X_3 and X_3' are each independently O or NR_b, wherein:

R_b is hydrogen, $alkyl_{(C\leq 6)}$, or substituted $alkyl_{(C\leq 6)}$;

L and L′ are each independently a group of the formula:

$$-X_4-S(O)_n-X_5-$$

wherein:

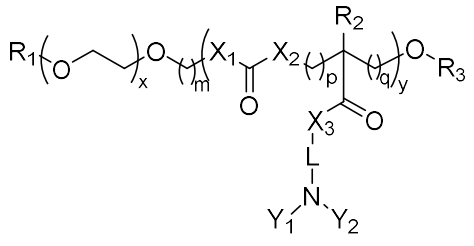
n is 0, 1, or 2; and

X_4 and X_5 are each independently $alkanediyl_{(C\leq 8)}$ or substituted $alkanediyl_{(C\leq 8)}$; and

Y_1, Y_2, Y_1', and Y_2' are each independently $alkyl_{(C\leq12)}$, substituted $alkyl_{(C\leq12)}$, $alkenyl_{(C\leq12)}$, or substituted $alkenyl_{(C\leq12)}$; or Y_1 and Y_2 or Y_1' and Y_2' are taken together and are $alkanediyl_{(C\leq12)}$, $alkenediyl_{(C\leq12)}$, or a substituted version of either group;

or a pharmaceutically acceptable salt thereof.

2. The polymer of claim 1 further defined as:



(II)

wherein:

R_1 is hydrogen, $alkyl_{(C\leq8)}$, substituted $alkyl_{(C\leq8)}$, or a thiol reactive group;

m is an integer from 1 to 8;

p and q are each independently 1, 2, or 3;

x is an integer from 10 to 200;

y is an integer from 20 to 200;

X_1 and X_2 are each O or NR_a, wherein:

R_a is hydrogen, $alkyl_{(C\leq6)}$, or substituted $alkyl_{(C\leq6)}$;

R_2 is hydrogen, $alkyl_{(C\leq8)}$, or substituted $alkyl_{(C\leq8)}$;

R_3 is hydrogen, $alkyl_{(C\leq8)}$, or substituted $alkyl_{(C\leq8)}$;

X_3 is O or NR_b, wherein:

R_b is hydrogen, $alkyl_{(C\leq6)}$, or substituted $alkyl_{(C\leq6)}$;

L is a group of the formula:

$$-X_4-S(O)_n-X_5-$$

wherein:

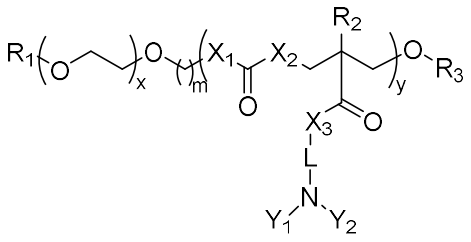
n is 0, 1, or 2; and

X_4 and X_5 are each independently alkanediyl$_{(C\leq 8)}$ or substituted alkanediyl$_{(C\leq 8)}$; and

Y_1 and Y_2 are each independently alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, alkenyl$_{(C\leq 12)}$, or substituted alkenyl$_{(C\leq 12)}$; or Y_1 and Y_2 are taken together and are alkanediyl$_{(C\leq 12)}$, alkenediyl$_{(C\leq 12)}$, or a substituted version of either group;

or a pharmaceutically acceptable salt thereof.

3. The polymer of either claim 1 or claim 2 further defined as:



(III)

wherein:

R_1 is hydrogen, alkyl$_{(C\leq 8)}$, substituted alkyl$_{(C\leq 8)}$, or a thiol reactive group;

m is an integer from 1 to 8;

x is an integer from 10 to 200;

y is an integer from 20 to 200;

X_1 and X_2 are each O or NR_a, wherein:

R_a is hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_2 is hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

R_3 is hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

X_3 is O or NR_b, wherein:

R_b is hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

L is a group of the formula:

$$-X_4-S(O)_n-X_5-$$

wherein:

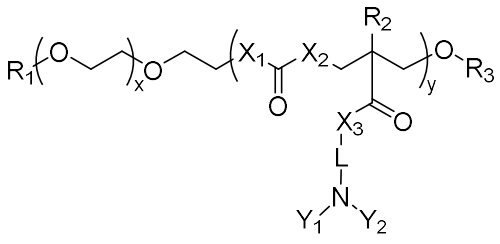
n is 0, 1, or 2; and

X_4 and X_5 are each independently alkanediyl$_{(C\leq 8)}$ or substituted alkanediyl$_{(C\leq 8)}$; and

Y_1 and Y_2 are each independently alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, alkenyl$_{(C\leq 12)}$, or substituted alkenyl$_{(C\leq 12)}$; or Y_1 and Y_2 are taken together and are alkanediyl$_{(C\leq 12)}$, alkenediyl$_{(C\leq 12)}$, or a substituted version of either group;

or a pharmaceutically acceptable salt thereof.

4. The polymer according to any one of claims 1-3 further defined as:



(IV)

wherein:

R_1 is hydrogen, alkyl$_{(C\leq 8)}$, substituted alkyl$_{(C\leq 8)}$, or a thiol reactive group;

x is an integer from 10 to 200;

y is an integer from 20 to 200;

X_1 and X_2 are each O or NR_a, wherein:

R_a is hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

R_2 is hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

R_3 is hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

X_3 is O or NR_b, wherein:

R_b is hydrogen, alkyl$_{(C\leq 6)}$, or substituted alkyl$_{(C\leq 6)}$;

L is a group of the formula:

$$-X_4-S(O)_n-X_5-$$

wherein:

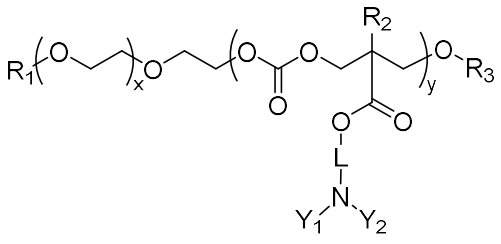
n is 0, 1, or 2; and

X_4 and X_5 are each independently alkanediyl$_{(C\leq 8)}$ or substituted alkanediyl$_{(C\leq 8)}$; and

Y_1 and Y_2 are each independently alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, alkenyl$_{(C\leq 12)}$, or substituted alkenyl$_{(C\leq 12)}$; or Y_1 and Y_2 are taken together and are alkanediyl$_{(C\leq 12)}$, alkenediyl$_{(C\leq 12)}$, or a substituted version of either group;

or a pharmaceutically acceptable salt thereof.

5. The polymer according to any one of claims 1-4 further defined as:



(V)

wherein:

R_1 is hydrogen, alkyl$_{(C\leq 8)}$, substituted alkyl$_{(C\leq 8)}$, or a thiol reactive group;

x is an integer from 10 to 200;

y is an integer from 20 to 200;

R_2 is hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

R_3 is hydrogen, alkyl$_{(C\leq 8)}$, or substituted alkyl$_{(C\leq 8)}$;

L is a group of the formula:

$$-X_4-S(O)_n-X_5-$$

wherein:

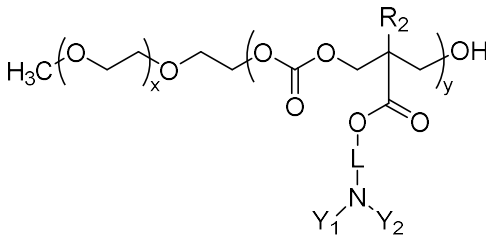
n is 0, 1, or 2; and

X_4 and X_5 are each independently alkanediyl$_{(C\leq 8)}$ or substituted alkanediyl$_{(C\leq 8)}$; and

Y_1 and Y_2 are each independently alkyl$_{(C\leq 12)}$, substituted alkyl$_{(C\leq 12)}$, alkenyl$_{(C\leq 12)}$, or substituted alkenyl$_{(C\leq 12)}$; or Y_1 and Y_2 are taken together and are alkanediyl$_{(C\leq 12)}$, alkenediyl$_{(C\leq 12)}$, or a substituted version of either group;

or a pharmaceutically acceptable salt thereof.

6. The polymer according to any one of claims 1-5 further defined as:



(VI)

wherein:

x is an integer from 10 to 200;

y is an integer from 20 to 200;

R_2 is hydrogen, $alkyl_{(C\leq 8)}$, or substituted $alkyl_{(C\leq 8)}$;

L is a group of the formula:

$$-X_4-S(O)_n-X_5-$$

wherein:

n is 0, 1, or 2; and

X_4 and X_5 are each independently $alkanediyl_{(C\leq 8)}$ or substituted $alkanediyl_{(C\leq 8)}$; and

Y_1 and Y_2 are each independently $alkyl_{(C\leq 12)}$, substituted $alkyl_{(C\leq 12)}$, $alkenyl_{(C\leq 12)}$, or substituted $alkenyl_{(C\leq 12)}$; or Y_1 and Y_2 are taken together and are $alkanediyl_{(C\leq 12)}$, $alkenediyl_{(C\leq 12)}$, or a substituted version of either group;

or a pharmaceutically acceptable salt thereof.

7. The polymer of either claim 1 or claim 2, wherein p is 1.

8. The polymer according to any one of claims 1, 2, or 7, wherein q is 1.

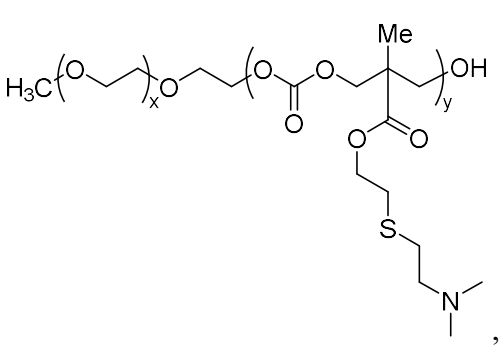
9. The polymer according to any one of claims 1-3, 7, and 8, wherein m is 1, 2, or 3.

10. The polymer of claim 9, wherein m is 2.

11. The polymer according to any one of claims 1-4 and 7-10, wherein X_1, X_2, and X_3 are O.

12. The polymer according to any one of claims 1-5 and 7-11, wherein R_1 is $alkyl_{(C\leq 8)}$ or substituted $alkyl_{(C\leq 8)}$.

13. The polymer according to any one of claims 1-12, wherein the polymer is further defined as:



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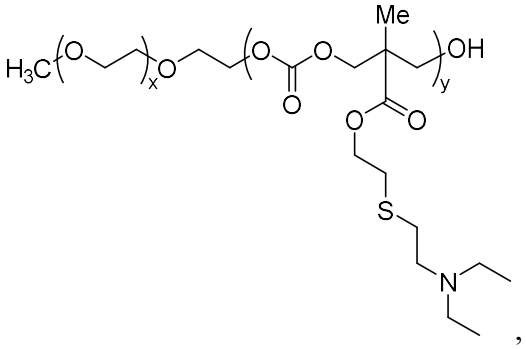

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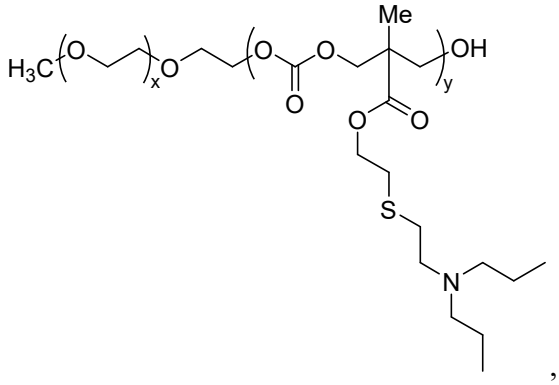

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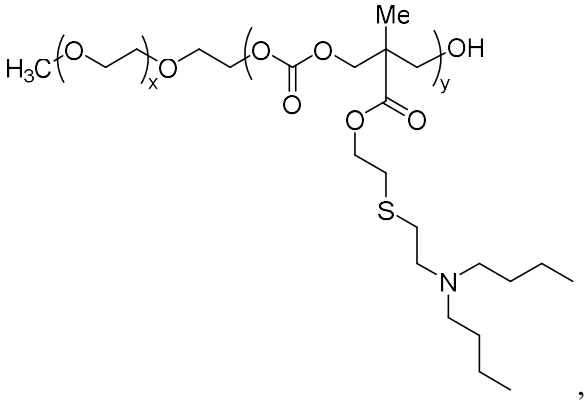

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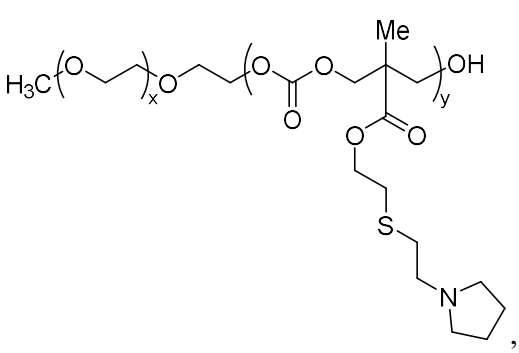

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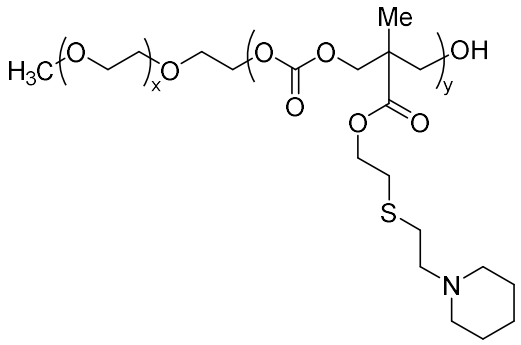

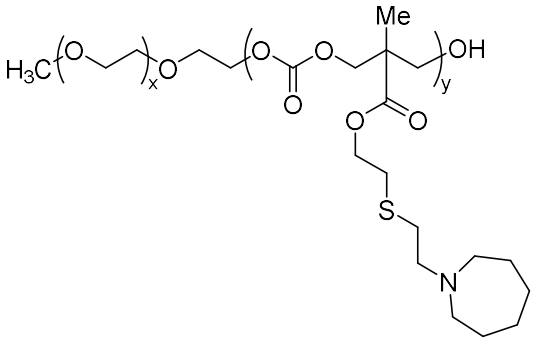

, or ;

or a pharmaceutically acceptable salt thereof.

14. A composition comprising:

(A) a polymer according to any one of claims 1-13; and

(B) a therapeutic agent;

wherein the polymer encapsulates the therapeutic agent.

15. Use of a composition according to claim 14 in the manufacture of a medicament for the treatment of a disease or disorder in a patient, wherein the therapeutic agent is sufficient to treat the disease or disorder.

16. The use of claim 15, wherein the disease or disorder is cancer.

17. The use of either claim 16 or claim 16, wherein the therapeutic agent is capable of modulating the immune system to target cancer.

18. The use according to any one of claims 15-17, wherein the therapeutic agent generates an immune response to one or more cancer cells.