

fucooligosaccharides, sialylated fucooligosaccharide analogs, sulfated fucooligosaccharides, maltose, lactose, sialic acid, glycopeptides, and combinations thereof.

**25.** The method of claim 21, wherein said surface exposed carbohydrates are covalently attached to said lipid monomers.

**26.** The method of claim 21, wherein said surface exposed oxyacid group comprises groups of the form  $(XO_n)(O^-)_p$ , where  $n+p>2$  and X is an atom capable of binding three or more oxygen atoms.

**27.** The method of claim 26, wherein said groups of the form  $(XO_n)(O^-)_p$ , where  $n+p>2$  comprise groups where X is selected from the group consisting of sulphur and phosphorus.

**28.** The method of claim 21, wherein said surface exposed oxyacid group is covalently attached to said lipid monomers.

**29.** The method of claim 21, wherein said receptor comprises a selectin.

**30.** The method of claim 29, wherein said selectin is selected from the group consisting of P-selectin, L-selectin, E-selectin.

**31.** The method of claim 21, wherein said receptor is selected from the group consisting of lectins, heparin, heparan sulfate, gangliosides, glycans, glycoproteins, and glycolipids.

**32.** A method for inhibiting the binding between a first cell having a receptor and a second cell having a ligand for said receptor, comprising:

a) providing:

- i) a sample containing said first cell and said second cell; and
- ii) a lipid assembly comprising a plurality of lipid monomers, one or more surface exposed oxyacid groups, and one or more surface exposed carbohydrates; and

b) exposing said polymerized lipid assembly to said first cell.

**33.** The method of claim 21, wherein said inhibiting the binding between said first cell and said second cell comprises inhibition of cell-cell interactions selected from the group consisting of cell adhesion and cell migration.

**34.** The method of claim 32, wherein said surface exposed oxyacid group comprises groups of the form  $(XO_n)(O^-)_p$ , where  $n+p>2$  and X is an atom capable of binding three or more oxygen atoms.

**35.** The method of claim 34, wherein said groups of the form  $(XO_n)(O^-)_p$ , where  $n+p>2$  comprise groups where X is selected from the group consisting of sulphur and phosphorus.

**36.** The method of claim 32, wherein said surface exposed oxyacid group is covalently attached to said lipid monomers.

**37.** The method of claim 32, wherein said surface exposed carbohydrates comprise neutral carbohydrates.

**38.** The method of claim 32, wherein said surface exposed carbohydrates comprise neutral carbohydrates selected from the group consisting of maltose and lactose.

**39.** The method of claim 32, wherein said surface exposed neutral carbohydrates are covalently attached to said lipid monomers.

**40.** The method of claim 32, wherein said receptor comprises a selectin.

**41.** The method of claim 40, wherein said selectin is selected from the group consisting of P-selectin, L-selectin, and E-selectin.

**42.** The method of claim 32, wherein said receptor is selected from the group consisting of lectins, heparin, heparan sulfate, gangliosides, glycans, glycoproteins, and glycolipids.

\* \* \* \* \*