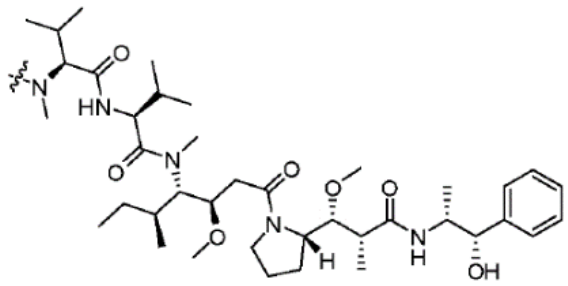
## CLAIMS

1. An effective amount of a composition comprising conjugates of a CLDN6-specific antigen-binding protein covalently bound to heterologous moieties comprising structural formula (I):



(I),

for use in inhibiting a solid tumor expressing claudin-6 (CLDN6) or treating cancer in a human subject, wherein

a first plurality of the conjugates are bound to four heterologous moieties comprising structural formula (I);

at least about 95% of the first plurality of conjugates are structurally homogenous;

wherein the average number of heterologous moieties per CLDN6-specific antigen-binding protein in the composition is about 3.5 to about 4; and

the effective amount is in a range of about 2.4 mg/kg to 4 mg/kg.

2. The composition for use of claim 1, wherein at a $C_{max}$ after the use, the percent of unbound circulating monomethyl auristatin E (MMAE) in serum is less than about 0.01% (w/v), thereby reducing toxicity in the subject and inhibiting the solid tumor.

3. The composition for use of claim 2, wherein the percent of unbound circulating MMAE is less than about 0.007% (w/v) at $C_{max}$.

4. The composition for use of claim 3, wherein the percent of unbound circulating MMAE is less than about 0.005% (w/v) at $C_{max}$.

5. The composition for use of claim 1, wherein a dose normalized Cmax value for the unbound circulating MMAE is less than about 35 pg/mL per mg of the conjugate after the use of the conjugate, thereby reducing toxicity in the subject and inhibiting the solid tumor.

6 The composition for use of claim 5, wherein the dose normalized $C_{max}$ value for unbound circulating MMAE is less than about 30 pg/mL per mg of the conjugate, or less than about 25 pg/mL per mg of the conjugate, or less than about 20 pg/mL per mg of the conjugate, or less than about 15 pg/mL per mg of the conjugate, or less than about 10 pg/mL per mg of the conjugate.

7. The composition for use of any one of claims 1-6, wherein the solid tumor is an ovarian tumor, bladder tumor, testicular tumor, or endometrial tumor.

8. The composition for use of any one of claims 1-7, wherein the effective amount is 2.4 mg/kg to 3 mg/kg.

9. The composition for use of any one of claims 1-8, wherein the effective amount is about 3.0 mg/kg, or is about 3.6 mg/kg, or is about 4 mg/kg.

10. The composition for use of any one of claims 1-9, wherein the effective amount of the composition is administered once every 1-4 weeks, for example once every 2-4 weeks, preferably once every 3 weeks.

11. The composition for use of any one of claims 1-10, wherein the composition is to be administered intravenously.

12. The composition for use of any one of claims 1-11, wherein the average number of heterologous moieties per CLDN6-specific antigen-binding protein in the composition is about 3.6 to about 3.9, preferably about 3.7 to about 3.8.

13. The composition for use of any one of claims 1-12, wherein, in the first plurality of conjugates, the heterologous moieties are covalently conjugated at unpaired cysteine residues of the CLDN6-specific antigen-binding protein.

14. The composition for use of any one of claims 1-12, wherein, in the first plurality of conjugates, the heterologous moieties are covalently conjugated at cysteine residues

resulting from cleavage of the heavy chain-light chain interchain disulfide bonds of the CLDN6-specific antigen-binding protein.

15. The composition for use of any one of claims 1-14, wherein about 95%, about 96%, about 97%, or about 98% of the first plurality of conjugates are structurally homogenous.

16. The composition for use of any one of claims 1-15, wherein the use further comprises prior to the use of the composition the use of a granulocyte-colony stimulating factor (G-CSF).

17. The composition for use of any one of claims 1 to 16, wherein the solid tumor or the cancer is any of ovarian, bladder, testicular, endometrial, non-small cell lung, peritoneal and fallopian tube cancer.