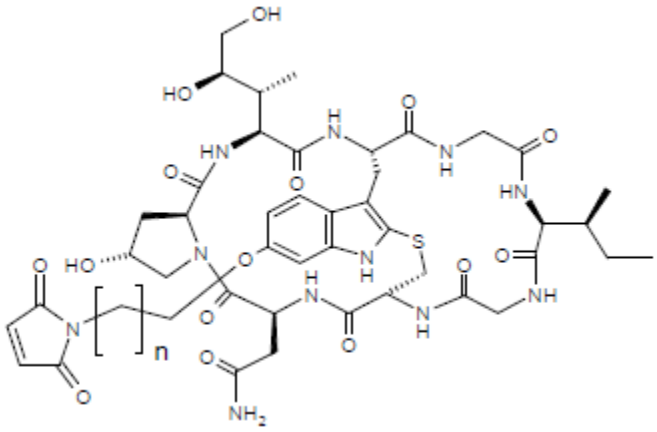
Amended Claims

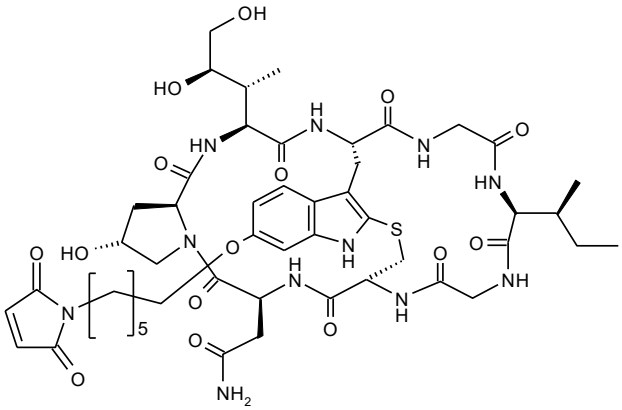
1. An amatoxin conjugated to a linker, consisting of the structure of formula (An)



Formula (An),

wherein n is 2, 3, 4, 5, 6, 7, 8 or 9.

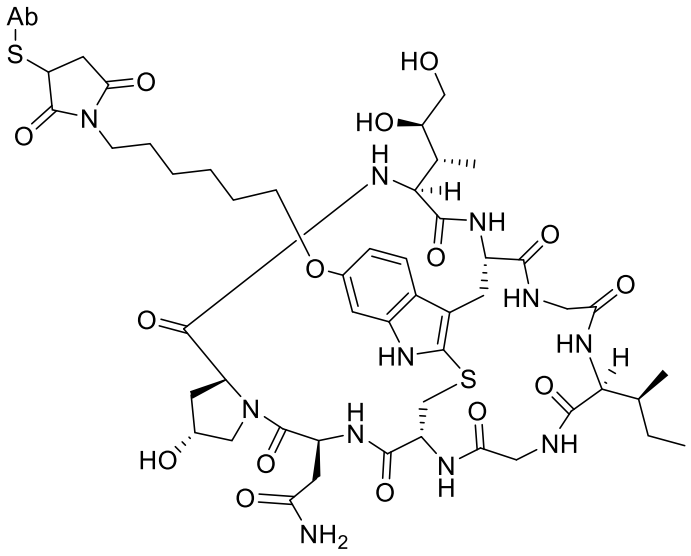
2. An amatoxin conjugated to a linker, according to claim 1, consisting of the structure of formula (A)



Formula (A) (HDP 30.2867).

3. The amatoxin, or derivative or analogue thereof, of claim 1 or claim 2 for use in the preparation of an antibody-drug conjugate (ADC).

4. An ADC comprising an antibody, or an antigen-binding fragment thereof, conjugated to an amatoxin via a linker, the ADC having the structure of formula (**IIa**):



(**IIa**).

5. The ADC of claim 4, wherein the antibody, or the antigen binding fragment thereof, specifically binds to human Her2, PSMA, CD37, or CD123.

6. The ADC of any one of claims 4 and 5, wherein the antibody, or the antigen binding fragment thereof, comprises an Fc region comprising at least one mutation selected from the group consisting of D265C, D265A, A118C, L234A, or L235A (according to EU index).

7. The ADC of any one of claims 4 to 6, wherein said antibody, or antigen binding fragment thereof, specifically binds to PSMA and comprises a CDRH1 according to SEQ ID NO. 378, a CDRH2 according to SEQ ID NO. 379, a CDRH3 according to SEQ ID NO. 380, a CDRL1 according to SEQ ID NO. 381, a CDRL2 according to SEQ ID NO. 382, and a CDRL3 according to SEQ ID NO. 383.

8. The ADC according to claim 7, wherein said antibody, or antigen binding fragment thereof, comprises a heavy chain variable region according to SEQ ID NO. 375 and a light chain variable region according to SEQ ID NO. 377.

9. The ADC according to claim 8, wherein said antibody comprises a heavy chain according to SEQ ID NO. 371, SEQ ID NO. 372, SEQ ID NO. 373, or SEQ ID NO. 374, and a light chain according to SEQ ID NO. 376.

10. The ADC according to claim 9, wherein said antibody comprises a heavy chain according to SEQ ID NO. 374, and a light chain having an amino acid sequence according to SEQ ID NO. 376.

11. The ADC according to claim 10, wherein the compound HDP30.2867 is linked directly to the sulfur atom of cysteine D265C of said antibody.

12. An antibody-drug conjugate (ADC) , wherein said antibody-drug conjugate comprises an antibody, or an antigen-binding fragment thereof, which specifically binds to human PSMA, and comprises a heavy chain having an amino acid sequence according to SEQ ID NO. 374 and a light chain having an amino acid sequence according to SEQ ID NO. 376, and which is conjugated to compound HDP30.2867.

13. The antibody-drug conjugate (ADC) according to claim 12, wherein the drug antibody ratio (DAR) is about 1, 2, 3, or 4, preferably wherein the DAR is 2.

14. A pharmaceutical composition comprising the ADC of any one of claims 4 to 13, and at least a pharmaceutically acceptable carrier.

15. Use of an ADC according to any one of claims 4 to 13 or of the pharmaceutical composition according to claim 14 in the manufacture of a medicament for treatment of cancer, wherein said cancer is positive for the respective antigen of the antibody, or antigen-binding fragment thereof, particularly wherein the cancer is selected from the group consisting of breast cancer, pancreatic cancer, cholangiocarcinoma, colorectal cancer, lung cancer, prostate cancer, ovarian cancer, stomach cancer, kidney cancer, malignant melanoma, hematological cancer, leukemia, and malignant lymphoma,.

16. Use of an ADC according to any one of claims 7 to 13 or of the pharmaceutical composition according to claim 14 in the manufacture of a medicament for treatment of prostate cancer, wherein the prostate cancer is PSMA-positive.