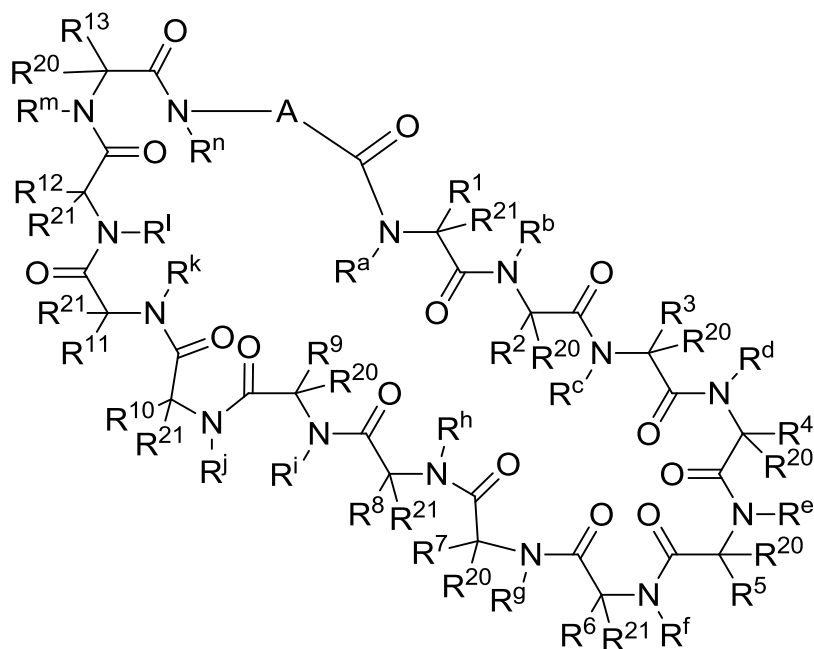


CLAIMS

WHAT IS CLAIMED IS:

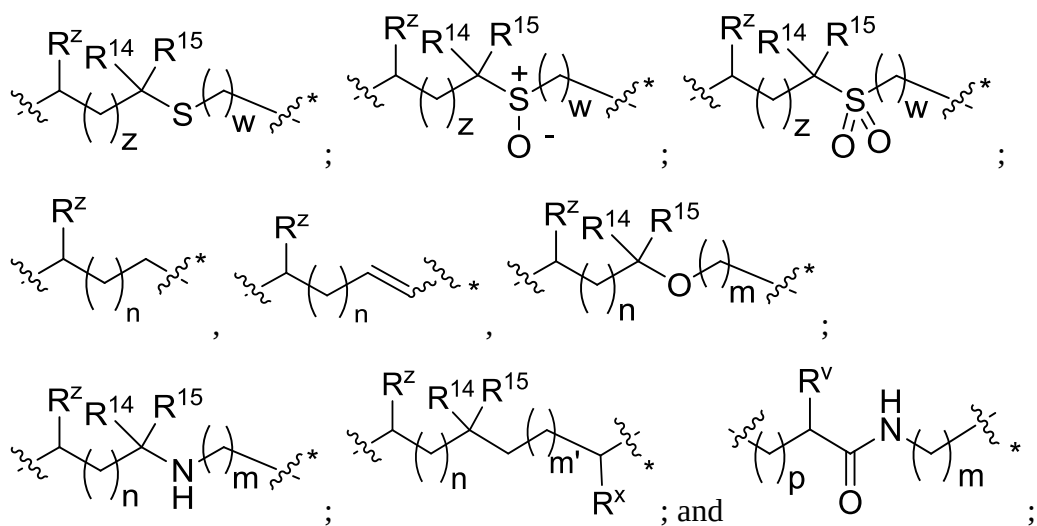
1. A compound of formula (I)



(I),

or a pharmaceutically acceptable salt thereof, wherein:

A is selected from a bond,



wherein:

 denotes the point of attachment to the carbonyl group and  denotes the point of attachment to the nitrogen atom;

z is 0, 1, or 2;

w is 1 or 2;

n is 0 or 1;

m is 1 or 2;

m' is 0 or 1;

p is 0, 1, or 2;

R^x is selected from hydrogen, amino, hydroxy, and methyl;

R¹⁴ and R¹⁵ are independently selected from hydrogen and methyl; and

R^z is selected from hydrogen and -C(O)NHR¹⁶; wherein R¹⁶ is selected from hydrogen, -CHR¹⁷C(O)NH₂, -CHR¹⁷C(O)NHCHR¹⁸C(O)NH₂, and -CHR¹⁷C(O)NHCHR¹⁸C(O)NHCH₂C(O)NH₂; wherein R¹⁷ is selected from hydrogen and -CH₂OH and wherein R¹⁸ is selected from hydrogen and methyl;

R^v is hydrogen or a natural amino acid side chain;

R^c, R^f, R^h, Rⁱ, and R^m are hydrogen;

Rⁿ is hydrogen or methyl or R^v and Rⁿ form a pyrrolidine ring;

R^a, R^e, R^j, and R^k, are each independently selected from hydrogen and methyl;

each R²⁰ is independently selected from hydrogen and C₁-C₆alkyl;

each R²¹ is independently selected from hydrogen and C₁-C₆alkyl;

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹¹, R¹², and R¹³ are independently selected from a natural amino acid side chain and an unnatural amino acid side chain or can each independently form a three- to six-membered carbocyclic ring or a six-membered ring containing an oxygen or a nitrogen atom with a corresponding geminal R²⁰ group, wherein the ring is optionally substituted with one, two, or three substituents independently selected from C₁-C₃alkoxy, C₁-C₃alkyl, C₂-C₄alkenyl, halo, hydroxy, and amino and wherein the five- and six-membered ring is optionally fused to a phenyl ring; or

$R^1, R^2, R^3, R^4, R^5, R^6, R^7, R^8, R^9, R^{10}, R^{11}, R^{12}$, and R^{13} can each independently form a ring with the corresponding vicinal R group as described below;

R^e and R^k can each form a ring with the corresponding vicinal R group and the atoms to which they are attached selected from azetidine, pyrrolidine, morpholine, piperidine, piperazine, and tetrahydrothiazole; wherein each ring is optionally substituted with one to four groups independently selected from amino, cyano, methyl, halo, and hydroxy;

R^b is methyl or, R^b and R^2 , together with the atoms to which they are attached, form a ring selected from azetidine, pyrrolidine, morpholine, piperidine, piperazine, and tetrahydrothiazole; wherein each ring is optionally substituted with one to four groups independently selected from amino, cyano, methyl, halo, and hydroxy; or, when R^2 and the geminal R^{20} are both other than hydrogen, R^b is hydrogen;

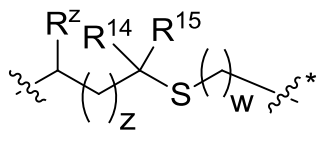
R^d is hydrogen or methyl, or, R^d and R^4 , together with the atoms to which they are attached, can form a ring selected from azetidine, pyrrolidine, morpholine, piperidine, piperazine, and tetrahydrothiazole; wherein each ring is optionally substituted with one to four groups independently selected from amino, cyano, methyl, halo, hydroxy, and phenyl;

R^g is hydrogen or methyl or R^g and R^7 , together with the atoms to which they are attached, can form a ring selected from azetidine, pyrrolidine, morpholine, piperidine, piperazine, and tetrahydrothiazole; wherein each ring is optionally substituted with one to four groups independently selected from amino, benzyl optionally substituted with a halo group, benzyloxy, cyano, cyclohexyl, methyl, halo, hydroxy, isoquinolinyloxy optionally substituted with a methoxy group, quinolinyloxy optionally substituted with a halo group, and tetrazolyl; and wherein the pyrrolidine and the piperidine ring are optionally fused to a cyclohexyl, phenyl, or indole group; and

R^l is methyl or, R^l and R^{12} , together with the atoms to which they are attached, form a ring selected from azetidine and pyrrolidine, wherein each ring is optionally substituted with one to four groups independently selected from amino, cyano, methyl, halo, and hydroxy;

provided that the compound of formula (I) contains at least one carbon on the backbone of the ring that has four substituents other than hydrogen and is not an alpha-methyl-substituted ring.

2. A compound of claim 1, or a pharmaceutically acceptable salt thereof, wherein A is



3. A compound of claim 2, or a pharmaceutically acceptable salt thereof, wherein

z and w are each 1;

R¹⁴ and R¹⁵ are hydrogen; and

R^z is -C(O)NHR¹⁶; wherein R¹⁶ is -CHR¹⁷C(O)NH₂.

4. A compound of claim 3 wherein

R¹ is benzyl optionally substituted with hydroxy;

R² is methyl or, together with the geminal R²⁰, forms a cyclopropyl ring;

R⁸ is -(CH₂)indolyl;

R¹⁰ is selected from -(CH₂)indolyl and -(CH₂)benzothienyl, each optionally substituted with -CH₂CO₂H;

R¹¹ is butyl;

R¹² is butyl;

R^a is hydrogen;

R^e is hydrogen;

R^j is methyl;

R^k is methyl; and

R^l is hydrogen.

5. A compound selected from:

Example 1001, Example 1002, Example 1003, Example 5001, Example 9001, Example 9002, Example 9003, Example 9004, Example 9005, Example 9006, Example 9007, Example 9008, Example 9009, Example 9011, Example 9012, Example 9013, Example 9014, Example 9015, Example 9016, Example 9017, Example 9018, Example 10001, Example 10002, Example 10003, Example 10004, Example 10005, Example 10006, Example 10007, Example 10008, Example 10009, and Example 10010; or a pharmaceutically acceptable salt thereof.

6. A compound of claim 1, or a therapeutically acceptable salt thereof, for use in the treatment of a medical condition which can be treated by enhancing, stimulating, and/or increasing the immune response in a subject in need thereof, wherein the compound is to be administered to the subject.

7. The compound of claim 6, or a therapeutically acceptable salt thereof, further wherein an additional agent is to be administered prior to, after, or simultaneously with the compound, or a therapeutically acceptable salt thereof.

8. The compound of claim 7, or a therapeutically acceptable salt thereof, wherein the additional agent is an antimicrobial agent, an antiviral agent, a cytotoxic agent, and/or an immune response modifier.

9. The compound of claim 7, or a therapeutically acceptable salt thereof, wherein the additional agent is an HDAC inhibitor.

10. The compound of claim 7, or a therapeutically acceptable salt thereof, wherein the additional agent is a TLR7 and/or TLR8 agonist.

11. A compound of claim 1, or a therapeutically acceptable salt thereof, for use in the treatment of cancer by inhibiting growth, proliferation, or metastasis of cancer cells in a subject in need thereof, wherein the compound is to be administered to the subject.

12. The compound of claim 11, or a therapeutically acceptable salt thereof, wherein the cancer is selected from melanoma, renal cell carcinoma, squamous non-small cell lung cancer (NSCLC), non-squamous NSCLC, colorectal cancer, castration-resistant prostate cancer, ovarian cancer, gastric cancer, hepatocellular carcinoma, pancreatic carcinoma, squamous cell carcinoma of the head and neck, carcinomas of the esophagus, gastrointestinal tract and breast, and hematological malignancies.

13. A compound of claim 1, or a therapeutically acceptable salt thereof, for use in the treatment of an infectious disease in a subject in need thereof, wherein the compound is to be administered to the subject.

14. The compound of claim 13 wherein the infectious disease is caused by a virus.

15. The compound of claim 14 wherein the virus is selected from HIV, Hepatitis A, Hepatitis B, Hepatitis C, herpes viruses, and influenza.

16. A compound of claim 1, or a therapeutically acceptable salt thereof, for use in the treatment of septic shock in a subject in need thereof, wherein the compound is to be administered to the subject.

17. A compound of claim 1, or a therapeutically acceptable salt thereof, for use in the treatment of a medical condition which can be treated by blocking the interaction of PD-L1 with PD-1 and/or CD80 in a subject, wherein the compound is to be administered to the subject.

18. Use of the compound of claim 1, or a therapeutically acceptable salt thereof, in the manufacture of a medicament for the treatment of a medical condition that can be treated by enhancing, stimulating, and/or increasing the immune response in a subject in need thereof, wherein the medicament is to be administered to the subject.

19. The use of claim 18 further wherein an additional agent is to be administered prior to, after, or simultaneously with the medicament.
20. The use of claim 19 wherein the additional agent is an antimicrobial agent, an antiviral agent, a cytotoxic agent, and/or an immune response modifier.
21. The use of claim 19 wherein the additional agent is an HDAC inhibitor.
22. The use of claim 19 wherein the additional agent is a TLR7 and/or TLR8 agonist.
23. Use of the compound of claim 1, or a therapeutically acceptable salt thereof, in the manufacture of a medicament for the treatment of cancer by inhibiting growth, proliferation, or metastasis of cancer cells in a subject in need thereof, wherein the medicament is to be administered to the subject.
24. The use of claim 23 wherein the cancer is selected from melanoma, renal cell carcinoma, squamous non-small cell lung cancer (NSCLC), non-squamous NSCLC, colorectal cancer, castration-resistant prostate cancer, ovarian cancer, gastric cancer, hepatocellular carcinoma, pancreatic carcinoma, squamous cell carcinoma of the head and neck, carcinomas of the esophagus, gastrointestinal tract and breast, and hematological malignancies.
25. Use of the compound of claim 1, or a therapeutically acceptable salt thereof, in the manufacture of a medicament for the treatment of an infectious disease in a subject in need thereof, wherein the medicament is to be administered to the subject.
26. The use of claim 25 wherein the infectious disease is caused by a virus.
27. The use of claim 25 wherein the virus is selected from HIV, Hepatitis A, Hepatitis B, Hepatitis C, herpes viruses, and influenza.

28. Use of the compound of claim 1, or a therapeutically acceptable salt thereof, in the manufacture of a medicament for the treatment of septic shock in a subject in need thereof, wherein the medicament is to be administered to the subject.

29. Use of the compound of claim 1, or a therapeutically acceptable salt thereof, in the manufacture of a medicament for the treatment of a medical condition which can be treated by blocking the interaction of PD-L1 with PD-1 and/or CD80 in a subject, wherein the medicament is to be administered to the subject.