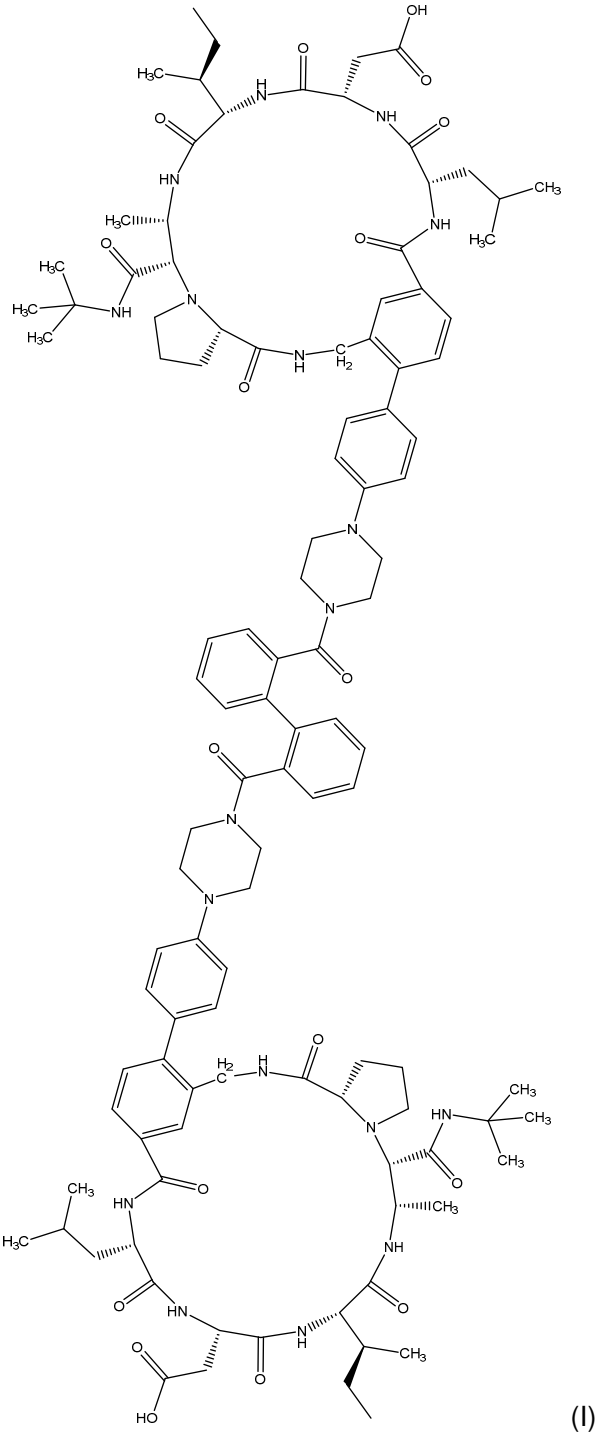
There is a need to develop improved α4β7 antagonists to prevent or treat inflammatory conditions and/or autoimmune diseases.

Summary

In one aspect of the disclosure, there is provided a compound of formula (I):



(I)

or a pharmaceutically acceptable salt or solvate thereof.

In another aspect, the disclosure provides a pharmaceutical composition comprising the compound of formula (I), or a pharmaceutically acceptable salt or solvate thereof, and a pharmaceutically acceptable carrier.

In another aspect, the disclosure provides the compound of formula (I), or a pharmaceutically acceptable salt or solvate thereof, for use as a medicament.

In one example, the disclosure provides the compound of formula (I), or a pharmaceutically acceptable salt or solvate thereof, for use in treating an inflammatory condition and/or an autoimmune disease in a patient.

In another aspect, the disclosure provides use of the compound of formula (I), or a pharmaceutically acceptable salt or solvate thereof, in the manufacture of a medicament for treating an inflammatory condition and/or an autoimmune disease in a patient.

In one example, the disclosure provides a method of treating an inflammatory condition and/or an autoimmune disease in a patient in need thereof, the method comprising administration of the compound of formula (I), or a pharmaceutically acceptable salt or solvate thereof, to the patient.

In another aspect, the present disclosure refers to a use of the compound as disclosed herein or pharmaceutically acceptable salt or solvate thereof in the manufacture of a medicament for treating a condition or disease selected from the group consisting of Inflammatory Bowel Disease (IBD), ulcerative colitis, Crohn's disease, celiac disease, microscopic colitis, collagenous colitis, eosinophilic gastroenteritis, pouchitis resulting after proctocolectomy and ileoanal anastomosis, gastrointestinal cancer, cholangitis, pericholangitis, primary sclerosing cholangitis, human immunodeficiency virus (HIV) infection in the GI tract, graft versus host disease, primary biliary sclerosis. In yet another aspect, the present disclosure refers to a use of the compound as disclosed herein or pharmaceutically acceptable salt or solvate thereof in the manufacture of a medicament for treating a local or systemic infection of a virus or retrovirus.

Brief Description of the Drawings

Figure 1 shows the dose-response curve for compound 1.

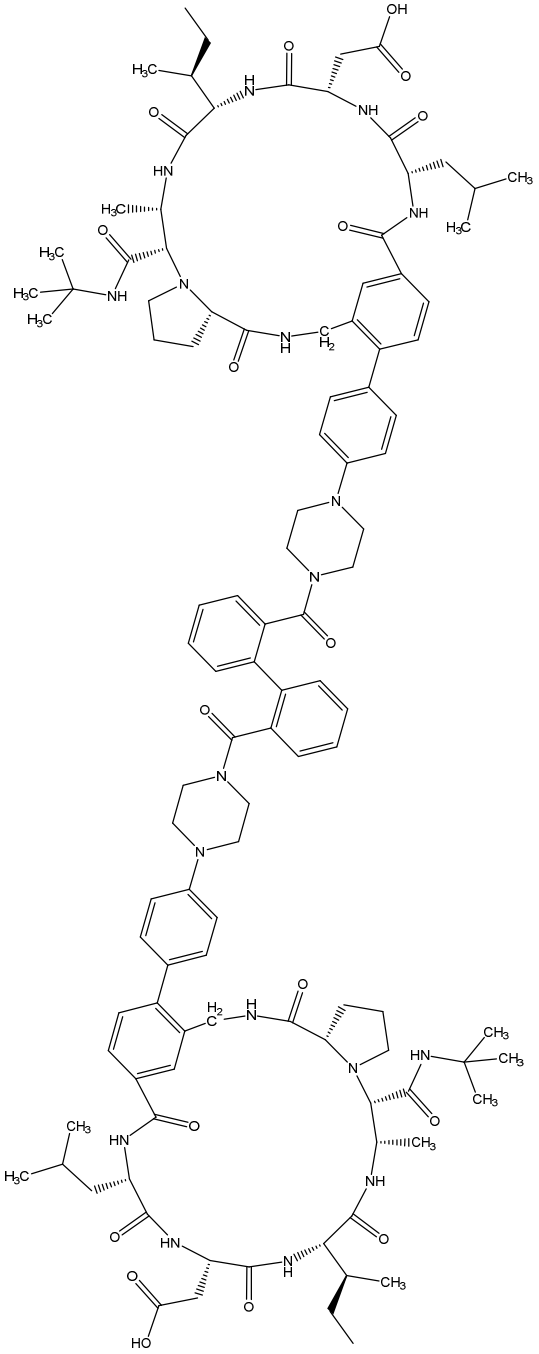
Figure 2 shows the normalised purity values for compound 1 and comparative compound 1 over two weeks' storage at 40ºC, as determined by the method described in Example 4.

Figure 3 shows a histogram plot of the area under curve (AUC) disease activity index (DAI) score expressed as mean ± SEM for each group for compound 1 when tested in the DSS mouse colitis model according to example 8. The dose concentration of compound 1 is the p.o. dose administered per dose occasion. Statistical differences among groups were determined using a one-way ANOVA, followed by Dunnett's multiple comparisons test, to compare each group to the DSS+vehicle group (black in histogram). *$p < 0.05$; ns=not significant.

Figure 4 shows a histogram plot of the area under curve (AUC) body weight change score expressed as mean ± SEM for each group for compound 1 when tested in the

CLAIMS

1. A compound of formula (I):



(I)

or a pharmaceutically acceptable salt or solvate thereof.

2. A pharmaceutical composition comprising the compound or pharmaceutically acceptable salt or solvate thereof of claim 1 and a pharmaceutically acceptable carrier.

3. The compound or pharmaceutically acceptable salt or solvate thereof of claim 1 for use as a medicament.

4. Use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 1 in the manufacture of a medicament for treating inflammation or an autoimmune disease in a patient.

5. The use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 4, wherein the inflammation or autoimmune disease is gastrointestinal.

6. Use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 1 in the manufacture of a medicament for treating a condition or disease selected from the group consisting of Inflammatory Bowel Disease (IBD), ulcerative colitis, Crohn's disease, celiac disease, microscopic colitis, collagenous colitis, eosinophilic gastroenteritis, pouchitis resulting after proctocolectomy and ileoanal anastomosis, gastrointestinal cancer, cholangitis, pericholangitis, primary sclerosing cholangitis, human immunodeficiency virus (HIV) infection in the GI tract, graft versus host disease, primary biliary sclerosis.

7. The use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 6, wherein the condition is an inflammatory bowel disease.

8. The use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 7, wherein the inflammatory bowel disease is ulcerative colitis.

9. The use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 7, wherein the inflammatory bowel disease is Crohn's disease.

10. Use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 1 in the manufacture of a medicament for treating a local or systemic infection of a virus or retrovirus.

11. The use of the compound or pharmaceutically acceptable salt or solvate thereof of claim 10, wherein the virus is HIV.