CLAIMS

1. Interleukin-7 (IL-7), for use in treating hepatitis C in a patient infected with hepatitis C virus, in combination or subsequently, with an antiviral agent or a combination of antiviral agents,

2. The IL-7 for use in treating hepatitis C according to claim 1, wherein the antiviral agent or combination of antiviral agents is in a therapeutically effective amount that reduces HCV viral load to less than 5 Log_{10} IU/mL, preferably less than 4 Log_{10} IU/mL, more preferably less than 3 Log_{10} IU/mL.

3. The IL-7 for use in treating hepatitis C according to claim 1 or 2, for use in a patient who has been treated with an antiviral agent or a combination of antiviral agents, so as to reduce viral load, before administration with IL-7, preferably wherein the antiviral agent or combination of antiviral agents reduces the viral load to less than 5 Log_{10} IU/mL, preferably less than 4 Log_{10} IU/mL, more preferably less than 3 Log_{10} IU/mL, before administration with IL-7.

4. The IL-7 for use in treating hepatitis C according to any of claims 1 to 3, wherein the antiviral agent is selected from the group consisting of a protease inhibitor such as Telaprevir or Boceprevir, a polymerase inhibitor, an inhibitor of virus entry, and a helicase inhibitor, or combinations thereof, optionally in combination with interferon and/or ribavirin.

5. The IL-7 for use in treating hepatitis C according to any of claims 1 to 3, wherein the antiviral agent is interferon, such interferon alpha or consensus interferon or interferon lambda, preferably IFNalpha–2a or IFNalpha-2b, either alone or in combination with another antiviral agent, such as ribavirin, the interferon being preferably in PEGylated form.

6. The IL-7 for use in treating hepatitis C according to any of claims 1 to 5, wherein the treatment with the antiviral agent or the combination of antiviral agents is started simultaneously with the treatment with IL-7, and maintained during at least part of the treatment with IL-7, preferably during 6 to 12 weeks.

7. The IL-7 for use in treating hepatitis C according to any of claims 1 to 5, wherein the treatment with the antiviral agent or the combination of antiviral agents is started before the treatment with IL-7, and maintained during at least part of the treatment with IL-7, preferably during 6 to 12 weeks.

8. The IL-7 for use in treating hepatitis C according to any of claims 1 to 7, wherein IL-7 is to be administered once a week, preferably during a period of two to six weeks, preferably four weeks, thereby defining an IL-7 treatment cycle, that is optionally repeated at least once.

9. The IL-7 for use in treating hepatitis C according to any of claims 1 to 8, wherein IL-7 is to be administered separately, simultaneously or sequentially with the antiviral agent or combination of antiviral agents, and wherein the IL-7 treatment is started before the administration of the antiviral agent or combination of antiviral agents, preferably one week before.

10. The IL-7 for use in treating hepatitis C according to any of claims 1 to 7, wherein the patient is to be administered with an antiviral agent or a combination of antiviral agents during a first phase of one week, so as to reduce the viral load, followed by a second phase of four weeks of IL-7 combined with an antiviral agent or a combination of antiviral agents, wherein the antiviral agent or combination of antiviral agents may preferably be the same during all treatment phases.

11. The IL-7 for use in treating hepatitis C according to claim 10, wherein the administration of IL-7 is to be followed by a third phase of 1 to 9 weeks of treatment with an antiviral agent or a combination of antiviral agents, wherein the antiviral agent or combination of antiviral agents may preferably be the same during all treatment phases.

12. The IL-7 for use in treating hepatitis C according to any of claims 1 to 11, wherein the patient has chronic hepatitis C genotype 1 to 6 infection, preferably genotype 1 to 4, preferably genotype 1.

13. The IL-7 for use in treating hepatitis C according to any of claims 1 to 12, for obtaining HCV viral clearance, preventing or delaying onset of liver fibrosis and cirrhosis, and/or preventing relapse of the HCV infection.

14. The IL-7 for use in treating hepatitis C according to any of claims 1 to 13, wherein the IL-7 is in the form of a fusion protein, preferably in fusion with Fc fragment of an immunoglobulin.

15. The IL-7 for use in treating hepatitis C according to any of claims 1 to 14, wherein the IL-7 is is a wild-type human IL-7 or a variant thereof, preferably in hyperglycosylated form.

Claims:

1. An invention not claimed in any divisional application.