Claims

1. An inhibitor of RNA polymerase II for use in therapy, wherein said inhibitor is selected a moiety which targets a protein selected from cyclin kinase 12 (CDK12) or its recruiting protein PAF1C.

2. An inhibitor according to claim 1 wherein the moiety is a polypeptide expressed by a gene selected from IldD, IldR, nlpD or rfaH of a bacterial species, or a variant of said protein.

3. An inhibitor according to claim 2 wherein the bacteria is a commensal bacteria or an asymptomatic carrier.

4. An inhibitor according to claim 3 wherein the bacteria is asymptomatic bacteriuria (ABU).

5. An inhibitor according to any one of claims 2 to 4 wherein the bacteria is an *E.coli* strain.

6. An inhibitor according to claim 5 wherein the bacteria are *E. coli* 83972.

7. An inhibitor according to claim 1 which is a Sigma S protein or a variant thereof or an active fragment of either of these.

8. An inhibitor according to claim 7 wherein the Sigma S protein is of SEQ ID NO 1 or SEQ ID NO 2 or a variant thereof, or an active fragment of either of these, such as a peptide of SEQ ID NO 3.

9. An inhibitor according to claim 1 which is a bacterial NplD protein, or a variant thereof, or an active fragment of either of these.

10. An inhibitor according to claim 9 which is a protein of SEQ ID NO 4.

11. An inhibitor according to any one of claims 2 to 6 wherein the inhibitor is secreted by the bacteria.

12. An inhibitor according to claim 9 which is of less than 3kDa in molecular weight.

13. An inhibitor according to any one of claims 2 to 12 which is synthetic.

14. An inhibitor according to any one of the preceding claims wherein the therapy is immunosuppression, anti-inflammatory or anti-infection therapy.

15. A method for preparing an inhibitor according to claim 11 or claim 12 which comprises culturing suitable bacteria in a culture medium, and isolating a factor having RNA polymerase II inhibitor activity from the supernatant.

16. A pharmaceutical composition comprising an inhibitor of RNA polymerase II according to any one of claims 1 to 14 in combination with a pharmaceutically acceptable carrier.

17. A method of treating a patient in need therefore with an effective amount of an inhibitor of RNA polymerase II according to any one of claims 1 to 14.

18. A novel inhibitor of RNA polymerase II which comprises an isolated polypeptide expressed by a gene selected from IldD, IldR, nlpD or rfaH of a bacterial species, or a variant of said protein.

19. An inhibitor according to claim 18 wherein the bacteria are commensal bacteria or an asymptomatic carrier.

20. An inhibitor according to claim 19 wherein the bacteria are asymptomatic bacteriuria (ABU).

21. An inhibitor according to any one of claims 18 to 20 wherein the bacteria is an *E.coli* strain.

22. An inhibitor according to claim 21 wherein the bacterial strain is *E. coli* 83972.

23. An inhibitor according to any one of claims 18 to 22 wherein the inhibitor is a protein secreted by the bacteria.

24. An inhibitor according to claim 21 which is of less than 3kDa in molecular weight.

25. An inhibitor according to any one of claims 18 to 24 which is synthetic.

26. A bacterial protein selected from Sigma S protein or NlpD protein or an active fragment thereof for use in therapy.

27. An inhibitor according to claim 24 wherein the Sigma S protein is of SEQ ID NO 1 or SEQ ID NO 2, or a fragment of SEQ ID NO 3, and the NlpD protein is of SEQ ID NO 4.