What is claimed is:

1. A method for inhibiting, competing or titrating the binding of a DNABII polypeptide or protein to a microbial DNA, comprising contacting the DNABII polypeptide or protein or the microbial DNA with an interfering agent, thereby inhibiting, competing or titrating the binding of the DNABII protein or polypeptide to the microbial DNA.

2. A method for inhibiting, preventing or breaking down a microbial biofilm, comprising contacting the biofilm with an interfering agent, thereby inhibiting, preventing or breaking down the microbial biofilm.

3. The method of claim 1 or 2, wherein the contacting is in vitro or in vivo.

4. A method of inhibiting, preventing or breaking down a biofilm in a subject, comprising administering to the subject an effective amount of an interfering agent, thereby inhibiting, preventing or breaking down the microbial biofilm.

5. A method for inhibiting, preventing or treating a microbial infection that produces a biofilm in a subject, comprising administering to the subject an effective amount of an interfering agent, thereby inhibiting, preventing or treating a microbial infection that produces the biofilm in the subject.

6. The method of any one of claims 1 to 5, wherein the interfering agent is of the group of:

(a) an isolated or recombinant integration host factor (IHF) polypeptide or a fragment or an equivalent of each thereof;

(b) an isolated or recombinant histone-like protein from *E.coli* strain U93 (HU) polypeptide or a fragment or an equivalent of each thereof;

(c) an isolated or recombinant protein or polypeptide identified in Table 8, Table 9A, 9B, Table 10 or a DNA binding peptide identified in Figure 6, or a fragment or an equivalent of each thereof;

(d) an isolated or recombinant polypeptide of SEQ ID NO. 1 through 340, or a fragment or an equivalent of each thereof;

(e) an isolated or recombinant C-terminal polypeptide of SEQ ID NO. 6 through 11, 28, 29, 42 through 100, Table 8 or those C-terminal polypeptides identified in Table 10 or a fragment or an equivalent of each thereof;

(f) a polypeptide or polynucleotide that competes with an integration host factor on binding to a microbial DNA;

(g) a four-way junction polynucleotide resembling a Holliday junction, a 3 way junction polynucleotide resembling a replication fork, a polynucleotide that has inherent flexibility or bent polynucleotide;

(h) an isolated or recombinant polynucleotide encoding any one of (a) through (f) or an isolated or recombinant polynucleotide of SEQ ID NO. 36 or an equivalent of each thereof, or a polynucleotide that hybridizes under stringent conditions to the polynucleotide its equivalent or its complement;

(i) an antibody or antigen binding fragment that specifically recognizes or binds any one of (a) through (f), or an equivalent or fragment of each antibody or antigen binding fragment thereof;

(j) an isolated or recombinant polynucleotide encoding the antibody or antigen binding fragment of (i) or its complement; or

(k) a small molecule that competes with the binding of a DNABII protein or polypeptide to a microbial DNA.

7. The method of any one of claims 1 to 6, wherein the interfering agent is an isolated or recombinant DNABII polypeptide or a fragment or an equivalent of each thereof.

8. The method of claim 7, wherein the DNABII polypeptide is an IHF polypeptide or a fragment thereof, a C-terminal fragment of an IHF polypeptide of an equivalent of each thereof.

9. The method of claim 7, wherein the DNABII polypeptide is an HU polypeptide or a fragment thereof, a C-terminal fragment of HU polypeptide, or an equivalent of each thereof.

10. The method of any one of claims 4 to 9, further comprising administering to the subject an effective amount of one or more of an antimicrobial, a DNase, an antibody, an antigenic peptide or an adjuvant.

11. The method of any one of claims 4 to 10, wherein the subject is a non-human animal or a human patient.

12. The method of any one of claims 1 to 11, wherein the microbial DNA is from a microorganism identified in Table 8.

13. The method of any one of claims 4 to 12, wherein the agent is administered by a method comprising topically, transdermally, transcutaneously, sublingually, rectally, vaginally, ocularly, subcutaneous, intramuscularly, intraperitoneally, urethrally, intranasally, by inhalation or orally.

14. The method of any one of claims 4 to 12, wherein the subject is a pediatric patient and the agent is administered in a formulation for the pediatric patient.

15. A method for inducing an immune response in or conferring passive immunity on a subject in need thereof, comprising administering to the subject an effective amount of one or more agents of the group:

(a) an isolated or recombinant integration host factor (IHF) polypeptide, or a fragment or an equivalent of each thereof;

(b) an isolated or recombinant histone-like protein from *E.coli* strain U93 (HU) polypeptide or a fragment or an equivalent of each thereof;

(c) an isolated or recombinant protein polypeptide identified in Table 8, Table 9A, Table 9B, Table 10 or a DNA binding peptide identified in Figure 6, or a fragment or an equivalent of each thereof;

(d) an isolated or recombinant polypeptide of SEQ ID NO. 1 through 340, or a fragment or an equivalent thereof;

(e) an isolated or recombinant C-terminal polypeptide of SEQ ID NO. 6 through 11, 28, 29, 42 through 100, Table 8 or those C-terminal polypeptides identified in Table 10 or a fragment or an equivalent of each thereof;

(f) an isolated or recombinant polynucleotide encoding any one of (a) through (e) or an isolated or recombinant polynucleotide of SEQ ID NO. 36 or an equivalent of each thereof, or a polynucleotide that hybridizes under stringent conditions to the polynucleotide, its equivalent or its complement;

(g) an antibody or antigen binding fragment that specifically recognizes or binds any one of (a) through (e), or an equivalent or fragment of each thereof;

(h) an isolated or recombinant polynucleotide encoding the antibody or antigen binding fragment of (g);

(i) an antigen presenting cell pulsed with any one of (a) through (e); and

(i) an antigen presenting cell transfected with one or more polynucleotides encoding any one of (a) through (e).

16. The method of claim 15, wherein the agent comprises an isolated or recombinant DNABII polypeptide or a fragment or an equivalent thereof.

17. The method of claim 16, wherein the DNABII polypeptide is an IHF polypeptide or a fragment thereof, a C-terminal fragment of an IHF polypeptide of an equivalent of each thereof..

18. The method of claim 16, wherein the DNABII polypeptide is an HU polypeptide or a fragment thereof, a C-terminal fragment of HU polypeptide, or an equivalent of each thereof.

19. The method of any one of claims 15 to 18, further comprising administering to the subject an effective amount of one or more of an antimicrobial, a DNase, an antibody, an antigenic peptide or an adjuvant.

20. The method of any one of claims 15 to 19, wherein the subject is a non-human animal or a human patient.

21. The method of any one of claims 15 to 20, wherein the isolated or recombinant polynucleotide derives from a microorganism identified in Table 8.

22. The method of any one of claims 15 to 21, wherein the agent is administered by a method comprising topically, transdermally, transcutaneously, sublingually, rectally, vaginally, ocularly, subcutaneous, intramuscularly, intraperitoneally, urethrally, intranasally, by inhalation or orally.

23. The method of any one of claims 15 to 22, wherein the subject is a pediatric patient and the agent is administered in a formulation for the pediatric patient.

24. An isolated or recombinant polypeptide consisting essentially of an amino acid sequence selected from SEQ ID NO. 1 to 5 or 12 to 27, 30 to 35, 101-340 or a DNA binding peptide identified in Figure 6 or a fragment or an equivalent of each thereof.

25. An isolated or recombinant polypeptide comprising SEQ ID NO. 1 or 2, with the proviso that the polypeptide is none of SEQ ID NOS. 6 to 11, 28, 29, or 42 through 100.

26. An isolated or recombinant polypeptide comprising SEQ ID NO. 3, 4 or 5, with the proviso that the polypeptide is none of SEQ ID NOS. 6 to 11, 28, 29, or 42 through 100.

27. An isolated or recombinant polypeptide comprising SEQ ID NO. 12, 14, 16, 18, 20, 22, 24, 26, 30 or 32, with the proviso that the polypeptide is none of SEQ ID NOS. 6 to 11, 28, 29, or 42 through 100.

28. An isolated or recombinant polypeptide comprising SEQ ID NO. 13, 15, 17, 19, 21, 23, 25, 27, 31 or 33, with the proviso that the polypeptide is none of SEQ ID NOS. 6 to 11, 28, 29, or 42 through 100.

29. An isolated or recombinant polypeptide of the group of:

a polypeptide comprising SEQ ID NO. 12 and 13;

a polypeptide comprising SEQ ID NO. 14 and 15;

a polypeptide comprising SEQ ID NO. 16 and 17;

a polypeptide comprising SEQ ID NO. 18 and 19;

a polypeptide comprising SEQ ID NO. 20 and 21;

a polypeptide comprising SEQ ID NO. 23 and 24;

a polypeptide comprising SEQ ID NO. 25 and 26;

a polypeptide comprising SEQ ID NO. 30 and 31;

a polypeptide comprising SEQ ID NO. 32 and 33;

a polypeptide comprising SEQ ID NO. 34 and 35;

a polypeptide comprising SEQ ID NO. 337 and 338; or

a polypeptide comprising SEQ ID NO. 339 and 340;

with the proviso that the polypeptide is none of wild-type of any one of IHF alpha, IHF beta or SEQ ID NO. 6 to 11, 28, 29, or 42 through 100.

30. An isolated or recombinant polypeptide of the group of:

a polypeptide consisting essentially of SEQ ID NO. 12 and 13;

a polypeptide consisting essentially of SEQ ID NO. 14 and 15;

a polypeptide consisting essentially of SEQ ID NO. 16 and 17;

a polypeptide consisting essentially of SEQ ID NO. 18 and 19;

a polypeptide consisting essentially of SEQ ID NO. 20 and 21;

a polypeptide consisting essentially of SEQ ID NO. 23 and 24;

a polypeptide consisting essentially of SEQ ID NO. 25 and 26;

a polypeptide consisting essentially of SEQ ID NO. 30 and 31;

a polypeptide consisting essentially of SEQ ID NO. 32 and 33;

a polypeptide consisting essentially of SEQ ID NO. 34 and 35;

a polypeptide consisting essentially of SEQ ID NO. 337 and 338; or

a polypeptide consisting essentially of SEQ ID NO. 339 and 340;

with the proviso that the polypeptide is none of wild-type of any one of IHF alpha, IHF beta or SEQ ID NO. 6 to 11, 28, 29, or 42 through 100.

31. A fragment or an equivalent of the isolated or recombinant polypeptide of any one of claims 24 to 30.

32. An isolated or recombinant polypeptide comprising two or more of the isolated or recombinant polypeptides of any one of claims 22 to 31.

33. An isolated or recombinant polynucleotide encoding the polypeptide of any of claims 24 to 32 or its complement.

34. A vector comprising the isolated or recombinant polynucleotide of claim 33.

35. An isolated host cell comprising the isolated or recombinant polypeptide of any one of claims 24 to 32, the isolated or recombinant polynucleotide of claim 33 or the vector of claim 34.

36. An isolated antigen presenting cell comprising the isolated or recombinant polypeptide of any one of claims 24 to 32, wherein the polypeptide is present on the surface of the cell.

37. The isolated antigen presenting cell of claim 36, wherein the antigen presenting cell is a dendritic cell.

38. An antibody or antigen binding fragment that specifically recognizes or binds the isolated or recombinant polypeptide of any one of claims 24 to 32, or an isolated or recombinant polynucleotide encoding said antibody or antigen binding fragment.

39. The antibody of claim 34, wherein the antibody is selected from the group of a polyclonal antibody, a monoclonal antibody, a humanized antibody, a human antibody, an

antibody derivative, a veneered antibody, a diabody, an antibody derivative, a recombinant human antibody, a chimeric antibody, or an antibody fragment.

40. The antibody of claim 39, wherein the antibody is a monoclonal antibody.

41. A hybridoma cell line that produces the antibody of claim 40.

42. A composition comprising a carrier and one or more of:

(a) an isolated or recombinant polypeptide of any one of claims 24 to 32;

(b) an isolated or recombinant polynucleotide of claim 33;

(c) a vector of claim 34;

(d) an isolated host cell of any one of claims 35 to 37; or

(e) an antibody of any one of claims 38 to 40.

43. The composition of claim 42, further comprising one or more of an adjuvant, an antigenic peptide or an antimicrobial.

44. The composition of claim 42 or 43, wherein the carrier is selected from the group of a liquid carrier, a pharmaceutically acceptable carrier, a solid phase carrier, a pharmaceutically acceptable polymer, a liposome, a micelle, an implant, a stent, a paste, a gel, a dental implant or a medical implant.

45. The composition of any one of claims 42 to 44, formulated for administration to a human patient or a non-human animal.

46. The composition of any one of claims 42 to 44, formulated for administration by one or more method comprising topically, transdermally, transcutaneously, sublingually, rectally, vaginally, ocularly, subcutaneous, intramuscularly, intraperitoneally, urethrally, intranasally, by inhalation or orally.

47. The composition of any one of claims 42 to 46, formulated for a pediatric patient.

48. A kit comprising any one or more agent of the group

(a) an isolated or recombinant polypeptide of any one of claims 24 to 32;

(b) an isolated or recombinant polynucleotide of claim 33;

(c) a vector of claim 34;

(d) an isolated host cell of any one of claims 35 to 37;

(e) an antibody of any one of claims 38 to 40;

(f) the composition of claim 42;

(g) an isolated or recombinant integration host factor (IHF) polypeptide or a fragment or an equivalent of each thereof;

(h) an isolated or recombinant histone-like protein from *E.coli* strain U93 (HU) polypeptide or a fragment or an equivalent of each thereof;

(i) an isolated or recombinant protein polypeptide identified in Table 8, Table 9A, Table 9B, Table 10 a DNA binding peptide identified in Figure 6, or a fragment or an equivalent of each thereof;

(j) an isolated or recombinant polypeptide of SEQ ID NO. 1 through 340, or a fragment or an equivalent of each thereof;

(k) an isolated or recombinant C-terminal polypeptide of SEQ ID NO. 6 through 11, 28, 29, 42 through 100, Table 8 or those C-terminal polypeptides identified in Table 10 or a fragment or an equivalent of each thereof;

(l) a polypeptide that competes with an integration host factor on binding to a microbial DNA;

(m) a four-way junction polynucleotide resembling a Holliday junction, a 3 way junction polynucleotide resembling a replication fork, a polynucleotide that has inherent flexibility or bent polynucleotide;

(n) an isolated or recombinant polynucleotide encoding any one of (g) through (l);

(o) an antibody or antigen binding fragment that specifically recognizes or binds any one of (g) through (l), or an equivalent or fragment thereof;

(p) an isolated or recombinant polynucleotide encoding the antibody or antigen binding fragment of (o); and

(q) a small molecule that competes with the binding of a DNABII protein or polypeptide to a microbial DNA, and instructions for use.

49. The kit of claim 48, further comprising one or more of an adjuvant, an antigenic peptide, a DNase, an antibody, or an antimicrobial.

50. The kit of claim 48 or 49, further comprising a carrier selected from the group of wherein the carrier is selected from the group of a liquid carrier, a pharmaceutically acceptable carrier, a solid phase carrier, a pharmaceutically acceptable polymer, a liposome, a micelle, an implant, a stent, a paste, a gel, a dental implant, or a medical implant.

51. A method of identifying an agent that modulates the binding of a DNABII protein or polypeptide to a microbial DNA in a sample containing the same, comprising contacting a candidate agent with the sample, and assaying for the binding of the protein or polypeptide to the DNA.

52. The method of claim 51, wherein the agent modulates the binding by inhibiting, preventing or titrating the binding of the DNABII protein or polypeptide to the microbial DNA.

53. Use of an agent of the group of:

(a) an isolated or recombinant polypeptide of any one of claims 24 to 32;

(b) an isolated or recombinant polynucleotide of claim 33;

(c) a vector of claim 34;

(d) an isolated host cell of any one of claims 35 to 37;

(e) an antibody of any one of claims 38 to 40;

(f) the composition of claim 42;

(g) an isolated or recombinant integration host factor (IHF) polypeptide or a fragment or an equivalent of each thereof;

(h) an isolated or recombinant histone-like protein from *E.coli* strain U93 (HU) polypeptide or a fragment or an equivalent of each thereof;

(i) an isolated or recombinant protein polypeptide identified in Table 8, Table 9A, Table 9B, Table 10, a DNA binding peptide identified in Figure 6, or a fragment or an equivalent of each thereof;

(j) an isolated or recombinant polypeptide of SEQ ID NO. 1 through 340 or a fragment or an equivalent of each thereof;

(k) an isolated or recombinant C-terminal polypeptide of SEQ ID NO. 6 through 11, 28, 29, 42 through 100, Table 8 or those C-terminal polypeptides identified in Table 10 or a fragment or an equivalent of each thereof;

(l) a polypeptide that competes with an integration host factor on binding to a microbial DNA;

(m) a four-way junction polynucleotide resembling a Holliday junction, a 3 way junction polynucleotide resembling a replication fork, a polynucleotide that has inherent flexibility or bent polynucleotide;

(n) an isolated or recombinant polynucleotide encoding any one of (g) through (l);

(o) an antibody or antigen binding fragment that specifically recognizes or binds any one of (g) through (l), or an equivalent or fragment thereof; or

(p) an isolated or recombinant polynucleotide encoding the antibody or antigen binding fragment of (o); and

(q) a small molecule that competes with the binding of a DNABII protein or polypeptide to a microbial DNA.

54. The method of claims 6 or 15, wherein the antibody is a monoclonal antibody or fragment thereof.

55. The method of claim 54, wherein the monoclonal antibody or fragment thereof is a human antibody, a humanized antibody, a recombinant antibody, a chimeric antibody, a veneered antibody, a modified antibody or an antibody derivative.

56. The method of claim 55, wherein the antibody is modified by conservative amino acid mutations within the VH and/or VL CDR 1, CDR 2 and/or CDR 3 regions.

57. The method of claim 55, wherein the antibody is modified by altering the number of cysteine residues or by conservative amino acid mutations in the Fc hinge region.

58. The method of claim 55, wherein the monoclonal antibody or fragment thereof is chemically modified.

59. The method of claim 58, wherein the monoclonal antibody or fragment thereof is pegylated.

60. The method of claim 58, wherein the monoclonal antibody or fragment thereof is conjugated to serum protein.

61. The method of claim 60, wherein the serum protein is human serum albumin.

62. The method of claim 55, wherein the monoclonal antibody or fragment thereof is conjugated to a diagnostic agent.

63. The method of claim 62, wherein the diagnostic agent is selected from the group consisting of an enzyme, a prosthetic group complex, a fluorescent material, a luminescent material, a bioluminescent material, a radioactive material, a positron emitting metal and a nonradioactive paramagnetic metal ion.

64. The method of claim 63, wherein the enzyme is selected from the group consisting of horseradish peroxidase, alkaline phosphatase, beta-galactosidase and acetylcholinesterase.

65. The method of claim 63, wherein the prosthetic group complex is selected from the group consisting of streptavidin/biotin and avidin/biotin.

66. The method of claim 63, wherein the fluorescent material is selected from the group consisting of umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride and phycoerythrin.

67. The method of claim 63, wherein the luminescent material is luminol.

68. The method of claim 63, wherein the bioluminescent material is selected from the group consisting of luciferase, luciferin and aequorin.

69. The method of claim 63, wherein the radioactive material is selected from the group consisting of ^{125}I, ^{131}I, Indium-111, Lutetium-171, Bismuth-212, Bismuth-213, Astatine-211, Copper-62, Copper-64, Copper-67, Yttrium-90, Iodine-125, Iodine-131, Phosphorus-32, Phosphorus-33, Scandium-47, Silver-111, Gallium-67, Praseodymium-142, Samarium-153, Terbium-161, Dysprosium-166, Holmium-166, Rhenium-186, Rhenium-188, Rhenium-189, Lead-212, Radium-223, Actinium-225, Iron-59, Selenium-75, Arsenic-77, Strontium-89, Molybdenum-99, Rhodium-105, Palladium-109, Praseodymium-143, Promethium-149, Erbium-169, Iridium-194, Gold-198, Gold-199 and Lead-211.

70. The method of claim 55, wherein the monoclonal antibody or fragment thereof is conjugated to a therapeutic agent.

71. The method of claim 70, wherein the therapeutic agent is an antimicrobial.

72. The method of claim 70, wherein the therapeutic agent is selected from the group consisting of ribonuclease (RNase), DNase I, an antisense nucleic acid, an inhibitory RNA

molecule, an immunostimulatory nucleic acid, an aptamer, a ribozyme, a triplex forming molecule and an external guide sequence.

73. The method of claim 55, wherein the monoclonal antibody or fragment thereof is conjugated or fused to at least one additional functional molecule.

74. The method of claim 73, wherein the additional functional molecule is a second antibody.

75. The antibody of any one of claims 38-40, wherein the antibody is a monoclonal antibody or fragment thereof.

76. The antibody of claim 75, wherein the monoclonal antibody or fragment thereof is a human antibody, a humanized antibody, a recombinant antibody, a chimeric antibody, a veneered antibody, a modified antibody or an antibody derivative.

77. The antibody of claim 76, wherein the antibody is modified by conservative amino acid mutations within the VH and/or VL CDR 1, CDR 2 and/or CDR 3 regions.

78. The antibody of claim 76, wherein the antibody is modified by altering the number of cysteine residues or by conservative amino acid mutations in the Fc hinge region.

79. The antibody of claim 76, wherein the monoclonal antibody or fragment thereof is chemically modified.

80. The antibody of claim 79, wherein the monoclonal antibody or fragment thereof is pegylated.

81. The antibody of claim 79, wherein the monoclonal antibody or fragment thereof is conjugated to serum protein.

82. The antibody of claim 81, wherein the serum protein is human serum albumin.

83. The antibody of claim 76, wherein the monoclonal antibody or fragment thereof is conjugated to a diagnostic agent.

84. The antibody of claim 83, wherein the diagnostic agent is selected from the group consisting of an enzyme, a prosthetic group complex, a fluorescent material, a luminescent material, a bioluminescent material, a radioactive material, a positron emitting metal and a nonradioactive paramagnetic metal ion.

85. The antibody of claim 84, wherein the enzyme is selected from the group consisting of horseradish peroxidase, alkaline phosphatase, beta-galactosidase and acetylcholinesterase.

86. The antibody of claim 84, wherein the prosthetic group complex is selected from the group consisting of streptavidin/biotin and avidin/biotin.

87. The antibody of claim 84, wherein the fluorescent material is selected from the group consisting of umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride and phycoerythrin.

88. The antibody of claim 84, wherein the luminescent material is luminol.

89. The antibody of claim 84, wherein the bioluminescent material is selected from the group consisting of luciferase, luciferin and aequorin.

90. The antibody of claim 84, wherein the radioactive material is selected from the group consisting of ^{125}I, ^{131}I, Indium-111, Lutetium-171, Bismuth-212, Bismuth-213, Astatine-211, Copper-62, Copper-64, Copper-67, Yttrium-90, Iodine-125, Iodine-131, Phosphorus-32, Phosphorus-33, Scandium-47, Silver-111, Gallium-67, Praseodymium-142, Samarium-153, Terbium-161, Dysprosium-166, Holmium-166, Rhenium-186, Rhenium-188, Rhenium-189, Lead-212, Radium-223, Actinium-225, Iron-59, Selenium-75, Arsenic-77, Strontium-89, Molybdenum-99, Rhodium-105, Palladium-109, Praseodymium-143, Promethium-149, Erbium-169, Iridium-194, Gold-198, Gold-199 and Lead-211.

91. The antibody of claim 76, wherein the monoclonal antibody or fragment thereof is conjugated to a therapeutic agent.

92. The antibody of claim 91, wherein the therapeutic agent is an antimicrobial.

93. The antibody of claim 91, wherein the therapeutic agent is selected from the group consisting of ribonuclease (RNase), DNase I, an antisense nucleic acid, an inhibitory RNA molecule, an immunostimulatory nucleic acid, an aptamer, a ribozyme, a triplex forming molecule and an external guide sequence.

94. The antibody of claim 76, wherein the monoclonal antibody or fragment thereof is conjugated or fused to at least one additional functional molecule.

95. The antibody of claim 94, wherein the additional functional molecule is a second antibody.

96. The kit of claim 48, wherein the antibody is a monoclonal antibody or fragment thereof.

97. The kit of claim 96, wherein the monoclonal antibody or fragment thereof is a human antibody, a humanized antibody, a recombinant antibody, a chimeric antibody, a veneered antibody, a modified antibody or an antibody derivative.

98. The kit of claim 97, wherein the antibody is modified by conservative amino acid mutations within the VH and/or VL CDR 1, CDR 2 and/or CDR 3 regions.

99. The kit of claim 97, wherein the antibody is modified by altering the number of cysteine residues or by conservative amino acid mutations in the Fc hinge region.

100. The kit of claim 97, wherein the monoclonal antibody or fragment thereof is chemically modified.

101. The kit of claim 100, wherein the monoclonal antibody or fragment thereof is pegylated.

102. The kit of claim 100, wherein the monoclonal antibody or fragment thereof is conjugated to serum protein.

103. The kit of claim 102, wherein the serum protein is human serum albumin.

104. The kit of claim 97, wherein the monoclonal antibody or fragment thereof is conjugated to a diagnostic agent.

105. The kit of claim 104, wherein the diagnostic agent is selected from the group consisting of an enzyme, a prosthetic group complex, a fluorescent material, a luminescent material, a bioluminescent material, a radioactive material, a positron emitting metal and a nonradioactive paramagnetic metal ion.

106. The kit of claim 105, wherein the enzyme is selected from the group consisting of horseradish peroxidase, alkaline phosphatase, beta-galactosidase and acetylcholinesterase.

107. The kit of claim 105, wherein the prosthetic group complex is selected from the group consisting of streptavidin/biotin and avidin/biotin.

108. The kit of claim 105, wherein the fluorescent material is selected from the group consisting of umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride and phycoerythrin.

109. The kit of claim 105, wherein the luminescent material is luminol.

110. The kit of claim 105, wherein the bioluminescent material is selected from the group consisting of luciferase, luciferin and aequorin.

111. The kit of claim 105, wherein the radioactive material is selected from the group consisting of ^{125}I, ^{131}I, Indium-111, Lutetium-171, Bismuth-212, Bismuth-213, Astatine-211, Copper-62, Copper-64, Copper-67, Yttrium-90, Iodine-125, Iodine-131, Phosphorus-32, Phosphorus-33, Scandium-47, Silver-111, Gallium-67, Praseodymium-142, Samarium-153, Terbium-161, Dysprosium-166, Holmium-166, Rhenium-186, Rhenium-188, Rhenium-189, Lead-212, Radium-223, Actinium-225, Iron-59, Selenium-75, Arsenic-77, Strontium-89, Molybdenum-99, Rhodium-105, Palladium-109, Praseodymium-143, Promethium-149, Erbium-169, Iridium-194, Gold-198, Gold-199 and Lead-211.

112. The kit of claim 97, wherein the monoclonal antibody or fragment thereof is conjugated to a therapeutic agent.

113. The kit of claim 112, wherein the therapeutic agent is an antimicrobial.

114. The kit of claim 97, wherein the monoclonal antibody or fragment thereof is conjugated or fused to at least one additional functional molecule..

115. The kit of claim 114, wherein the additional functional molecule is a second antibody.

116. The use of claim 53 to vaccinate a subject in need thereof, wherein the antibody is a monoclonal antibody or fragment thereof.

117. The use of claim 116, wherein the monoclonal antibody or fragment thereof is a human antibody, a humanized antibody, a recombinant antibody, a chimeric antibody, a veneered antibody, a modified antibody or an antibody derivative.

118. The use of claim 117, wherein the antibody is modified by conservative amino acid mutations within the VH and/or VL CDR 1, CDR 2 and/or CDR 3 regions.

119. The use of claim 117, wherein the antibody is modified by altering the number of cysteine residues or by conservative amino acid mutations in the Fc hinge region.

120. The use of claim 117, wherein the monoclonal antibody or fragment thereof is chemically modified.

121. The use of claim 120, wherein the monoclonal antibody or fragment thereof is pegylated.

122. The use of claim 120, wherein the monoclonal antibody or fragment thereof is conjugated to serum protein.

123. The use of claim 122, wherein the serum protein is human serum albumin.

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124. The use of claim 117, wherein the monoclonal antibody or fragment thereof is conjugated to a diagnostic agent.

125. The use of claim 124, wherein the diagnostic agent is selected from the group consisting of an enzyme, a prosthetic group complex, a fluorescent material, a luminescent material, a bioluminescent material, a radioactive material, a positron emitting metal and a nonradioactive paramagnetic metal ion.

126. The use of claim 125, wherein the enzyme is selected from the group consisting of horseradish peroxidase, alkaline phosphatase, beta-galactosidase and acetylcholinesterase.

127. The use of claim 125, wherein the prosthetic group complex is selected from the group consisting of streptavidin/biotin and avidin/biotin.

128. The use of claim 125, wherein the fluorescent material is selected from the group consisting of umbelliferone, fluorescein, fluorescein isothiocyanate, rhodamine, dichlorotriazinylamine fluorescein, dansyl chloride and phycoerythrin.

129. The use of claim 125, wherein the luminescent material is luminol.

130. The use of claim 125, wherein the bioluminescent material is selected from the group consisting of luciferase, luciferin and aequorin.

131. The use of claim 125, wherein the radioactive material is selected from the group consisting of ^{125}I, ^{131}I, Indium-111, Lutetium-171, Bismuth-212, Bismuth-213, Astatine-211, Copper-62, Copper-64, Copper-67, Yttrium-90, Iodine-125, Iodine-131, Phosphorus-32, Phosphorus-33, Scandium-47, Silver-111, Gallium-67, Praseodymium-142, Samarium-153, Terbium-161, Dysprosium-166, Holmium-166, Rhenium-186, Rhenium-188, Rhenium-189, Lead-212, Radium-223, Actinium-225, Iron-59, Selenium-75, Arsenic-77, Strontium-89, Molybdenum-99, Rhodium-105, Palladium-109, Praseodymium-143, Promethium-149, Erbium-169, Iridium-194, Gold-198, Gold-199 and Lead-211.

132. The use of claim 117, wherein the monoclonal antibody or fragment thereof is conjugated to a therapeutic agent.

133. The use of claim 132, wherein the therapeutic agent is an antimicrobial.

134. The use of claim 132, wherein the therapeutic agent is selected from the group consisting of ribonuclease (RNase), DNase I, an antisense nucleic acid, an inhibitory RNA molecule, an immunostimulatory nucleic acid, an aptamer, a ribozyme, a triplex forming molecule and an external guide sequence.

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135. The use of claim 117, wherein the monoclonal antibody or fragment thereof is conjugated or fused to at least one additional functional molecule.

136. The use of claim 135, wherein the additional functional molecule is a second antibody.

137. The method of claims 1-23, claims 51-52 or claims 54-74, the isolated or recombinant polypeptide of claims 24-33, the vector of claim 34, the isolated cell of claims 35-37, the antibody of claims 38-40 or 75-95, the hybridoma cell line of claim 41, the composition of claims 42-47, the kit of claims 48-50, or claims 96-115, the use of claims 53 or claims 116-136, wherein an equivalent of a recombinant polynucleotide comprises a polynucleotide that hybridizes under stringent conditions to the polynucleotide or its complement, wherein the stringent conditions comprise an incubation temperatures from about 25°C to about 37°C; hybridization buffer concentrations from about 6x SSC to about 10x SSC; formamide concentrations from about 0% to about 25%; and wash solutions of about 4x SSC to 8x SSC.

138. A computer-implemented method for identifying an agent that inhibits, competes or titrates the binding of a DNABII polypeptide or protein to a microbial DNA, that inhibits, prevents or breaks down a microbial biofilm, that inhibits, prevents or breaks down a biofilm in a subject, or that inhibits, prevents or treats a microbial infection that produces a biofilm in a subject, comprising positioning a three-dimensional structure of a candidate agent against a three-dimensional structure of an integration host factor (IHF) protein, wherein the three-dimensional structure of the IHF protein is based on X, Y and Z atomic structure coordinates determined from a crystalline form of an IHF and DNA complex, wherein interaction of the agent with the IHF at two or more IHF amino acids selected from T4, K5, A6, E28, Q43, K45, S47, G48, N51, R55, K57, R60, R63, N64, P65, K66, R76, T80, R82 or Q85 as represented in SEQ ID NO: 42, or the equivalent of each, identifies that the agent inhibits, competes or titrates the binding of a DNABII polypeptide or protein to a microbial DNA, inhibits, prevents or breaks down a microbial biofilm, inhibits, prevents or breaks down a biofilm, or inhibits, prevents or treats a microbial infection that produces a biofilm.

139. The method of claim 138, wherein interaction of the agent with the IHF at three or more IHF amino acids selected from T4, K5, A6, E28, Q43, K45, S47, G48, N51, R55, K57, R60, R63, N64, P65, K66, R76, T80, R82 or Q85 as represented in SEQ ID NO: 42, or the equivalent of each, identifies that the agent inhibits, competes or titrates the binding of a DNABII polypeptide or protein to a microbial DNA, inhibits, prevents or breaks down a

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microbial biofilm, inhibits, prevents or breaks down a biofilm, or inhibits, prevents or treats a microbial infection that produces a biofilm.

140. The method of claim 138 or 139, wherein the X, Y and Z atomic structure coordinates comprise the coordinates as set forth in Protein Data Bank (PDB) Accession No.: 1IHF.

141. A custom computing apparatus comprising:

at least one processor;

a memory coupled to the at least one processor;

a storage medium in communication with the memory and the at least one processor, the storage medium containing a set of processor executable instructions that, when executed by the processor configure the custom computing apparatus to identify an agent that inhibits, competes or titrates the binding of a DNABII polypeptide or protein to a microbial DNA, that inhibits, prevents or breaks down a microbial biofilm, that inhibits, prevents or breaks down a biofilm in a subject, or that inhibits, prevents or treats a microbial infection that produces a biofilm in a subject, wherein the configuration comprises:

positioning a three-dimensional structure of a candidate agent against a three-dimensional structure of an integration host factor (IHF) protein, wherein the three-dimensional structure of the IHF protein is based on X, Y and Z atomic structure coordinates determined from a crystalline form of an IHF and DNA complex, wherein interaction of the agent with the IHF at two or more IHF amino acids selected from T4, K5, A6, E28, Q43, K45, S47, G48, N51, R55, K57, R60, R63, N64, P65, K66, R76, T80, R82 or Q85 as represented in SEQ ID NO: 42, or the equivalent of each, identifies that the agent inhibits, competes or titrates the binding of a DNABII polypeptide or protein to a microbial DNA, inhibits, prevents or breaks down a microbial biofilm, inhibits, prevents or breaks down a biofilm, or inhibits, prevents or treats a microbial infection that produces a biofilm.

142. A method of identifying an agent that modulates the binding of a DNABII protein or polypeptide to a microbial DNA in a sample containing the same, comprising contacting a candidate agent with the sample, and assaying for the binding of the protein or polypeptide to the DNA, wherein the agent modulates the binding by inhibiting, preventing or titrating the binding of the DNABII protein or polypeptide to the microbial DNA.

143. A method for identifying a patient having a microbial infection that is likely or is not likely to be treated by the administration of an interfering agent, comprising detecting the presence or absence of a DNABII polypeptide or protein in sample isolated from the patient

and containing the infection, wherein the presence of the DNABII polypeptide or protein identifies the patient as likely to be treated by the administration of the interfering agent and the absence of a DNABII polypeptide or protein identifies the patient as not likely to be treated by the administration of the interfering agent.

144. The method of claim 143, wherein the presence of the DNABII polypeptide or protein identifies that patient as likely to be treated by the administration of the interfering agent.

145. The method of claim 144, further comprising administering an effective amount of the interfering agent to the patient.

146. The method of claim 145, wherein the interfering agent is one or more of:

(a) an isolated or recombinant integration host factor (IHF) polypeptide or a fragment or an equivalent of each thereof;

(b) an isolated or recombinant histone-like protein from *E.coli* strain U93 (HU) polypeptide or a fragment or an equivalent of each thereof;

(c) an isolated or recombinant protein or polypeptide identified in Table 8, Table 9A, Table 9B, Table 10 or a DNA binding peptide identified in Figure 6, or a fragment or an equivalent of each thereof;

(d) an isolated or recombinant polypeptide of SEQ ID NO. 1 through 340, or an equivalent of each thereof, or a fragment or an equivalent of each fragment thereof;

(e) an isolated or recombinant C-terminal polypeptide of SEQ ID NO. 6 through 11, 28, 29, 42 through 100, Table 8 or those C-terminal polypeptides identified in Table 10 or a fragment or an equivalent of each thereof;

(f) a polypeptide or polynucleotide that competes with an integration host factor on binding to a microbial DNA;

(g) a four-way junction polynucleotide resembling a Holliday junction, a 3 way junction polynucleotide resembling a replication fork, a polynucleotide that has inherent flexibility or bent polynucleotide;

(h) an isolated or recombinant polynucleotide encoding any one of (a) through (f) or an isolated or recombinant polynucleotide of SEQ ID NO. 36 or an equivalent of each thereof, or a polynucleotide that hybridizes under stringent conditions to the polynucleotide or its complement;

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(i) an antibody or antigen binding fragment that specifically recognizes or binds any one of (a) through (f), or an equivalent or fragment of each antibody or antigen binding fragment thereof;

(j) an isolated or recombinant polynucleotide encoding the antibody or antigen binding fragment of (i); or

(k) a small molecule that competes with the binding of a DNABII protein or polypeptide to a microbial DNA.

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What is claimed is:

1. An invention not claimed in any divisional application.