Claims

1. Use of an antimicrobial peptide selected from the group consisting of: hBD-2 (SEQ ID NO: 2), truncated hBD-2 (SEQ ID NO: 16), hBD-1 (SEQ ID NO: 1), hBD-4 (SEQ ID NO: 4), HD5 (SEQ ID NO: 5), and HD6 (SEQ ID NO: 6) and functionally equivalent variants having 1-2 amino acid modifications for the manufacture of a medicament for the prevention or treatment of a mucosal disorder in the gut and/or lung of a preterm infant.

2. The use according to claim 1, wherein the mucosal disorder is in the gut and is selected from the group consisting of: necrotizing enterocolitis, acute and prolonged diarrhea, and short bowel syndrome, preferably necrotizing enterocolitis.

3. The use according to claim 1, wherein the mucosal disorder is in the lung and is selected from the group consisting of: respiratory illness, lung inflammation, respiratory tract infection, respiratory failure, pneumonia, obstructive apnea, bronchopulmonary dysplasia, respiratory distress syndrome, and primary atelectasis.

4. The use according to any one of claims 1 to 3, wherein said antimicrobial peptide is hBD-2 and/or HD5.

5. The use according to any one of claims 1, 2 or 4, wherein the mucosal disorder is necrotizing enterocolitis.

6. The use according to claim 1 or 2, wherein the mucosal disorder is necrotizing enterocolitis and the antimicrobial peptide is hBD-2.

7. The use according to any one of claims 1 to 5, wherein more than one antimicrobial peptide, such as two antimicrobial peptides, such as three antimicrobial peptides, such as four antimicrobial peptides, such as five antimicrobial peptides are to be administered to a preterm infant.

8. The use according to any one of claims 1 to 5, wherein two antimicrobial peptides, such as for example hBD-2 and HD5, are to be administered to a preterm infant.

9. The use according to any one of claims 1 to 5, wherein said antimicrobial peptide further comprises at least one additional moiety selected from the group consisting of a cell penetrating peptide (CPP), an Albumin Binding Moiety (ABM), a detectable moiety (Z), and a half-life extending peptide.

10. The use according to claim 9, wherein the additional moiety is a half-life extending peptide.

11. The use according to any one of claims 9 or 10, wherein the additional moiety is a molecule capable of binding to a compound selected from a group consisting of a neonatal Fc receptor (FcRn), transferrin, human serum albumin (HSA), XTEN or PEG, a homo-amino acid polymer (HAP), a proline-alanine-serine polymer (PAS), or an elastin-like peptide (ELP), hyaluronic acid, a negatively charged sialylated peptide such as the carboxy-terminal peptide (CTP) of chorionic gonadotropin (CG) β-chain, human IgG, and $CH3(CH2)_nCO$- wherein n is 8 to 22.

12. The use according to any one of claims 1 to 11, wherein the antimicrobial peptide is to be administered in combination with surfactants and/or prebiotics and/or probiotics and/or tryptophane, and/or glucocorticoids and/or antibiotics and/or immunosuppressants and/or GLP-2 and/or GLP-2 analogs or any combination thereof.

13. The use according to any one of claims 1 to 12, wherein said antimicrobial peptide is to be administered to a preterm infant at least every other day, such as one time a day, such as at least twice a day, such as at least three times a day, such as at least four times a day, such as five times a day or continuously.

14. The use according to any one of claims 1 to 13, wherein the antimicrobial

peptide is to be administered to the preterm infant starting on the date of birth.

15. The use according to any one of claims 1 to 14, wherein said antimicrobial peptide is to be administered by oral, buccal, sublingual, intratracheal, intrapulmonary, intranasal, subcutaneous or intravenous administration.

16. The use according to any one of claims 1 to 14, wherein said antimicrobial peptide is to be administered by oral administration.

17. The use according to any one of claims 1 to 14, wherein said antimicrobial peptide is to be administered by intrapulmonary, intratracheal or intranasal administration.

18. The use according to claim 17, wherein said intrapulmonary, intratracheal or intranasal administration is by an inhaler, nebulizer, or vaporizer.

19. The use according to any one of claims 1 to 18, wherein the preterm infant has a birth weight of 1,500 grams or less, such as 1,000 grams or less.

20. The use according to any one of claims 1 to 19, wherein said prevention or treatment leads to an increase of microbial presence and abundance, and/or promotes maturation/normalization of the mucosal defense, and/or rebalances the immune system by normalizing tissue cytokine production in a preterm infant.

21. Use of an antimicrobial peptide selected from the group consisting of: hBD-2 (SEQ ID NO: 2), truncated hBD-2 (SEQ ID NO: 16), hBD-1 (SEQ ID NO: 1), hBD-4 (SEQ ID NO: 4), HD5 (SEQ ID NO: 5), and HD6 (SEQ ID NO: 6) and functionally equivalent variants having 1-2 amino acid modifications for the manufacture of a medicament for maturing the mucosal defense and/or rebalancing the immune system by normalizing tissue cytokine production in a preterm infant.

22. Use of an antimicrobial peptide selected from the group consisting of: hBD-2 (SEQ ID NO: 2), truncated hBD-2 (SEQ ID NO: 16), hBD-1 (SEQ ID NO: 1), hBD-4 (SEQ ID NO: 4), HD5 (SEQ ID NO: 5), and HD6 (SEQ ID NO: 6) and functionally equivalent variants having 1-2 amino acid modifications for the manufacture of a medicament for increasing IL-22, reducing IL-6 and/or decreasing myeloperoxidase activity in a preterm infant.