CLAIMS:

1. An ~~multivalent vaccine~~ isolated fusion protein comprising two or more isolated antigens from one or more filarial nematodes, wherein said isolated antigens are covalently attached.

2. The ~~multivalent vaccine~~ isolated fusion protein of claim 1, wherein the filarial nematodes are selected from the group of *Brugia malayi*, *Wuchereria Bancroft*, *Onchocerca volvulus*, *Loa loa* and *Brugia timori*.

~~3. The multivalent vaccine of claim 1 or 2, wherein the antigens are protein based, DNA based, or a combination thereof.~~

~~4~~3. The ~~multivalent vaccine~~ isolated fusion protein of claim 1~~, 2,~~ or ~~3~~2, wherein the antigens comprise Abundant Larval Transcript (ALT-2), Tetraspanin ~~or~~ Small heat shock protein (HSP) 12.6, Vespid Venom Allergen homologue-like protein (VAL-1), gluthathione S-transferase (GST), or fragments thereof.

4. The isolated fusion protein of claim 3, wherein ALT-2 comprises SEQ ID NO:37, SEQ ID NO:39, SEQ ID NO:41 or SEQ ID NO:43; Tetraspanin comprises SEQ ID NO:45 or SEQ ID NO:47, HSP 12.6 comprises SEQ ID NO: 49, SEQ ID NO:51 or SEQ ID NO:53, VAL-1 comprises SEQ ID NO:55, SEQ ID NO:57, SEQ ID NO:59 or SEQ ID NO:61.

5. The ~~multivalent vaccine~~ isolated fusion protein of claim ~~4~~3, wherein the fragment is selected from the group of SEQ ID NO:39, ~~SEQ ID NO:40,~~ SEQ ID NO:63~~,~~ and SEQ ID NO:64~~, SEQ ID NO:65, SEQ ID NO:66, SEQ ID NO:67, SEQ ID NO:68, and SEQ ID NO:69~~.

~~6. The multivalent vaccine of any preceding claim, wherein the antigens are covalently attached.~~

6. The isolated fusion protein according to any one of claims 1 to 5, comprising three or more antigens from one or more filarial nematodes, wherein said isolated antigens are covalently attached.

7. The isolated fusion protein according to claim 6 comprising a first antigen comprising Small heat shock protein (HSP) 12.6 or fragment thereof, a second antigen comprising ALT-2 or fragment thereof and a third antigen comprising tetraspanin or fragment thereof; wherein said first, second and third isolated antigen are covalently attached.

8. The isolated fusion protein according to claim 6 wherein the first antigen comprises SEQ ID NO:49, SEQ ID NO:51 SEQ ID NO:53 or SEQ ID NO:64; the second antigen comprises SEQ ID NO:37, SEQ ID NO:39, SEQ ID NO:41 or SEQ ID NO:43 and the third santigen comprises SEQ ID NO:43, SEQ ID NO:45 or SEQ ID NO:47 or SEQ ID NO:63.

~~7~~9. A recombinant vector comprising ~~two~~ three or more isolated DNA-based antigens from one or more filarial nematodes.

~~8~~10. The recombinant vector of claim ~~7~~9, wherein the antigens comprise Abundant Larval Transcript (ALT-2), Tetraspanin ~~or~~ Small heat shock protein (HSP) 12.6, Vespid Venom Allergen homologue-like protein (VAL-1) or gluthathione S-transferase (GST) or fragments thereof.

~~9~~11. The recombinant vector of claim ~~8~~10, wherein the antigen is selected from the group of SEQ ID NO:38, SEQ ID NO:40, SEQ ID NO:42, SEQ ID NO:44, SEQ ID NO:67; SEQ ID NO:46, SEQ ID NO:48, SEQ ID NO:65, SEQ ID NO:69;~~,~~ SEQ ID NO: 50, SEQ ID NO: 52, SEQ ID NO:54 SEQ ID NO:66, ~~SEQ ID NO:67,~~ SEQ ID NO:68; SEQ ID NO: 56, SEQ ID NO:58, SEQ ID NO:60 and SEQ ID NO:62~~9~~.

12. The recombinant vector of claim 9, comprising a first antigen comprising heat shock protein (HSP) 12.6 or fragment thereof, a second antigen comprising ALT-2 or fragment thereof and a third antigen comprising tetraspanin or fragment thereof.

13. The recombinant vector of claim 9, comprising a first antigen comprising SEQ ID NO:50, SEQ ID NO:52, SEQ ID NO:54, SEQ

ID NO:66 or SEQ ID NO:68; a second antigen comprising SEQ ID NO:38, SEQ ID NO:40, SEQ ID NO:42, SEQ ID NO:44 or SEQ ID NO:67 and a third antigen SEQ ID NO:46, SEQ ID NO:48, SEQ ID NO:65 or SEQ ID NO:69.

~~10~~14. An expression vector comprising ~~two~~ three or more isolated nucleic acid molecules from one or more filarial nematodes, wherein said nucleic acid molecules encode protein-based antigens.

~~11~~15. The expression vector of claim ~~10~~14, wherein the antigens comprise Abundant Larval Transcript (ALT-2), Tetraspanin ~~or~~ Small heat shock protein (HSP) 12.6, Vespid Venom Allergen homologue-like protein (VAL-1) or gluthathione S-transferase (GST).

~~12~~16. The expression vector of claim ~~11~~15, wherein the antigen is selected from the group of SEQ ID NO:39, SEQ ID NO:63 and SEQ ID NO:64.

17. The expression vector of claim 14, comprising a first isolated nucleic acid molecule or fragment thereof encoding a first protein-based antigen comprising heat shock protein (HSP) 12.6 or fragment thereof respectively, a second isolated nucleic acid molecule or fragment thereof encoding a second antigen comprising ALT-2 or fragment thereof respectively and a third isolated nucleic acid molecule or fragment thereof encoding a third isolated protein-based antigen comprising tetraspanin or fragment thereof respectively.

18. The expression vector of claim 14, comprising a first isolated nucleic acid molecule encoding a first protein-based antigen comprising SEQ ID NO:49, SEQ ID NO:51 SEQ ID NO:53 or SEQ ID NO:64; a second isolated nucleic acid molecule encoding a second protein-based antigen comprising SEQ ID NO:37, SEQ ID NO:39, SEQ ID NO:41 or SEQ ID NO:43 and a third isolated nucleic acid molecule encoding a third protein-based antigen comprising SEQ ID NO:43, SEQ ID NO:45 or SEQ ID NO:47 or SEQ ID NO:63.

~~13~~19. A recombinant host cell comprising the ~~recombinant~~ vector of any one of claims 9~~7, 8~~ to~~r~~ ~~9~~13.

~~14~~20. A recombinant host cell comprising the expression vector of any one of claim ~~10~~14~~, 11,~~ to~~r~~ ~~12~~19.

21. A combination vaccine comprising a vector comprising two or more isolated DNA-based antigens from one or more filarial nematodes and a fusion protein according to any one of claims 1 to 8.

~~15~~22. Use of a ~~multivalent~~ fusion protein ~~vaccine~~ according to any one of claims 1 to 8, a recombinant vector according to any one of claims 9 to 13; an expression vector according to any one of claims 14 to 19; and/or combination vaccine according to claim 21 in the manufacture of a medicament for the prevention and/or treatment of filariasis.

~~16~~23. A ~~multivalent vaccine~~fusion protein according to any one of claims 1 to 8, a recombinant vector according to any one of claims 9 to 13; an expression vector according to any one of claims 14 to 19; and/or a combination vaccine according to claim 21 for use in the prevention and/or streatment of filariasis.