CLAIMS

1. Immunogen comprised of:

   a. part of the sequence of amino acid binding proteins, calcium excreted / secreted by adult worms of Fasciola hepatica with the sequence identical or at least 90% structurally similar to SEQ ID NO 2. designated by fragment H;

   b. a protein or protein fragment of interest not related.

2. Immunogen according to claim 1 characterized by a protein or protein fragment of interest that is a pathogenic protein, as for instance a viral protein, a bacterial protein or a protein from a protozoan.

3. Immunogen according to claim 1 characterized by a protein or protein fragment of interest that is the CWG, CD4, IL5, Pfsp Ent, PAL, CP12, LEC, BG or Toxo.

4. Immunogen according to any of the previous claims characterized by being used as a medicine.

5. Compositions characterized by containing any of the immunogens described in claims 1-4.

6. Compositions according to claim 5 characterized by comprising the immunogens in therapeutically effective amounts and still a pharmacologically suitable vehicle.

7. Compositions according to claim 5 characterized by being comprised of 100% of one of the immunogens described.

8. Compositions according to claim 5 characterized by being comprised of: an immunogen described in claims 1-4 with

concentration at 1 to 100µg in a volume between 100 and 1000 µl diluted in phosphate buffer - 0.01 M phosphate, 0.1 M NaCl, pH 7.2.

9. Adjuvant characterized by comprising the immunogens described in any one of claims 1-4 or any of the pharmaceutical compositions described in claims 5-8.

10. Vaccine characterized by comprising the immunogens described in any one of claims 1-3 or any of the pharmaceutical compositions described in claims 5-8.

11. Method for the preparation of immunogens characterized by the use of an immunogen described in claim 1-4 comprising the addition of a fragment H to a polypeptide not related in any fair position of the sequence corresponding to the polypeptide to be utilized as immunogen.

12. Method according to claim 11, characterized by using multiple fragments and proteins such as the CWG, CD4, IL5, Pfsp, Ent, PAL, CP12, LEC, BG or Toxo.

13. Method for the production of polyclonal antibodies, isolated and purified, or a functional fragment characterized by being capable of recognizing a immunogens described in the claims 1-4 or obtained by the method described in claims 11-12, where this method includes the following steps:

. immunization of a non-human mammal subject with any of the immunogens described in claims 1-4 or with any of the compositions described in 5-8;

. selection of antibodies that are able to recognize the immunogens described according to claims 1-4 or obtained

according to claims 11-12 using the methods described for this purpose.

14. Use of immunogens described in claims 1-4 and the compositions described in claims 5-8, characterized by being applied in the production of polyclonal antibodies specific immunotherapy, immunoprophylaxis, the production of vaccines, adjuvants, diagnostics and other applications directly obtained through the development of a specific immune response.

Lisbon, 11 January 2010

CLAIMS

1. An immunogen comprising a fusion protein, said fusion protein comprising:
   (a) an N-terminal fragment of FH8 from *Fasciola hepatica*, said fragment including the amino acid sequence set out in SEQ ID NO:2, or a fragment at least 90% identical to SEQ ID NO 2; and
   (b) an antigenic protein or antigenic protein fragment.

2. The immunogen according to claim 1, wherein the antigenic protein or antigenic protein fragment is a pathogenic protein, preferably a viral protein, a bacterial protein or a protein from a protozoan.

3. The immunogen according to claim 1 or claim 2, wherein the antigenic protein or antigenic protein fragment is derived from at least one of *Giardia lamblia* cysts (CWG), *Dicentrarchus labrax* (CD4), human interleukin 5 (IL5), *Plasmodium falciparum* (Pfsp), *Entamoeba histolytica* (Ent), *Legionella pneumophilia* (PAL), *Cryptosporidium parvum* (CP12), *Artocarpus incisa* (LEC), *Giardia lamblia* (BG) or *Toxoplasma gondii* (Toxo).

4. The immunogen according to any one of claims 1 to 3, wherein the immunogen is used as a medicine.

5. A composition comprising the immunogen of any one of claims 1 to 4.

6. The composition according to claim 6, further comprising the immunogen in a therapeutically effective amount and a pharmacologically suitable vehicle.

7. The composition according to claim 5 or claim 6, wherein the composition includes no more than one immunogen described in any one of claims 1 to 4.

8. The composition according to any one of claims 5 to 7, said composition being comprised of the immunogen of any one of claims 1 to 4 at a concentration of 1 to 100µg in a volume between 100 and 1000 µl diluted in phosphate buffer – 0.01 M phosphate, 0.1 M NaCl, pH 7.2.

9. An adjuvant comprising the immunogen of any one of claims 1 to 4 or the pharmaceutical composition of any one of claims 5 to 8.

10. A vaccine comprising the immunogen of any one of claims 1 to 4 or the pharmaceutical composition of any one of claims 5 to 8.

11. A method for the preparation of the immunogen of any one of claims 1 to 4, said method comprising fusing an N-terminal fragment of FH8 from *Fasciola hepatica*, said fragment including the amino acid sequence set out in SEQ ID NO 2, or a fragment at least 90% identical to SEQ ID NO 2, to an antigenic protein or antigenic protein fragment.

12. The method according to claim 11, wherein said method comprises fusing together multiple antigenic proteins or antigenic protein fragments, preferably wherein said antigenic protein or antigenic protein fragments are derived from at least one of *Giardia lamblia* cysts (CWG), *Dicentrarchus labrax* (CD4), human interleukin 5 (IL5), *Plasmodium falciparum* (Pfsp), *Entamoeba histolytica* (Ent), *Legionella pneumophilia* (PAL), *Cryptosporidium parvum* (CP12), *Artocarpus incisa* (LEC), *Giardia lamblia* (BG) or *Toxoplasma gondii* (Toxo).

13. A method for the production of polyclonal antibodies capable of recognizing the immunogen of any one of claims 1 to 4, said method comprising:
    (a) immunizing a non-human mammal subject with the immunogen of any one of claims 1 to 4; and
    (b) selecting antibodies that are able to recognize the immunogen.

14. A method of inducing an immune response against an antigenic protein or antigenic protein fragment in a subject, said method comprising administering to said subject the immunogen of any one of claims 1 to 4.

15. Use of the immunogen of any one of claims 1 to 4 in the manufacture of a medicament for inducing an immune response against an antigenic protein or antigenic protein fragment in a subject.

16. The immunogen of any one of claims 1 to 4 for use in inducing an immune response against an antigenic protein or antigenic protein fragment in a subject.