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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: METHODS AND COMPOSITIONS FOR TREATMENT OF IMMUNE DYSFUNCTION DISORDERS

(57) Abstract: Methods and compositions are disclosed for modulating the immune system of animals. Applicant has identified that oral administration of immunoglobulin or plasma fractions purified from animal serum can modulate serum IgG and/or TNF- Δ levels for treatment of autoimmune disorders, potentiation of vaccination protocols, and improvement of overall health and weight gain in animals, including humans.



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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/02753

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 A61K39/395 A61K39/00 A61P37/00 //C07K16/06,C07K16/02,
C07K16/04

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, BIOSIS, WPI Data, PAJ, MEDLINE, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|------------|---|-----------------------------|
| X | GB 2 013 691 A (STOLLE RES & DEV) 15 August 1979 (1979-08-15) page 2, lines 44-54; page 3, lines 19-21; page 3, lines 48-53; page 5, lines 38-58; pages 7-9 --- | 1,4,8,9, 12,16, 19,23 |
| X | US 4 096 244 A (ATTWELL MICHAEL CHARLES ET AL) 20 June 1978 (1978-06-20) column 1, lines 25-27 and lines 47-50; column 2, lines 21-26; column 2, lines 51-54; column 2, lines 65-68; column 4, lines 3-8; column 5, lines 24-64 --- -/-- | 1,2, 8-10,16, 17,23 |



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

* Special categories of cited documents :

A document defining the general state of the art which is not considered to be of particular relevance

E earlier document but published on or after the international filing date

L document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

O document referring to an oral disclosure, use, exhibition or other means

P document published prior to the international filing date but later than the priority date claimed

T later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

X document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

Y document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

Z document member of the same patent family

Date of the actual completion of the international search

21 November 2002

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09/12/2002

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 02/02753

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

| Category * | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
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| X | US 5 871 731 A (KARCH HELGE ET AL) 16 February 1999 (1999-02-16) column 1, lines 54-61; column 2, line 46-column 3, line 51; examples --- | 1-5, 8-13, 16-20,23 |
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| X | WO 98 14209 A (OVIMMUNE INC) 9 April 1998 (1998-04-09) claims; page 16; page 3, line 37-page 4, line 2; page 11, lines 17-24; page 13, lines 26-31; page 5, line 17 --- | 1,3,7-9, 11,15, 16,18, 22,23 |
| X | WOLF H M ET AL: "The anti-inflammatory effect of an oral immunoglobulin (IgA-IgG) preparation and its possible relevance for the prevention of necrotizing enterocolitis." ACTA PAEDIATRICA SUPPLEMENT, no. 396, 1994, pages 37-40, XP001119976 ISSN: 0803-5326 the whole document --- | 1,2, 8-10,16, 17,23 |
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| E | WO 02 26258 A (RES CORP TECHNOLOGIES INC) 4 April 2002 (2002-04-04) claims; pages 8-11 ----- | 1,2, 8-10,16, 17,23 |

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US 02/02753

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

Although claims 1-8 and 16-23 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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