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[Continued on next page]

(54) Title: *CHLAMYDIA* ANTIGENS AND CORRESPONDING DNA FRAGMENTS AND USES THEREOF

Sequence of *C. pneumoniae* Myosin heavy chain gene

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tgaaccggtt tttaaagcaa gatatccacg aaaagacaaa ctatgaggaa gcagcacaac 60

aactgcgcgc cattttccgg taaataaaga gtagtatgct gtg gca aaa tat cca   115
                                          Val Ala Lys Tyr Pro
                                            1               5

cta gag cct gtt tta gcg att aaa aag gat cgt gta gat aga gca gaa   163
Leu Glu Pro Val Leu Ala Ile Lys Lys Asp Arg Val Asp Arg Ala Glu
               10                  15                  20

aaa gtt gtt aaa gaa aaa cga cgt ctt tta gaa ata gaa caa gag aaa   211
Lys Val Val Lys Glu Lys Arg Arg Leu Leu Glu Ile Glu Gln Glu Lys
           25                  30                  35

tta cga gag aaa gaa gct gaa cgc gat aaa gtt aaa aat cac tat atg   259
Leu Arg Glu Lys Glu Ala Glu Arg Asp Lys Val Lys Asn His Tyr Met
       40                  45                  50

caa aaa atc caa caa ctc cgc gat ttg ttg gac gaa ggt aca aca agc   307
Gln Lys Ile Gln Gln Leu Arg Asp Leu Leu Asp Glu Gly Thr Thr Ser
   55                  60                  65

gac gcc gtc tta cag ata aaa tcg tac att aaa gtg gtt gca gta cag   355
Asp Ala Val Leu Gln Ile Lys Ser Tyr Ile Lys Val Val Ala Val Gln
 70                  75                  80                  85

ctt tcg gaa gaa gaa gag aaa gtc aac aaa caa aaa gaa gtt gtg ctt   403
Leu Ser Glu Glu Glu Glu Lys Val Asn Lys Gln Lys Glu Val Val Leu
               90                  95                 100

gct gct tct aaa gaa ctc gaa aaa gca gaa gta aat tta gcg aag cgt   451
Ala Ala Ser Lys Glu Leu Glu Lys Ala Glu Val Asn Leu Ala Lys Arg
           105                 110                 115

aga aaa gaa gaa gag aaa aca cga ctc cat aaa gaa gaa tgg atg aaa   499
Arg Lys Glu Glu Glu Lys Thr Arg Leu His Lys Glu Glu Trp Met Lys
       120                 125                 130

gaa gct ctc aaa gaa gaa gct cgc gct gaa gaa aaa gaa caa gac gag   547
Glu Ala Leu Lys Glu Glu Ala Arg Ala Glu Glu Lys Glu Gln Asp Glu
   135                 140                 145

atg ggg cag ctg ctt ttc caa ctg cgc cag aaa aaa aaa cgt gaa tca   595
Met Gly Gln Leu Leu Phe Gln Leu Arg Gln Lys Lys Lys Arg Glu Ser
150                 155                 160                 165

ggg gga agc tagttcatgg aattaaagaa aacagcagaa tcattatata           644
Gly Gly Ser

gcgctaaaac agacaatcac actgtatacc agaacttctcc tgaacctaga gatagtcgtg 704

atg                                                               707
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(57) Abstract: The present invention provides nucleic acids, proteins and vectors for a method of nucleic acid, including DNA, immunization of a host, including humans, against disease caused by infection by a strain of *Chlamydia*, specifically *C. pneumoniae*. The method employs a vector containing a nucleotide sequence encoding a myosin heavy chain of a strain of *Chlamydia pneumoniae* and a promoter to effect expression of the myosin heavy chain gene product in the host. Modifications are possible within the scope of this invention.

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MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

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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.

INTERNATIONAL SEARCH REPORT

Int tional Application No
PCT/CA 01/00456

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N15/31 C07K14/295 C12N15/62 A61K48/00 A61K39/118
C12N1/21 C12Q1/68 C07K19/00 C07K16/12 A61K39/40
G01N33/569 C12N15/74

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 C12N C07K A61K

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, WPI Data, PAJ, BIOSIS, CHEM ABS Data, EMBASE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 27105 A (GENSET SA ;GRIFFAIS REMY (FR)) 3 June 1999 (1999-06-03) SEQ ID NO:750 abstract	1-39,42
X	DATABASE EMBL/GENBANK/DDBJ 'Online! EBI; Chlamydia pneumoniae CT670 hypothetical protein, 1 May 1999 (1999-05-01) XP002178085 Acc.No. Q9Z7J9	1-39,42

☐ 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

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"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.

"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
21 September 2001	05/10/2001

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL – 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Mata Vicente, T.

Form PCT/ISA/210 (second sheet) (July 1992)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Although claim 36 isdirected 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.

As far as an "in vivo" method is concerned, claim 37 is directed to a diagnostic method practised on the human/animal body and the search has been carried out and based on the alleged effects of the compound/composition.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Int tional Application No
PCT/CA 01/00456

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9927105 A	03-06-1999	AU 1170299 A	15-06-1999
		BR 9814878 A	03-10-2000
		CN 1279717 T	10-01-2001
		EP 1032674 A2	06-09-2000
		WO 9927105 A2	03-06-1999