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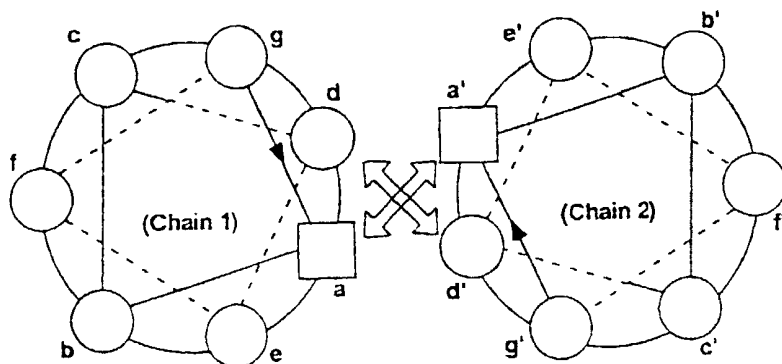
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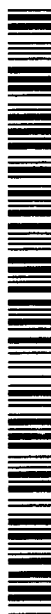
For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: USE OF COILED-COIL STRUCTURAL SCAFFOLD TO GENERATE STRUCTURE-SPECIFIC PEPTIDES



(57) Abstract: This invention relates to the use of a coiled-coil structural scaffold to generate structure-specific peptides, including synthetic peptides derived from naturally occurring proteins of various origin. The structure of the synthetic peptides utilizes a scaffold of heptad repeat units into which epitopes from coiled-coil regions of native proteins are spliced. In particular, the synthetic peptides may be based on microbial proteins, especially surface proteins, which occur naturally in the

coiled-coil form such as pneumococcal surface proteins A and C. The synthetic peptides are immunogenic and can be used to elicit an immune response in an animal. Accordingly, they are useful as vaccines or to stimulate antibody production or cell-mediated immunity to the naturally occurring protein.



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INTERNATIONAL SEARCH REPORT

International Application No.

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/315 A61K39/09 G01N33/68 A61P31/04

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 01 00010 A (HODGES ROBERT S ; IRVIN RANDALL T (CA); KONDEJEWSKI LESLIE H (CA)) 4 January 2001 (2001-01-04)	1-10, 14-57
Y,P	page 6 -page 7; claims ---	11-13
X	WO 97 00267 A (PENCE INC) 3 January 1997 (1997-01-03)	1-10, 14-57
Y	abstract page 11 -page 12; example 6 ---	11-13
A	WO 95 31480 A (HOUSTON MICHAEL E ; CACHIA PAUL J (CA); KAY CYRIL M (CA); ZHOU NIAN) 23 November 1995 (1995-11-23) ---	
Y,P	WO 00 37105 A (MEDIMMUNE INC) 29 June 2000 (2000-06-29) the whole document ---	11-13
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Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

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Date of the actual completion of the international search

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 98 11915 A (CONNAUGHT LAB ;BECKER ROBERT S (US); BRILES DAVID E (US); HOLLINGS) 26 March 1998 (1998-03-26) figures 3,4 -----	11-13
Y	DOMINGUES H ET AL: "RATIONAL DESIGN OF A GCN4-DERIVED MIMETIC OF INTERLEUKIN-4" NATURE STRUCTURAL BIOLOGY, NEW YORK, NY, US, vol. 6, no. 7, July 1999 (1999-07), pages 652-656, XP000953440 ISSN: 1072-8368 abstract -----	11-13
A	HODGES R S: "DE NOVO DESIGN OF ALPHA-HELICAL PROTEINS: BASIC RESEARCH TO MEDICALAPPLICATIONS" BIOCHEMISTRY AND CELL BIOLOGY. BIOCHIMIE ET BIOLOGIE CELLULAIRE, XX, XX, vol. 74, no. 2, 1996, pages 133-154, XP000605834 ISSN: 0829-8211 page 149 -----	1-57

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Claims Nos.: 1-10,14-57 (all partially)

Present claims 1-10 relate to an extremely large number of possible products. Support within the meaning of Article 6 PCT and disclosure within the meaning of Article 5 PCT is to be found, however, for only a very small proportion of the products claimed. In the present case, a formula (I) consisting virtually entirely of variables, which are at least in part insufficiently or functionally defined (each X corresponds to any amino acid resided from any epitope of any native coiled coil protein) cannot be considered to represent a clear and concise definition of patentable subject-matter. The claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Consequently, the search has been carried out for the general concept underlying the application and for those parts of the claims which appear to be supported and disclosed, as further characterised in claims 11-13 and in the examples. Claims 14-57 have been searched in so far they related to searched subject-matter.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCI/US 01/19168

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