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ning of each regular issue of the PCT Gazette.

(54) Title: REGULATION OF HUMAN SEVEN TRANSMEMBRANE - LIKE G PROTEIN - COUPLED RECEPTOR (7TM-
GPCR)

(57) Abstract: Reagents which regulate human seven transmembrane-like G protein-coupled receptor (7TM-GPCR) protein and reagents which bind to human 7TM-GPCR gene products can play a role in preventing, ameliorating, or correcting dysfunctions or diseases including, but not limited to, infections such as bacterial, fungal, protozoan, and viral infections, particularly those caused by HIV viruses, pain, cancers, anorexia, bulimia, asthma, Parkinson's diseases, acute heart failure, hypotension, hypertension, urinary retention, osteoporosis, angina pectoris, myocardial infarction, ulcers, asthma, allergies, multiple sclerosis, benign prostatic hyper-trophy, and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, several mental retardation, and dyskinesias, such as Huntington's disease and Tourett's syndrome.

INTERNATIONAL SEARCH REPORT

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PCT/EP 01/02978

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07K14/705 C07K14/72

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)

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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)

WPI Data, BIOSIS, EPO-Internal, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	COMBADIERE C ET AL: "CLONING AND FUNCTIONAL EXPRESSION OF A HUMAN EOSINOPHIL CC CHEMOKINE RECEPTOR" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 270, no. 27, 14 July 1995 (1995-07-14), pages 16491-16494, XP001018021 ISSN: 0021-9258 the whole document --- -/--	1-9

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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- *Z* document member of the same patent family

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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.
A	HINUMA S ET AL: "A prolactin -releasing peptide in the brain" NATURE, MACMILLAN JOURNALS LTD. LONDON, GB, vol. 393, no. 6682, 21 May 1998 (1998-05-21), pages 272-276, XP002084793 ISSN: 0028-0836 the whole document ---	1-9
A	ABE J ET AL: "IG-HEPTA, A NOVEL MEMBER OF THE G PROTEIN-COUPLED HEPTA-HELICAL RECEPTOR (GPCR) FAMILY THAT HAS IMMUNOGLOBULIN-LIKE REPEATS IN A LONG N-TERMINAL EXTRACELLULAR DOMAIN AND DEFINES A NEW SUBFAMILY OFGPCRS" JOURNAL OF BIOLOGICAL CHEMISTRY, AMERICAN SOCIETY OF BIOLOGICAL CHEMISTS, BALTIMORE, MD, US, vol. 274, no. 28, 1999, pages 19957-19964, XP002925400 ISSN: 0021-9258 the whole document ---	1-9
A,P	WO 00 61623 A (FLORENCE KIMBERLY A ;HUMAN GENOME SCIENCES INC (US); NI JIAN (US);) 19 October 2000 (2000-10-19) abstract disclosure page 74 ---	1-9
A	EP 0 807 684 A (TAKEDA CHEMICAL INDUSTRIES LTD) 19 November 1997 (1997-11-19) abstract page 23 -page 23 claim 7 -----	1-9

INTERNATIONAL SEARCH REPORT

Information on patent family members

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0061623	A	19-10-2000	AU 4072000 A	14-11-2000
			WO 0061623 A1	19-10-2000
EP 0807684	A	19-11-1997	EP 0807684 A1	19-11-1997
			JP 10084976 A	07-04-1998
			US 6111076 A	29-08-2000
			US 5874245 A	23-02-1999