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(71) Applicant (for all designated States except US): **MILLE-GEN** [FR/FR]; Rue Pierre et Marie Curie, F-31670 Labège (FR).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **MONDON, Philippe** [FR/FR]; 11, Rue de la Bataille, F-31450 Donneville (FR).

(74) Agents: **NARGOLWALLA, Cyra** et al.; Cabinet Plasseraud, 52 rue de la Victoire, F-75440 Paris Cedex 9 (FR).

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(54) Title: METHOD FOR SELECTING A PEPTIDE OR POLYPEPTIDE WHICH BINDS TO A TARGET MOLECULE

(57) Abstract: A method for selecting a peptide or polypeptide which binds to a target is provided. The method is based on protein splicing and phage display.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

INV. C12N15/10 C12N15/62 C12P21/00

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)

C12N

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, EMBASE, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	<p>JUNG S ET AL: "Selectively infective phage (SIP) technology: scope and limitations"</p> <p>JOURNAL OF IMMUNOLOGICAL METHODS, ELSEVIER SCIENCE PUBLISHERS B.V.,AMSTERDAM, NL, vol. 231, no. 1-2, 10 December 1999 (1999-12-10), pages 93-104, XP004187637</p> <p>ISSN: 0022-1759</p> <p>the whole document</p> <p style="text-align: center;">----- -/--</p>	1-26



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Name and mailing address of the ISA/

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

Authorized officer

Perez, Caroline

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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	BJORKLUND M ET AL: "Use of intein-directed biosynthesis to improve serum stability and bioactivity of a gelatinase inhibitory peptide" COMBINATORIAL CHEMISTRY AND HIGH THROUGHPUT SCREENING, HILVERSUM, NL, vol. 6, 2003, pages 29-35, XP002984195 ISSN: 1386-2073	1-26
X	the whole document	13,14, 16,17
Y	WO 2004/029245 A (CTT CANCER TARGETING TECHNOLOGIES OY; VALTANEN, HELI; BJOERKLUND, MIKA) 8 April 2004 (2004-04-08) page 2, line 31 - page 6; claims 1-23	1-26
X	page 9, line 15 - page 21, line 11	13,14, 16,17
X	WO 02/46208 A (ELUSYS THERAPEUTICS, INC; HIMAWAN, JEFF) 13 June 2002 (2002-06-13) page 5, line 32 - page 11, line 10 page 65 - page 68; example example	15,19
X	US 5 834 247 A (COMB ET AL) 10 November 1998 (1998-11-10) column 1, line 65 - column 3, line 52; examples 22, and, 25	15,19
A	MONDON P ET AL: "Technologies of recombinant human antibodies" BIOFUTUR 2005 FRANCE, no. 258, 2005, pages 34-40, XP009065012 ISSN: 0294-3506 the whole document	1-26

INTERNATIONAL SEARCH REPORT

Information on patent family members

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PCT/IB2007/000128

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2004029245 A	08-04-2004	AU 2003264657 A1 CA 2500254 A1 CN 1703510 A EP 1543121 A1 JP 2006514543 T US 2006240510 A1	19-04-2004 08-04-2004 30-11-2005 22-06-2005 11-05-2006 26-10-2006
WO 0246208 A	13-06-2002	AU 4155602 A CA 2427820 A1 EP 1339427 A2 JP 2004515233 T	18-06-2002 13-06-2002 03-09-2003 27-05-2004
US 5834247 A	10-11-1998	NONE	