



(51) International Patent Classification:

C07K 7/04 (2006.01) *A61K 47/48* (2006.01)
C12N 15/62 (2006.01) *C12N 15/11* (2006.01)
C07K 19/00 (2006.01)

(21) International Application Number:

PCT/IB2014/001731

(22) International Filing Date:

24 April 2014 (24.04.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

61/816,299 26 April 2013 (26.04.2013) US

(71) Applicant: OSLO UNIVERSITETSSYKEHUS HF
[NO/NO]; Postboks 450 Nydalen, N-0424 Oslo (NO).(72) Inventors: SIOUD, Mouldy; Jacob Aalls Gate 57, N-0364
Oslo (NO). SKORSTAD, Gjertrud; Grindbakken 2, N-
0764 Oslo (NO).(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY,
BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM,
DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT,
HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR,

KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME,
MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ,
OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA,
SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM,
ZW.

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ,
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,
TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK,
EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV,
MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM,
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
KM, ML, MR, NE, SN, TD, TG).

Published:

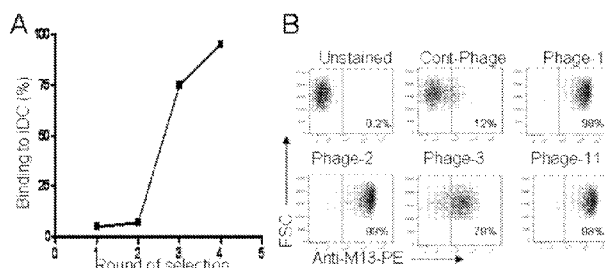
- with international search report (Art. 21(3))
- before the expiration of the time limit for amending the
claims and to be republished in the event of receipt of
amendments (Rule 48.2(h))
- with sequence listing part of description (Rule 5.2(a))

(88) Date of publication of the international search report:

22 January 2015

(54) Title: COMPOSITIONS AND METHODS FOR TARGETING ANTIGEN-PRESENTING CELLS

FIG. 1



(57) Abstract: The present invention relates to compositions and method for targeting antigen presenting cells. In particular, the present invention relates to targeting peptides and methods of using the peptides to target molecules of interest to dendritic cells.

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2014/001731

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07K7/04 C12N15/62 C07K19/00 A61K47/48 C12N15/11
ADD.

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)

C07K A61K 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 practicable, search terms used)

EPO-Internal, CHEM ABS Data, Sequence Search, 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	WO 2007/053455 A2 (VAXINNATE CORP [US]; ODEGARD VALERIE [US]; POWELL THOMAS J [US]) 10 May 2007 (2007-05-10) the whole document sequence 38 -----	1,2, 7-10, 13-15, 18-29,31
X	WO 2012/021512 A2 (ECOLE POLYTECH [CH]; HUBBEL JEFFREY A [CH]; KONTOS STEPHANE [CH]; DANE) 16 February 2012 (2012-02-16) figure 11; example 14; sequence 1 the whole document ----- -/--	1,8-10, 13,14, 16, 18-29, 31,32



Further documents are listed in the continuation of Box C.



See patent family 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 application or patent 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

"&" document member of the same patent family

Date of the actual completion of the international search

26 November 2014

Date of mailing of the international search report

04/12/2014

Name and mailing address of the ISA/

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040,
Fax: (+31-70) 340-3016

Authorized officer

Wiame, Ilse

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2014/001731

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	<p>ABDUS FAHAM ET AL: "Ag-bearing liposomes engrafted with peptides that interact with CD11c/CD18 induce potent Ag-specific and antitumor immunity", INTERNATIONAL JOURNAL OF CANCER, vol. 129, no. 6, 25 March 2011 (2011-03-25), pages 1391-1403, XP055154872, ISSN: 0020-7136, DOI: 10.1002/ijc.25810 the whole document</p> <p>-----</p>	1-33
A	<p>S CHAMARTHY ET AL: "Gene delivery to dendritic cells facilitated by a tumor necrosis factor alpha-competing peptide", MOLECULAR IMMUNOLOGY, vol. 41, no. 8, 7 June 2004 (2004-06-07), pages 741-749, XP055154876, ISSN: 0161-5890, DOI: 10.1016/j.molimm.2004.04.022 the whole document</p> <p>-----</p>	1-33
X,P	<p>M. SIOUD ET AL: "A novel peptide carrier for efficient targeting of antigens and nucleic acids to dendritic cells", THE FASEB JOURNAL, vol. 27, no. 8, 13 May 2013 (2013-05-13), pages 3272-3283, XP055154760, ISSN: 0892-6638, DOI: 10.1096/fj.12-224758 the whole document</p> <p>-----</p>	1-32

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2014/001731

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2007053455 A2	10-05-2007	AR 056591 A1 WO 2007053455 A2	10-10-2007 10-05-2007
-----	-----	-----	-----
WO 2012021512 A2	16-02-2012	AU 2011289579 A1 CA 2807942 A1 CN 103282380 A EP 2603520 A2 JP 2013541504 A US 2012039989 A1 WO 2012021512 A2	21-03-2013 16-02-2012 04-09-2013 19-06-2013 14-11-2013 16-02-2012 16-02-2012
-----	-----	-----	-----