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(71) Applicant *(for all designated States except US)*: **ALMAC SCIENCES LIMITED** [GB/GB]; Almac House, 20 Seagoe Industrial Estate, Craigavon, Belfast, Antrim BT63 5QD (GB).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: **ROBSON, Tracy** [GB/GB]; The Queen's University of Belfast, University Road, Belfast, Antrim BT7 1NN (GB). **VALENTINE, Andrea** [GB/GB]; The Queen's University of Belfast, University Road, Belfast, Antrim BT7 1NN (GB). **O'ROURKE, Martin** [GB/GB]; The Queen's University of Belfast, University Road, Belfast, Antrim BT7 1NN (GB). **HIRST, David** [GB/GB]; The Queen's University of Belfast, University Road, Belfast, Antrim BT7 1NN (GB).

(74) Agents: **WHITE, Nina, Louise** et al.; Boult Wade Tennant, Verulam Gardens, 70 Gray's Inn Road, London WC1X 8BT (GB).

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31 July 2008

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(54) Title: FKBP-L AND USES THEREOF

(57) Abstract: Disclosed are methods and compositions that employ FKBP-L polypeptides for modulating angiogenesis and/or tumor metastasis. The FKBP-L polypeptides may be used for the treatment of disorders mediated by angiogenesis such as cancer.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K38/00 A61K38/17 A61K31/00 A61P35/00 A61P27/02
A61K31/7105

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)
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, BIOSIS, EMBASE, WPI Data, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 01/02569 A (INCYTE GENOMICS INC [US]; TANG Y TOM [US]; YUE HENRY [US]; YANG JUNMIN) 11 January 2001 (2001-01-11) page 4, line 21 - page 5, line 24 page 5, line 32 - page 6, line 4 page 6, line 28 - page 7, line 4 page 9, line 24 - page 10, line 19 page 22, lines 21-23 page 27, line 21 - page 32, line 1 page 34, line 18 - page 36, line 4 claims 1-5,16-18; tables 1,2; sequence ID NO.5 sequence ID NO 15 --- -/--	1-14, 18-20, 24-31 21-23

[X] Further documents are listed in the continuation of Box C. [X] 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 document but published on or after the international filing date
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"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
27 May 2008	06/06/2008

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	Greif, Gabriela

INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2007/002107

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/44418 A (WYETH CORP [US]; GILLIS KIMBERLY A [US]; ZHANG YIXIAN [US]) 6 June 2002 (2002-06-06) page 8, lines 2-18 page 9, lines 8-15 page 14, line 24 - page 15, line 32 page 24, line 15 - page 27, line 10	1-7, 10-14, 29,30
X	WO 99/65939 A (CURAGEN CORP [US]; NANDABALAN KRISHNAN [US]; YANG MEIJIA [US]) 23 December 1999 (1999-12-23) page 7, line 12 - page 9, line 7 page 11, line 5 - page 13, line 14 page 27, line 10 - page 34, line 16 claims 1,17,34	1-14,30
Y	KOEHL G E ET AL: "Rapamycin and tumor growth: mechanisms behind its anticancer activity" TRANSPLANTATION REVIEWS, GRUNE & STRATTON, ORLANDO, FL, US, vol. 19, no. 1, January 2005 (2005-01), pages 20-31, XP004856490 ISSN: 0955-470X page 22, left-hand column, paragraph 3 - page 23, left-hand column, paragraph 1	1-14
Y	KHATUA SOUMEN ET AL: "Overexpression of the EGFR/FKBP12/HIF-2alpha pathway identified in childhood astrocytomas by angiogenesis gene profiling." CANCER RESEARCH 15 APR 2003, vol. 63, no. 8, 15 April 2003 (2003-04-15), pages 1865-1870, XP002457596 ISSN: 0008-5472 abstract figure 2 figure 4 page 1870, left-hand column, paragraph 3	1-14
X	DATABASE WPI Week 199121 Derwent Publications Ltd., London, GB; AN 1991-152426 XP002481586 & JP 03 087185 A (MITSUI TOATSU CHEM INC) 11 April 1991 (1991-04-11) abstract	30,31
X	US 2002/168650 A1 (GILLIS KIMBERLY A [US] ET AL) 14 November 2002 (2002-11-14) paragraphs [0005], [0006], [0017]	29,30

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INTERNATIONAL SEARCH REPORT

International application No
PCT/GB2007/002107

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MCALLISTER C F ET AL: "ANALYSIS IN NEISSERIA MENINGITIDIS AND OTHER NEISSERIA SPECIES OF GENES HOMOLOGOUS TO THE FKBP IMMUNOPHILIN FAMILY" MOLECULAR MICROBIOLOGY, BLACKWELL SCIENTIFIC, OXFORD, vol. 10, no. 1, 1 January 1993 (1993-01-01), pages 13-23, XP000907304 ISSN: 0950-382X figure 1	30
Y	US 2004/053388 A1 (ECKERT JORG H [DE] ET AL) 18 March 2004 (2004-03-18) claim 19	21-23
Y	WO 03/000878 A (ROCHE DIAGNOSTICS GMBH [DE]; HOFFMANN LA ROCHE [CH]) 3 January 2003 (2003-01-03) page 8, line 2 - page 9, line 10	21-23
X	WO 02/068579 A (PE CORP NY [US]) 6 September 2002 (2002-09-06) claims 1,2,4; sequence ID NO 21169	31

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International application No.
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Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:

2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.

3. ☒ As only some of the required additional search fees were timely paid by the applicant, this international search reportcovers only those claims for which fees were paid, specifically claims Nos.:

1-14,18-31

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.

☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.

☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-14

Use of (i) an active compound comprising an isolated FKBP-L polypeptide or a biologically active fragment thereof or a biologically active derivative thereof, or (ii) a polynucleotide encoding such a FKBP-L polypeptide, fragment or derivative thereof, in the manufacture of a medicament for use in treating a disorder mediated by or associated with angiogenesis, such as cancer, cell migration or metastatis, angiogenesis-mediated inflammation, ocular disorders mediated by angiogenesis.

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2. claims: 15-17

Use of an antisense oligonucleotide or siRNA capable of specifically down-regulating expression of FKBP-L in the manufacture of a medicament for use in treating a disorder mediated by or associated with angiogenesis, where the medicament is used as a promoter of angiogenesis.

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3. claims: 18-31

An isolated polypeptide comprising the amino acid sequence as shown in SEQ ID NO:10, an isolated nucleic acid molecule of claim 23, a vector comprising said nucleic acid, or a host cell transfected with said vector, as well as a method for producing a polypeptide.

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4. claims: 32-33

A compound comprising a functional equivalent of FKBP-L which can bind CD44 and/or can compete with CD74 or other receptor-ligand complexes

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INTERNATIONAL SEARCH REPORT

International application No
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