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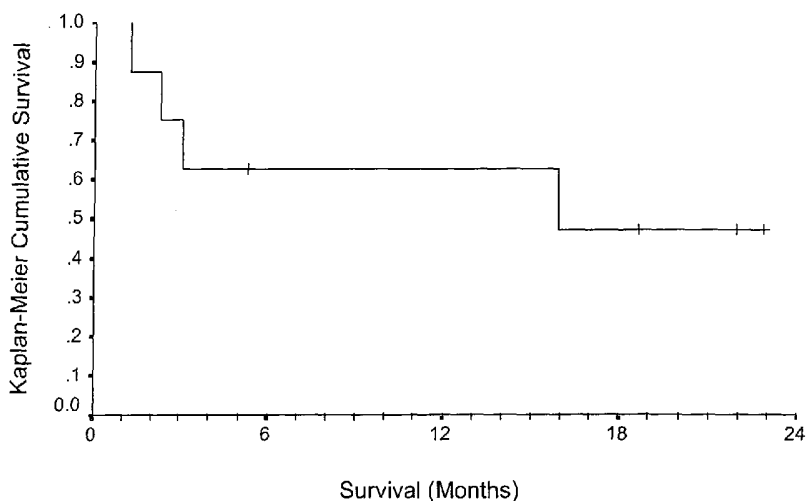
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US (patent), UZ, VC, VN, YU, ZA, ZM, ZW.
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Published:
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[Continued on next page]

(54) Title: NOVEL CANCER CELL LINES AND USES THEREOF

SURVIVAL OF 8 STAGE IV BREAST CANCER PATIENTS
TREATED WITH TUMOR CELL VACCINE AND PBL



(57) Abstract: The invention provides, in part, novel SV-BR cancer cell lines. The invention provides a novel cell line SV-BR-1 deposited under ATCC ____, and SV-BR-1-GM cells deposited under ATCC ____. The invention further relates to therapeutic and non-therapeutic uses of the novel cell lines, and to use of the cell lines in the manufacture of medicaments for inducing immune responses and/or for treating tumors and cancers. Therapeutic uses include the use of SV-BR cell lines as cancer vaccines, and in particular, or the treatment of cancer.

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— *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

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.

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8 June 2006

INTERNATIONAL SEARCH REPORT

US2005/020137

A. CLASSIFICATION OF SUBJECT MATTER
 INV. C12N5/06 A61K39/00

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 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, WPI Data, PAJ, EMBASE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 436 152 A (SOULE ET AL) 25 July 1995 (1995-07-25) the whole document	1,5
X	EMENS L A ET AL: "A PHASE I VACCINE SAFETY AND CHEMOTHERAPY DOSE-FINDING TRIAL OF AN ALLOGENEIC GM-CSF-SECRETING BREAST CANCER VACCINE GIVEN IN A SPECIFICALLY TIMED SEQUENCE WITH IMMUNOMODULATORY DOSES OF CYCLOPHOSPHAMIDE AND DOXORUBICIN" HUMAN GENE THERAPY, XX, XX, vol. 15, March 2004 (2004-03), pages 313-337, XP007900371 ISSN: 1043-0342 the whole document	1,4,5, 8-31,34, 35,38-62

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 document 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

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INTERNATIONAL SEARCH REPORT

PCT/US2005/020137

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>JIANG X P ET AL: "VACCINATION WITH A MIXED VACCINE OF AUTOGENOUS AND ALLOGENEIC BREAST CANCER CELLS AND TUMOR ASSOCIATED ANTIGENS CA15-3, CEA AND CA125: RESULTS IN IMMUNE AND CLINICAL RESPONSES IN BREAST CANCER PATIENTS" CANCER BIOTHERAPY AND RADIOPHARMACEUTICALS, LIEBERT, US, vol. 15, no. 5, 2000, pages 495-505, XP009064457 the whole document</p>	1,4,5, 8-31,34, 35,38-62
X	<p>DOLS ANNEMIEKE ET AL: "Vaccination of women with metastatic breast cancer, using a costimulatory gene (CD80)-modified, HLA-A2-matched, allogeneic, breast cancer cell line: Clinical and immunological results" HUMAN GENE THERAPY, XX, XX, vol. 14, no. 11, 20 July 2003 (2003-07-20), pages 1117-1123, XP002374855 ISSN: 1043-0342 the whole document</p>	1,4,5, 8-31,34, 35,38-62
X	<p>DOLS A ET AL: "ALLOGENEIC BREAST CANCER CELL VACCINES" CLINICAL BREAST CANCER, XX, XX, vol. 3, no. SUPPL 4, February 2003 (2003-02), pages S173-S180, XP009064465 ISSN: 1526-8209 the whole document</p>	1,4,5, 8-31,34, 35,38-62
X	<p>US 6 350 445 B1 (JAFFEE ELIZABETH M ET AL) 26 February 2002 (2002-02-26) the whole document</p>	1,5, 9-24,26, 29-31, 35,39, 45-62
A	<p>BAARS A ET AL: "MAKING USE OF THE PRIMARY TUMOUR" BIOESSAYS, CAMBRIDGE, GB, vol. 25, no. 1, 2002, pages 79-86, XP007900369 ISSN: 0265-9247</p>	

INTERNATIONAL SEARCH REPORT

PCT/US2005/020137

Box 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.: 2, 3, 6, 7, 32, 33, 36, 37
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:
see FURTHER INFORMATION sheet PCT/ISA/210

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 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:

1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

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

3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

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.
- No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.2

Claims Nos.: 2, 3, 6, 7, 32, 33, 36, 37

Said claims relate to a cell defined by arbitrary name "SV-BR-1" or "SV-BR-1-GM" with no technical features defining said cell. This is not in compliance with the substantive provisions to such an extent that no search was performed (PCT Guidelines 9.19 and 9.24).

The applicant's attention is drawn to the fact that 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. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

PCT/US2005/020137

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5436152 A	25-07-1995	US 5026637 A	25-06-1991
US 6350445 B1	26-02-2002	US 5985290 A	16-11-1999
		US 6033674 A	07-03-2000