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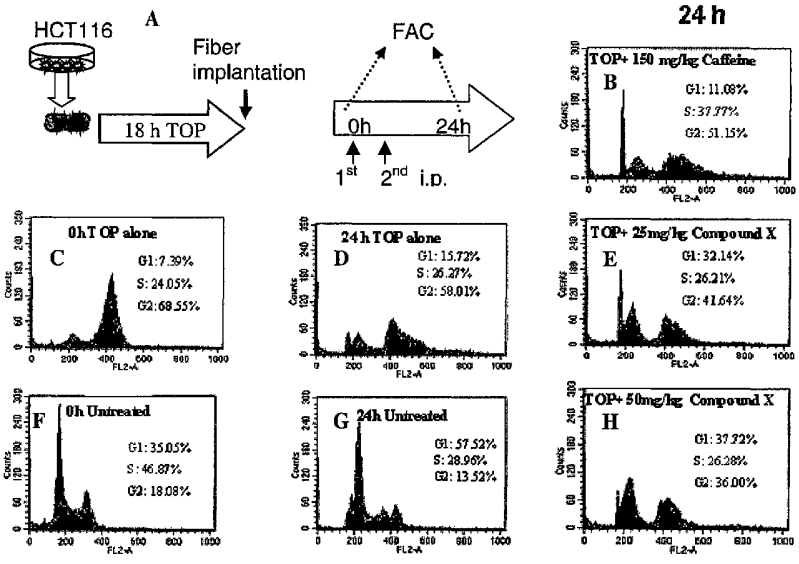
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,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

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,

[Continued on next page]

(54) Title: TESTING CELL CYCLE REGULATION EFFECT OF A COMPOUND USING A HOLLOW FIBRE CELL IMPLANT



(57) Abstract: The invention includes an *in vivo* pharmacodynamic method for testing a compound for cell cycle regulation.

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FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

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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.

INTERNATIONAL SEARCH REPORT

Inte ial Application No
PCT/GB2004/002254

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C12N5/06 G01N33/53

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)
IPC 7 G01N

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, BIOSIS, CHEM ABS Data, EMBASE, MEDLINE

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/055742 A (NOVARTIS ERFINDUNGEN VERVALTUN ; NOVARTIS AG (CH); LASSOTA PIOTR (US)) 18 July 2002 (2002-07-18) page 7, paragraph 2; claims 6,7; example 1	1,2,19, 21-29
X	US 5 676 924 A (BAGTAS JUSTINIANO F ET AL) 14 October 1997 (1997-10-14) column 4, lines 23-26; claim 1; figure 3; examples 2-4	1-7,19, 21-26
X	WO 94/25074 A (US HEALTH) 10 November 1994 (1994-11-10) page 6, lines 4,5 page 6, lines 28,29; claims 2,8,9; examples 1-3	1,2,4-7, 19,21-29

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in 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)

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"P" document published prior to the international filing date but later than the priority date claimed

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"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
9 November 2004	19/11/2004

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	Gonzalez Ramon, N

INTERNATIONAL SEARCH REPORT

Int ial Application No
PCT/GB2004/002254

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KONIARAS K. ET AL: "Inhibition of Chk1-dependent G2 DNA damage checkpoint radiosensitizes p53 mutant human cells" ONCOGENE, vol. 20, 2001, pages 7453-7463, XP008036543 page 7461, column 2 - page 7462; figure 7 abstract	1-29
Y	KOHN E. A. ET AL: "The protein kinase C inhibitor Gö6976 is a potent inhibitor of DNA damage-induced S and G2 cell cycle checkpoints" CANCER RESEARCH, vol. 63, 1 January 2003 (2003-01-01), pages 31-35, XP008036538 abstract; figure 1 page 32	1-29
Y	WO 01/21771 A (CANBAS CO LTD ; KAWABE TAKUMI (JP); SUGANUMA MASASHI (JP)) 29 March 2001 (2001-03-29) page 100 page 7, line 15 - page 8, line 25	1-29
P,X	WO 2004/004785 A (ROCHE SIOBHAN ; ADAMKEWICZ JOANNE I (US); HAMMONDS R GLENN JR (US); PL) 15 January 2004 (2004-01-15) page 32, lines 20-25; claims 16-18	1-29
P,Y	CORTEZ D.: "Caffeine inhibits checkpoint responses without inhibiting the ataxia-telangiectasia-mutated (ATM) and ATM-and Rad-related (ATR) protein kinases" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 278, 26 September 2003 (2003-09-26), pages 37139-37145, XP008036554 page 37142; figure 5 page 37140, column 1, paragraph 3 - column 2, paragraph 1	1-29

INTERNATIONAL SEARCH REPORT

International application No.
PCT/GB2004/002254

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. [X] Claims Nos.: 22
because they relate to subject matter not required to be searched by this Authority, namely:

Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery

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 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.

INTERNATIONAL SEARCH REPORT

Int al Application No
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