Abstract: A compound of formula (I) or a compound of formula (II) or pharmaceutically acceptable salts thereof, wherein R1-R7 and X are as defined in the description, and the use of these compounds in therapy, in particular in treating cancer or as an inhibitor of the interaction of the MDM2 protein with p53.
(88) Date of publication of the international search report:
18 November 2010
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07D209/48 C07D401/06 C07D403/06 A61K31/4035 A61P35/00

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)
C07D

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, BEILSTEIN Data, CHEM ABS Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>WO 2006/024837 A (CANCERREC TECH LTD [GB]; WILLEMS HENDRIKA MARIA GERarda [GB]; KALLBLA) 9 March 2006 (2006-03-09) the whole document</td>
<td>1-6, 9-11, 16-29</td>
</tr>
<tr>
<td>X</td>
<td>CH 374 071 A (GEIGY AG J R [CH]) 31 December 1963 (1963-12-31) page 2, column 2, line 98; claim 1</td>
<td>1</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

See patent family annex.

Date of the actual completion of the international search

17 December 2009

Date of mailing of the international search report

06/10/2010

Name and mailing address of the ISA/

European Patent Office, P.B. 5816 Patentlaan 2 NL - 2280 HV RIJWELK
Tel. (+31-70) 340-2040, Fax: (+31-70) 340-3916

Authorized officer

Seelmann, Ingo
<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>ITO Y ET AL: &quot;Solid-State and Solution Photolyses of Tetracyanobenzene with Benzyl Cyanides or Benzyl Alcohols&quot; TETRAHEDRON, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 56, no. 37, 8 September 2000 (2000-09-08), pages 7139-7152, XP004211825 ISSN: 0040-4020 compound 7</td>
<td>1</td>
</tr>
<tr>
<td>X</td>
<td>GOLIK U: &quot;THE SYNTHESIS OF SOME 2,4-BENZODIAZEPIN-1-ONES, POTENT CNS AGENTS (I)&quot; JOURNAL OF HETEROCYCLIC CHEMISTRY, HETEROCORPSATION, PROVO, US, vol. 12, 1 October 1975 (1975-10-01), pages 903-908, XP009077495 ISSN: 0022-152X compounds IV D</td>
<td>1</td>
</tr>
<tr>
<td>X</td>
<td>BHATT M V ET AL: &quot;ASPECTS OF TAUTOMERISM. PART V. SOLVENT, SUBSTITUENT, AND STERIC EFFECTS ON THE RING-CHAIN TAUTOMERISM OF 0-BENZOYL BENZAMIDES&quot; JOURNAL OF THE CHEMICAL SOCIETY, PERKIN TRANSACTIONS 2, CHEMICAL SOCIETY, LETCHWORTH, GB, 1 January 1973 (1973-01-01), pages 1160-1166, XP001080692 ISSN: 1472-779X compounds XVIII E, G</td>
<td>1</td>
</tr>
<tr>
<td>X</td>
<td>TOPLISS, JOHN G. ET AL: &quot;Antihypertensive agents. III. 3-Hydroxy-3-phenylphthalimides&quot; JOURNAL OF MEDICINAL CHEMISTRY, 7(4), 453-6 CODEN: JMCMAR; ISSN: 0022-2623, 1964, XP002560813 table 1; compounds 11-14</td>
<td>1</td>
</tr>
<tr>
<td>X</td>
<td>CHARLESWORTH, EDWARD H. ET AL: &quot;Fluoranthene studies. III. Synthesis of 3-bromo-6-nitrofluorenone&quot; CANADIAN JOURNAL OF CHEMISTRY, 46(3), 463-5 CODEN: CJCHAG; ISSN: 0008-4042, 1968, XP002560814 compound 10</td>
<td>1</td>
</tr>
<tr>
<td>Category</td>
<td>Citation of document, with indication, where appropriate, of the relevant passages</td>
<td>Relevant to claim No.</td>
</tr>
<tr>
<td>----------</td>
<td>---------------------------------------------------------------------------------</td>
<td>----------------------</td>
</tr>
<tr>
<td>X</td>
<td>DATABASE CA [Online] CHEMICAL ABSTRACTS SERVICE, COLUMBUS, OHIO, US; VALTERS, R. ET AL: &quot;Ring-chain transformations involving the carbonyl group. XI. Acid chlorides and amides of 2-benzoyl-3-, 4-, 5-, and 6-nitrobenzoic acids&quot; XP002560815 retrieved from STN Database accession no. 1972:419475 RN 36728-98-0, RN 36729-03-0, RN 36729-06-3, RN 36729-12-1 abstract &amp; LATVIJAS PSR ZINATNU AKADEMIJAS VESTIS, KIMIJAS SERIJA , (1), 61-5 CODEN: LZAKAM; ISSN: 0002-3248, 1972</td>
<td>1</td>
</tr>
</tbody>
</table>
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).

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

see additional sheet

1. [X] 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 additional fees.

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. [X] 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.: see additional sheet

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

1. claims: 1-6,9-11,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=H

2. claims: 1-6,9-11,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=alkyl (optionally substituted)

3. claims: 1-6,9-11,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=hydroxyalkyl (optionally substituted)

4. claims: 1-6,9-11,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=alkylamine (optionally substituted)

5. claims: 1-6,9-12,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=aryl (optionally substituted)

6. claims: 1-6,9-12,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=heteroaryl (optionally substituted)

7. claims: 1-6(part),7,8,9-12(part),13-15,16-29(part)
   subject-matter relating to compounds of formula I with R1=aralkyl (optionally substituted)

8. claims: 1-6,9-12,16-29 (all part)
   subject-matter relating to compounds of formula I with R1=heteroaralkyl (optionally substituted)

9. claims: 1-6,9-12,16-29 (all part)
   subject-matter relating to compounds of formula II
<table>
<thead>
<tr>
<th>Patent document cited in search report</th>
<th>Publication date</th>
<th>Patent family member(s)</th>
<th>Publication date</th>
</tr>
</thead>
<tbody>
<tr>
<td>WO 2006024837 A</td>
<td>09-03-2006</td>
<td>AU 2005278962 A1</td>
<td>09-03-2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 2578955 A1</td>
<td>09-03-2006</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JP 2008511601 T</td>
<td>17-04-2008</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US 2008261917 A1</td>
<td>23-10-2008</td>
</tr>
<tr>
<td>CH 374071 A</td>
<td>31-12-1963</td>
<td>NONE</td>
<td></td>
</tr>
</tbody>
</table>