Title: Phthalazines and Isoquinolines as ROCK Inhibitors

Abstract: The present invention provides compounds of Formula (I) or stereoisomers, tautomers, or pharmacologically acceptable salts thereof, wherein all the variables are as defined herein. These compounds are selective ROCK inhibitors. This invention also relates to pharmaceutical compositions comprising these compounds and methods of treating cardiovascular, smooth muscle, oncologic, neuropathologic, autoimmune, fibrotic, and/or inflammatory disorders using the same.

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(a))

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

9 October 2014

— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

— of inventorship (Rule 4.17(iv))

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))
### INTERNATIONAL SEARCH REPORT

**A. CLASSIFICATION OF SUBJECT MATTER**

<table>
<thead>
<tr>
<th>INV.</th>
<th>Classification</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>C07D403/12</td>
<td>C07D401/10</td>
<td>C07D401/12</td>
</tr>
<tr>
<td>C07D405/12</td>
<td>C07D413/10</td>
<td>C07D413/12</td>
</tr>
<tr>
<td>C07D417/14</td>
<td>C07D471/04</td>
<td>C07D487/04</td>
</tr>
</tbody>
</table>

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**

### 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>US 2012/122842 A1 (CURTIN MICHAEL L [US]) ET AL 17 May 2012 (2012-05-17) cited in the application claims 1,8,9; table 2</td>
<td>1,3–8, 12–19</td>
</tr>
</tbody>
</table>

* 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

* Special categories of cited documents :
- **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
- **Z** document member of the same patent family

**Date of the actual completion of the international search**

28 July 2014

**Date of mailing of the international search report**

05/08/2014

**Name and mailing address of the ISA/ESD**

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

**Authorized officer**

Seelmann, Ingo
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. □ 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 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 report covers only those claims for which fees were paid, specifically claims Nos.:

   1, 3-8, 12-19 (all partially)

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

1. claims: 1, 3-5, 12-19 (all partially)
   subject-matter relating to compounds with M=N and L=CR4R4C(0) ---

2. claims: 1, 6, 12-19 (all partially)
   subject-matter relating to compounds with M=N and L=OC(0) ---

3. claims: 1, 12-19 (all partially)
   subject-matter relating to compounds with M=N and L=N R6C(0) ---

4. claims: 1, 7, 8, 12-19 (all partially)
   subject-matter relating to compounds with M=N and L=N R6 ---

5. claims: 1-5, 12-19 (all partially)
   subject-matter relating to compounds with M=CR10 and L=CR4R4C(0) ---

6. claims: 1, 2, 6, 12-19 (all partially)
   subject-matter relating to compounds with M=CR10 and L=OC(0) ---

7. claims: 9-11 (completely); 1, 2, 12-19 (partially)
   subject-matter relating to compounds with M=CR10 and L=N R6C(0) ---

8. claims: 1, 7, 8, 12-19 (all partially)
   subject-matter relating to compounds with M=CR10 and L=N R6 ---
<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>US 2012122842 Al</td>
<td>17-05-2012</td>
<td>AR 083855 Al</td>
<td>27-03-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>AU 2011329233 Al</td>
<td>23-05-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CA 2816594 Al</td>
<td>24-05-2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CN 103313968 A</td>
<td>18-09-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CO 6761389 A2</td>
<td>30-09-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CR 20130267 A</td>
<td>04-10-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>DO P2013000106 A</td>
<td>15-10-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>EP 2640698 Al</td>
<td>25-09-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>JP 2013542265 A</td>
<td>21-11-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>KR 20140009251 A</td>
<td>22-01-2014</td>
</tr>
<tr>
<td></td>
<td></td>
<td>SG 190819 Al</td>
<td>31-07-2013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TW 201238950 A</td>
<td>01-10-2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>US 2012122842 Al</td>
<td>17-05-2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>UY 33726 A</td>
<td>29-06-2012</td>
</tr>
<tr>
<td></td>
<td></td>
<td>WO 2012067965 Al</td>
<td>24-05-2012</td>
</tr>
</tbody>
</table>