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(71) Applicant (for all designated States except US): **WOCK-HARDT RESEARCH CENTRE** [IN/IN]; D-4, MIDC Industrial Area, Chikalthana, Aurangabad 431210 (IN).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **DABRE, Rahul** [IN/IN]; 15 A, Ujjwal Society, Narendranagar, Nagpur 440015 (IN). **JAIN, Girish, Kumar** [IN/IN]; 4, Sharada Niketan, Teacher's Colony, Pitam Pura, Delhi 110034 (IN). **ESTANOVE, Cyril** [FR/FR]; 1 allée des Campanules, F-78450 Chavenay (FR). **PRUVOST, François** [FR/FR]; 17 chemin du Quinquis, F-29000 Quimper (FR). **SANDAL, Roshanlal** [IN/IN]; C/o Narindra Medical Hall, Grain Market, Talwandi Bhai, Ferozpur 142050 (IN). **MANDAOGADE, Prashant** [IN/IN]; Sanmati Colony, Shegaon Road, Po.vmv, Amravati 444 604 (IN). **NAKHAT, Premchand** [IN/IN]; C/o Gurukrupa Medi-

cals & Electronics, At Post: Lohi (Bazar), Tq. Darwha, Yavatmal (IN).

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22 April 2010

(54) Title: RHEIN OR DIACEREIN COMPOSITIONS

(57) Abstract: The invention relates to pharmaceutical compositions comprising rhein or diacerein or salts or esters or prodrugs thereof, optionally with one or more pharmaceutically acceptable excipients. The invention also relates to the methods for preparing such compositions.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2008/053716

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61K9/16 A61K31/192 A61K31/222 A61K47/48

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 952 383 A (METZIGER PIERRE [FR] ET AL) 14 September 1999 (1999-09-14) cited in the application column 1, line 57 - column 2, line 44 column 3, lines 28-62	1,3,4
X	US 6 124 358 A (ESTANOVE CYRIL [FR] ET AL) 26 September 2000 (2000-09-26) cited in the application column 1, lines 21-27 column 2, lines 3-44 column 3, line 18 - column 4, line 34 examples	1,3,4

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

Authorized officer

van de Wetering, P

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International application No

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C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	EP 0 371 431 A (VECTORPHARMA INT [IT]) 6 June 1990 (1990-06-06) page 2, line 51 - page 3, line 10 page 3, line 45 - page 4, line 28 examples 3,C page 8, lines 17-37 page 10; table 3 -----	1-7

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2008/053716

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 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.:

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.:

2, 5-7 (all partially), 1, 3, 4

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; 2 partially; 3, 4; 5-7 partially

composition comprising rhein or diacerein, or salts or esters thereof adsorbed on one or more of the inorganic adsorbents colloidal silica, calcium silicate, magnesium aluminium meta silicate, porous ceramics, calcium carbonate, calcium phosphate, calcium sulfate, and process to make such a composition

2. claims: 2, 5-7 partially; 8-18

composition comprising rhein or diacerein, or salts or esters thereof adsorbed, in admixture or complexed to lactose, saccharides, celluloses, starches, pre-gelatinised starches, dextrins, maltodextrins, polydextroses, dextroses and a process to make such a composition

3. claims: 2, 5-7 partially

composition comprising rhein or diacerein, or salts or esters thereof adsorbed on a pharmaceutically acceptable adsorbent comprising propylene foams and a process to make such a composition

4. claims: 2, 5-7 partially; 9-29, 32

composition comprising rhein or diacerein, or salts or esters thereof mixed or complexed with one or more polyols, sugar alcohols and a process to make such a composition

5. claims: 30, 31

composition comprising rhein or diacerein, or salts or esters thereof characterised by specific crystal diffraction data

6. claims: 33-36

process to prepare a composition comprising rhein or diacerein, or salts or esters thereof is combined with one or more organic solvents and sprayed under supercritical pressure

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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