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Published:

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(54) Title: RESVERATROL FORMULATIONS

(57) Abstract: Resveratrol can be used to treat or inhibit the onset of many diseases that are related to the aging process, but large doses are required. The present invention provides concentrated liquid formulations of resveratrol, typically having a resveratrol concentration of at least 10% by weight. These formulations improve patient compliance because the patient need not consume such a large volume of a resveratrol formulation.



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INTERNATIONAL SEARCH REPORT

International application No
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A. CLASSIFICATION OF SUBJECT MATTER
INV. A61K9/08 A61K9/107 A61K31/05

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, WPI Data, BIOSIS, 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 Y	US 2002/173472 A1 (PEZZUTO JOHN M [US] ET AL) 21 November 2002 (2002-11-21) paragraph [0054] example 2 claims 1,34	1-5,11, 23,24 1-11,23, 24
X	WO 2006/127987 A (SIRTRIS PHARMACEUTICALS INC [US]; MILBURN MICHAEL [US]; WESTPHAL CHRIS) 30 November 2006 (2006-11-30) example 1	1,10
Y	US 2003/065024 A1 (LAMBERT KAREL J [US] ET AL) 3 April 2003 (2003-04-03) example 27	1-11,23, 24
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☒ 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.

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Date of the actual completion of the international search

14 April 2009

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INTERNATIONAL SEARCH REPORT

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.
A	HUNG ET AL: "The effect of oil components on the physicochemical properties and drug delivery of emulsions: Tocol emulsion versus lipid emulsion" INTERNATIONAL JOURNAL OF PHARMACEUTICS, ELSEVIER BV, NL, vol. 335, no. 1-2, 28 March 2007 (2007-03-28), pages 193-202, XP022003905 ISSN: 0378-5173 paragraph [02.2]	1-11,23, 24
A	US 6 008 260 A (PEZZUTO JOHN M [US] ET AL) 28 December 1999 (1999-12-28) the whole document	1-11,23, 24

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2009/000078

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 allsearchable 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 reportcovers 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.:

see annex

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: 1-11, 23, 24

An oral pharmaceutical composition comprising a solution or emulsion comprising at least 10% of resveratrol and caprylocapryol macrogol glycerides.

2. claims: 1-4, 6-10, 12, 13, 23, 25

An oral pharmaceutical composition comprising a solution or emulsion comprising at least 10% of resveratrol and a triglyceride, a propylene glycol fatty acid ester, a polyethylene glycol sorbitan fatty acid ester, a saturated polyglycolized glyceride and an alcohol.

3. claims: 1-4, 6-10, 14, 15, 23, 26

An oral pharmaceutical composition comprising a solution or emulsion comprising at least 10% of resveratrol and a monoacyl phospholipid, a PEG and a dihydric alcohol.

4. claims: 1-4, 6-10, 16, 17, 23, 27

An oral pharmaceutical composition comprising a solution or emulsion comprising at least 10% of resveratrol and a polyethoxylated fatty acid, an alcohol-oil transesterification product and an alcohol.

5. claims: 1-4, 6-10, 18, 19, 23, 28

An oral pharmaceutical composition comprising a solution or emulsion comprising at least 10% of resveratrol and a triglyceride, an alcohol-oil transesterification product, a monoglyceride and an alcohol.

6. claims: 1-4, 6-10, 20-23, 29

An oral pharmaceutical composition comprising a solution or emulsion comprising at least 10% of resveratrol and a polymer and a surfactant.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2002173472	A1	21-11-2002	NONE	
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			CA 2609549 A1	30-11-2006
			EP 1928440 A2	11-06-2008
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			US 6414037 B1	02-07-2002