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Declaration under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

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23 November 2006

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.

(54) Title: ADMINISTRATION OF GLUTATHIONE (REDUCED) VIA INTRAVENOUS OR ENCAPSULATED IN LIPOSOME FOR TREATMENT OF TNF-ALPHA EFFECTS AND ELU-LIKE VIRAL SYMPTOMS

(57) Abstract: The invention is a method of treatment of the symptoms related to inflammation that accompanies the release of Tumor Necrosis Factor - alpha in diseases such as viral infection such as those affecting the respiratory tract by providing systemic glutathione (reduced) by oral administration of glutathione (reduced) in a liposome encapsulation or by the intravenous administration of reduced glutathione. The administration of a therapeutically effective amount of oral liposomal glutathione (reduced) results in improvement of symptoms of disease induced by the release of TNF- a in infectious disease states such as respiratory and other viruses. The product is novel in that it is stable across the temperature ranges encountered in shipping and does not need to be refrigerated for storage. Compounds enhancing the effect of the liposomal glutathione as well as intravenous glutathione are contemplated such as Selenium.

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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/11397

A. CLASSIFICATION OF SUBJECT MATTER
 IPC: **A61K 9/127(2006.01)**

USPC: 424/450
 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)
 U.S. : 424/450

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 practicable, search terms used)
 Please See Continuation Sheet

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim-No.
Y	EP 0834301 A1 (Boehringer Ingelheim Limited) 04 August 1998 (08.04.1998), abstract	1-59
Y	US 5,942,245 (Katinger et al) 24 August 1999 (08.24.1999), abstract, claim 1	1-59
Y	US 5,723,681 (Christensen et al) 03 March 1998 (03.03.1998), abstract, column 2, lines 5-10.	1-59
Y	US 6,485,950 (Kumar et al) 26 November 2002 (11.26.2002), Columns 9-10, claims 5-6, 9, 16, 20, 25, 49, 57, and 60.	1-59

Further documents are listed in the continuation of Box C. See patent family annex.

* 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
"A" document defining the general state of the art which is not considered to be of particular relevance	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"&" document member of the same patent family
"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	

Date of the actual completion of the international search 25 July 2006 (25.07.2006)	Date of mailing of the international search report 30 AUG 2006
Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer <i>Hemant Khanna</i> Hemant Khanna Telephone No. (571) 272-9045

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US06/11397

Continuation of B. FIELDS SEARCHED Item 3:
EAST (US-PGPUB, USPAT, OSOCR, DERWENT; Glutathione, Liposome, ARDS); STN (CAPLUS, REGISTRY; Author Search and
Text Search)

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US06/11397

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.: 33-35, 56-58
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:

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 additional fees, this Authority did not invite payment of any 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.:
- 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.