(54) Title: TREATING PULMONARY DISORDERS WITH GASEOUS AGENT CAUSING REPLETION OF GSNO

(57) Abstract: Pulmonary disorders in which the GSNO pool or glutathione pool in the lung is depleted and where reactive oxygen species in lung are increased, are treated by delivering into the lung as a gas, agent causing repletion or increase of the GSNO pool or protection against toxicity and does so independently of reaction with oxygen. Agents include ethyl nitrite, NOC1, NOBr, NOF, NOCN, N$_2$O$_3$, HNO, and H$_2$S. Optionally, N-acetylcysteine, ascorbate, H$_2$S or HNO is administered in addition to other GSNO repleting agent to potentiate the effect of said agent.
A. CLASSIFICATION OF SUBJECT MATTER

IPC(7) : A61K 33/00, 35/04, 35/72, 31/13, A61M 16/00.
US CL : Please See Extra Sheet.

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)


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 Extra Sheet.

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>Y</td>
<td>US 5,570,683 A (ZAPOL) 05 November 1996, column 4, line 51 to column 5, line 35, column 5, line 59 to column 6, line 33, claims 1-6, 16 and 18.</td>
<td>1-9</td>
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<td>P, Y</td>
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Further documents are listed in the continuation of Box C. See patent family annex.

Date of the actual completion of the international search: 01 JULY 2002

Date of mailing of the international search report: 09 AUG 2002

Name and mailing address of the ISA/US Commissioner of Patents and Trademarks:
Box PCT
Washington, D.C. 20231
Facsimile No. (703) 505-8280

Authorized officer: JOHN PAR

Telephone No. (703) 505-1855
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER:
US CL :

424/600, 708, 718; 514/645, 668, 826, 851, 929, 959; 188/300.24; 604/23.

B. FIELDS SEARCHED
Electronic data bases consulted (Name of data base and where practicable terms used):

STN ONLINE, FILES Registry, Capus, WPIDS, Medline, Embase. Search terms: 2696-92-6, 13886-64-7, 109-95-5, 12444-87-6, 10544-78-7, 7783-06-4, methyl nitrite, pilot2 acid, hypoxemia2, hypoxia, lung2, pulmonary, asthma2, cystic fibro2, adult respiratory distress, pneumonia2, interstitial lung disease2.