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*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: MEDICAMENTS FOR THE PREVENTION OR TREATMENT OF ALVEOLAR PNEUMONIA COMPRISING AN ANTICHOLINERGIC

(57) Abstract: The present invention relates to a method for the prevention or the treatment of alveolar pneumonia comprising administration of a therapeutically effective amount of an anticholinergic 1, medicaments for the prevention or treatment of alveolar pneumonia 5 comprising one or more, preferably one anticholinergic 1, and methods for the preparation of these medicaments.



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# INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2005/053854

**A. CLASSIFICATION OF SUBJECT MATTER**  
 INV. A61K31/46 A61K31/135 A61P11/00

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 A61P

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, PAJ, CHEM ABS Data, BIOSIS, EMBASE

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 93/09098 A (PIERRE FABRE MEDICAMENT) 13 May 1993 (1993-05-13) page 17, line 15; table 4	1-4, 15-19
X	WO 02/096423 A (BOEHRINGER INGELHEIM PHARMA KG; YEADON, MICHAEL; ARMSTRONG, ROISIN, A;) 5 December 2002 (2002-12-05) paragraph [0205]; claim 1	1-4, 15-19
X	WESLEY A G ET AL: "IPRATROPIUM BROMIDE DELIVERED BY METERED-DOSE AEROSOL TO INFANT WHEEZERS" SAMJ (SOUTH AFRICAN MEDICAL JOURNAL), vol. 79, no. 9, 1991, pages 536-538, XP009057707 ISSN: 0256-9574 abstract	1-4, 15-19

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

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## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2005/053854

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MUNIN M C ET AL: "Neurologic recovery and functional improvement after vecuronium-induced quadriplegia." AMERICAN JOURNAL OF PHYSICAL MEDICINE & REHABILITATION / ASSOCIATION OF ACADEMIC PHYSIATRISTS. 1995 SEP-OCT, vol. 74, no. 5, September 1995 (1995-09), pages 375-379, XP009057697 ISSN: 0894-9115 abstract	1-4, 15-19
X	----- DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1982, SARATIKOV A S ET AL: "RACEMIC CAMPHOR FOR INJECTIONS" XP002356966 Database accession no. PREV198477022093 abstract & KHIMIKO-FARMATSEVTICHESKII ZHURNAL, vol. 16, no. 7, 1982, pages 876-878, ISSN: 0023-1134	1-4, 15-19
X	----- DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 15 June 2000 (2000-06-15), SHARABI YEHONATAN ET AL: "Prolonged neuromuscular damage following cortico-steroids and muscle-relaxants" XP002356967 Database accession no. PREV200000463816 abstract & HAREFUAH, vol. 138, no. 12, 15 June 2000 (2000-06-15), pages 1030-1032, 1085, ISSN: 0017-7768	1-4, 15-19
X	----- HAAS J L ET AL: "Prolonged paralysis associated with long-term pancuronium use." PHARMACOTHERAPY. 1989, vol. 9, no. 3, 1989, pages 154-157, XP009057696 ISSN: 0277-0008 abstract	1-4, 15-19
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## INTERNATIONAL SEARCH REPORT

International application No

PCT/EP2005/053854

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE BIOSIS [Online] BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; 1982, ZAMOTAEV I P ET AL: "EFFECT OF EUPHYLLIN BEROTEC AND ATROVENT ON THE OXYGEN CONTENT AND ACID BASE BALANCE OF THE BLOOD IN PATIENTS WITH PULMONARY DISEASES" XP002356968 Database accession no. PREV198375090554 abstract & TERAPEVTICHESKII ARKHIV, vol. 54, no. 4, 1982, pages 52-55, ISSN: 0040-3660	1-4, 15-19
X	----- GARCIA J ET AL: "Nitrous oxide in oxygen versus oxygen for painful procedure in children during flexible fiberoptic bronchoscopy with local anesthesia" REVUE DES MALADIES RESPIRATOIRES, vol. 15, no. 2, April 1998 (1998-04), pages 179-183, XP009057705 ISSN: 0761-8425 abstract	1-4, 15-19
A	----- WO 02/30928 A (BOEHRINGER INGELHEIM PHARMA KG; BANHOLZER, ROLF; SIEGER, PETER; KULINN) 18 April 2002 (2002-04-18) cited in the application the whole document	1-4, 15-19
A	----- WO 03/000265 A (BOEHRINGER INGELHEIM PHARMA KG; SIEGER, PETER; WERTHMANN, ULRIKE) 3 January 2003 (2003-01-03) cited in the application page 1	1-4, 15-19
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E	----- WO 2005/097126 A (BOEHRINGER INGELHEIM INT [DE]; BOEHRINGER INGELHEIM PHARMA [DE]; PARK) 20 October 2005 (2005-10-20) page 17, lines 26-33; claims	1-4, 15-19

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2005/053854

## Box 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 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 fee, this Authority did not invite payment of any additional fee.
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.:

1-4, 15-19

### Remark on Protest

The additional search fees were accompanied by the applicant's protest.

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: 1-4,15-19

Treatment of alveolar pneumonia with an anticholinergic selected from the group of compounds cited in present claim 2

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## 2. claims: 1,5-6,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1a

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## 3. claims: 1,7-9,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1b

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## 4. claims: 1,10,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1c

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## 5. claims: 1,11,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1d

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## 6. claims: 1,12,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1e

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## 7. claims: 1,13,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1f

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## 8. claims: 1,14,15-19

treatment of alveolar pneumonia with an anticholinergic of formula 1g

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/EP2005/053854
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