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60/705,237 2 August 2005 (02.08.2005) US

(71) Applicant (for all designated States except US): **PFIZER LIMITED** [GB/GB]; Ramsgate Road, Sandwich, Kent CT13 9NJ (GB).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MCMURRAY, Gordon** [GB/GB]; Pfizer Research and Development, Ramsgate Road, Sandwich, Kent CT13 9NJ (GB). **PHILLIPS, Stephen, Charles** [GB/GB]; Pfizer Research and Development, Ramsgate Road, Sandwich, Kent CT13 9NJ (GB). **WESTBROOK, Simon, Lempriere** [AU/AU]; Pfizer Research and Development, Ramsgate Road, Sandwich, Kent CT13 9NJ (GB).

(74) Agents: **DROUIN, Stéphane** et al.; Pfizer Research & Development, Ramsgate Road, Sandwich, Kent CT13 9NJ (GB).

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(54) Title: MC4R-AGONISTS FOR THE TREATMENT OF URINARY TRACT DYSFUNCTION

(57) Abstract: This invention relates to the use of an MC4 receptor agonist compound for the manufacture of a medicament for the treatment of lower urinary tract dysfunction.

INTERNATIONAL SEARCH REPORT

International application No
PCT/IB2006/002119

A. CLASSIFICATION OF SUBJECT MATTER
 INV. A61K31/501 A61K31/454 A61P13/00 A61P13/02 A61P13/08
 A61P43/00

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

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, CHEM ABS Data, MEDLINE, EMBASE, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2005/059558 A2 (BAYER HEALTHCARE AG [DE]; GOLZ STEFAN [DE]; BRUEGGEMEIER ULF [DE]; GEE) 30 June 2005 (2005-06-30) cited in the application the whole document page 2, line 24 - line 30 page 49, line 3 - line 14 claims 19-24 ----- -/--	1

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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Date of the actual completion of the international search 22 February 2007	Date of mailing of the international search report 21/03/2007
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Name and mailing address of the ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Taylor, Mark
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INTERNATIONAL SEARCH REPORT

International application No

PCT/IB2006/002119

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
E	WO 2007/015162 A (PFIZER LTD [GB]; ANDREWS MARK DAVID [GB]; BROWN ALAN DANIEL [GB]; FRAD) 8 February 2007 (2007-02-08) cited in the application abstract page 1, line 1 - page 9, line 20 page 27, line 4 - page 28, line 23 page 28, line 37 page 34, line 1 - line 3 claims 1-8,13,14 examples 1-64 -----	1-22
A	WO 2005/051380 A (BIOVITRUM AB [SE]; SCOBIE MARTIN [SE]; BROWNING ANDREW [SE]) 9 June 2005 (2005-06-09) abstract page 1, line 11 - line 15 claims 1-37 -----	1-22
A	WO 2004/096196 A2 (PFIZER LTD [GB]; MCMURRAY GORDON [GB]; MINER WESLEY DENNIS [GB]; PFIZE) 11 November 2004 (2004-11-11) abstract -----	1-22
P,A	WO 2005/100358 A (SCHERING CORP [US]; XIAO DONG [US]; PALANI ANANDAN [US]; WANG CHENG [U]) 27 October 2005 (2005-10-27) abstract page 23, line 19 - line 29 page 25, line 9 - line 18 page 26, line 22 - line 33 page 50, line 22 - line 31 claims 39,49 -----	1-22
P,A	MCMURRAY, G;CASEY, J H;NAYLOR A M: "Animal models in urological disease and sexual dysfunction" BRITISH JOURNAL OF PHARMACOLOGY, vol. 147, no. S2, February 2006 (2006-02), pages S62-S79, XP002421440 the whole document -----	1-22

INTERNATIONAL SEARCH REPORT

International application No.
PCT/IB2006/002119

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.: 1, 5, 6
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:
see FURTHER INFORMATION sheet PCT/ISA/210

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:

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.:

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

Continuation of Box II.2

Claims Nos.: 1,5,6

The expression "prodrug", used in claims 1, 5 and 6, is so unclear that it cannot be searched.

It is not clear to the skilled man that for any given compound what derivatives - if at all - of would constitute a prodrug. Furthermore, the definition of a "prodrug" in terms of its properties (e.g. in vivo bioavailability, route of administration, half-life, Cmax) or their maximum/minimum values for these properties has no generally-accepted meaning in the art.

This expression has therefore been ignored for the purposes of this search.

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/IB2006/002119

Patent document cited in search report	Publication date	Patent family member(s)	Publication date																																
WO 2005059558	A2	30-06-2005	NONE																																
WO 2007015162	A	08-02-2007	NONE																																
WO 2005051380	A	09-06-2005	NONE																																
WO 2004096196	A2	11-11-2004	<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">AU</td> <td style="width: 40%;">2004233745</td> <td style="width: 10%;">A1</td> <td style="width: 30%;">11-11-2004</td> </tr> <tr> <td>BR</td> <td>PI0409730</td> <td>A</td> <td>09-05-2006</td> </tr> <tr> <td>CA</td> <td>2523379</td> <td>A1</td> <td>11-11-2004</td> </tr> <tr> <td>CN</td> <td>1780612</td> <td>A</td> <td>31-05-2006</td> </tr> <tr> <td>EP</td> <td>1620081</td> <td>A2</td> <td>01-02-2006</td> </tr> <tr> <td>JP</td> <td>2006524679</td> <td>T</td> <td>02-11-2006</td> </tr> <tr> <td>KR</td> <td>20060006063</td> <td>A</td> <td>18-01-2006</td> </tr> <tr> <td>MX</td> <td>PA05011410</td> <td>A</td> <td>12-12-2005</td> </tr> </table>	AU	2004233745	A1	11-11-2004	BR	PI0409730	A	09-05-2006	CA	2523379	A1	11-11-2004	CN	1780612	A	31-05-2006	EP	1620081	A2	01-02-2006	JP	2006524679	T	02-11-2006	KR	20060006063	A	18-01-2006	MX	PA05011410	A	12-12-2005
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WO 2005100358	A	27-10-2005	<table style="width: 100%; border: none;"> <tr> <td style="width: 10%;">AR</td> <td style="width: 40%;">048526</td> <td style="width: 10%;">A1</td> <td style="width: 30%;">03-05-2006</td> </tr> <tr> <td>CA</td> <td>2562138</td> <td>A1</td> <td>27-10-2005</td> </tr> <tr> <td>EP</td> <td>1747221</td> <td>A1</td> <td>31-01-2007</td> </tr> </table>	AR	048526	A1	03-05-2006	CA	2562138	A1	27-10-2005	EP	1747221	A1	31-01-2007																				
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