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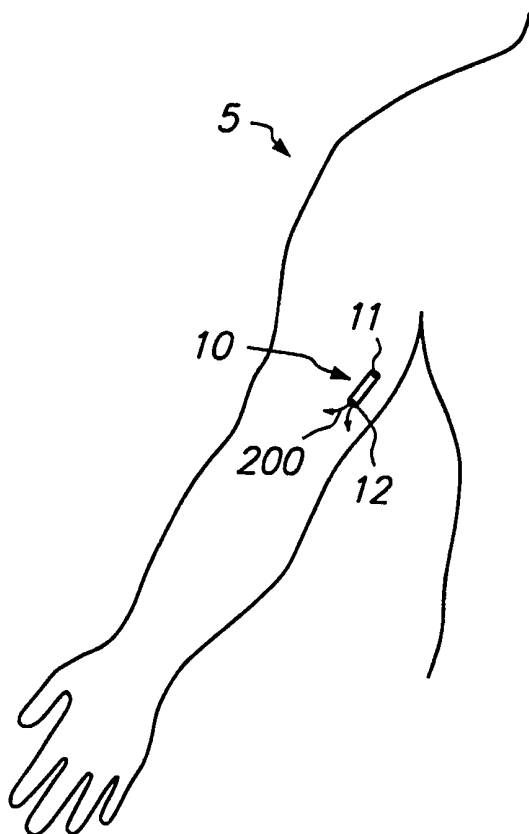
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60/125,589 18 March 1999 (18.03.1999) US
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[Continued on next page]

(54) Title: DEVICES AND METHODS FOR PAIN MANAGEMENT



(57) Abstract: The invention features devices and methods for the systemic delivery of fentanyl or a fentanyl congener (e.g., sufentanil) to treat pain. In the present invention, a drug formulation comprising fentanyl or a fentanyl congener is stored within a drug delivery device (e.g., contained in a reservoir or impregnated within a matrix within the controlled drug delivery device). The drug formulation comprises an amount of drug sufficient for treatment and is stable at body temperatures (*i.e.*, no unacceptable degradation) for the entire pre-selected treatment period. The drug delivery devices store the drug formulation safely (e.g., without dose dumping), provide sufficient protection from bodily processes to prevent unacceptable degradation of the formulation, and release the drug formulation in a controlled fashion at a therapeutically effective rate to treat pain. In use, the drug delivery device is implanted in the subject's body at an implantation site, and the drug formulation is released from the drug delivery device to a delivery site. The delivery site may be the same as, near, or distant from the implantation site. Once released at the delivery site, the drug formulation enters the systemic circulation and is transported to the site of action in the body to modulate the pain response (e.g., the brain or other pain sensory location).



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INTERNATIONAL SEARCH REPORT

Internz al Application No
PCT/US 00/07068

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61K31/4468 A61K9/70 A61F13/02 A61M5/00

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)
IPC 7 A61K A61F A61M

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

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X,P	WO 99 36071 A (KOREA RESEARCH INST OF CHEM TECHN) 22 July 1999 (1999-07-22) abstract page 11, line 21 - line 23; claims --- -/--	1-5, 11-14, 16-22, 27-38, 41-46

Further documents are listed in the continuation of box C.

Patent family members are listed in 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

Date of the actual completion of the international search

20 June 2000

Date of mailing of the international search report

04.09.2000

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INTERNATIONAL SEARCH REPORT

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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.
X	<p>WO 97 49391 A (EURO CELTIQUE SA) 31 December 1997 (1997-12-31)</p> <p>abstract page 8, line 7 - line 10 page 8, line 28 - line 30 page 9, line 27 -page 10, line 1; claims 1,5</p>	<p>1-5, 11-15, 20-22, 27-30, 36-41, 43-47</p>
X	<p>WO 98 51246 A (ELKHOORY GEORGE F) 19 November 1998 (1998-11-19)</p> <p>abstract page 8, line 22 - line 30 page 9, line 21 - line 22 page 10, line 5 - line 9 page 10, line 23 - line 28 page 17, line 8 - line 30</p>	<p>1-6,10, 11,13, 16-18, 20-22, 26-29, 31-34, 36-38, 41-45</p>
X	<p>US 5 672 167 A (AMULYA L ET AL) 30 September 1997 (1997-09-30) abstract column 13, line 5</p>	<p>1,7-9, 23-25</p>
A	<p>US 5 660 854 A (HAYNES D H ET AL) 26 August 1997 (1997-08-26) the whole document</p>	<p>1-47</p>
A	<p>US 5 633 000 A (GROSSMAN STUART A ET AL) 27 May 1997 (1997-05-27) the whole document</p>	<p>1-47</p>

INTERNATIONAL SEARCH REPORT

Application No.

PCT/US 00/07068

Box I Observations where certain claims were found unsearchable (Continuation of Item 1 of first sheet)

This search report has not been established in respect of certain claims for the following reasons:

1. SR 1.1 Claims Nos.: 1-36,46,47
because they relate to subject matter not required to be searched by this Authority, namely:

Remark: Although claims 1-36,46 and 47 are directed to a therapeutic method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition (see EPC, Article 52(4)).

2. SR 1.2 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. SR 1.3 Claims Nos.:

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

SR 2 This Searching Authority found multiple inventions in this international application, as follows:

This search is therefor restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

The Searching Authority will establish the search report on the other parts of the application only if an additional fee will be paid.

INTERNATIONAL SEARCH REPORT

Information on patent family members

Internat'l Application No PCT/US 00/07068

Patent document cited in search report	A	Publication date	Patent family member(s)	Publication date
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