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(88) Date of publication of the international search report:

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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: DEVICE AND METHODS FOR TREATING PARANASAL SINUS CONDITIONS

(57) Abstract: Described here are paranasal sinus devices for treating paranasal sinus conditions. The devices include a cavity member, ostial member, and nasal portion. One or more of the cavity member, ostial member, and nasal portion may deliver an active agent for sustained release to treat the paranasal sinus condition. Exemplary paranasal sinus conditions are sinus inflammation due to functional endoscopic sinus surgery (FESS) and rhinosinusitis.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/012484

A. CLASSIFICATION OF SUBJECT MATTER

INV. A61K31/573 A61K9/00 A61P29/00 A61M31/00

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, EMBASE, BIOSIS, FSTA

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	HOSEMAN ET AL.: "Innovative frontal sinus stent acting as a local drug-releasing system." EUROPEAN ARCHIVES OF OTO-RHINO-LARYNGOLOGY, vol. 260, no. 3, March 2003 (2003-03), pages 131-134, XP002395008 ISSN: 0937-4477	1,5-15, 18,19, 21,25, 26, 29-32, 38, 42-48, 53,54, 58, 62-65, 69,70, 80,83, 85-87, 103-106
Y	page 131, column 2 page 132, paragraphs 1,2 page 132, column 2, paragraph 2 page 11, line 30 - page 13, line 1 ----- -/--	97

☒ 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

Date of the actual completion of the international search

23 August 2006

Date of mailing of the international search report

11/09/2006

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2006/012484

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2003/133877 A1 (LEVIN BRUCE H) 17 July 2003 (2003-07-17)	1,5,15, 16,18, 19,29, 38, 42-46, 52,103, 104
Y	page 6, paragraphs 62,69,70 page 7, paragraphs 72,75,77 page 21, paragraphs 224,227 page 25, paragraph 265 - page 26 page 27, paragraph 282-290 - page 29 page 29, paragraphs 292,293 figures 4A-4L	60,61
X	US 2005/043706 A1 (EATON DONALD J ET AL) 24 February 2005 (2005-02-24)	1,5,8, 18, 20-24, 27-38, 42-47, 49,52, 105-114
Y	page 1, paragraph 6-12 - page 2 page 4, paragraph 50 - paragraph 55 figures 1A-B	55-57, 60,61, 66,71, 72,81, 82,88,89
X	US 5 693 065 A (RAINS, III ET AL) 2 December 1997 (1997-12-02) column 2, line 18 - line 55; claims 1-4 ----- -/--	92-96

INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/012484

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 792 100 A (SHANTHA ET AL) 11 August 1998 (1998-08-11)	1-5, 8, 15-19, 21, 25, 29, 36, 38, 42-46, 52-54, 58, 59, 62, 67-70, 73-80, 83, 84, 87, 90-92, 98-102, 105, 106
Y	claim 1 column 5, line 35 - line 51 column 3; paragraph 62 - paragraph 64 column 2, line 54 - line 64 figures 1-4	39-41, 50, 51, 55-57, 60, 61, 66, 71, 72, 81, 82, 88, 89, 97
Y	----- US 2004/043052 A1 (HUNTER WILLIAM L ET AL) 4 March 2004 (2004-03-04) page 3, paragraphs 29, 31, 32 page 12, paragraphs 78, 79 page 14, paragraph 95 page 49; example 2 claims 1-12	39-41
Y	----- US 2004/116958 A1 (GOPFERICH ACHIM ET AL) 17 June 2004 (2004-06-17) cited in the application page 7; example 1 claims 1, 2, 7-9, 11, 12 -----	50, 51
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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2006/012484

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	WO 2006/020180 A (EXPLORAMED NC1, INC; MAKOWER, JOSHUA; CHANG, JOHN, Y; VRANY, JULIA, D;) 23 February 2006 (2006-02-23) page 18, line 8 - page 20, line 29 page 21, line 1 - line 26 page 23, line 19 - page 25, line 24 page 31, line 5 - page 32, line 21 page 33, line 22 - page 34, line 15 page 39, line 16 - line 35 page 40, line 23 - page 41, line 31 figures 12A-F figures 2A-C	1-5, 8-13, 16-25, 29-39, 42-47, 52-58, 62-73, 76-85, 87-89, 91-96, 98-114
A	US 5 246 455 A (SHIKANI ET AL) 21 September 1993 (1993-09-21) cited in the application column 1, line 14 - line 40	1-114

INTERNATIONAL SEARCH REPORT

International application No.
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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:
Although claims 98 - 102 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
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:

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.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

PCT/US2006/012484

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
US 2003133877	A1	17-07-2003	NONE	
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			EP 1357861 A1	05-11-2003
WO 2006020180	A	23-02-2006	NONE	
US 5246455	A	21-09-1993	NONE	