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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: COMPOSITION AND METHOD FOR USING A CYTOKINE TO TREAT RESTENOSIS

(57) Abstract: The present invention provides devices, including stents and vascular catheters, comprising interleukin-10, for the treatment of restenosis and intimal hyperplasia associated with acute vascular injury. Also provided are methods for treating restenosis and preventing vascular obstruction.



WO 2006/047198 A3

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/37684

A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8): **A61M 5/00(2006.01),5/14(2006.01),5/142(2006.01);A61K 9/00(2006.01);A61B 19/00(2006.01)**

 USPC: 604/8,9;604/890.1,891.1,892.1;128/899
 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)
 U.S. : 604/8,9; 604/890.1, 891.1,892.1; 128/899

 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)
 EAST, PUBMED

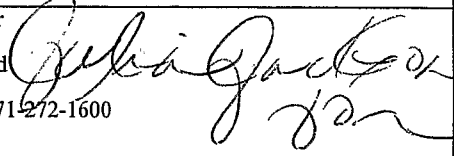
C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 2002/0128599 A1 (CORMIER et al) 12 September 2002 (12.09.2002), paragraphs 17-18, 67-68, 21, and 40.	1-3
X	US 2002/0090388 A1 (HUMES et al) 11 July 2002 (07.11.2002), paragraphs 11, 20, 25, 27, 75, and Figures 1-10.	1-3

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	"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
"E" earlier application or patent published on or after the international filing date	"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
"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)	"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
"O" document referring to an oral disclosure, use, exhibition or other means	"&" document member of the same patent family
"P" document published prior to the international filing date but later than the priority date claimed	

Date of the actual completion of the international search 03 February 2007 (03.02.2007)	Date of mailing of the international search report 27 FEB 2007
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (571) 273-3201	Authorized officer Cherie Woodward  Telephone No. 571-272-1600
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INTERNATIONAL SEARCH REPORT

International application No.

PCT/US05/37684

Box No. 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.: 4-21,25-59,60-72 (p. 40-41), 64-65 (p. 41), 67-68, 70-73, 77-83
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. 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:
Please See Continuation 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 additional fees, this Authority did not invite payment of any additional fees.
- 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.: 1-3

- Remark on Protest**
- The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
 - The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
 - No protest accompanied the payment of additional search fees.

BOX III. OBSERVATIONS WHERE UNITY OF INVENTION IS LACKING

This application contains the following inventions or groups of inventions which are not so linked as to form a single general inventive concept under PCT Rule 13.1.

Group I, claims 1-3, drawn to a device suitable for implantation in a patient and a method of use.

Group II, claims 22-24, drawn to a vascular catheter and method of use.

Group III, claim 66 [p.41], drawn to a biosynthetic graft material and method of use.

Group IV, claim 69, drawn to a method of treating or preventing vascular occlusion or obstruction comprising contacting the vascular lumen with IL-10.

Group V, claims 74-76, drawn to a method of preventing blood vessel obstruction after blood vessel grafting.

It is noted that there is a typographical error listing two sets of claims 64-72. The page numbers from the claim listing in the disclosure have been cited for ease of reference

The inventions listed as Groups I-V do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, they lack the same or corresponding special technical features for the following reasons: claim 1 is anticipated by CORMIER et al., US PreGrant Publication US 2002/0128599 A1 (published 12 September 2002). Cormier et al., teach a device and method for the percutaneous delivery of a biologically active agent. A device comprising a body having open ends, a sidewall and a polymer on at least a part of the surface of the sidewall is taught as a hollow needle at paragraphs 67 and 68. See also paragraphs 17-18. Microprojections are taught at paragraph 21. Coatings of IL-10 are taught at paragraph 40. As such, the remaining claims lack the same or corresponding technical feature.

Claims 4-21, 25-59, 60-72 (pp. 40-41), 64-65 (p. 41), 67-68, 70-73, and 77-83 are improperly dependent claims