



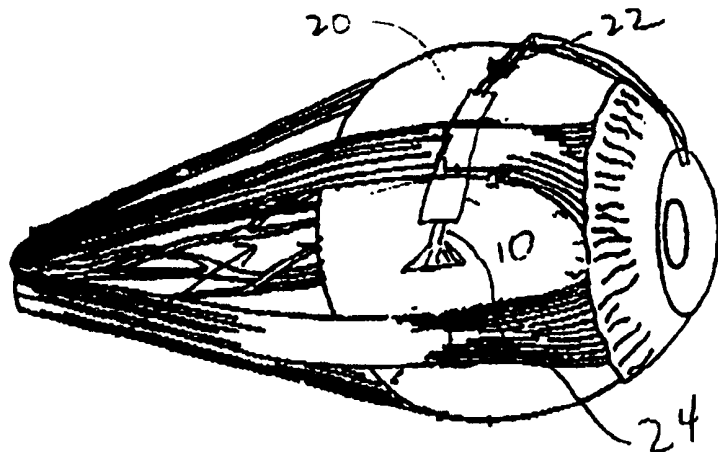
INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

<p>(51) International Patent Classification⁶ : A61F 9/007</p>	<p>A3</p>	<p>(11) International Publication Number: WO 99/38470 (43) International Publication Date: 5 August 1999 (05.08.99)</p>
<p>(21) International Application Number: PCT/US99/02010 (22) International Filing Date: 29 January 1999 (29.01.99) (30) Priority Data: 09/015,759 29 January 1998 (29.01.98) US (71)(72) Applicant and Inventor: SOLTANPOUR, David, Pyam [US/US]; 19A Addison Street, Larchmont, NY 10538 (US). (74) Agent: HOYTE, Alfred, F., Jr.; 131 E. Broad Street #206, Falls Church, VA 22046 (US).</p>	<p>(81) Designated States: CA, JP, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report. Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 7 October 1999 (07.10.99)</p>	

(54) Title: METHOD AND APPARATUS FOR CONTROLLING INTRAOCULAR PRESSURE

(57) Abstract

The present invention comprises a miniature pump (10) which can be implanted in the eye for controllably removing excess fluid from the eye to treat glaucoma. The pump (10), in accordance with the inventive method, may be placed beneath the conjunctiva and/or extraocular muscles. In order to ensure that the right amount of fluid is removed from the eye the pump (10) has a variable pumping rate, which results in a variable rate of removal of fluid from the eye. The pumping rate can be manually adjusted or automatically controlled in response to sensed ocular pressure. In the automatic mode, serious complications such as hypotony are avoided by reducing fluid flow when ocular pressure is low.



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INTERNATIONAL SEARCH REPORT

International Application No.
PCT/US 99/02010

A. CLASSIFICATION OF SUBJECT MATTER

A 61 F 9/007

According to International Patent Classification (IPC) or to both national classification and IPC⁶

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

A 61 F, A 61 M

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)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4911616 A (LAUMANN, C.W., JR.) 27 March 1990, fig. 7,8, abstract, column 7, line 60 - column 8, line 21, column 9, lines 14-27 (cited in the application). --	1, 2, 4
A	US 5370607 A (MEMMEN, J.E.) 06 December 1994, fig. 3-5, column 8, line 56 - column 9, line 24 (cited in the application). --	
A	WO 91/12046 A1 (ATOS MEDICAL AB) 22 August 1991, abstract, fig. 2, page 6,	5

 Further documents are listed in the continuation of box C. Patent family members are listed in annex.

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Date of the actual completion of the international search

23 July 1999

Date of mailing of the international search report

23. 08. 1999

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INTERNATIONAL SEARCH REPORT

International Application No
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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.
A	line 28 - page 7, line 9, claims 1,9,10. -- US 5127901 A (ODRICH, R.B.) 07 July 1992, abstract, fig. 1-4, column 3, line 67 - column 4, line 46, column 5, lines 5-21. ----	3

ANHANG

zum internationalen Recherchenbericht über die internationale Patentanmeldung Nr.

In diesem Anhang sind die Mitglieder der Patentfamilien der im obengenannten internationalen Recherchenbericht angeführten Patentdokumente angegeben. Diese Angaben dienen nur zur Unterrichtung und erfolgen ohne Gewähr.

ANNEX

to the International Search Report to the International Patent Application No.

PCT/US 99/02010 SAE 233913

This Annex lists the patent family members relating to the patent documents cited in the above-mentioned international search report. The Office is in no way liable for these particulars which are given merely for the purpose of information.

ANNEXE

au rapport de recherche international relatif à la demande de brevet international n°

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Im Recherchenbericht angeführtes Patentdokument Patent document cited in search report Document de brevet cité dans le rapport de recherche	Datum der Veröffentlichung Publication date Date de publication	Mitglied(er) der Patentfamilie Patent family member(s) Membre(s) de la famille de brevets	Datum der Veröffentlichung Publication date Date de publication
US A 4911616	27-03-1990	keine - none - rien	
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