



- (51) International Patent Classification:  
A61F 9/007 (2006.01)
- (21) International Application Number:  
PCT/US2009/033049
- (22) International Filing Date:  
4 February 2009 (04.02.2009)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:  
12/029,255 11 February 2008 (11.02.2008) US
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- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: DEVICES AND METHODS FOR OPENING FLUID PASSAGEWAYS

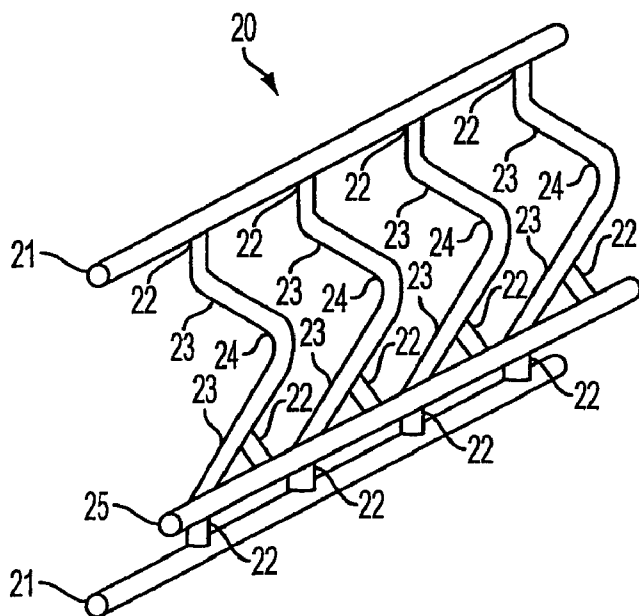


FIG. 14

(57) Abstract: Devices and procedures for assisting drainage of aqueous humor from the eye are provided. In accordance with some embodiments, an implant sized to fit within the Schlemm's Canal is provided. The implant has a plurality of penetrating members having an unextended position in which the penetrating members lie generally close to the longitudinal axis of the implant and an extended position in which the penetrating members are extended outward. In use, the implant is advanced around at least a substantial portion of the Schlemm's Canal with the penetrating members in the first unextended position. After the implant is positioned within the Schlemm's Canal, the penetrating members are caused to move from the first unextended position to the second extended position, wherein the penetrating members penetrate the wall of the Schlemm's Canal. This creates fluid passageways in the wall of the Schlemm's Canal. The implant can also serve to keep the Schlemm's Canal open. A delivery device is also provided for implanting an implant into the Schlemm's Canal.

WO 2009/102594 A3



**Published:**

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

- *with international search report (Art. 21(3))*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))*

5 November 2009

**INTERNATIONAL SEARCH REPORT**

International application No  
PCT/US2009/033049

**A. CLASSIFICATION OF SUBJECT MATTER**  
INV. A61F9/007

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)  
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	WO 2007/087061 A (TRANSCEND MEDICAL INC [US]; DE JUAN EUGENE [US]; BOYD STEPHEN [US]; DE) 2 August 2007 (2007-08-02) abstract figures 1,3A,4,9A page 12, line 21 - page 13, line 2 page 14, line 3 - line 17 page 15, line 18 - page 16, line 14 page 17, line 11 - page 18, line 15 page 23, line 25 - page 24, line 10 page 35, line 11 - line 23	1-3, 7-13, 18-23
X	US 2004/147870 A1 (BURNS THOMAS W [US] ET AL) 29 July 2004 (2004-07-29) abstract paragraphs [0041], [0161], [0208], [0209] figure 35	1-6,11, 18

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

21 April 2009

Date of mailing of the international search report

22/09/2009

Name and mailing address of the ISA/

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## INTERNATIONAL SEARCH REPORT

International application No  
PCT/US2009/033049

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2008/005873 A (AQUESYS INC [US]; YU DAO-YI [AU]; ANDERSON CORY [US]; TRIP ROELOF [US]) 10 January 2008 (2008-01-10) paragraphs [0048], [0049], [0108] figures 28-33 -----	1,6,7, 10,11
X	US 2005/266047 A1 (TU HOSHENG [US] ET AL) 1 December 2005 (2005-12-01) abstract figure 55 paragraphs [0259], [0260], [0340], [0342], [0346] -----	1,7, 10-13,18

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US2009/033049

## 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.: 30-42  
because they relate to subject matter not required to be searched by this Authority, namely:  
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by surgery
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 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:

see additional sheet

1.  As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2.  As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of 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.:

1-23

### 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.

**FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210**

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

1. claims: 1-23

Implant for assisting drainage of aqueous humor from the eye.

2. claims: 24-29

Delivery device for impanting an implant.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2009/033049
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Patent document cited in search report	Publication date	Publication date	Patent family member(s)	Publication date
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