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- (71) Applicant (for all designated States except US):
MERIDIAN MEDICAL TECHNOLOGIES, INC.
[US/US]; Suite 301, 6350 Stevens Forest Road,
Columbia, MD 21046 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): **GRIFFITHS, Steven, M.** [US/US]; 8487 Spring Showers Way, Ellicott City, MD 21043 (US). **HILL, Robert, L.** [US/US]; 2903 Silver Spruce Lane, Abingdon, MD 21009 (US). **WAN-NARKA, Gerald, L.** [US/US]; 3284 Danmark Drive, Glenwood, MD 21738 (US).
- (74) Agents: **CERRITO, Francis, D.** et al.; Jones Day, 222 East 41st Street, New York, NY 10017-6702 (US).

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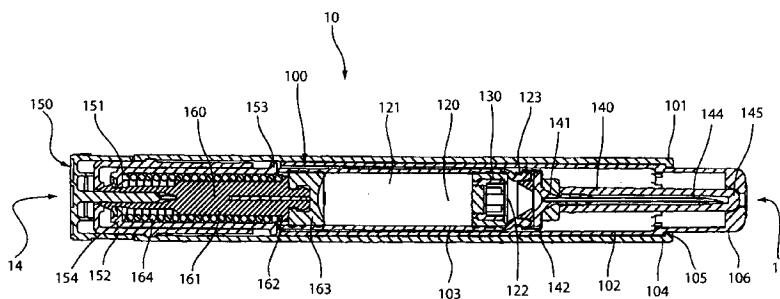


Fig. 1

(57) Abstract: A drug delivery system includes an automatic injector that can deliver a small, precise amount of a therapeutic agent. The automatic injector includes a chamber for containing a liquid component and a thin porous member that carries thereon and/or therein the small, precise amount of therapeutic agent. Upon activation of the automatic injector, a flow path opens from the chamber through the porous member, enabling the liquid component to rapidly mix with the therapeutic agent before being injected.

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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER
 IPC(8) - A61M 37/00 (2008.04)
 USPC - 604/82
 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)
 USPC:604/82

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
 USPC: 604/83-87, 131, 137

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
 PubWEST(USPT,PGPB,EPAB,JPAB); Google patent, google Scholar
 Search Terms: Automatic injector, liquid component, seal structure, chamber, porous member, needle, first/second state, diameter, thickness, integrated, sonically weld, metallic, ceramic, polymeric, filter, epinephrine, outer seal, inner seal, by-pass channel, rigl

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X --- Y	US 2004/0097874 A1 (Griffiths et al) 20 May 2004 (20.05.2004) Entire document, especially Abstract, para[0007], [0027], [0030],[0031], [0032], [0033], [0035], [0037] Fig.1, Fig.3A, Fig.5A	1,5-6,9,12-13,15-22, 27, 30-31,34-35,37-39, 41 ----- 2-4,7-8,10-11,14, 23-26, 28, 29, 32-33, 36, 40
Y	US 5,411,480 A (Kriesel) 2 May 1995 (02.05.1995) col.10 ln 29-32, col.31 ln 61-64. col.11 ln 43-46	2-3, 11, 25-26, 29 , 36
Y	US 5,779,676 A (Kriesel et al.) 14 July 1998 (14.07.1998) col.10 ln 57-60, col.10 ln 35-47	7-8, 23-24, 40
Y	US 2006/0034929 A1 (Brubaker) 16 February 2006 (16.02.1006) para[0079]	10, 28
Y	US 2006/0129122 A1 (Wyrick) 15 June 2006 (15.06.2006) para[0010],[0011]	4, 14, 32-33

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"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
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"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	

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