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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, BN, BR, BW, BY, BZ, CA, CH, CL, 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, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

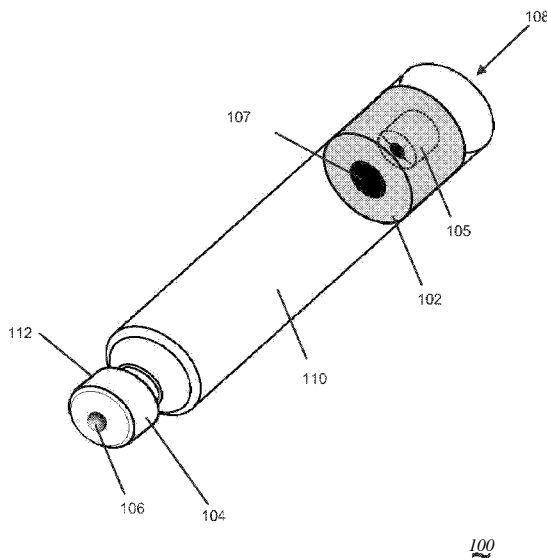
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(54) **Title:** A PREFILLED MEDICATION DEVICE, METHOD OF MAKING AND USING THE SAME



(57) **Abstract:** The invention generally relates to prefilled disposable medication devices, method of making, and using to store, contain and deliver at least a diluent for allergenic extract and more particularly to a prefilled cartridge containing a diluent for allergenic extract for use with an injection pen for allergy treatments.

FIG. 1



— *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))*

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## INTERNATIONAL SEARCH REPORT

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| <b>A. CLASSIFICATION OF SUBJECT MATTER</b><br><b>IPC(8) - A61M 5/28 (2014.01 )</b><br><b>USPC - 604/200</b><br>According to International Patent Classification (IPC) or to both national classification and IPC  |  |  |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
|---|--|--|--|-----|---|--|-----|--|---|-----|--|---|-----|---|--|--|--|--|--|--|
| <b>B. FIELDS SEARCHED</b><br>Minimum documentation searched (classification system followed by classification symbols)<br>IPC(8): A61J 1/06; A61 M 5/178, 5/28, 5/315 (2014.01)<br>USPC: 422/554; 604/200, 218; CPC: A61J 1/06; A61M 5/178, 5/28, 5/315<br>Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched<br>Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)<br>MicroPatent (US-G, US-A, EP-A, EP-B, WO, JP-bib, DE-C.B, DE-A, DE-T, DE-U, GB-A, FR-A); Google Scholar; ProQuest Dialog;<br>Medline/PubMed: allergen*, antigen, barrel, cap, cartridge, color, colour*, concentration, cover*, cuvette, date*, dilution, drug*, frequency, hue, identif*, indicia, inject*, lid, lot, mark*, medic*, pharmaceut*, phial, piston, plunger, prefill*, radio, rfid, seal*, syringe, tint*2, vial   |  |  |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
| <b>C. DOCUMENTS CONSIDERED TO BE RELEVANT</b>   |  |  |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
| Category*   | Citation of document, with indication, where appropriate, of the relevant passages   | Relevant to claim No.  |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
| X<br>-<br>Y<br>Y<br>Y<br>Y<br>Y<br>Y<br>Y   | <p>US 2002/0061315 A1 (KUNDIG, TM, et al.) May 23, 2002; paragraph [0077]; claim 9</p> <p>US 2002/0193740 A1 (ALCHAS, PG, et al.) December 19, 2002; figure 3; paragraphs [0016], [0017], [0037], [0040], [0047], [0068], [0069], [0074], [0075]</p> <p>NANDA, A, et al. "Dose dependence and time course of the immunologic response to administration of standardized cat allergen extract." Journal of allergy and clinical immunology 1</p> <p>US 2012/0000592 A1 (MASE, J, et al.) January 5, 2012; figure 3; paragraphs [0046], [0047], [0062]</p> <p>US 6,461,334 B1 (BUCH RASMUSSEN, T, et al.) October 8, 2002; column 4, lines 22-28; column 5, lines 26-27; column 6, lines 25-27; column 10, lines 38-67</p> <p>US 2012/0277684 A1 (CRONENBERG, R, et al.) November 1, 2012; paragraph [0044]</p> <p>US 2007/02391 12 A1 (FAGO, FM, et al.) October 11, 2007; paragraphs [0030], [0102], [0175]-[0186]</p> | <p>72, 73</p> <p>1-47, 49, 51/46, 52/46-66/46, 56/48, 56/50, 58/48, 58/50, 69-71</p> <p>1-66, 69-71</p> <p>20, 22, 23, 47-52, 53/48, 53/50, 54, 55, 56/48, 56/50, 57, 58/48-66/48, 58/50-60/50</p> <p>1, 4/1-7/1, 8-10, 11/1-45/1</p> <p>6, 36-40</p> <p>7, 16, 17</p> <p>11, 12</p> |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
| <input checked="" type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>   |  |  |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
| <table border="0"> <tr> <td>* Special categories of cited documents:</td> <td>"T"</td> <td>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</td> </tr> <tr> <td>"A" document defining the general state of the art which is not considered to be of particular relevance</td> <td>"X"</td> <td>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</td> </tr> <tr> <td>"E" earlier application or patent but published on or after the international filing date</td> <td>"Y"</td> <td>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</td> </tr> <tr> <td>"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)</td> <td>"&amp;"</td> <td>document member of the same patent family</td> </tr> <tr> <td>"O" document referring to an oral disclosure, use, exhibition or other means</td> <td></td> <td></td> </tr> <tr> <td>"P" document published prior to the international filing date but later than the priority date claimed</td> <td></td> <td></td> </tr> </table> |  |  | * Special categories of cited documents: | "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 | "A" document defining the general state of the art which is not considered to be of particular relevance | "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 | "E" earlier application or patent but published on or after the international filing date | "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 | "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) | "&" | document member of the same patent family | "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 |  |  |
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| Date of the actual completion of the international search<br>17 August 2014 (17.08.2014)  |  | Date of mailing of the international search report<br><b>08 SEP 2014</b>   |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |
| Name and mailing address of the ISA/US<br>Mail Stop PCT, Attn: ISA/US, Commissioner for Patents<br>P.O. Box 1450, Alexandria, Virginia 22313-1450<br>Facsimile No. 571-273-3201   |  | Authorized officer:<br>Shane Thomas<br>PCT Helpdesk: 571-272-4300<br>PCT OSP: 571-272-7774   |  |     |   |  |     |  |   |     |  |   |     |   |  |  |  |  |  |  |

## INTERNATIONAL SEARCH REPORT

14/03073808  
International application No.

PCT/US14/30756

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages                                | Relevant to claim No.               |
|-----------|---|-------------------------------------|
| Y         | US 201 1/0313395 A1 (KRULEVITCH, P, et al.) December 22, 201 1; paragraph [0033]                                  | 13-15, 18, 33-35, 66                |
| Y         | WO 2009/012601 A1 (CIGARINI, S, et al.) January 29, 2009; paragraph [0074]  | 19, 21, 53                          |
| Y         | US 2005/0232930 A1 (RICHTER-FRISS, M, et al.) October 20, 2005; paragraphs [0019]-[0023]                          | 26-30, 43/1-45/1 , 59-63, 64/46     |
| Y         | WO 2001/032208 A1 (HAYNES, JR, et al.) May 10, 2001; page 6, lines 4-6  | 30, 31. 43/-45/1 . 63, 64/48, 64/50 |
| Y         | US 2005/0038386 A1 (FAGO, FM, et al.) February 17, 2005; paragraph [01 14]  | 4 1, 42, 43/2-45/2, 43/3-45/3       |
| Y         | WO 2010/151704 A1 (PATRICK, T, et al.) December 29, 2010; paragraphs [0150], [0151], [0185], [0297]; figures 1, 8 | 43/2-45/2, 43/3-45/3                |