



(51) International Patent Classification:
A61B 17/28 (2006.01)

(21) International Application Number:
PCT/US2009/061358

(22) International Filing Date:
20 October 2009 (20.10.2009)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/106,914 20 October 2008 (20.10.2008) US

(71) Applicant (for all designated States except US): **SPINE VIEW, INC.** [US/US]; 48541 Warm Springs Blvd., Suite 507, Fremont, CA 94539 (US).

(72) Inventor; and

(75) Inventor/Applicant (for US only): **TO, John, T.** [US/US]; 36514 Dijon Drive, Newark, CA 94560 (US).

(74) Agents: **WU, Walter** et al.; Morrison & Foerster LLP, 755 Page Mill Road, Palo Alto, CA 94304-1018 (US).

(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, 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, 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, PE, 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, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: RETRACTOR CANNULA SYSTEM FOR ACCESSING AND VISUALIZING SPINE AND RELATED METHODS

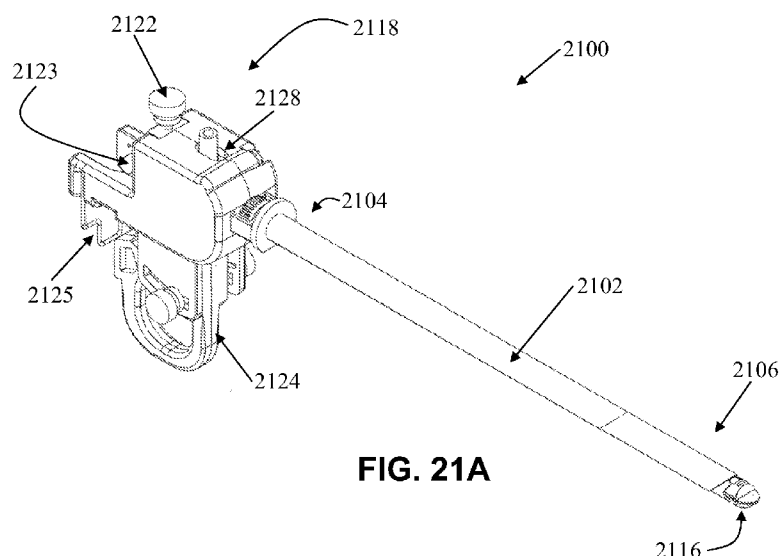


FIG. 21A

(57) Abstract: Retractor cannula systems may be used for accessing and visualizing the spine and related methods of treatment, including a forward-looking retractor cannula system for creating a working space and the retractor cannula system having atraumatic dissection capability to allow visualization in spine. The devices and methods described may be used, for example, to perform annulus repair, herniated disc excision, and denervation of neurological tissue; to dispense pharmacological agents and/or cell or tissue therapy agents; to diagnose disc degeneration and bony degeneration, spinal stenosis, and nucleus decompression, and to perform disc augmentation.

