

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
07 January 2021 (07.01.2021)



(10) International Publication Number  
**WO 2021/003110 A1**

(51) International Patent Classification:

A61B 5/053 (2021.01) A61B 5/153 (2006.01)  
A61B 5/00 (2006.01) A61B 5/02 (2006.01)  
A61M 5/172 (2006.01)

(21) International Application Number:

PCT/US2020/040168

(22) International Filing Date:

29 June 2020 (29.06.2020)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

62/870,253 03 July 2019 (03.07.2019) US  
16/912,421 25 June 2020 (25.06.2020) 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, BN, BR, BW, BY, BZ,  
CA, CH, CL, CN, CO, CR, CU, CZ, DE, DJ, DK, DM, DO,  
DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN,  
HR, HU, ID, IL, IN, IR, IS, JO, JP, KE, KG, KH, KN, KP,  
KR, KW, KZ, LA, LC, LK, LR, LS, 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, ST, SV, SY, TH, TJ, TM, TN, TR,  
TT, TZ, UA, UG, US, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every

kind of regional protection available): ARIPO (BW, GH,  
GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ,  
UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ,  
TM), European (AL, 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, RS, SE, SI, SK, SM,  
TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,  
KM, ML, MR, NE, SN, TD, TG).

(54) Title: SENSING CATHETERS

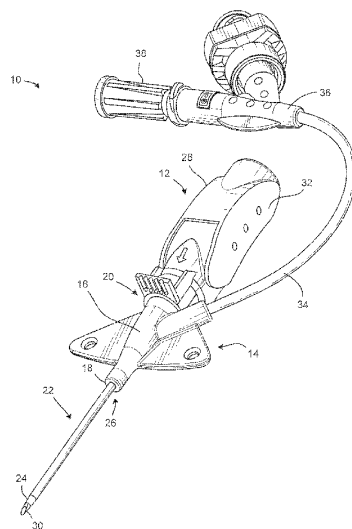


FIG. 1A

(57) Abstract: A catheter system may include a catheter lumen, first and second electrodes, and a sensor in communication with the first and second electrodes. The sensor may be configured to detect at least one of: a bulk volume of blood within a blood vessel and extravasation of a drug from the blood vessel into soft tissue adjacent the blood vessel. Other catheter systems may include a catheter lumen and a sensing chip coupled to the catheter lumen. The sensing chip may be configured to detect at least one of: a bulk volume of blood within a blood vessel and extravasation of a drug from the blood vessel into soft tissue adjacent the blood vessel.

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**Declarations under Rule 4.17:**

- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))*

**Published:**

- *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))*