



(51) International Patent Classification:

A61B 5/00 (2006.01) A61N 1/05 (2006.01)
A61B 5/04 (2006.01)

(21) International Application Number:

PCT/SG2014/000581

(22) International Filing Date:

5 December 2014 (05.12.2014)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

201320797372.2 5 December 2013 (05.12.2013) CN

(72) Inventors; and

(71) Applicants : PANG, Dexing [US/US]; 227A Route 111,
Smithtown, NY 11787 (US). LONG, Qiongzhen [SG/SG];
No. 39, Leedon Road, Singapore 267866 (SG).

(74) Agent: YUSARN AUDREY; 24 Raffles Place, #27-01,
Clifford Centre, Singapore 048621 (SG).

(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, 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.

(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).

Declarations under Rule 4.17:

— of inventorship (Rule 4.17(iv))

Published:

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

(54) Title: IMPLANTABLE BIOSENSOR

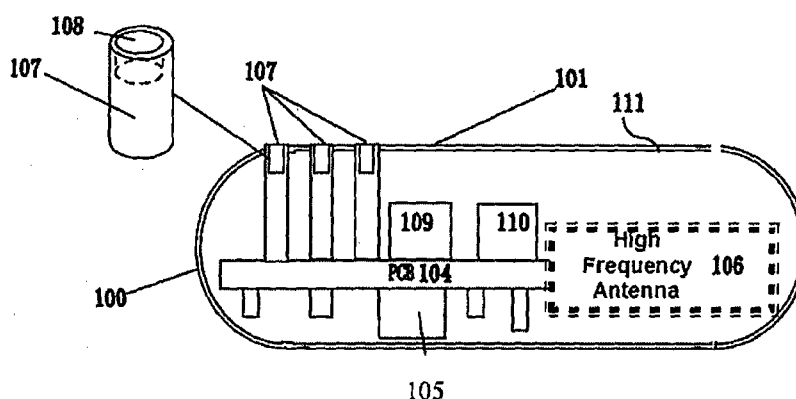


Figure 1

(57) Abstract: The present invention provides a fully implantable device for monitoring at least one physiological parameter of an individual. The device comprises at least one sensor configured to generate a sensor signal representative of the physiological parameter, where each sensor has at least one electrode and at least one membrane adapted to separate the electrode from a medium external to the device. The device also has a programmable chip configured to receive, process and transmit the sensor signal, and a housing adapted to accommodate the sensor and the programmable chip. The present invention further includes a transponder for working with the device and a kit including the device and a means for implantation of the device. Furthermore, the present invention includes a system for monitoring at least one physiological parameter of an individual, the system including a fully implantable device.