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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
28 August 2025 (28.08.2025)

WIPO | PCT

(10) International Publication Number
WO 2025/175399 A1

(51) International Patent Classification:
A61K 50/00 (2006.01) *A61K 47/62* (2017.01)
A61K 9/06 (2006.01) *A61K 47/69* (2017.01)
A61K 31/785 (2006.01) *A61P 25/00* (2006.01)
A61K 47/42 (2017.01) *C08G 73/02* (2006.01)

(21) International Application Number:
PCT/CA2025/050231

(22) International Filing Date:
21 February 2025 (21.02.2025)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
63/557,264 23 February 2024 (23.02.2024) US

(71) Applicant: **UNIVERSITY HEALTH NETWORK** [CA/CA]; 190 Elizabeth Street, R. Fraser Elliott Building - Room 1S-417, Toronto, Ontario M5G 2C4 (CA).

(72) Inventor: **LI, Ren-ke**; 117 McKee Avenue, Toronto, Ontario M2N 4C2 (CA).

(74) Agent: **SMART & BIGGAR LP** et al.; Scotia Plaza, 40 King Street West, 40th Floor, Toronto, Ontario M5H 3Y2 (CA).

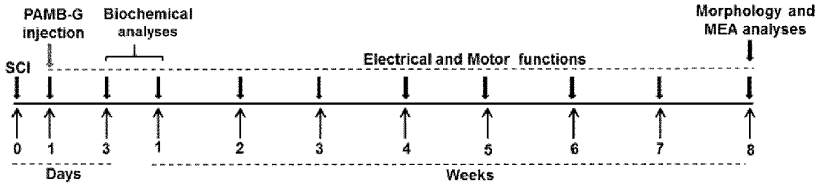
(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CV, CZ, DE, DJ, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IQ, IR, IS, IT, JM, JO, JP, KE, KG, KH, KN, KP, KR, KW, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, MG, MK, MN, MU, 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, UY, UZ, VC, VN, WS, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, CV, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SC, 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, ME, 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).

Published:
— *with international search report (Art. 21(3))*
— *in black and white; the international application as filed contained color or greyscale and is available for download from PATENTSCOPE*

(54) Title: CONDUCTIVE BENZOIC ACID BASED POLYMER CONTAINING BIOMATERIAL FOR REPAIRING NERVOUS SYSTEM INJURY

FIG. 1A



(57) Abstract: The present disclosure provides a method of treating a neurological lesion, including spinal cord injury, the method comprises administering a conductive biocompatible biomaterial to a subject in need thereof. The conductive biocompatible biomaterial comprises a conductive polymer and a biocompatible component, wherein the conductive polymer comprises an aminomethoxybenzoic acid (AMBA) polymer.

WO 2025/175399 A1