

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

(19) World Intellectual Property
Organization
International Bureau

(43) International Publication Date
03 March 2022 (03.03.2022)



(10) International Publication Number
WO 2022/043754 A3

(51) International Patent Classification:

A61K 47/22 (2006.01) C07C 65/05 (2006.01)
A61K 47/12 (2006.01) C07D 307/62 (2006.01)
A61K 51/08 (2006.01) C07K 7/06 (2006.01)
A61P 35/00 (2006.01) C07K 14/655 (2006.01)

(21) International Application Number:

PCT/IB2021/000589

(22) International Filing Date:

27 August 2021 (27.08.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

63/071,138 27 August 2020 (27.08.2020) US

(71) Applicant: **CENTRE FOR PROBE DEVELOPMENT
AND COMMERCIALIZATION (CPDC)** [CA/CA];
1280 Main St. W., NRB-A302, Hamilton, ON L8S 4K1
(CA).

(72) Inventors: **MCCANN, Joe**; 22 St. Clair Avenue East, Suite
1201, Toronto, ON M4T 2S3 (CA). **KELLY, Justyna**; 56
Fraserwood Court, Cambridge, ON N1S 0B3 (CA). **BIL-**

LONE, Paul; 100 Old Ancaster Rd., Dundas, ON L9H 3R2
(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, 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, IT, 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: **RADIOPHARMACEUTICAL AND METHODS**

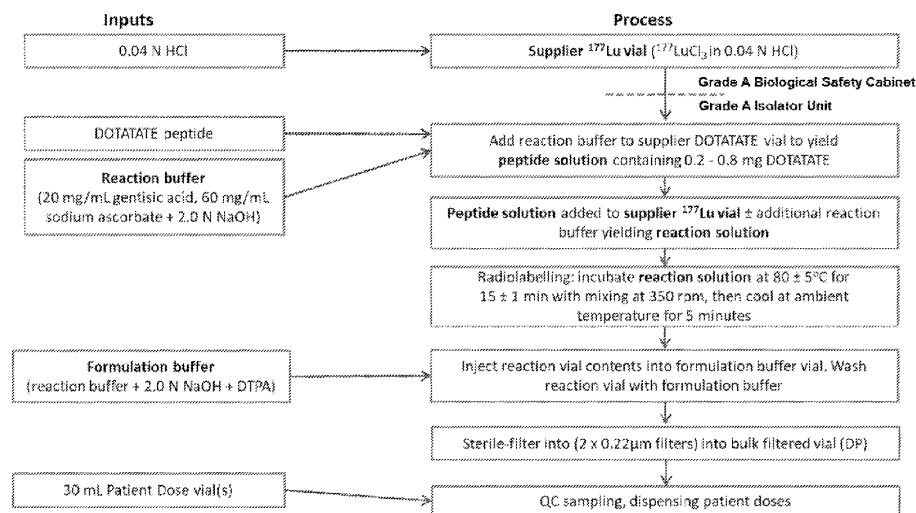


FIG. 1

(57) Abstract: A radiopharmaceutical ^{177}Lu -DOTATATE compound, a composition, and a kit are provided. Further provided are methods of synthesis of a ^{177}Lu -DOTATATE compound and methods of treatment that comprise a ^{177}Lu -DOTATATE compound.

[Continued on next page]

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))*

(88) Date of publication of the international search report:
07 April 2022 (07.04.2022)