

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

(19) World Intellectual Property  
Organization  
International Bureau

(43) International Publication Date  
14 October 2021 (14.10.2021)



(10) International Publication Number  
**WO 2021/205185 A1**

(51) International Patent Classification:

A61K 51/04 (2006.01) A61K 101/02 (2006.01)

(21) International Application Number:

PCT/GB2021/050877

(22) International Filing Date:

09 April 2021 (09.04.2021)

(25) Filing Language:

English

(26) Publication Language:

English

(30) Priority Data:

2005282.5 09 April 2020 (09.04.2020) GB

(71) Applicants: **BLUE EARTH DIAGNOSTICS LTD**

[GB/GB]; Magdalen Centre, The Oxford Science Park, Oxford OX4 4GA (GB). **SIEMENS MEDICAL SOLUTIONS USA, INC.** [US/US]; 40 Liberty Blvd, Malvern, Pennsylvania 19355 (US).

(72) Inventors: **BEJOT, Romain**; Blue Earth Diagnostics

Ltd, Magdalen Centre, The Oxford Science Park, Oxford OX4 4GA (GB). **HAKA, Michael**; 11911 Black Road, Knoxville, Tennessee 37932 (US). **ANZELLOTTI, Atilio**; 113 Dartmouth Cir., Oak Ridge, Tennessee 37830 (US).

(74) Agent: **STRATAGEM IPM LIMITED**; Meridian Court,

Comberton Road, Toft, Cambridge CB23 2RY (GB).

(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).

Published:

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

(54) Title: PHARMACEUTICAL FORMULATIONS

(57) Abstract: The present invention relates to a pharmaceutical composition comprising a radiohybrid agent containing a silicon-fluoride and a chelating group wherein either the fluorine is <sup>18</sup>F or the chelating group contains a chelated radioactive metal, wherein the composition has a pH of 4.0-6.0 and further comprises: 0.1-200 mM citrate buffer; 1-100 mg/mL ethanol; and 5-10 mg/mL sodium chloride.

WO 2021/205185 A1