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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
3 February 2005 (03.02.2005)

PCT

(10) International Publication Number
WO 2005/009393 A3

(51) International Patent Classification[7]: A61K 51/00

(21) International Application Number:
PCT/US2004/023930

(22) International Filing Date: 23 July 2004 (23.07.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/489,850 24 July 2003 (24.07.2003) US

(71) Applicant *(for all designated States except US)*: **BRACCO IMAGING S.P.A.** [IT/IT]; Via Egidio Folli 50, I-20134 Milan (IT).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **CHEN, Jianqing** [CN/US]; 7802 Tamarron Drive, Plainsboro, NJ 08536 (US). **LINDER, Karen, E.** [US/US]; 14 Basin Street, Kingston, NJ 08528 (US). **MARINELLI, Edmund, R.** [US/US]; 190 Eldridge Avenue, Lawrenceville, NJ 08648 (US). **METCALFE, Edward** [US/US]; 1503 William & Mary Common, Hillsborough, NJ 08844 (US). **NUNN, Adrian** [GB/US]; 33 Mill Road, Lamberville, NJ 08530 (US). **SWENSON, Rolf, E.** [US/US]; 35 Fieldston Road, Princeton, NJ 08540 (US). **TWEEDLE, Michael** [US/US]; 72 Library Place, Princeton, NJ 08540 (US).

(74) Agents: **RHOADS, Donald, L.** et al.; Kramer Levin Naftalis & Frankel LLP, 919 Third Avenue, New York, NY 10022 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
7 April 2005

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: STABLE RADIOPHARMACEUTICAL COMPOSITIONS AND METHODS FOR PREPARATION

(57) Abstract: Stabilized radiopharmaceutical formulations are disclosed. Methods of making and using stabilized radiopharmaceutical formulations are also disclosed. The invention relates to stabilizers that improve the radiostability of radiotherapeutic and radiodiagnostic compounds, and formulations containing them. In particular, it relates to stabilizers useful in the preparation and stabilization of targeted radiodiagnostic and radiotherapeutic compounds, and, in a preferred embodiment, to the preparation and stabilization of radiodiagnostic and radiotherapeutic compounds that are targeted to the Gastrin Releasing Peptide Receptor (GRP-Receptor).

WO 2005/009393 A3