

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
30 September 2004 (30.09.2004)

PCT

(10) International Publication Number
WO 2004/082722 A2

(51) International Patent Classification⁷: **A61K 51/00**

(21) International Application Number:
PCT/EP2004/050329

(22) International Filing Date: 18 March 2004 (18.03.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
03006061.0 19 March 2003 (19.03.2003) EP

(71) Applicants (for all designated States except US): **Kantonsspital Basel** [CH/CH]; Hebelstrasse 30, CH-4031 Basel (CH). **Universität Bern** [CH/CH]; Hochschulstrasse 4, CH-3012 Bern (CH).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MERLO, Adrian** [CH/CH]; Im Stigler 8, CH-4312 Magden (CH). **MÄCKE, Helmut** [DE/DE]; Bergfriedweg 7, 79539 Lörrach (DE). **REUBI, Jean-Claude** [CH/CH]; Austrasse 4, CH-3084 Wabern (CH). **GOOD, Stephan** [CH/CH]; Steinrebenstrasse 108, CH-4153 Reinach (CH).

(74) Agent: **MAUÉ, Paul Georg**; Solvias AG, Patents WKL-402.3.04, Klybeckstr. 191, CH-4002 Basel (CH).

(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, 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:

— without international search report and to be republished upon receipt of that report

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: **RADIOPHARMACEUTICALS FOR CANCER DIAGNOSIS AND TREATMENT**

(57) **Abstract:** Radionuclide labelled conjugates based on substance P and analogues thereof with the chelator (DOTAGA) (1-(1-(carboxy-3-carboxy-propyl)-4,7, 10(carboxymethyl)-1,4,7,10-tetraazacyclo-dodecane, DOTASA (1-(1-(carboxy-2carboxy-ethyl)-4,7, 10 (carboxymethyl)-1,4,7, 10-tetraazacyclo-dodecane, or chelator (DOTA) [1,4,7, 10 tetraazaacyclo-dodecane-1,4,7, 10-tetra(acetic acid)] are useful radiopharmaceutical substances for targeting and treatment of brain tumors, especially gliomas.



WO 2004/082722 A2