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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 November 2012 (22.11.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/158030 A3

(51) **International Patent Classification**:
A61K 9/28 (2006.01) *A61K 31/519* (2006.01)
A61K 9/20 (2006.01) *A61K 31/568* (2006.01)

(21) **International Application Number**:
PCT/NL2012/050336

(22) **International Filing Date**:
14 May 2012 (14.05.2012)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
11166091.6 13 May 2011 (13.05.2011) EP
11181165.9 13 September 2011 (13.09.2011) EP
11183732.4 3 October 2011 (03.10.2011) EP

(71) **Applicant** *(for all designated States except US)*: **EMOTIONAL BRAIN B.V.** [NL/NL]; Louis Armstrongweg 78, NL-1311 RL Almere (NL).

(72) **Inventors; and**

(75) **Inventors/Applicants** *(for US only)*: **BLOEMERS, Johannes Martinus Maria** [NL/NL]; c/o Emotional Brain B.V., Louis Armstrongweg 78, NL-1311 RL Almere (NL). **EISSENS, Anko Cornelus** [NL/NL]; Department of Pharmaceutical Technology and Biopharmacy, Antonius Deusinglaan 1, NL-9713 AV Groningen (NL). **FRIJLINK, Henderik Willem** [NL/NL]; Department of Pharmaceutical Technology and Biopharmacy, Antonius Deusinglaan 1, NL-9713 AV Groningen (NL). **DE LEEDE, Leonardus Gerardus Jozef** [NL/NL]; c/o Exelion Bio-Pharmaceutical Consultancy B.V., Woubrechterf 70, NL-2743 HM Waddinxveen (NL).

(74) **Agent**: **JANSEN, C.M.**; Johan de Wittlaan 7, NL-2517 JR Den Haag (NL).

(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, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, 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, 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, ML, MR, NE, SN, TD, TG).

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**:
18 April 2013

(54) **Title**: DRUG DELIVERY SYSTEM

(57) **Abstract**: The invention relates to a time controlled, immediate release drug delivery system for oral administration of a first active ingredient to a subject in need thereof. The invention additionally relates to a dual drug delivery device, comprising the time controlled, immediate release drug delivery system according to the invention, further comprising a second coating comprising a second active ingredient.

WO 2012/158030 A3