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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 May 2008 (08.05.2008)

PCT

(10) International Publication Number
WO 2008/054123 A1

(51) International Patent Classification:
A61K 9/22 (2006.01) *A61K 9/48* (2006.01)
A61K 31/00 (2006.01)

(21) International Application Number:
PCT/KR2007/005405

(22) International Filing Date: 30 October 2007 (30.10.2007)

(25) Filing Language: Korean

(26) Publication Language: English

(30) Priority Data:
10-2006-0105617 30 October 2006 (30.10.2006) KR

(71) Applicant *(for all designated States except US)*: **HANALL PHARMACEUTICAL COMPANY, LTD.** [KR/KR]; 400-1, Sangseo-dong, Daedeok-gu, Daejeon 306-120 (KR).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **KIM, Sung Wuk** [KR/KR]; 102-304, Samhwan Villa, 250, Gumi-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-802 (KR). **JUN, Sung Soo** [KR/KR]; 426-701, Hyundai Apt., Seo-hyeon-dong, Bundang-gu, Seongnam-si, Gyeonggi-do 463-777 (KR). **JO, Young Gwan** [US/KR]; 103-202, Eullim City, 650-1, Jijok-dong, Yuseong-gu, Daejeon 305-330 (KR). **KOO, Ja Seong** [KR/KR]; 110-1407, Hanmaeul Apt., Songgang-dong, Yuseong-gu, Daejeon 305-756 (KR). **SON, Jae Woon** [KR/KR]; 202-505, 2 Danji, Uman Jugong Apt., Uman 2-dong, Paldal-gu, Suwon-si, Gyeonggi-do 442-753 (KR).

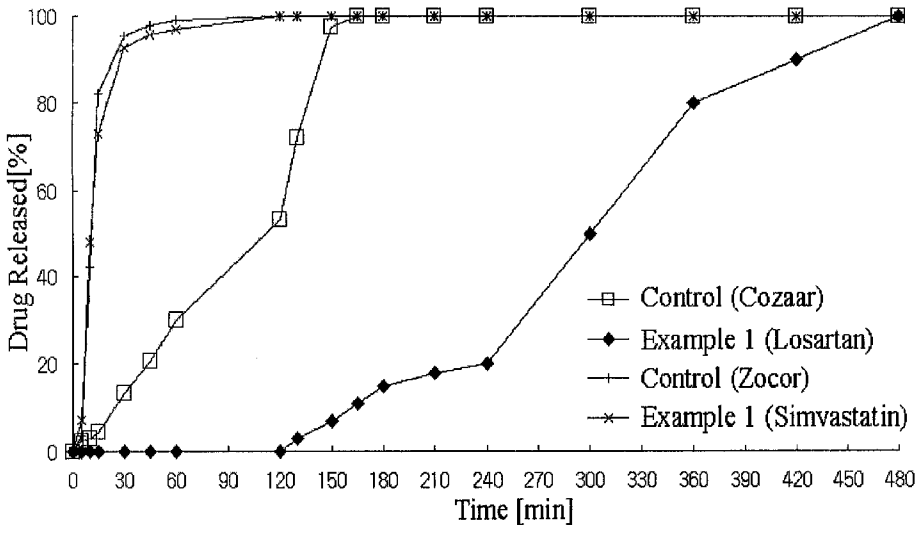
(74) Agent: **SUH, Jong Wan**; J.W.SUH & PARTNERS, 3rd Floor, PetP Bldg., 1580-9, Seocho-3-dong, Seocho-gu, Seoul 137-875 (KR).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, 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, 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, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: CONTROLLED RELEASE COMPLEX COMPOSITION COMPRISING ANGIOTENSIN-II-RECEPTOR BLOCKERS AND HMG-COA REDUCTASE INHIBITORS



(57) Abstract: Disclosed herein is a lag time delayed-release combination pharmaceutical composition comprising of an angiotensin-II-receptor blocker and an HMG-CoA reductase inhibitor, as well as a preparation method thereof. The composition is designed based on chronotherapy in which active ingredients are administered to have different onset times, such that the release of each active ingredient of the composition in body can be lag time delayed to a specific rate. Also, the composition is very effective for the treatment of hypertension and the prevention of complications in patients having metabolic syndromes which show diabetes, obesity, hyperlipidemia, coronary artery diseases and the like. More specifically, the composition is a drug delivery system designed such that the release of each drug is controlled to a specific rate, and it can show the most ideal effect, when it is absorbed in body.

WO 2008/054123 A1

European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, MT, 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*