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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
15 May 2014 (15.05.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/073845 A1

(51) **International Patent Classification**:
A61K 38/26 (2006.01) *A61K 39/395* (2006.01)
C07K 14/605 (2006.01) *A61P 3/10* (2006.01)

(21) **International Application Number**:
PCT/KR2013/009990

(22) **International Filing Date**:
6 November 2013 (06.11.2013)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:
10-2012-0124724 6 November 2012 (06.11.2012) KR

(71) **Applicant**: **HANMI PHARM. CO., LTD.** [KR/KR]; 214, Muha-ro, Paltan-myeon, Hwaseong-si, Gyeonggi-do 445-958 (KR).

(72) **Inventors**: **KIM, Jin Sun**; 103-1501, 10, Saeun-ro 126beon-gil, Giheung-gu, Yongin-si, Gyeonggi-do 446-954 (KR). **KIM, Dae Jin**; 506-1901, 103, Byeongjeom 2-ro, Hwaseong-si, Gyeonggi-do 445-764 (KR). **LEE, Sang Hyun**; 107-306, 25, Dokseodang-ro 40-gil, Seongdong-gu, Seoul 133-767 (KR). **JUNG, Sung Youb**; 109-105, 373, Gwongwang-ro, Paldal-gu, Suwon-si, Gyeonggi-do 442-754 (KR). **KWON, Se Chang**; 408-1804, 221, Seol-leung-ro, Gangnam-gu, Seoul 135-506 (KR).

(74) **Agent**: **SON, Min**; Hanol Intellectual Property & Law, STX R&D Center, 6th Floor, 163, YangJaeCheon-ro, Gangnam-gu, Seoul 135-855 (KR).

(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, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, 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, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, 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.

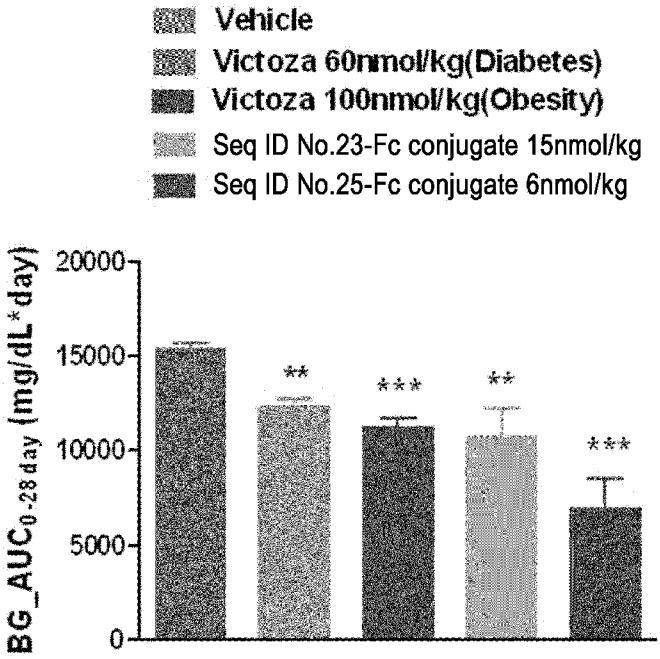
(84) **Designated States** *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, 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, KM, ML, MR, NE, SN, TD, TG).

Published:

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

[Continued on next page]

(54) **Title**: A COMPOSITION FOR TREATING DIABETES OR DIABESITY COMPRISING OXYNTOMODULIN ANALOG



(57) **Abstract**: The present invention relates to a composition for preventing or treating diabetes, disbesity or diabetic complications, comprising an oxyntomodulin analog as an active ingredient. The invention also relates to a method for treating diabetes, diabesity or diabetic complications, comprising administering a pharmaceutically effective amount of an oxyntomodulin analog to a subject. The oxyntomodulin analog has a high ability to activate the GLP-1 receptor and the glucagon receptor, compared to native oxyntomodulin. The oxyntomodulin analog induces the expansion of beta-cells and increases insulin secretion, thereby reducing blood glucose levels that were increased due to a high-calorie and high-fat diet. The oxyntomodulin analog induces decreases in body weight and diet intake to improve insulin sensitivity and allow blood glucose levels, which are not controlled due to insulin resistance, to be maintained at normal levels. Thus, the oxyntomodulin analog can be effectively used to prevent or treat of diabetes and related diseases.

WO 2014/073845 A1

— *with sequence listing part of description (Rule 5.2(a))*