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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 September 2014 (25.09.2014)

WIPO | PCT

(10) International Publication Number
WO 2014/152606 A3

(51) International Patent Classification:
A61K 31/19 (2006.01) *A61P 3/10* (2006.01)

(21) International Application Number:
PCT/US2014/027524

(22) International Filing Date:
14 March 2014 (14.03.2014)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/783,301	14 March 2013 (14.03.2013)	US
61/840,990	28 June 2013 (28.06.2013)	US
61/866,061	15 August 2013 (15.08.2013)	US

(71) Applicant: **ABBOTT LABORATORIES** [US/US]; Dept. 377/AP6A-1, 100 Abbott Park Road, Abbott Park, IL 60064 (US).

(72) Inventors: **LUO, Menghua**; 4554 Commons Park Drive, New Albany, OH 43054 (US). **PEREIRA, Suzette**; 345 Barrington Drive, Westerville, OH 43082 (US). **EDENS, Neile**; 264 Westwood Road, Columbus, OH 43214 (US). **DAVIS, Gerard**; 1090 Jessica Drive, Wauconda, IL 60084 (US). **GAWEL, Susan**; 821 Newberry Avenue, Lagrange Park, IL 60526 (US). **CHANDRAN, Raj**; 1316 Maple Avenue, Unit 12, Evanston, IL 60201 (US).

(74) Agents: **ENGLE, Mark, R.** et al.; Abbott Nutrition a Division of Abbott Laboratories, 3300 Stelzer Road, Dept 108140 RP3-2, Columbus, OH 43219 (US).

(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, 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, 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))*

— *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:
5 February 2015

(54) Title: TREATMENT OF INSULIN RESISTANCE ASSOCIATED WITH PROLONGED PHYSICAL INACTIVITY

(57) Abstract: Insulin resistance biomarkers and related methods of using the biomarkers are provided. The biomarkers may be blood biomarkers and include C-peptide, Insulin-Like Growth Factor- Binding Protein 2 (IGFBP-2), and Leptin. Also provided is a method of reducing the effect of prolonged physical inactivity on insulin resistance in a subject who is experiencing prolonged physical inactivity, or who is expected to experience prolonged physical inactivity in the near future.

WO 2014/152606 A3