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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
16 September 2010 (16.09.2010)

PCT

(10) International Publication Number
WO 2010/103333 A1

(51) International Patent Classification:
C07D 401/12 (2006.01) *A61K 31/4523* (2006.01)
C07D 401/14 (2006.01) *A61K 31/397* (2006.01)
C07D 403/14 (2006.01) *A61P 3/00* (2006.01)
C07D 413/14 (2006.01)

(21) International Application Number:
PCT/GB2010/050440

(22) International Filing Date:
12 March 2010 (12.03.2010)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
0904284.7 12 March 2009 (12.03.2009) GB

(71) Applicant *(for all designated States except US)*: **PROSIDION LIMITED** [GB/GB]; Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **BARBA, Oscar** [IT/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **FRY, Peter, Timothy** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **FYFE, Matthew, Colin, Thor** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **GATTRELL, William** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **JEEVARATNAM, Revathy, Perpetua** [LK/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **KRULLE, Thomas, Martin** [DE/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **PROCTER, Martin, James** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **SAMBROOK-SMITH, Colin, Peter** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **SCHOFIELD, Karen, Lesley** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **SMYTH, Donald** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **STEWART, Alan, John, William** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **STONEHOUSE, David, French** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB). **SWAIN, Simon, Andrew** [GB/GB]; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB).

(74) Agent: **BLAKEY, Alison**; Prosidion Limited, Windrush Court, Watlington Road, Oxford, Oxfordshire OX4 6LT (GB).

(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, RO, RS, RU, 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, LS, MW, MZ, NA, 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, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

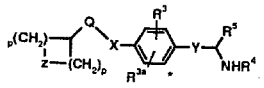
Published:

— *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))*

WO 2010/103333 A1

(54) **Title**: COMPOUNDS FOR THE TREATMENT OF METABOLIC DISORDERS



(I)

(57) **Abstract**: The present invention is directed to therapeutic compounds which have activity as agonists of GPR119 and are useful for the treatment of metabolic disorders including type II diabetes (I).