

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 December 2011 (22.12.2011)

(10) International Publication Number
WO 2011/157761 A1

- (51) **International Patent Classification:**
C12N 15/09 (2006.01) C21N 15/09 (2006.01)
- (21) **International Application Number:**
PCT/EP2011/059959
- (22) **International Filing Date:**
15 June 2011 (15.06.2011)
- (25) **Filing Language:** English
- (26) **Publication Language:** English
- (30) **Priority Data:**
10166271.6 17 June 2010 (17.06.2010) EP
- (71) **Applicants (for all designated States except US):** VIB VZW [BE/BE]; Rijvisschestraat 120, B-9052 Gent (BE). UNIVERSITEIT GENT [BE/BE]; Sint-Pietersnieuwstraat 25, B-9000 Gent (BE).
- (72) **Inventors; and**
- (75) **Inventors/Applicants (for US only):** CALLEWAERT, Nico [BE/BE]; Begijnhoflaan 15, B-9850 Nevele (BE). GUERFAL, Mouna [BE/BE]; Beekstraat 29, B-9031 Drogen (BE).
- (74) **Common Representative:** VIB VZW; Rijvisschestraat 120, B-9052 Gent (BE).
- (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, LR, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, 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))
- with sequence listing part of description (Rule 5.2(a))



WO 2011/157761 A1

(54) **Title:** INCREASED PROTEIN EXPRESSION THROUGH INCREASED MEMBRANE FORMATION

(57) **Abstract:** The present application relates to the field of protein expression technologies. More specifically, it is demonstrated that cells with increased levels of phosphatidic acid, which can be achieved through either or both of phosphatidic acid inhibition and diacylglycerol kinase overexpression, display increased membrane formation from which increased levels of proteins can be recovered.