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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
13 September 2012 (13.09.2012)

WIPO | PCT

(10) International Publication Number
WO 2012/122535 A3

(51) International Patent Classification:
A61K 9/19 (2006.01) *A61K 38/26* (2006.01)
A61K 9/08 (2006.01) *A61K 38/28* (2006.01)
A61K 38/22 (2006.01) *A61K 9/00* (2006.01)

(21) International Application Number:
PCT/US2012/028621

(22) International Filing Date:
9 March 2012 (09.03.2012)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

61/451,568	10 March 2011 (10.03.2011)	US
61/478,692	25 April 2011 (25.04.2011)	US
61/553,388	31 October 2011 (31.10.2011)	US
61/609,123	9 March 2012 (09.03.2012)	US

(71) Applicant *(for all designated States except US)*: **XERIS PHARMACEUTICALS, INC.** [US/US]; 3925 W. Braker Lane, Third Floor, Austin, TX 78759 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: **PRESTRELSKI, Steven** [US/US]; 4413 Graydon Road, San Diego, CA 92130 (US). **KINZELL, John** [CA/US]; 1029 Lea Drive, San Rafael, CA 94903 (US).

(74) Agents: **FLANAGAN, Lisa Dornbach** et al.; Kilpatrick Townsend & Stockton LLP, Two Embarcadero Center, Eighth Floor, San Francisco, CA 94111-3834 (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, 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, QA, RO, RS, RU, RW, 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,

[Continued on next page]

(54) Title: STABLE FORMULATIONS FOR PARENTERAL INJECTION OF PEPTIDE DRUGS

(57) Abstract: Stable formulations for parenteral injection of peptide drugs and methods of using such stable formulations are provided. In particular, the present invention provides stable formulations for parenteral injection of glucagon and methods of using such glucagon formulations to treat hypoglycemia, especially severe hypoglycemia in emergency situations.

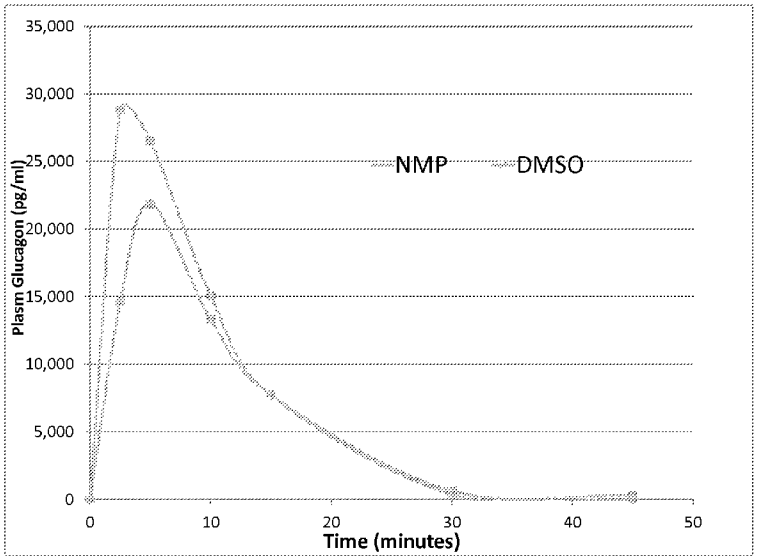


Fig. 1

WO 2012/122535 A3

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))*

(88) Date of publication of the international search report:
1 November 2012