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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
25 November 2010 (25.11.2010)

PCT

(10) International Publication Number
WO 2010/135747 A1

(51) **International Patent Classification**:
A61K 39/245 (2006.01) *A61P 31/22* (2006.01)

(21) **International Application Number**:
PCT/US2010/035998

(22) **International Filing Date**:
24 May 2010 (24.05.2010)

(25) **Filing Language**: English

(26) **Publication Language**: English

(30) **Priority Data**:

61/180,784	22 May 2009 (22.05.2009)	US
61/235,628	20 August 2009 (20.08.2009)	US
61/240,626	8 September 2009 (08.09.2009)	US
61/240,587	8 September 2009 (08.09.2009)	US
61/305,918	18 February 2010 (18.02.2010)	US

(71) **Applicant** *(for all designated States except US)*: **GENOCEA BIOSCIENCES INC.** [US/US]; 161 First Street, Suite 2C, Cambridge, MA 02142 (US).

(72) **Inventors; and**
(75) **Inventors/Applicants** *(for US only)*: **LONG, Deborah** [US/US]; 1865 Lakes Road, Monroe, NY 10950 (US). **FLECHTNER, Jessica** [US/US]; 30 Old Mill Road, Maynard, MA 01754-2406 (US). **SKOBERNE, Mojca** [US/US]; 7 Rutland Street, Apt. #2, Cambridge, Massachusetts 02139 (US).

(74) **Agents**: **VARMA, Anita** et al.; Ropes & Gray LLP, One International Place, Boston, MA 02110 (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, 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, 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 2010/135747 A1

(54) **Title**: VACCINES AGAINST HERPES SIMPLEX VIRUS TYPE 2: COMPOSITIONS AND METHODS FOR ELICITING AN IMMUNE RESPONSE

(57) **Abstract**: Herpes Simplex Virus-2 (HSV-2) infection is a major health concern. The present disclosure provides, *inter alia*, certain highly effective vaccines and immunogenic compositions against HSV-2. The antigens can be used therapeutically or prophylactically.