

CORRECTED VERSION

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
18 October 2007 (18.10.2007)

PCT

(10) International Publication Number
WO 2007/116409 A8

(51) International Patent Classification:

A61K 45/00 (2006.01) A61K 39/02 (2006.01)
A61K 47/00 (2006.01) C07K 1/00 (2006.01)

(21) International Application Number:

PCT/IL2007/000468

(22) International Filing Date: 11 April 2007 (11.04.2007)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/790,782 11 April 2006 (11.04.2006) US

(71) Applicant (for all designated States except US): **YEDA RESEARCH AND DEVELOPMENT CO. LTD.** at the Weizmann Institute of Science [IL/IL]; P.O. Box 95, 76100 Rehovot (IL).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **COHEN, Irun R.** [IL/IL]; 11 Hankin Street, 76354 Rehovot (IL). **AMIR-KROLL, Hila** [IL/IL]; 1/2 Derech Haprachim, Gedera 70700 (IL). **COHEN, Noam** [IL/IL]; 5 Bait-Yosef Street, Rishon Le Zion 75326 (IL). **NUSSBAUM, Gabriel** [IL/IL]; 24/6 Bustenai Street, 93229 Jerusalem (IL).

(74) Agent: **WEBB, Cynthia**; Webb & Associates, P.O. Box 2189, Rehovot 76121 (IL).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, 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, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK, SL, SM, SV, SY, 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, HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— with international search report
— with sequence listing part of description published separately in electronic form and available upon request from the International Bureau

(88) Date of publication of the international search report:
17 July 2008

(48) Date of publication of this corrected version:
23 July 2009

(15) Information about Correction:
see Notice of 23 July 2009

(54) Title: IMPROVED VACCINES COMPRISING MULTIMERIC HSP60 PEPTIDE CARRIERS

(57) Abstract: The present invention provides improved vaccine compositions having enhanced immunogenicity and methods of using same. The compositions and methods include immunogenic conjugates containing peptide carriers derived from heat shock protein 60 (HSP60). The known synthetic peptide carrier, p458, provides significantly improved immunogenicity when provided as a multimeric conjugate comprising a plurality of peptide carrier units conjugated to each antigen. Cell vaccine compositions comprising antigen presenting cells loaded with multimeric p458 conjugates are also provided.

WO 2007/116409 A8