## (19) World Intellectual Property Organization

International Bureau





(43) International Publication Date 14 September 2006 (14.09.2006) (10) International Publication Number WO 2006/096497 A3

(51) International Patent Classification: *A61K 39/35* (2006.01) *A61K 39/385* (2006.01)

(21) International Application Number:

PCT/US2006/007571

**(22) International Filing Date:** 3 March 2006 (03.03.2006)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/658,947 4 March 2005 (04.03.2005) US

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

AT, AU, AZ, BA, BB, BG, 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, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, 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, 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
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

(88) Date of publication of the international search report: 3 May 2007

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: VACCINES COMPRISING OLIGONUCLEOTIDES HAVING IMMUNOSTIMULATORY SEQUENCES (ISS) WHEREIN THE ISS ARE CONJUGATED TO ANTIGENS AND STABILIZED BY BUFFER CONDITIONS AND FURTHER EXCIPIENTS

(57) Abstract: The present invention provides compositions comprising conjugate molecules that are structurally stable at a temperature of between about 2 degrees C and 8 degrees C. In some examples, a conjugate molecule comprises an antigen, such as an allergen. In some examples, a conjugate molecule comprises the Ragweed antigen Amb a 1. The present invention provides methods for making and using such compositions. Provided herein are methods for modulating an immune response in an individual comprising administration of a composition comprising a structurally stable conjugate molecule as described herein.



#### INTERNATIONAL SEARCH REPORT

International application No PCT/US2006/007571

A. CLASSIFICATION OF SUBJECT MATTER INV. A61K39/35 A61K3 Ã61K39/385 According to International Patent Classification (IPC) or to both national classification and IPC B. FIELDS SEARCHED Minimum documentation searched (classification system followed by classification symbols) A61K Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Electronic data base consulted during the International search (name of data base and, where practical, search terms used) EPO-Internal, WPI Data, BIOSIS, Sequence Search C. DOCUMENTS CONSIDERED TO BE RELEVANT Belevant to claim No. Category' Citation of document, with indication, where appropriate, of the relevant passages SIMONS ET AL: "Selective immune 1 - 40Χ redirection in humans with ragweed allergy by injecting Amb a 1 linked to immunostimulatory DNA" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 113, no. 6, June 2004 (2004-06), pages 1144-1151, XP005396559 ISSN: 0091-6749 the whole document χ WO 03/000922 A2 (DYNAVAX TECHNOLOGIES CORP 1 - 40[US]; FEARON KARÈN L [US]; DINA DINO [US]; T) 3 January 2003 (2003-01-03) paragraph [0008] paragraph [0216] example 46 claims X ΙXΙ See patent family annex. Further documents are listed in the continuation of Box C. Special categories of cited documents : 'T' later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the "A" document defining the general state of the art which is not considered to be of particular relevance invention "E" earlier document but published on or after the international \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art. "O" document referring to an oral disclosure, use, exhibition or document published prior to the international filing date but later than the priority date claimed "&" document member of the same patent family Date of the actual completion of the international search Date of mailing of the international search report 18 January 2007 01/03/2007 Authorized officer Name and mailing address of the ISA/ Ryadress of the ISA.

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International application No PCT/US2006/007571

C/Continus	tion). DOCUMENTS CONSIDERED TO BE RELEVANT	PCT/US2006/007571		
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X	WO 03/106644 A2 (MEDIMMUNE INC [US]; OLIVER CYNTHIA N [US]; ALLAN CHRISTIAN B [US]; CHA) 24 December 2003 (2003-12-24) page 1, line 7 - line 18 page 7, line 12 - line 24 page 21, line 1 - line 3 page 21, line 14 - page 22, line 4 page 26, line 4 - line 24 page 27, line 1 - line 8 page 41, line 14 - page 42, line 23 claims; examples	1-40		
A	WO 2004/060396 A2 (CHIRON CORP [US]) 22 July 2004 (2004-07-22) paragraph [0002] examples 1,3 claims	1-40		
A	WO 01/15726 A2 (INEX PHARMACEUTICALS CORP [CA]; SEMPLE SEAN C [CA]; HARASYM TROY O [CA) 8 March 2001 (2001-03-08) page 2, line 10 - line 26 page 10, line 5 - line 17 page 15, line 25 - line 30 claims; examples	1-40		
A	US 6 251 678 B1 (VOLKIN DAVID B [US] ET AL) 26 June 2001 (2001-06-26) column 1, line 6 - line 48 column 3, line 6 - line 31 claims; examples	1-40		

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