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

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
8 December 2005 (08.12.2005)

PCT

(10) International Publication Number
WO 2005/116270 A2

(51) International Patent Classification[7]: C12Q 1/70

(21) International Application Number:
PCT/US2005/017157

(22) International Filing Date: 18 May 2005 (18.05.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/571,854 18 May 2004 (18.05.2004) 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, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, 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, 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).

Declarations under Rule 4.17:
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Published:
— *without international search report and to be republished upon receipt of that report*

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: INFLUENZA VIRUS VACCINE COMPOSITION AND METHOD OF USE

(57) Abstract: The present invention is directed to enhancing the immune response of a human in need of protection against IV infection by administering *in vivo*, into a tissue of the human, at least one polynucleotide comprising one or more regions of nucleic acid encoding an IV protein or a fragment, a variant, or a derivative thereof. The present invention is further directed to enhancing the immune response of a human in need of protection against IV infection by administering, *in vivo*, into a tissue of the human, at least one IV protein or a fragment, a variant, or derivative thereof. The IV protein can be, for example, in purified form or can be an inactivated IV, such as those present in inactivated IV vaccines. The polynucleotide is incorporated into the cells of the human *in vivo*, and an immunologically effective amount of an immunogenic epitope of an IV, or a fragment, variant, or derivative thereof is produced *in vivo*. The IV protein (in purified form or in the form of an inactivated IV vaccine) is also administered in an immunologically effective amount.

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