



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : C12N	A2	(11) International Publication Number: WO 00/37610 (43) International Publication Date: 29 June 2000 (29.06.00)
(21) International Application Number: PCT/US99/31020 (22) International Filing Date: 23 December 1999 (23.12.99) (30) Priority Data: 60/113,827 23 December 1998 (23.12.98) US (71) Applicants (for all designated States except US): BOYCE THOMPSON INSTITUTE FOR PLANT RESEARCH AT CORNELL [US/US]; Tower Road, Ithaca, NY 148-1801 (US). HEALTH RESEARCH INSTITUTE [US/US]; Roswell Park Cancer Institute, Elm & Carlton Streets, Buffalo, NY 14263 (US). (72) Inventors; and (75) Inventors/Applicants (for US only): MASON, Hugh, S. [US/US]; 1311 Hanshaw Road, Ithaca, NY 14850 (US). THANAVALA, Yasmin [IN/US]; 150 Presidio Place, Williamsville, NY 14221 (US). ARNTZEN, Charles, Joel [US/US]; 1005 Highland Road, Ithaca, NY 14850-1447 (US). RICHTER, Elizabeth [US/US]; 5111 Dubois Road, Ithaca, NY 14850 (US). (74) Agents: WILLIAMS, Kathleen, M. et al.; Banner & Witcoff, Ltd., 28 State Street, 28th Floor, Boston, MA 02109 (US).		(81) Designated States: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG). Published <i>Without international search report and to be republished upon receipt of that report.</i>
(54) Title: EXPRESSION OF IMMUNOGENIC HEPATITIS B SURFACE ANTIGENS IN TRANSGENIC PLANTS (57) Abstract Plant expression vectors comprising at least two expression cassettes are provided which function to reduce transcriptional silencing of polynucleotide expression. Further, novel plant expression vectors for expression of immunogenic polypeptides, including HBsAg, are provided. The plant expression vectors can be used to produce immunogenic polypeptides, including HBsAg, in edible plant tissues. The edible plant tissues can be used to elicit an immune response in humans and animals when the plant tissues are consumed. DCS COPY *162162* *G00002*		