

**CORRECTED
VERSION***

PCT

WORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶ : C12N 5/04, 5/10, 5/16, 5/22, 15/82, A01H 5/00		A1	(11) International Publication Number: WO 99/02655
			(43) International Publication Date: 21 January 1999 (21.01.99)
(21) International Application Number: PCT/US98/14109			(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, GW, 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, SZ, 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, ML, MR, NE, SN, TD, TG).
(22) International Filing Date: 7 July 1998 (07.07.98)			
(30) Priority Data: 08/889,655 8 July 1997 (08.07.97) US			
(71) Applicant (for all designated States except US): UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION [US/US]; 207 Administration Building, Lexington, KY 40506-0032 (US).			
(72) Inventors; and (75) Inventors/Applicants (for US only): LUSSO, Marcos, Fernando, Godoy [BR/US]; 2020 Armstrong Mill Road #2004, Lexington, KY 40515 (US). CHAPPELL, Joseph [US/US]; 1808 Bimini Road, Lexington, KY 40502 (US).			
(74) Agent: ELLINGER, Mark, S.; Fish & Richardson P.C., P.A., Suite 3300, 60th South 6th Street, Minneapolis, MN 55402 (US).			Published <i>With international search report.</i>
(54) Title: PROTEIN KINASES AND USES THEREOF			
(57) Abstract Nucleic acid molecules are disclosed that are induced upon pathogen invasion or elicitor treatment. Such molecules are functional in plants, plant tissue and in plant cells for inducible gene expression and altering the disease resistance phenotype of plants. Such molecules are, or are related to, sequences of calcium dependent protein kinase genes. Also disclosed are methods for obtaining transgenic plants containing such nucleic acid molecules and methods for using such molecules. Polypeptides encoded by such nucleic acids are also disclosed herein.			

* (Referred to in PCT Gazette No. 15/1999, Section II)