

IN PLANTA PRODUCTION OF *DERMATOPHAGOIDES PTERONYSSINUS* ALLERGENS

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Dermatophagoides pteronyssinus, allergens, PVX, Agroinfiltration

In the last years a remarkable increase in allergic and inflammatory diseases was highlighted. In industrialized countries about 20-25% of living people suffer for IgE mediated allergic diseases.

Today allergy immunotherapy is usually performed with natural allergen extracts composed of complex mixtures of several proteins, difficult to standardize and causing cross reactivity.

Recombinant allergens allow to determine the exact sensitization profile of certain individual and this is a prerequisite to select those allergens against which a patient is sensitized for setting up the specific immunotherapy.

House dust mites of *Dermatophagoides* species (e.g. *Dermatophagoides pteronyssinus*) are associated with various allergic disease. Der p 1 of the *D. pteronyssinus* is an allergenic protein considered to be one of the major allergens. On the contrary, even if Der p 10 is a minor allergen its high cross-reactivity with allergens found in a variety of sea foods make it very interesting to be studied.

The expression of Der p1 and Der p 10 allergens mediated by potato virus X (PVX) in *Nicotiana benthamiana* plants is here reported together with a strategy of Flag and 6his-tag sequences fusion to the N and C-terminus region of Der p1 and Der p 10 cDNAs. The use of Agroinfiltration system to infect *N. benthamiana* plants is also reported. RT-PCR analysis carried out on cDNAs obtained from mRNA extracted from infected plants and Western blotting with monoclonal anti-Flag and anti-6his antibodies is reported and discussed.