

**ORAL TOLERANCE TO DEXTRIN MEDIATED BY SPECIFIC  
SUPPRESSOR T-CELLS INDUCED IN THE INTESTINAL  
INTRAEPITHELIUM AND THEIR SYSTEMIC MIGRATION**

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*ABSTRACT*

*Antigens presented to the immune system through the oral route induce antigen specific secretory IgA and systemic unresponsiveness, termed oral tolerance (OT). We studied the induction of OT towards a diet antigen: dextrin (DEX) in rats that underwent protein deprivation and were further re-fed. Peyer's patches (PP), mesenteric lymph nodes (MLN) and spleen (Sp) cells from protein re-fed (R) rats mediated hyporesponsiveness after transfer into naïve recipient rats. Low numbers of MLN T cells transferred hyporesponsiveness while higher numbers transferred an enhancement of the delayed type hypersensitivity (DTH) reaction. MLN T cells were further separated based on their ability to bind Vicia villosa (VV). MLN VV<sup>-</sup> T cells, mainly CD8<sup>+</sup>, mediated hyporesponsiveness and MLN VV<sup>+</sup> T cells (CD45RC<sup>+</sup> CD4<sup>-</sup> CD8<sup>-</sup> cells) abrogated the hyporesponsiveness. Moreover, Sp DEX adherent T cells were mainly CD8<sup>+</sup>. Intestinal intraepithelial lymphocytes (iIELs) mainly CD8<sup>+</sup> -TCR<sup>+</sup> cells also inhibited the DTH response to DEX after transfer. The positive DTH response to another carbohydrate (levan) indicates the specificity of the suppression to dextrin. Therefore, our data indicate that after oral administration of DEX, two different populations of T cells were generated: one found only in the MLN that mediated DTH responses and the other one capable of migrating from the intestinal intraepithelium through PP and MLN to the Sp, mediating systemic tolerance.*