ABSTRACT

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Title of diploma thesis: Oral immunological tolerance – food allergies

Food allergy is a pathological immune response caused normally by harmless food antigens. At this time, treatments are based on the management of avoidance of potential allergens and immediate treatment of allergic reactions. The prevalence of the disease is increasing while the level of care remains insufficient. Therefore, accurate diagnosis and appropriate prevention seem to be the key to reduce successfully the prevalence of food

allergies.

The fact of the matter is that oral tolerance generally occurs on mucosal surfaces. It primarily suppresses specific immune responses to antigens in the gastrointestinal tract. Furthermore, the process protects against an inappropriate immune response to a number of foreign antigens or common commensal organisms in the digestive tract. Indeed, if oral tolerance fails, immune reactivity leads to food allergies.

During the last decade, research has considerably focused on the timing of the introduction of solid and potentially allergenic foods in infant nutrition. This early period of life is associated with the hypothesis that exposure to various food antigens in the development of oral tolerance may have an impact on the subsequent development of food allergies. Breastfeeding plays also an important role, demonstrating many beneficial effects for both mother and infant.

**Key words:** oral tolerance, food allergies, food antigens, immunoglobulins, mucosal immunity, early introduction of foods, breastfeeding, breast milk