

## **ABSTRACT**

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**Title of diploma thesis:** Allergic phenotypes in patients with respiratory allergy evaluated by microchip ISAC technique

**Key words:** allergic inflammation, allergen specific IgE, component resolved diagnostics, microchip, ISAC

**Background:** The aim of this diploma thesis was to evaluate the sensitization profile in the group of patients with allergic rhinitis and/or bronhial asthma and to identify possible differences between patients with different disease severity.

**Methods:** ImmunoCAP ISAC was used to determine specific IgE antibodies against 112 allergen components. The evaluated group included 152 patients (57.9 % women) from the allergology outpatient office of the Department of Clinical Immunology and Allergology, University Hospital Hradec Králové.

**Results:** The most common allergens in this group of patients were the components Phl p 1 (68,4 %) and Bet v 1 (65,1 %). Differences in the number of positive and negative reactions were demonstrated between patients with different severity of allergic rhinitis. Correlations were found between the number of positive/negative reactions and the severity of bronhial asthma. And the highest levels of specific IgE were measured to the mites components Der p 2 and Der f 2.

**Conclusions:** The finding of the most common allergen components is in agreement with the previous observation of sensitization in the Czech Republic. Differences were found between patients with different disease severity.