**PROJECT CO-FUNDED BY EUROPEAN REGIONAL DEVELOPMENT FUNDS (ERDF)**

**Lead Researcher:** Dr. Domingo Barber Hernández

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**Title**: ‘Biomarkers of severity in food-allergic pathology linked to respiratory allergy’ (Biomarcadores de gravedad en patología alérgica alimentaria ligada a alergia respiratoria)

**Financing Entity:** Carlos III Health Institute (Instituto de Salud Carlos III)

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**Summary:**

Allergic pathologies have shown a progressive increase both in terms of incidence, affecting more than 25% of the population, and of severity, with an increase in food allergies and bronchial asthma.

Certain patients progress from respiratory allergy to severe allergy mediated by food containing allergens common to pollen. Our aim is to investigate the relationship between respiratory allergy, food allergy and food allergy severity. The goal is to be able to identify subjects who are susceptible to develop severe food pathologies and who also present significant reactions during treatment with immunotherapy. The working hypothesis is that patients have alterations in the barrier function of the oral epithelium. Oral epithelium biopsies will be taken and histological determinations will be performed to analyse the differences between the different groups of patients (integrity, cellular infiltration, receptor-bound transport and dendritic cell polarisation). The sensitivity of basophils and different gene expression profiles will also be analysed to identify biomarkers to identify this type of patients.