



## MEDWHEALTH

### Development Of New Wheat-Derived Foods Of The Mediterranean Diet With Improved Nutritional And Health Value

Nowadays, one of the major challenges humanity is facing are non-communicable diseases (NCDs) which, spread all over the world, tend to increase in low and middle-income countries. In recent decades, the eating habits of the population have been strongly influenced by an increasing consumption of ready meals (fast food/junk food) rich in sugars and fats but poor in essential nutrients, thus contributing to overweight and to obesity. In the near future, therefore, it is highly desirable to promote correct eating habits such as the "Mediterranean Diet".

In this context, **the MEDWHEALTH project aims to enhance traditional and representative foods of different Mediterranean areas, typical of the Mediterranean Diet in order to increase its nutritional and health value.** To do this, MEDWHEALTH relies on a valuable set of raw materials and resources including: **innovative crops** with superior potential for health benefits, **new targeted technologies** to the nutritional, **wholesomeness and quality increase of the target foods**, as well as greater skills in traditional processing techniques of foods. MEDWHEALTH will redesign new forms of the main traditional foods starting from:

- 1) **durum wheat with a high amylose content (Svevo HA)**, to improve the content of resistant starch, the antioxidant and anti-inflammatory properties of food;
- 2) **soft durum wheat (Faridur)**, useful for improving the production sustainability, nutritional and technological quality of durum wheat semolina;
- 3) **flours of other cereals and legumes**, to increase the content of minerals, proteins and fibers in the foods produced.

Finally, the project aims to evaluate the effects of innovative foods on human health by comparing two diets: one consisting of pasta, bread, snacks and biscuits obtained using the semolina obtained from Svevo HA durum wheat together with a mixture of high protein lentils and barley rich in beta glucans; and one based on the same products, but made with semolina obtained from standard Svevo durum wheat. Both diets will be tested in clinical trials on subjects presenting with low to moderate symptoms of chronic inflammatory and metabolic diseases in order to monitor markers of inflammation, oxidative stress and endothelial dysfunction, as well as analyzing the influence on the gut microbiota.

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