

## Press releases

Neuchâtel (Switzerland). EU funded project “Fact-based personalized nutrition for the young”, in short NUTRISHIELD, had its official kick-off meeting on the 8<sup>th</sup> November 2018. The project’s goal is a mobile and interactive platform for guiding EU citizens towards personalized nutritional plans, to contribute to reducing diet-related health disorders. The project has a duration of 48 months (1 November 2018 – 31 October 2022) and a total budget of 8.5 Million Euros, bringing together 16 leading European research and academic institutions, industries and SMEs from the nutritional, medical, biological, IT and instrumentation domains.

There is a general expectation from society that food will be safe. However, what can be considered as “safe” for many people may not be for a few others. Each individual responds differently to the same food or nutrient. This is determined by genetic factors as well as by acquired factors, such as the metabolic and physiological states, the development of the microbiome, dietary habits, the amount of stress and exercise in daily life. In recent decades, the range of food choices available to consumers greatly expanded as well as the number of healthy food choice oriented-services. However, the number of people suffering from health problems related to unhealthy nutritional behavior in the EU remains on the rise, while well-intentioned generic advice on healthy food choices may confuse, and in some cases even mislead, consumers. The need for an efficient and reliable platform to personalize nutrition, based on the acquisition and scientific interpretation of genetic and acquired factors, is today evident.

NUTRISHIELD aims at creating an innovative framework to support personalized nutrition based on a comprehensive set of genetic and environmental factors. The approach will be validated through three clinical studies: one for personalized nutrition of young individuals with obesity or/and type 2 diabetes; the second focused on prematurely born infants and their lactating mothers, aiming at augmenting the nutritional value of human milk; the third exploring the relationship between nutrition and cognitive decline in young individuals. In order to bring analytical capabilities to a larger number of practicing physicians, NUTRISHIELD will develop as well as different analyzer concepts for urine, breath and human milk analysis based on the Quantum Cascade Lasers technology. Leveraging both existing and newly acquired knowledge on personalized nutrition, NUTRISHIELD will finally develop a mobile application to support individual personalized food choice, building on existing apps Platemate© and Carbcounter©, developed by the NUTRISHIELD consortium.

The consortium, comprising 16 partner organizations, is led by the company Alpes Lasers (Neuchâtel, Switzerland). The consortium is balanced in terms of competencies and involvement of industrial and SME partners: Quantared Technologies (AT), Veroyo Lim. (CY), IntraSoft International (LU), Argos Messtechnik (DE), SweetBee (BE); and Academic and research institutions: Ospedale San Raffaele (IT), Fondation Institut Suisse des Vitamines (CH), Harokopio University (EL), Vrije Universiteit Brussel (BE), CSEM (CH), Cranfield University (UK), Ecole Polytechnique de Lausanne (CH), Radboud University Nijmegen (NL), Technische Universität Wien (AT) and Fundación Para La Investigación Del Hospital Universitario La Fe (ES).

### **Project Details**

**EU Project No:** 818110

**Start Date:** 01/11/2018

**Project Duration:** 48 months

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