

The Future of Food: Personalized Nutrition

Grants and incentives to accelerate the development of personalized nutrition

A grants & incentives guide

Nutrition plays an integral part in our lives. It is interesting to consider how nutrition can improve your physical and mental performance when you optimize it to your needs and desires. That is where personalized nutrition comes into play. Beneficial personalized nutrition, concerning dietary recommendations based on individual characteristics, can be achieved in two steps: 1) collecting genetic, medical and nutritional data and 2) using this data to tailor an individual's food consumption to achieve lasting benefits. Even though personalized nutrition is still in an early development and implementation stage, it is quickly gaining traction all over the world. In order to accelerate the development of personalized nutrition, governments offer a variety of grants and (tax) incentives on different levels. In this article we will highlight the most relevant possibilities and show you how you can benefit from this.

Personalized nutrition entails providing consumers with nutrition(al) (advice) that is tailored to them specifically. It is a broad concept: it can be used to improve or enhance an individual's health, but can also be used to improve well-being by matching a diet to a certain lifestyle and/or personal fitness goals. This can be done by examining an individual's genetics and daily habits. This way, personalized nutrition can help an individual, e.g. an athlete, in reaching their goals/optimize performance or allow a patient to improve their immune system.

Personalized nutrition touches upon prevention of disease, education, sport, big data/IT, smart food, production, innovation and research. In this article, we will highlight the most relevant grants and incentives that support research and development on personalized nutrition technologies and strategies.

Funding opportunities in personalized nutrition

Both on national and European level, different types of grants and incentives exist that will aid R&D in this field by easing and fastening the R&D process. This is not only due to the cash injection, but also a result of the (often) mandatory collaborations between different types of organisations (e.g. hospitals, SMEs etc). This will enhance knowledge exchange and increase efficiency from which you can greatly benefit.



Fig. 1. R&D life cycle stages.

During the R&D life cycle of products and services (see Fig. 1), different topics are of relevance that will be applicable for funding. The most relevant R&D stages and topics,

including project examples, will be discussed below per stage.

Research on personalized nutrition

Even though the importance of nutrition and beneficial effects of food are well established, the mechanisms underlying their role in disease prevention or health benefits are incompletely understood and data on this is not complete yet. Further research is needed to identify new targets and underlying molecular mechanisms to aid new developments in this field. A wide range of research topics in this field are considered as relevant and thus applicable for funding. Not limited to, but the following topics are considered as relevant for funding:

- **Identification (and development) of biomarkers for chronic diseases**

Much focus has and will be on identification of biomarkers for chronic diseases related to personalized nutrition. For example, the project “Nutritional biomarkers to advance the understanding of association between diet and type 2 diabetes” has been funded under the Horizon Marie Curie program (Horizon Europe is the new program of the European Commission which provides funding based on different pillars, of which one includes the Marie Curie program for researchers). Specifically related to T2D and diet, novel biomarkers will be identified and, if relevant, further developed. The total contribution of the European Commission is € 200K.

- **Interrelation of specific food intake with microbiome:**

The gut microbiome is linked to a variety of diseases and diet plays a major role in the composition of the microbiome. Funding is provided for further research into the composition of the microbiome and how this can be affected. Examples of ongoing projects are “Long-term impact of gestational and early-life dietary habits on infant gut immunity and disease risk” and “Impact of early life diet on microbiome development & later health”, both funded under the JPI HDHL funding program (Joint programming initiative ‘a healthy diet for a healthy life’). Funding amounts differ per call and participating country, but can be approximately € 1M per project.

- **Unraveling molecular mechanisms in relation to disease (and personalized nutrition):**

As part of the cluster Health in the new *Horizon Europe*

program (Horizon Europe is the new program of the European Commission which provides funding based on different pillars, of which one are the global challenges per cluster), a dedicated call will become available on this: “Towards a molecular and neurobiological understanding of mental health and mental illness for the benefit of citizens and patients”. The budget is € 10 million per project.

- **Research into policy instruments regarding personalized nutrition**

A project in the Interreg program (Innofood) is currently ongoing on regional policy instruments which are further researched for contribution for improvement: “Network for Technology, Innovation and Translation in Ageing”. The total awarded amount is € 16M.

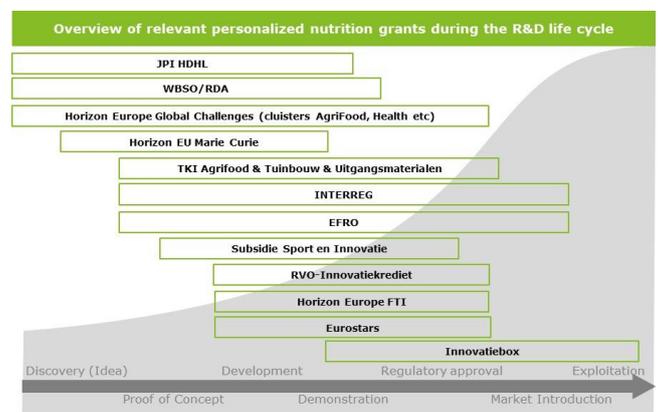


Fig. 2. Funding opportunities for personalized nutrition during the R&D life cycle.

Novel developments in personalized nutrition

The personalized nutrition market is growing rapidly thanks to advances in diagnostics and the rise of the increasingly health-conscious consumer. A wide range (but not limited to) of topics in the development stage are considered as relevant and thus applicable for funding:

- **A platform for a personalized nutritional plan**

A current ongoing project on this is the development of a mobile and interactive platform for guiding EU citizens towards personalized nutritional plans, to contribute to reducing diet-related health disorders. This project, “Nutrishield – Fact based personalized nutrition of the young” was funded under the cluster Healthy and Safe foods of the Horizon 2020 program (Horizon 2020 was the European framework program of the European Commission that ran until 2020. This program is followed up by the new Horizon Europe

framework program that started this year). The contribution from the EC was € 8.6M.

- **Development specific food products and/or supplements for personalized nutrition**

Food products/supplements can be used to optimize personalized nutrition. A funded project on this is the development of a multivitamin tomato that contains additional vitamins and minerals, as part of the EFRO OpZuid program (European funding program for the South of the Netherlands). This project received a total of € 130K funding from EFRO OpZuid.

- **Development of a tool/strategy to facilitate transition towards healthy dietary behavior**

A call on this will be available in the cluster Agrifood of the Horizon Europe program (Horizon Europe is the new program of the European Commission which provides funding based on different pillars, of which one are the global challenges per cluster): "Transition to healthy and sustainable dietary behavior (CL6-SFO)" to fund the development of a tool/strategy for improved healthy dietary behavior. The total project budget is € 11M.

- **Measuring system for home use to determine quality of food**

A project has been funded under the Eureka Eurostars program "Oxidative stress monitoring of food to optimize the individual nutrition" that determines quality of food and generated individualized recommendations in terms of biofeedback. Total amount of funding is expected to have been approximately € 1M.

Implementation and exploitation of products and personalized nutrition strategies & tools

Even though the personalized nutrition market is growing rapidly, successful market introduction of personalized nutrition products and tools can still be hampered by limited uptake. Different funding opportunities are available to support this and advance uptake in this field, as illustrated in Fig. 2. For example, the following topics have received funding:

- **Implementation (personalized) healthy lifestyle models, tools (e.g. wearables) and coaching**

The so-called C.I.A.L.E. project has been set up to aid implementation of healthy lifestyle innovations,

including personalized nutrition strategies and tools. This project is funded under EFRO OpOost (European funding program for organizations located in the East of the Netherlands).

- **Exploitation of a novel personalized nutrition toolkit**

The Innovatiebox (patent box) can be applied once profit has been generated with innovative developments, such as a novel personalized nutrition toolkit. Benefits will be received in the form of tax savings.

Who we are and how we can help

Deloitte's global Future of Food initiative is a cross-sector effort to develop a roadmap and help companies realize this aspiration, especially around the areas of personalized nutrition, responsible food production and waste management, benefits from Industry 4.0, and food ecosystem orchestration.

Do you have an idea or envisaged project for an agricultural- or food-related project and are you curious which subsidy fits best? Please let us know. We, as deloitte's subsidy experts, are more than happy to help you in the identification of the most relevant grants and incentives and can support you all the way towards the submission of a successful application.

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