



New Platform for Food Supplements Pre-Clinical Testing

VitroScreen has developed a precise, sensitive and quantitative approach to define the mechanisms of action and functionality of Nutraceuticals under realistic exposure conditions on body barriers and body organs, making pre-clinical studies on Food Supplements reliable, fast and clinically relevant.

VitroScreen's brochure on the Food Supplements Pre-clinical Testing Platform aims at:

- highlighting **VitroScreen** miniaturized organ models, their biological relevance and their potential application in Food supplements assessment
- describing VitroScreen's approaches to INSIDE/OUT BEAUTY and the results obtainable on miniaturized organs and reconstructed body barrier tissues that can be combined and substantiated
- identifying key nutritional areas and describe relevant available models and endpoints
- presenting advanced customized models for leaky gut and IBD
- describing the immuno-competent gut model to access pre-, pro and postbiotics' mechanisms as well as pathogen invasion and competition models
- providing new insight on liver functions and diseases and pancreatic islets' features

Vitroscreen's expertise on Nutra supports Customers' management teams to reach the required evidences of Food Supplement's functionality for scientific communication, patent and claim substantiation.

Update on Food Supplements market*

Vitamins and Dietary Supplements covered 26% of the nutraceuticals market worldwide with a market value around 26 €B for North America and almost 14 €B for Europe in 2018. Their global market is mainly driven by the segment of Food Supplements, particularly probiotic supplements, Fatty Acids (i.e. fish oils) and protein supplements. More recently Herbal/Botanical Supplements usage has emerged as a popular complementary and alternative medicine or supplement to modern medicine.

As the Coronavirus pandemic worsened, sales of herbal supplements, vitamins and minerals experienced astoundingly high levels of growth and this trend is expected to continue in the future and enhance the awareness of consumers towards the benefits of nutraceutical products, mainly to **improve immunity, health and wellness**.

The prospective growth of the Vitamins and Food Supplements market is forecast at 4,4% (CAGR 2018-2023), driven by exogenous factors and the evolution of consumption preferences.

Exogenous factors include:

- **Progressive aging** of the world population and consequent growth of specific health needs
- **Habits and lifestyle** that are harmful to health lead to an increase in the need to supplement diet
- **Increase in healthcare costs** and search for alternative methods of treatment

Trends in consumer preferences include:

- **Growing awareness** among consumers of the importance of wellbeing and prevention
- **Increased nutrition needs related to sports and athletic activities**, for the improvement of performance
- Sophistication of consumers' needs in terms of **specific health needs**

*Source: PwC, Vitamins & Dietary Supplements Market trends overview 2020