

PRESS RELEASE

EVALUATING HOW NUTRITION CAN OPTIMIZE IMMUNE FUNCTION

Brussels, 1 August 2013 – An optimal immune system is crucial to human health. After vaccination, nutrition is one of the major factors which modulates immune function. Currently, there is uncertainty within the scientific community regarding what markers are available to reliably measure the impact of diet on the different aspects of immune function. In an article published today in the *British Journal of Nutrition*, ILSI Europe’s experts evaluated and prioritised more than 75 key immune markers.

Food-based solutions to optimize immune function are much sought after by consumers. Whole diets, individual nutrients and food components such as phytochemicals, prebiotics and probiotics have all been shown to affect various aspects of the immune system. In the context of the European Commission nutrition and health claims regulation, the substantiation of ingredient/food claims on immune functions requires reliable markers and rational approaches to interpret changes in such markers.

The publication offers a framework to aid the design and interpretation of studies measuring how diets, individual nutrients, or other ingredients modulate immune functions. First, 10 criteria were defined to evaluate usefulness of immune markers. Over 75 markers were scored within the context of three distinct functions of the immune system: defence against pathogens, avoidance or mitigation of allergy, and control of low-grade inflammation. The most useful markers were subsequently classified according to their involvement in immune functions and/or depending on whether they were clinically relevant. Finally, 5 theoretical scenarios were drafted describing potential changes in marker values compared to a relevant reference range.

The authors state that ‘this step-wise approach offers a clear rationale for selecting markers for future trials and provides a framework for the interpretation of outcomes.’ Similar approaches can also be applied to other physiological processes critical to the maintenance of health and well-being.

The paper was commissioned by the Nutrition & Immunity and the Probiotics Task Forces of the International Life Sciences Institute, Europe. It draws on the combined experience of academic and industry experts in both immunology and nutrition.

To read the publication, click [here](#).

Ruud Albers *et al.* Monitoring immune modulation by nutrition in the general population: identifying and substantiating effects on human health. *British Journal of Nutrition* 110(S2):S4-S22.

About ILSI Europe

The International Life Sciences Institute, Europe is part of a non-profit, worldwide foundation established in 1978 to advance the understanding of scientific issues relating to nutrition, food safety, toxicology, risk assessment, and the environment. ILSI Europe brings together scientists from industry, academia and the public sector to jointly provide the best available fact-based, objective science on key public health issues.

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