

# Nutrition, Immunity and Inflammation Task Force

## ABOUT THE TASK FORCE

A well-functioning immune system is essential for human health and wellbeing. Nutrition plays a major role in shaping and optimising immune functions.

This task force focuses on better understanding the impact of nutrition on immune functions and on determining reliable markers of immuno-modulation and inflammation, relevant to health and wellbeing. In the context of health claims regulation, the task force provides guidance for the design, assessment and interpretation of nutritional intervention studies that intend to modulate immune functions.



## WHAT'S NEW?

### EVENTS:

Results from the upcoming publication on '**Health Relevance of the Modification of Low-grade Inflammation in Ageing**' were presented at the 12th European Nutrition Conference Federation of European Nutrition Societies (FENS) 2015 and at the Biology of Ageing Conference 2015.

Recent conclusions of the task force on biomarkers of inflammation were presented at BENEFIQ 2016.

## ACTIVITIES

### Relevance of quality of life measures to assess effectiveness of nutrition on common infections – *Upcoming Activity*

The objective of this activity will be to investigate the relevance of the quality of life tools available (generic and health-related QoL) and to provide an expert opinion on the usefulness of this measure as an indicator marker (proxy) of health in the context of rather acute infection conditions,

gastrointestinal and respiratory infections. The activity will be split into two subactivities. Activity A should focus on infant/children (overall <5yrs old) and activity B will review the available QoL instruments developed for elderly people (65+ yrs old).

### Immune Competence Across Lifespan: Impact of Nutrition on Immune Competence and Its Consequences Later in Life – *New*

The critical nutrients supporting immune development and competence in the first years of life as well as the impact of early life nutrition on later life immune competence are still under debate. This activity is intended to explore first the interaction between nutrition and immune competence in early life. Markers relevant for health should be identified. Building on these markers,

the influence of early life nutrition on health later in life will be evaluated in a second step. The output of this activity will provide a recommendation on readouts for immune competence and nutritional recommendations for an optimal performing immune system early in life. It will further draw associations between early life nutrition and immune competence later in life.



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## MEMBER COMPANIES

- Danone
- DuPont Nutrition and Health
- FrieslandCampina
- Merck
- Nestlé
- Tine SA R&D

## ACTIVITIES (CTD)

### Health Relevance of the Modification of Low-Grade Inflammation (LGI) in Ageing: Causes, Effects and Health & Wellbeing Consequences of LGI – *Completed*

Low-grade inflammation (LGI) has been linked to several chronic adverse health conditions including obesity, metabolic syndrome and cardiovascular diseases. It also occurs as a natural consequence of ageing. The aim of this project is to clarify if a modification in LGI could

have a beneficial effect. The review highlights the health relevance of modifying LGI in terms of well-being and health. The experts focused more on the modifiers (such as nutrition and life style factors) than on the triggers. The review addresses the cross-talk between the gut and the brain.

## RECENT PUBLICATIONS

R. Albers, R. Bourdet-Sicard, D. Braun, P.C. Calder, U. Herz, C. Lambert, I. Lenoir-Wijnkoop, A. Méheust, A. Ouwehand, P. Phothirath, T. Sako, S. Salminen, A. Siemensma, H. van Loveren and U. Sack. **Monitoring Immune Modulation by Nutrition in the General Population: Identifying and Substantiating Effects on Human Health.** *British Journal of Nutrition* 2013;110(Suppl.2): S1-S30.

P.C. Calder, N. Ahluwalia, R. Albers, N. Bosco, R. Bourdet-Sicard, D. Haller, S.T. Holgate, L.S. Jönsson, M.E. Latulippe, A. Marcos, J. Moreines, C. M'Rini, M. Müller, G. Pawelec, R.J. van Neerven, B. Watzl and J. Zhao. **Consideration of Biomarkers to be used for Evaluation of Inflammation in Human Nutritional Studies.** *British Journal of Nutrition* 2013;109 (Suppl.1):S1-S34.

All publications commissioned by this task force are available on our website: [www.ils.eu](http://www.ils.eu).

For more information on ILSI Europe's activities, don't forget to follow us on Twitter @ILSI\_Europe and connect with us on LinkedIn.

## CONTACT

Dr Tobias Recker  
Scientific Project Manager  
trecker@ilsieurope.be  
Tel. +32 2 771 00 14

ILSI Europe  
Avenue E. Mounier 83, Box 6  
BE – 1200 Brussels  
BELGIUM

Scan the QR code  
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