

Micronutrient Requirements

Session Description

Dietary recommendations for micronutrients are currently being revised in Europe and North America. In addition to the well-established goal of estimating intakes that prevent deficiency disorders (or toxicity), where there is clear evidence for a relationship between level of exposure and altered risk of diet-responsive chronic diseases, this information can also be taken into account when calculating dietary intakes for optimal health. Key challenges include the absence of good measures of intake and status, biomarkers of health and/or early risk of disease, limited information on bioavailability from the whole diet for several micronutrients, and very little knowledge about intra-individual variation and the effects of genotype on micronutrient metabolism and hence requirements. Although the traditional approach has been to examine each micronutrient separately, advances in systems biology may eventually enable us to enter a new paradigm whereby nutrient-nutrient interactions and the effect of other bioactive constituents in the diet can be explored informatively, and the new knowledge used to update and refine dietary recommendations.

Purpose

This symposium focuses on micronutrient requirements, including approaches to harmonize requirements, and different kinds of evidence used to make dietary recommendations.

Session Chair & Co-Chair:

Chair: Professor Susan Fairweather-Tait, UEA, UK

Co-chair: Professor Janet King, CHORI, California, USA

Session Topics and Speakers:

Topic 1 (15+5 mins): *Summary of UNU/WHO/FAO work on harmonization of requirements.*

Speaker: Janet King, USA

Topic 2 (15+5 mins): *A network biology approach for micronutrient recommendations.*

Speaker: Ben van Ommen, Netherlands

Topic 3 (15+5 mins): *New evidence for deriving selenium requirements.*

Speaker: Susan Fairweather-Tait, UK

Short Sessions