



Targeted delivery of dietary flavanols for optimal human cell function: Effects on cardiovascular health

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**CALL DETAILS:**

**KBBE-2008-2-2-01 Optimal human cell function and nutrition**

**Project duration:** 36 months

**Total budget:** 4.08 million euro

**Instrument:** Small or medium-scale focused research project

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**ABSTRACT:**

Nutrition is a major life style factor, greatly impacting on human health and disease. Epidemiological evidence suggests that diets rich in plant-based foods and beverages decrease the risk for cardiovascular morbidity and mortality. Various phytochemical constituents, in particular a class of compounds called flavanols, have been avidly investigated in recent years. Current dietary interventions in humans using flavanol-containing foods have substantiated epidemiological data indicating various potential dietary flavanol-mediated bioactivities, including improved vascular function, decreased blood pressure, attenuated platelet clotting, and improved immune responses. Latest innovations in flavanol analytics, chemistry, food processing technology, and cardiovascular function analysis make the elucidation of underlying mechanisms of flavanol bioactivity not just possible, but also impactful with regard to dietary advice and public health. FLAVIOLA aims at: (i) illuminating the cellular and sub-cellular effects of flavanols and their main human metabolites; (ii) investigating key parameters of dietary flavanol absorption, clearance and efficacy towards surrogate markers of cardiovascular function in humans; (iii) developing innovative, functional, and nutritionally responsible food matrices for optimised dietary flavanol delivery; and finally (iv) demonstrating cardiovascular benefits and safety for a newly developed prototype food product.

**GERMAN NATIONAL CONTACT POINT, DR. ROLF STRATMANN OF PT-DLR EXPLAINS:**

**• Getting involved in FP7:**

Dr. Marc W. Merx is the coordinator of the FP7 project FLAVIOLA. After visiting an infoday on FP7 in 2005, he identified the potential of the FP7 programme. In 2007 he identified the topic "Optimal human cell function and nutrition" and contacted the NCP Life Sciences in Germany for support during the preparation of the project application. NKSL Germany provided advice/consultation for general and specific questions regarding the participation and drafting of the application for this topic. Dr. Merx also visited a workshop on proposal writing, where he identified a project management SME (SCIPROM) which became a partner in the consortium. For identifying additional partners he didn't use any of the offered databases (CORDIS, etc.) instead he took partners he already knew or found them through literature/publication mining.

**• Writing the proposal:**

The application was a complex and laborious undertaking which needed

a lot of coordination. Accommodating the ideas and suggestions of all partners required open communication and careful embedding into the whole project context. During the preparation of the application he was in constant contact with the office of the German NKSL. From the first draft to the finally submitted application the consortium needed 10 months. He also pointed out that potential applicants should ask their NCP offices for early drafts, since the publication of the final work programme might well be too late for a satisfactory application preparation.

**• What makes this project special?**

Dr. Merx said, that in his eyes personal meetings with the consortium were essential to harmonize and streamline the application. He likes the European interdisciplinary approach and the open exchange of experience and ideas in this project. More important, this was a first application in FP7 and it became a success in part thanks to the consultation.