

FAT IS BAD?



Professor G. Schmitz is pioneering the profiling of blood lipids in the Regensburg University Hospital

Fat food makes you obese and diabetic and eventually clogs your arteries. One billion people worldwide are overweight, 1.5 billion expected in 2015. Besides cardiovascular disease, widespread disorders like diabetes and the metabolic syndrome have a strong fat or “lipid” component. Is the solution to banish lipids from the food? Well no. The human body itself synthesizes lipids, and with some essential dietary lipids these are actually vital constituents of cell membranes. A lipid membrane surrounds each cell and separates the processes of life from a hostile environment. We have thousands of different lipids, composed of three building blocks, each of which can be one of 10-40 types. The study of the body’s



lipid balance, its significance for health, and the effects of nutrition are now greatly facilitated by a precipitous increase in analytical power. Especially the exquisitely sensitive, high-throughput analysis of lipids by mass spectrometry is revolutionizing the field. It is of utmost importance to generate more basic knowledge on lipids and to translate the results into practical diagnostics and therapeutics in the hospital. This is the intention of the European Lipidomics Initiative, a group of lipidologists funded by an EC specific support action that brings together the stakeholders: clinicians, companies and basic researchers. They want to make sure that, while genomics and proteomics were focal points in the 6th framework programme, the 7th framework will stimulate research in the even more complex realm of metabolism. Enabling the lipidomics revolution will greatly contribute to the prevention, prognosis and cure of lipid-related disorders, and thus improve human health and the general quality of life in our society. This is an opportunity. Let’s not miss it.

The European Lipidomics Initiative
www.lipidomics.net