

Professor Pfeiffer/Charité, Berlin & German Institute of Human Nutrition (DIfE)

## **CUSTOMER REFERENCE**

Food industry: development of functional food/nutraceuticals, intervention studies, food lipid composition

# Lipid analysis of blood plasma for nutritional research



Professor Andreas Pfeiffer, Director Endocrinology at Charité, Berlin and Head of the Department of Clinical Nutrition at the German Institute of Human Nutrition (DIFE) investigates the role of nutrient-dependent factors in the pathogenesis of major diseases of industrialized countries (e.g. obesity, diabetes mellitus, and the metabolic syndrome).

The team of Professor Pfeiffer was interested in determining the effects of dietary interventions on the lipidome of human blood plasma. With its ShotgunLipidomics technology, Lipotype delivered its one-of-a-kind, detailed, quantitative information on lipid structure and composition, revealing dietary effects on the global lipid composition of human plasma and how hereditary factors influence the lipid metabolism. This fruitful collaboration between Professor Pfeiffer and Lipotype demonstrates the power of lipid analysis in nutritional research.

#### **PUBLICATION:**

Heritability and responses to high fat diet of plasma lipidomics in a twin study – *Scientific Reports, 2017* T Frahnow, MA Osterhoff, S Hornemann, M Kruse, MA Surma, C Klose, K Simons, AFH Pfeiffer

#### **About Lipotype**

LIPOTYPE is a spin-off company from the Kai Simons and Andrej Shevchenko labs of the world-renowned Max-Planck-Institute of Molecular Cell Biology and Genetics in Dresden, Germany. Drawing on many years of cutting edge research experience, Lipotype delivers comprehensive, absolutely quantitative lipid analysis services for clinical and biological samples on a high-throughput scale. Lipotype offers high quality lipid analysis services for a wide range of customers and applications including biomarker identification for clinical researchers, pharma and biotech companies, functional food development for the food industry, claim support for the cosmetics industry, as well as for the small-scale profiling needs of academic researchers.

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### We offer high quality lipid analysis services for a wide range of customers and applications:



#### Biotech and pharma industry, clinical research

Drug discovery (mode-of-action, target validation, effect on lipid metabolism), biomarker identification (pharmacodynamic, pharmacokinetic, CDx), clinical screening, diagnostics



### Food industry

Development of functional food/nutraceuticals, intervention studies, lipid composition of food products



## Cosmetics and Dermatology

Claim support, drug development and validation, personalized cosmetics



### Academic research

Lipid analysis of cells, tissues and body fluids from various model organisms in a plethora of experimental setups

