# LECTURES

|A-1| Understanding lipid metabolism and signaling through mass spec based lipidomics
*Edward A. Dennis*

|A-2| Perfecting the formulation and use of lipidomic standards
*Walter Shaw*

|A-3| Full characterization of lipoxygenase-derived dihydroxylated fatty acids from α- and γ-linolenic acids
*Michel Guichardan*

|A-4| Lipidomics analysis of dietary obese mice in response to calorie restriction and *n*-3 fatty acids
*Ondřej Kuda*

|B-1| Recent advances and applications of multi-dimensional mass spectrometry-based shotgun lipidomics
*Xianlin Han*

|B-2| Targeted and untargeted approaches for the analysis of lipid metabolites by mass spectrometry
*Keith Compson*

|B-3| Lipidomic profiling of L-PBE deficient mice reveals changes in ceramides and dicarboxylic fatty acids, which cause acute liver inflammation and hepatic failure
*Ursula Loizides-Mangold*

|B-4| Lipidomics of host-pathogen interactions - elucidation of novel lipid functions in infectious diseases
*Xue Li Guan*

|C-1| Which fat is that? Structure elucidation of lipids by mass spectrometry
*Stephen J. Blanksby*

|C-2| Localization of double bonds in neutral lipids using HPLC-APCI/MS/MS with acetonitrile in the mobile phase
*Josef Cvacka*

|C-3| Nontargeted lipidomic quantitation based on LC/MS
*Michal Holčapek*

|C-4| Development of a comprehensive two-dimensional liquid chromatography system combined with mass spectrometric detection for phospholipid analysis
*Francesco Cacciola*

|D-1| Molecular lipidomics - from untying of novel biological mechanisms to identification of single diagnostic lipid biomarkers
*Kim Ekroos*

|D-2| A new lipid software workflow for processing Orbitrap-based global lipidomics data in translational and systems biology research
*David Peake*

|D-3| Quantitative charge-tags for steroid analysis
*William J. Griffiths*

|D-4| Comparative metabolomics of phospholipids, sterols and steroids in model insects and human body fluids
*Lucie Řimnáčová*

|E-1| Lipids and hormones in the developing fly
*Andrej Shevchenko*

|E-2| Application of differential mobility separations to comprehensive profiling of lipids with accurate mass spectrometry techniques
*Eva Duchoslav*

|E-3| Lipidomics in diagnosis and research of lysosomal storage
*Ladislav Kuchař*

|E-4| Towards discovery of novel lipid classes from shotgun lipidomics mass spectra
*Cyrus Papan*

|F-1| Lipidomics in tissue imaging: mass spectrometry-based histology and histopathology
*Bernhard Spengler*

|F-2| Combined TOF-SIMS imaging and confocal fluorescence microscopy of Alzheimer's disease transgenic mouse brains
*Peter Sjövall*

|F-3| Why do bee spermatozoa survive conditions that other sperm would not survive? A MALDI MS study of lipids
*Jürgen Schiller*

|F-4| UV-LDI-oTOF mass spectrometry at elevated pressure: A new method for detecting long-chain cuticular lipids directly from insect cuticle
*Klaus Dreisewerd*

|G-1| HPLC coupled FT-MS methods in lipidomic research
*Harald C. Köfeler*

|G-2| All ions fragmentation and polarity switching LC-HRMS for lipid profiling. Application for serum samples phenotyping related to canine mammary cancer
*Hector Gallart-Ayala*

|G-3| Proteome coat of lipid bodies isolated from a marine bacterium *Alcanivorax borkumensis*
*Zita Purkrtová*

|G-4| Antibody conjugated nanoparticles for targeted lipidomics by LC-MS/MS
*Helmut Hinterwirth*

|H-1| Lipids and age-related visual decline
*Todd W. Mitchell*

|H-1| Fluxomics: a tool to reveal alterations in lipid metabolism after brown adipose tissue activation
*Clara Weigelt*

|H-1| A Kinome-wide RNAi screen to identify genes controlling membrane lipid homeostasis in human cells
*Charlotte Gehin*

|H-1| The effect of transcription factor NRF-2 on lipid metabolism and adipocyte membrane fatty acid composition in the metabolic syndrome
*Hana Malínská*

## POSTERS

**[P-1]** Impaired degradation of glycosphingolipids caused by saposin B deficiency
*Befekadu Asfaw*

**[P-2]** Impact of Rab39 and Lipid transfer protein (LTP) loss of function on *Drosophila* lipidome
*Sophie Ayciriex*

**[P-3]** Effects of stress conditions and genetic modifications on the lipidome
*GáborBalogh*

**[P-4]** Predictive lipid biomarkers for severe asthma phenotypes: Unbiased lipidomics analysis for U-BIOPRED
*Joost Brandsma*

**[P-5]** Detailed analysis of the saponifiable and unsaponifiable fractions of animal and vegetable lipids by using comprehensive 2D GC
*Francesco Cacciola*

**[P-6]** Regulation of sebaceous lipogenesis by EGFR/ERBB signalling: Evaluation by a lipidomic analysis approach
*Emanuela Camera*

**[P-7]** Nontargeted lipidomic characterization of porcine organs using HILIC-HPLC/ESI-MS
*Eva Cífková*

**[P-8]** The effect of the plasma fatty acid profile on the inflammatory response to coronary stent implantation inpatients with acute coronary syndrome
*Tomáš Čermák*

**[P-9]** Searching of lipid biomarker of cardiovascular diseases
*Blanka Červená*

**[P-10]** On the role of 25-hydroxycholesterol synthesis by glioblastoma cell lines. Implications for chemotactic monocyte recruitment
*Gerald N. Eibinger*

**[P-11]** Determination of bile acid profiles in plasma from children using triple quad mass spectrometry. preliminary results and comparison with new OrbiTrap technology
*Gunter Fauler*

**[P-12]** PPARα activation modulates hepatic phospholipids metabolism
*Jarlei Fiamoncini*

**[P-13]** Metabolomics of vitamin E
*Francesco Galli*

|P-14| Clinical utilization of fatty acids analysis
*Jan Galuszka*

|P-15| Modulation of human colon epithelial cell lipid pattern by dietary fatty acids
*Jiřina Hofmanová*

|P-16| Screening of vernix caseosa lipids by matrix-assisted laser desorption/ionization mass spectrometry
*Petra Horká*

|P-17| Lipidomic as a tool for algae examination: algae, source of biologically active compounds
*Vojtěch Hrbek*

|P-18| Determination of phosphatidylcholines relative concentration with fragmentation MALDI MS
*Vitalyi Chagovets*

|P-19| The harnessing of phospholipid biomimetic structures in investigations of membranotropic drugs effect
*Vitalyi Chagovets*

|P-20| Comparison of LPS-stimulated and control U937 cells by shotgun lipidomics analysis to distinguish between two types of cellular response
*D.V. Chistyakov*

|P-21| Lipidomic profiling using sub-2μm particle $CO_2$ based supercritical chromatography mass spectrometry
*Giorgis Isaac*

|P-22| Distribution study of lipids, hypolipidemic drugs and their metabolites in rat tissues using MALDI high mass resolution spectrometry
*Robert Jirásko*

|P-23| Changes in lipid profile in differentiating human preadipocytes (Chub-S7 cells) under the anti-HIV protease inhibitor
*Kamil Jurowski*

|P-24| Myristic acid affects inositol metabolism in *Saccharomyces cerevisiae*
*Oskar L. Knittelfelder*

|P-25| High throughput data independent approach for qualitative and quantitative lipidomic analysis
*Tomáš Korba*

|P-26| Determination of plasma fatty acids in patients with type 2 diabetes mellitus
*Lucie Koukalová*

|P-27| Monitoring of the fatty acid traffic in the heamolymph of Bombus lucorum males during ageing
*Pavlina Kyjakova*

|P-28| Plasma fatty acids and lipidomic enzymes levels in diabetic patients
*Petr Laštovička*

|P-29| Immobilized lipid substrates for assaying Phospholipase A2 activity
*Marilena E. Lekka*

|P-30| Chiral HPLC/MS characterization of enantiomeric composition of triacylglycerols and other nonpolar lipids
*Miroslav Lisa*

|P-31| Endocytosis and Intracellular Processing of BODIPY-Sphingomyelin by Murine CATH.a Neurons
*Christoph Nusshold*

|P-32| Inverse relationship between triacylglycerols accumulation and glutathione production in the liver in nonobese and obese models of insulin resistance
*Olena Oliyarnyk*

|P-33| Two-dimensional liquid chromatography - mass spectrometry analysis of lipids
*Magdalena Ovčačíková*

|P-34| Recent instrumental advances to peform structural analysis of glycerolipids (TAGS and GPLs) by high energy cid on different MALDI-TOF/RTOF-MS instruments
*Ernst Pittenauer*

|P-35| "FALDI" as a new method for quantification of free fatty acids
*Yulia Popkova*

|P-36| Comprehensive lipidomics employed for insect overwintering studies of heteropteran *Oxycarenus lavaterae*
*Markéta Průchová*

|P-37| Speed kills – positive aspects of prolonged UPLC gradient time for lipid separation
*Gerald N. Rechberger*

|P-38| Rab5 knockdown by RNA interference: functional study by shotgun lipidomics
*Susanne Sales*

|P-39| Relationship of neutral lipid synthesis and fatty acid secretion in the yeast *Saccharomyces cerevisiae*
*Peter Sec*

|P-40| Comparison of the incorporation of free or triacylglycerol-bound docosahexaenoic acid (DHA) into human colon epithelial cell lipids
*Josef Slavik*

|P-41| Influence of free fatty acids on lipid droplets formation in human preadipocytes
*Agnieszka Sliwa*

|P-42| Effect of spontaneous physical activity on ectopic lipid deposition and fatty acid composition in phospholipids of skeletal muscle in the hereditary hypertriglyceridemic rats
*Vojtěch Škop*

|P-43| Studying the fatty acid composition in sperm membrane in smokers and non-smokers
*Xenie Štramová*

|P-44| In-depth profiling of plant and fungal sphingolipids by UPLC-nanoESI-MS/MS
*Pablo Tarazona*

|P-45| Coupled separation and mass spectrometry methods as a tool for glycerolipid profile determination and comparison of two Chromerida species: *Chromera velia* and *Vitrella brassicaformis*
*Aleš Tomčala*

|P-46| Myeloperoxidase-derived oxidants induce blood-brain barrier dysfunction: dietary benefits of natural polyphenols?
*Andreas Üllen*

|P-47| Dose-response efficacy and long-term stability of hypocholesterolemic effect of octadecylpectinamide in rats
*Zdeněk Volek*

|P-48| Ability of atmospheric pressure chemical ionization to detect of hydrocarbons separated by silver ion high performance liquid chromatography
*Vladimir Vrkoslav*