Programme

5th ENOR Symposium
Oxysterols: Players in Different Metabolic Leagues
Poppelsdorf Palace, Bonn, Germany. 24-25 September 2015

Thursday September 24th, 2015

8:30 - 9:00 Registration at the Venue (Gartensaal)
9:00 - 9:10 Opening of the Symposium: Dieter Lütjohann, Luigi Iuliano, Gérard Lizard
9:10 - 9:30 Welcome (Lecture Hall):
   Nicolas Wernert, Dean of the Medical Faculty, University of Bonn
   Gunther Hartmann, Chair, Institute of Clinical Chemistry and Clinical Pharmacology with the Central Laboratory of the University Hospital Bonn, Speaker of the DFG-Excellence Cluster “ImmunoSensation”, University of Bonn

9:30 - 10:30 Plenary lecture (chair: Peter Ghazal)
   Eicke Latz, Chair, Institute of Innate Immunity, University Hospital Bonn, “Fighting cholesterol with cyclic oligosaccharides in atherosclerosis: involvement of 27-hydroxycholesterol and impact on inflammasomes”.

10:30 - 11:00 Coffee break (Stucksaal) and posters (Gartensaal)
Session 1. Immunity and Inflammation (chairs: Maria Manuel Cruz Silva, Ingemar Björkhem)

11:00 - 11:20 Peter Ghazal, University of Edinburgh, UK, “Role of immune sterols in infection”.

11:20 - 11:40 Valentin Mutemberezi, University of Louvain, Brussels, Belgium, “Quantification of 7α-Hydroxy-4-cholesten-3-one in in vitro and in vivo models of inflammation and evaluation of its bioactivity”.

11:40 - 12:00 Monique Mulder, Erasmus Medical Centre, Rotterdam, The Netherlands, “The effect of human ApoE4 on cerebral ceramide profiles in mice”.

Session 2. Cellular dysfunction and proliferation (chairs: M. Luisa Sá-e-Melo, Gerd Schmitz)

12:00 - 12:20 Gérard Lizard, University of Bourgogne / INSERM, Dijon, France, “Analysis by RT-qPCR of the modulation of peroxisomal mRNA levels on murine oligodendrocytes (158N) and murine microglial cells (BV-2) treated by 7-ketocholesterol: evidence of downregulation on BV-2 cells”.

12:20 - 12:40 Valerio Leoni, Circolo Hospital and Macchi Foundation, Varese, Italy, “Mitochondrial dysfunctions and lipid anabolism modifications on 158 N murine oligodendrocytes exposed to 7-ketocholesterol”.

12:40 - 13:00 Sérgio Paulo Bydlowski, University of São Paulo School of Medicine, Brazil, “Cell cycle effects of eight different natural and synthetic oxysterols. A study on death and proliferation of different cell lineages”.

13:00 - 14:20 Lunch (Stucksaal) and posters (Gartensaal)

Session 3. Markers in disease (chairs: Silke Matysik, Ulf Diczfalussy)

14:20 - 14:40 Frank Kannenberg, University Hospital of Münster, Germany, “Analysis of cholestanetriol in Niemann-Pick Type C disease by GC-MS”.

14:40 - 15:00 Glynis Klinke, University of Zurich, Switzerland, “LC-MS/MS based assay and reference intervals in children and Adolescents for oxysterols elevated in Niemann-Pick disease”.

15:00 - 15:20 Hanne Røberg-Larsen, University of Oslo, Norway, “Oxysterols in exosomes”.
15:20 - 15:40  Marc Poirot, University of Toulouse, “Circulating oxysterol metabolites as potential new surrogate markers in patients with hormone receptor-positive breast cancer: results of a pilot study”.

15:40 - 16:10  Coffee break (Stucksaal) and posters (Gartensaal)

Session 4. Nuclear receptors (LXRs) (chairs: Monique Mulder, Vesa Olkkonen)

16:10 - 16:30  Ernest Arenas, Karolinska Institute, Stockholm, Sweden, “Identification of the downstream mechanism by which LXR receptors regulate midbrain dopaminergic neurogenesis”.

16:30 - 16:50  Tim Vanmierlo, University of Hasselt, Belgium, “Activation of liver x receptor activation in MS lesions”.

16:50 - 17:10  Jean-Marc A. Lobaccaro, University Clermont Auvergne, Clermont-Ferrand, France, “Two environmental chemical disruptors modify LXR activity’.

17:10 - 17:30  Ingemar Björkhem, Karolinska Institute, Huddinge, Sweden, “27-Hydroxycholesterol mediates regulatory effects of high dietary cholesterol on some LXR-responsive genes in mouse liver at a transcriptional level”.

17:30 - 17:50  Delphine Meffre, Paris Descartes University / INSERM, France, “New insights into the role of LXRs in the CNS: positive modulators of re/myelination”.

18:30  Event dinner
Friday September 25th, 2015

Session 5. Cellular regulations (chairman: Maria Teresa Rodriguez Estrada, Ernest Arenas)

09:00 - 09:20  Vesa M. Olkkonen, Minerva Foundation Institute for Medical Research, Helsinki, Finland, “ORP4-VAPA complexes bridge the vimentin network with the Golgi complex”.

09:20 - 09:40  Gerd Schmitz, University Clinic of Regensburg, Germany, “Mildly oxidized HDL (moxHDL) antagonize agonist-induced platelet aggregation and release of procoagulant platelet extracellular vesicles (PL-EV)”.

09:40 - 10:00  Giuseppe Poli, University of Turin, Italy, “Survival signaling activated by 27-hydroxycholesterol in cells of the macrophages lineage”.

10:00 - 10:30  Coffee break (Stucksaal) and posters (Gartensaal)

Session 6. Cellular activities (chairs: Neura Bragagnolo, William J. Griffith)

10:30 - 10:50  Elodie Olivier, Paris Descartes University, France, “Oxysterols involvement in skin aging”.

10:50 - 11:10  Maria Manuel Cruz Silva, University of Coimbra, Portugal, “Modulating the anticancer activity of oxysterols through glucosylation and acylglucosylation”.

11:10 - 11:30  Noriko Noguchi, University of Doshisha, Japan, “Two different ways for neuronal cell death induced by 24(S)-hydroxycholesterol”.

11:30 - 11:50  Andrei A. Gilep, National Academy of Sciences of Belarus, Minsk, Belarus, “Oxysterol 7α-hydroxylase CYP39A1: biochemical analysis at the protein level”.

Session 7. Sponsors talks (chairs: Lucia Baila Rueda, Valerio Leoni)


12:05 - 12:20  Volker Gnau, Agilent Technologies, Waldbronn, Germany, “Next Generation Ion Mobility QTOF”. 
12:20 - 12:40  Philipp Pagel, Numares AG, Regensburg, Germany, “Analysis of lipoprotein subclasses and metabolites using NMR - the AXINON® lipoFIT® test system”.

12:40 - 14:00  Lunch (Stucksaal) and posters (Gartensaal)

Session 8.  CNS and nutrition (chairs: Diana Ansorena, Giuseppe Poli)

14:00 - 14:20  William J. Griffiths, Swansea University, UK, “Alternative routes for cholesterol metabolism in brain”.

14:20 - 14:40  Owein Guillemot-Legris, Catholic University of Louvain, Belgium, “Obesity alters oxysterol metabolism and levels in the hypothalamus and liver”.

14:40 - 15:00  Ulf Diczfalussy, Karolinska Institute, Huddinge, Sweden, “Seasonal variation in CYP3A4 activity?”.

15:00 - 15:20  Sabine Baumgartner, University of Maastricht, The Netherlands, “Effects of plant stanol ester consumption on fasting plasma concentration of oxysterols, oxyphytosterols and non-cholesterol sterols; what can we learn about the formation site?”.

15:20 - 15:40  Oliver Weingärtner, University of Oldenburg, Germany, “Effects of a diet supplementation with plant sterols on circulating monocytes in humans: A prospective, double-blind, randomized, placebo-controlled, cross-over study”.

15:40 - 16:10  Coffee break (Stucksaal) and posters (Gartensaal)

Session 9.  General assembly (chairs: Luigi Iuliano, Gérard Lizard)

16:10 - 16:55  Round table discussion of ENOR activities

16:55 - 17:15  Talk and poster awards and closing remarks (Gérard Lizard, Luigi Iuliano, Dieter Lütjohann)
Session 10. Posters

P1. Zoltan Pataj, University of Regensburg, Germany, “Quantification of oxysterols by liquid chromatography high-resolution tandem mass spectrometry”.


P3. Diana Ansorena, University of Navarra, Spain, “Sterol oxidation: Effect of heating, unsaturation degree of the lipid matrix and presence of antioxidants”.

P4. Neura Bragagnolo, University of Campinas, Brasil, “Bixin inhibits cholesterol oxidation in red tilapia after cooking”.

P5. Maria Teresa Rodriguez Estrada, University of Bologna, Italy, “Effect of a broccoli extract enriched diet on cholesterol oxidation in rat liver”.

P6. Lilian Regina Barros Mariutti, University of Campinas, Brasil, “Cholesterol and COP microwave-assisted direct saponification of cholesterol and cholesterol oxides in shrimps”.

P7. Hans-Frieder Schött, University of Bonn, Germany, “Oxidation of sitosterol and transport of its products out of tissues in humans and ApoE knockout mice”.


P9. Silke Matysik, University of Regensburg, Germany, “Heritability of cholesterol synthesis: a german twin study”.

P10. Dieter Lütjohann, University of Bonn, Germany, “Age and sex-related changes in cholesterol synthesis and catabolism to bile acids in rats”.

P11. Dieter Lütjohann, University of Bonn, Germany, “Are 7α-hydroxycholesterol and 27α-hydroxycholesterol ideal serum surrogate markers for bile acid synthesis? - GC-MS serum analysis versus fecal balance study in healthy normocholesterolemic men”.

P12. Dieter Lütjohann, University of Bonn, Germany, “Serum surrogate non-cholesterol absorption markers correlate significantly with the fractional cholesterol absorption rate as measured by continuous stable isotope feeding in healthy subjects”. 
P13. **Dieter Lütjohann**, University of Bonn, Germany, “Increased cholesterol synthesis calculated via the cholesterol balance procedure must be interpreted with caution”.

P14. **Dieter Lütjohann**, University of Bonn, Germany, “First and second worldwide oxysterol harmonization trial - a detailed analysis”.

P15. **Dieter Lütjohann**, University of Bonn, Germany, “First and second worldwide cholesterol and non-cholesterol harmonization trial – a detailed analysis”.

P16. **Dieter Lütjohann**, University of Bonn, Germany, “Indication of CYP3A4 inhibition by fluconazole using 4β-hydroxycholesterol as a validated serum marker is hidden by a decreased catabolism”.

P17. **Lucia Baila-Rueda**, Aragonese University of Sciences, Zaragoza, Spain, “Cosegregation of serum cholesterol with cholesterol intestinal absorption makers in families with primary hypercholesterolemia without mutations in LDLR, APOB, PCSK9 and APOE genes”.


P20. **Yidan Sun**, University of Graz, Austria, “Gestational diabetes modulated cholesterol metabolism in placental endothelial cells”.

P21. **Suna Sabuncuoglu**, Hacettepe University, Ankara, Turkey, “The evaluation of conditioning chemotherapy induced oxidative damage in bone marrow transplantation patients”.

P22. **Amira Zarrouk**, University of Bourgogne, Dijon, France, “Attenuation of 7-ketocholesterol-induced apoptosis by dimethylfumarate on 158N murine oligodendrocytes”.

P23. **Julien Grenier**, Paris-Descartes University, France, “LXRs are differentially implicated in peripheral and central nervous system myelination processes”.
