

Program
12th ENOR Symposium - 21-22 September 2023

Thursday, September 21st

08:30-08:40 Opening messages
Luigi Iuliano, Gérard Lizard, Marc Poirot, & Sandrine Silvente-Poirot

Session 1: Metabolism of oxysterols and phytosterols
(chair: P de Medina & G Lizard)

8:40-9:40 **Plenary 1 - Hubert Schaller**
Phytosterol metabolism: genetic analysis of the mevalonate / isoprenoid/phytosterol pathways.

09:40-10:00 **Oral communication (15' + 5' questions)**

Philippe de Médina / Silia Ayadi - Metabolic switching from tumor promoter activities of oncoesterone and 27-hydroxycholesterol to 27-hydroxy-oncoesterone with antiproliferative properties

10:00-10:30 **Flash presentations (5' + 5' questions)**

Yvonne Benatzy - ALOX15B controls macrophage cholesterol homeostasis via lipid peroxidation, ERK1/2 and SREBP2.

Philippe de Médina - Chemical synthesis and biochemical properties of cholestane-5 α ,6 β -diol-3-sulfonate, a non-hydrolysable analogue of cholestane-5 α ,6 β -diol-3 β -sulfate.

Kersti Karu - Importance of oxysterols, phytosterols in nutrition and possible biomarkers of Sepsis-induced brain dysfunction (SIBD).

10:30-11:00 **Coffee break / comfort break**

11:00 -11:20 **Oral communication (15' + 5' questions)**

Silia Ayadi - Biochemical and structural evidences that the human glutathione S-transferase A1 catalyzes the biosynthesis of dendrogenins.

11:20-11:40 **Flash presentation (5' + 5' questions)**

Maria Teresa Rodriguez-Estrada - Unraveling the bioaccessibility of plant sterol oxidation products from plant sterol-enriched rye bread under young adult and senior digestion conditions.

Hannah Nudds - Role of the cholesterol-oxysterol-bile acid pathway in maintenance of neuronal health.

12:00-14:00 **Lunch**

Session 2: Sterol metabolism and physiopathology
(Chair: Y Wang & S Silvente-Poirot)

14:00-15:00 Plenary 2 - William J Griffiths, Eylan Yutuc, Manuela Pacciarini, Lauren Griffiths, Mohsen Ali Asgari, Yuqin Wang
Cholesterol Biosynthesis and Metabolism: Implications in Immunity and Neurodegeneration

15:00-15:40 Oral communications (15' + 5' questions)

Irina Pikuleva - Primary processes integrating the multiplicity of CYP46A1 activity brain effects.

Cashikar Anil - Microglial 25-hydroxycholesterol mediates neuroinflammation and neurodegeneration in a mouse model of tauopathy.

15:40-15:50 Flash presentation (5' + 5' questions)

Isabelle Delton / Clara Hennot - Antiparasitic activity of 25-OH, 27-OH and 7-KC on macrophages infection by *Leishmania infantum* parasite.

15:50-16:20 Coffee break / comfort break

16:20-17:00 Oral communications (15 min +5 min questions)

Dieter Lütjohann - Role of CYP39A1 deficiency and 24S-hydroxycholesterol in the pathogenesis of pseudoexfoliation syndrome/glaucoma.

Sandrine Betuing - Liver X Receptor (LXR) activation is associated with behavioural and neuropathological improvements in Huntington's disease.

17:00-17:10 Flash presentations (5' + 5' questions)

Paola Gamba - Altered brain cholesterol homeostasis in a Down syndrome murine model: could it correlate with early Alzheimer's disease onset?

17:10-18:00 ENOR's general assembly.

20:00 Gala dinner

Day 2
Friday, September 22nd

Session 3 : Sterols, cancer and other diseases
(D Lütjohan & L Iuliano)

08:30 Welcome to day 2

08:30-9:30 Plenary 3 - Marc Poirot & Sandrine Silvente-Poirot
Characterization of a new branch in the cholesterol pathway centered on cholesterol-5,6-epoxides: the story of dendrogenins and oncoesterone discoveries

9:30-10:10 Oral communications (15 min + 5 min questions)

Silke Matysik - Cerebrotendinous Xanthomatosis: 13-year follow-up case report of LDL-apheresis therapy.

Julio Bunay - The oxysterol dendrogenin A increases the activation of migratory dendritic cells by acting through the LXR β .

10:10-10:30 Flash presentations (5 min + 5 min questions)

Meriam Messedi / Gérard Lizard - Plasma circulating oxysterol levels in patients with metabolic syndrome.

Monique Mulder - Identification of side chain oxidized sterols as novel liver X receptor agonists with therapeutic potential in the treatment of cardiovascular and neurodegenerative diseases.

10:30-11:00 Coffee break / Comfort break

11:00-11:40 Oral communications (15 min + 5 min questions)

Jean-Marc Lobaccaro / Norberta Delporte, Aurélie Lagarde - Development of new synthetic molecules modulating Liver X receptors.

Ljerka Delac - Molecular phenotyping of an App knock-in mouse model of Alzheimer's disease with CYP46A1 upregulation.

11:40-12:00 Flash presentations (5 min +5 min questions)

Fatima Nigro - Cholenamides and Homocholenamides as Herpetic Antivirals: From Identification by a Library Screening toward Rational Optimization.

Marc Poirot / Farid Khallouki - Synthesis and cellular evaluation of new bi-specific estrogen receptor modulators and ACAT/SOAT inhibitors as anticancer agents.

12:00-13:30 End of the meeting, concluding remarks and lunch