

第2回 難研MTTセミナー

下記により難研セミナーを開催しますので、多数御来聴下さい。

記

日 時 : 2009年 7月 1日 (水) 10:00~ 12:30

場 所 : 3号館9階 [湯島地区] 第一会議室

演 者 : Damjana Rozman

Faculty of Medicine, University of Ljubljana, Slovenia

演 題 : The cross-talk of the hepatic cholesterol homeostasis and
drug metabolism

要 旨 : We study the cross-talk of cholesterol homeostasis and drug metabolism on two models: mouse liver treated by TCPOBOP, and human primary hepatocytes treated by rosuvastatin and atorvastatin. Using expression profiling by dedicated Steroltalk microarrays we identified the most modulated pathways of the mouse liver after cholesterol diet and TCPOBOP. While diet represses cholesterol synthesis genes, TCPOBOP re-activates expression in cholesterol loaded conditions. This up-regulation is SREBP-independent and CAR-dependent. GC-MS and lipoprotein analyses revealed an increase in cholesterol synthesis but a drop of liver and serum cholesterol due to increase in bile acid metabolism and up-regulated removal of LDL. Expression profiling with Steroltalk and Affymetrix arrays on hepatocytes from 7 human donors shows that statins induce extensive transcriptome changes, rosuvastatin mostly at 24 h, while the atorvastatin effect is highest at 48 h. Both statins influence genes of the lipid metabolism and acutely up-regulate gluconeogenic genes, which might be linked to the drug side effects. Due to enrichment of cholesterol and drug metabolism genes on the Steroltalk chip, different KEGG pathways were presented in Affymetrix and Steroltalk data sets. Further informatic analyses are in progress.

連絡先 : MTT プログラム

平山 順 (内線 4658)

発生再生生物学分野

仁科博史 (内線 4659)