DBMR Research Conference

Langhans Hörsaal Pathologie
Murtenstrasse 31, 3008 Bern

Date **September 7, 2020, 5 pm – 6 pm**

A maximum of 44 people are allowed to participate at the Langhans Auditorium.
For those wishing to attend at the Langhans Auditorium please subscribe here to reserve your slot: Registration
For those joining by zoom, please use this link.
Link Zoom Meeting: https://unibe-ch.zoom.us/j/91951444893?pwd=WlQrK1JlSHZ6UDQzSExSQTdlSUZQdz09
Meeting ID: 919 5144 4893
Passcode: 174305

Title **Multi-engineering to create multicellular liver mimics from PSCs to model liver disease and liver toxicity**

Speaker **Prof. Dr. Catherine Verfaillie**
Head of the Stem Cell Institute Leuven (SCIL), KU Leuven, BE

Bio: Catherine Verfaillie received her Medical degree from the KU Leuven in 1982, and trained as an internist/hematologist at the KU Leuven between 1982 and 1987. She did a postdoctoral fellowship at University of Minnesota between 1987 and 1989. She rose through the ranks at the University of Minnesota and became the first Director of the University of Minnesota's Stem Cell Institute. In 2006, she became the director of Interdepartementeel Stamcel Instituut at the KU Leuven (SCIL). She is a stem cell biologist focusing on regulation of normal hematopoietic stem cells; as well as developing methods to differentiate embryonic/induced pluripotent stem cells to create CNS and liver disease models to gain insights in mechanisms underlying disease development and for drug discovery purposes.

Abstract: Predicting drug-induced liver injury (DILI) remains challenging, as in vitro cultured human liver cell models exhibit poor drug biotransformation capacity. Likewise, drug development for instance non-alcoholic steatohepatitis or NASH is hampered by lack of good human model systems. Over the last years we have used genome engineering, metabolic engineering as well as bioengineering approaches to create from human pluripotent stem cells (PSCs) 3D liver models. This model encompass hepatocyte like cells with cellular metabolism and drug biotransformation properties approaching that of primary hepatocytes, including identification of DILI. In addition, the culture system contains 3 non-parenchymal liver cells (macrophages, hepatic stellate cells and endothelium) that play a role in inflammation and fibrosis in NASH patients. These long-term stable 3D models allow modeling steatosis induced inflammation and fibrosis, and identify promising candidate anti-NASH drugs.

Prof. Dr. Catherine Verfaillie has been invited by Stem Cell Research and Regenerative Medicine (SCRM) Platform

Next DBMR Research Conference

October 5, 2020
***Dr. Marko Nikolic**, Division of Medicine, Rayne Institute, University College London, UK*

The DBMR Research Conference takes place from 5 pm – 6 pm and will be followed by an apéro.