EPFL-TTO

EPFL Innovation Park J
CH-1015 Lausanne
Switzerland
+41 21 693 70 23
http://tto.epfl.ch/

Research Contact

Prof. Johan Auwerx
+41 21 693 09 51
johan.auwerx@epfl.ch

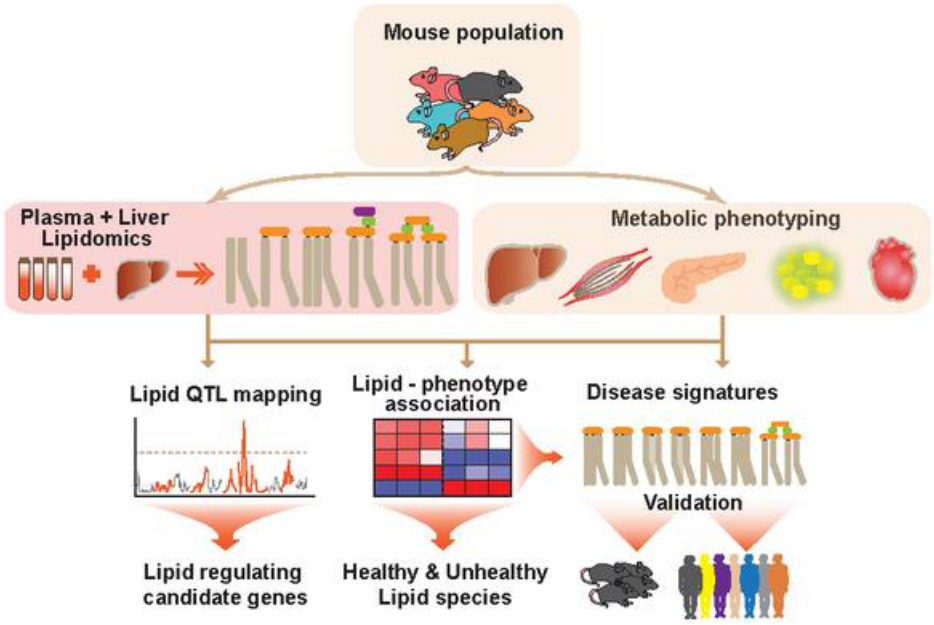
TTO Contact

Natalia Giovannini
+41 21 693 35 90
natalia.giovannini@epfl.ch

Licensing Opportunity

TTO – Technology Transfer Office

Plasma and liver lipid species as biomarkers of fatty liver



Ref. Nr

6.1720

Keywords

Biomarker
Fatty liver disease
Lipidomics

Intellectual Property

Regular US national phase upon WO2018/141965.

Publications

Jha et al., 2018, “Genetic Regulation of Plasma Lipid Species and Their Association with Metabolic Phenotypes”, Cell Systems, 6:709–721.
Jha et al., 2018, “Systems Analyses Reveal Physiological Roles and Genetic Regulators of Liver Lipid Species”, Cell Systems, 6:722–733.

Date

12/09/2019

Description

Quantitative trait locus (QTL) mapping and multilayered omics (weighted correlation network analysis), reveal a set of specific liver and plasma lipid species correlating with other biological factors of liver fat accumulation.
These lipid species are validated as markers in a mouse model of fatty liver and in human subjects with various severity of Non-Alcoholic Fatty Liver Disease (NAFLD), thus showing their potential in predictive medicine and liver health.

Advantages

- Ability to assess the liver condition directly from plasma samples represents an easier and safer alternative method to the current diagnosis of fatty liver diseases that relies on invasive liver biopsies and histological scoring.
- The results are independent of a particular diet.

Applications

- Diagnosing fatty liver diseases
- Diagnosing disease predisposition
- Monitoring disease progression
- Monitoring efficacy of therapy (surgery, drug treatment, life style recommendations)