Liver histopathology and morphometry



Biopsy-confirmed NASH with fibrosis

Gubra has established and validated a diet-induced obese (DIO) mouse model of non-alcoholic steatohepatitis (NASH) with fibrosis, uniquely identified by pre-study liver biopsy and objectively assessed by individual histological changes from baseline (pre) to study end (post).

NASH histopathology

Gubra has several histopathologists with ample experience in liver pathologies from different preclinical rodent models of NASH to man. The histopathological analyses are mainly based on standard Haematoxylin Eosin and Picrosirius Red stains.

NASH histomorphometry

To supplement histopathological semi-quantitative analyse Gubra has optimized several histological and immunohistochemical stains incl. image analyses procedures to quantify steatosis, inflammation and fibrosis.

The validity of biopsy-based drug effects

At Gubra, we have validated how biopsy-based quantitative analyses correlate to stereology-based whole-liver quantitative changes upon drug treatment. <u>Read paper</u>

GHOST - AI assisted histopathology

We have developed a GHOST deep learning based APP (GHOST for Gubra Histopathological Objective Scoring Technology) to automatically perform a full NAFLD Activity Score (NAS) and Fibrosis Staging (Kleiner) and to extract metrics supporting the morphological changes.



Histopathological assessment of NAS and Fibrosis scores based on HE and PSR stains





Image analyses on liver collagen1a1



AI asssisted histopathology using GHOST