

Stereological assessments of beta cell mass

Metabolic response on Pancreatic markers

Gubra has years of experience with pancreatic markers in preclinical models of diabetes. Importantly, stereological analyses of beta-cell dynamics in db/db mice and ZDF rats have challenged the traditional view on beta cell dynamics leading to important novel understandings of drug mechanisms.

Stereological analyses of beta-cell mass

Using stereological sampling principle, immunohistochemical detection of beta cells (anti-insulin) and non-beta cells (antibody cocktail towards anti-pp, somatostatin and glucagon) and image analyses, we provided state-of-the art unbiased quantification of pancreas and islet dynamics.

Beta cell turn-over

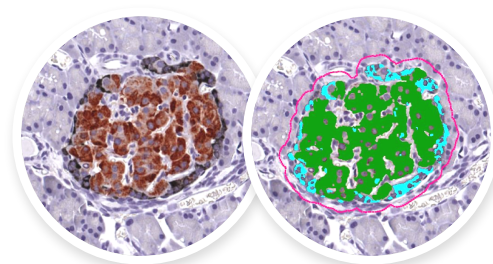
Beta cell dynamics are often driven by changes in beta-cell proliferation, apoptosis or dedifferentiation. We will guide you to select the right marker and provide beautiful brightfield or fluorescence microscopy images with clear data endpoints.

Drug induced efficacy

At Gubra, we have published several papers on beta-cell dynamics following treatment with anti-diabetic compounds, incl SGLT-2 inhibitors. A solid experimental design with proper controls have revealed beta-cell rescue as a major endpoint in type-II-diabetes studies.

It's not all about beta cells

During the last decade a lot of research has been directed towards the exocrine pancreas and the ductal system. [Check out our publication list to learn more.](#)



Beta- and non-beta cell mass

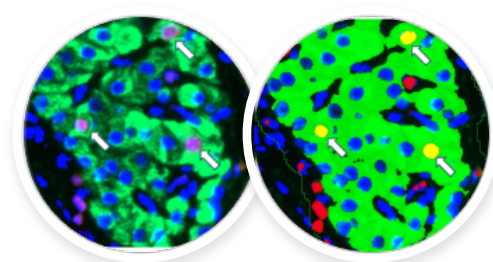
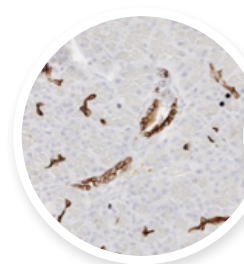
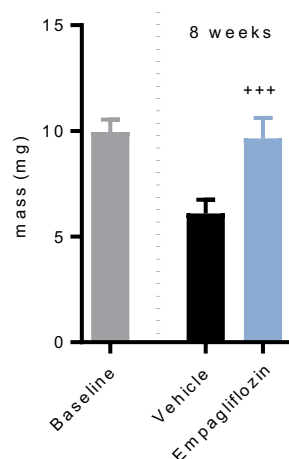
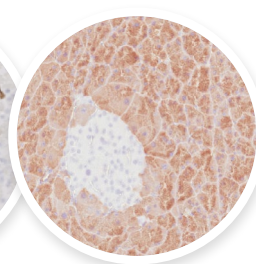


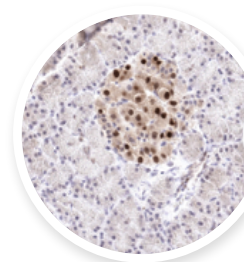
Image analysis of Ki67/Insulin double positive cells.



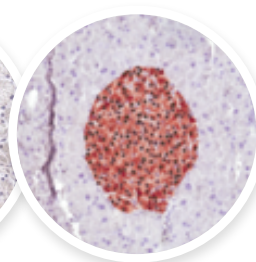
Duct cells (CK-20) and ki67



Amylase (exocrine tissue)



PDX-1



NKX6.1 and insulin