

List of published preliminary research relevant to the research program

Matthias Sandler

Peer-reviewed Publications (selection)

1. Mayerle J, **Sendler M**, Hegyi E, Beyer G, **Lerch MM**, Sahin-Tóth M. 2019. Genetics, Cell Biology, and Pathophysiology of Pancreatitis. *Gastroenterology* 156:1951-1968.e1. (Review)
2. Aghdassi AA, John DS, **Sendler M**, Weiss FU, Reinheckel T, Mayerle J, **Lerch MM**. 2018. Cathepsin D regulates cathepsin B activation and disease severity predominantly in inflammatory cells during experimental pancreatitis. *J Biol Chem* 293:1018-1029.
3. **Sendler M**, Weiss FU, Golchert J, Homuth G, van den Brandt C, Mahajan UM, Partecke LI, Döring P, Gukovsky I, Gukovskaya AS, Wagh PR, **Lerch MM**, Mayerle J. 2018. Cathepsin B-Mediated Activation of Trypsinogen in Endocytosing Macrophages Increases Severity of Pancreatitis in Mice. *Gastroenterology* 154:704-718.e10.
4. **Sendler M**, Maertin S, John D, Persike M, Weiss FU, Krüger B, Wartmann T, Wagh P, Halangk W, Schaschke N, Mayerle J, **Lerch MM**. 2016. Cathepsin B Activity Initiates Apoptosis via Digestive Protease Activation in Pancreatic Acinar Cells and Experimental Pancreatitis. *J Biol Chem* 291:14717-31.
5. Mareninova OA, **Sendler M**, Malla SR, Yakubov I, French SW, Tokhtaeva E, Vagin O, Oorschot V, Lüllmann-Rauch R, Blanz J, Dawson D, Klumperman J, **Lerch MM**, Mayerle J, Gukovsky I, Gukovskaya AS. 2015. Lysosome associated membrane proteins maintain pancreatic acinar cell homeostasis: LAMP-2 deficient mice develop pancreatitis. *Cell Mol Gastroenterol Hepatol* 1:678-694.
6. **Sendler M**, Beyer G, Mahajan UM, Kauschke V, Maertin S, Schurmann C, Homuth G, **Völker U**, Völzke H, Halangk W, Wartmann T, Weiss FU, Hegyi P, **Lerch MM**, Mayerle J. 2015. Complement Component 5 Mediates Development of Fibrosis, via Activation of Stellate Cells, in 2 Mouse Models of Chronic Pancreatitis. *Gastroenterology* 149:765-76.e10.
7. Schick V, Scheiber JA, Mooren FC, Turi S, Ceyhan GO, Schnekenburger J, **Sendler M**, Schwaiger T, Omercevic A, Brandt Cv, Fluhr G, Domschke W, Krüger B, Mayerle J, **Lerch MM**. 2014. Effect of magnesium supplementation and depletion on the onset and course of acute experimental pancreatitis. *Gut* 63:1469-80.
8. **Sendler M**, Dummer A, Weiss FU, Krüger B, Wartmann T, Scharffetter-Kochanek K, van Rooijen N, Malla SR, Aghdassi A, Halangk W, **Lerch MM**, Mayerle J. 2013. Tumour necrosis factor α secretion induces protease activation and acinar cell necrosis in acute experimental pancreatitis in mice. *Gut* 62: 430-9.
9. Meister T, Niehues R, Hahn D, Domschke W, **Sendler M**, **Lerch MM**, Schnekenburger J. 2010. Missorting of cathepsin B into the secretory compartment of CI-MPR/IGFII-deficient mice does not induce spontaneous trypsinogen activation but leads to enhanced trypsin activity during experimental pancreatitis--without affecting disease severity. *J Physiol Pharmacol* 61:565-75.
10. Wartmann T, Mayerle J, Kähne T, Sahin-Tóth M, Ruthenbürger M, Matthias R, Kruse A, Reinheckel T, Peters C, Weiss FU, **Sendler M**, Lippert H, Schulz HU, Aghdassi A, Dummer A, Teller S, Halangk W, **Lerch MM**. 2010. Cathepsin L inactivates human trypsinogen, whereas cathepsin L-deletion reduces the severity of pancreatitis in mice. *Gastroenterology* 138:726-37