

Stem & PRogenitor Cell INterest GRoup

Wednesday, November 20, 2019

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“Plasticity in gastric chief cells: a model for generation of reparative and pre-neoplastic lineages”

Loss of parietal cells from the gastric corpus (oxyntic atrophy) leads to transdifferentiation of protein secreting chief cells into mucous cell metaplasia known as Spasmolytic Polypeptide-expressing Metaplasia (SPEM). The process of transdifferentiation occurs in an orderly process with down regulation of zymogen granule maturation (loss of Mist1 transcription factor), up-regulation of CD44v9 and xCT to deal with ROS and ER stress, upregulation of autophagy to consume zymogen granules and reprogramming of the transcriptome to upregulate mucous granule production. In addition, under the influence of inflammatory regulators, SPEM can adopt a more proliferative and intestinalizing phenotypes that may act as a pre-neoplastic precursor. These studies constitute a model for plasticity among differentiated protein-secreting lineages to deal with severe mucosal damage.



9:00 am – 9455 MRB IV

Bagels provided