BBB seminar (BMED380)

Thursday, May 19, 14.30, at the BBB, Auditorium 4

SCAN ME

α11β1, a mesenchymal collagen-binding integrin with a central role in tissue- and tumor fibrosis

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With a current focus on studying fibroblast heterogeneity in different conditions where extracellular matrix (ECM) dynamics are part of the tissue homeostasis and pathology, it is increasingly important to also understand the underlying cellular mechanism of tissue and tumor fibrosis. In this context we predict that collagen-binding integrins will turn out to play an important role in matrix remodeling in fibrotic diseases on specific fibroblast subsets.

Data from experimental cancer models has questioned the exclusive tumor-supportive function of the tumor stroma and suggested that the stroma might also act as a barrier to inhibit tumor metastasis. In the context of tissue fibrosis, a barrier function of the fibrotic ECM affects access of anti-fibrotic therapeutic reagents. In this talk the definition of fibroblast will be discussed, as well as new transcriptional profiling datasets suggesting the existence of universal fibroblasts lineages. Experimental data on epitope mapping of new integrin mAbs as well as data suggesting a role of integrin α11β1 in matrix assembly will be presented.