

**Title: Pharmacologically Active Delivery Systems for Therapeutic Targeting of Chemokine Networks**

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**Abstract:** Chemokine networks control cell movement to specific locations throughout the body as part of normal homeostasis and during pathological processes such as cancer, inflammation, and fibrogenesis. In tumors, a complex chemokine network controls cell trafficking into and out of the tumor microenvironment. The tumor chemokine network also participates in angiogenesis and generation of the fibroblast stroma. Importantly, chemokine networks are directly involved in the molecular control of metastasis and govern organ-specific homing of metastatic cells, which makes them promising targets for the development of antimetastatic therapies. The CXCR4 axis is also involved in mediating the infiltration and migration of inflammatory cells during pulmonary fibrosis. I will present our progress in the development of polymer drugs that target chemokine receptor CXCR4 as part of combination therapies in the treatment of metastatic pancreatic cancer and pulmonary fibrosis.