

Technology Offer

A novel inhibitor targeting matrix accumulation in cancer

Ref.-No.: 0105-5855_1-IKF

Background

Cancer remains a major health burden and is the second leading cause of death globally (WHO). The microenvironment of cancer cells plays an important role in disease progression. In particular, the composition of the extracellular matrix regulates angiogenesis, cell proliferation, differentiation, cell survival and apoptosis. Dysregulation and accumulation of the extracellular matrix promotes cellular transformation and metastasis leading to cancer progression. A better understanding of the role of the extracellular matrix in cancer will help to identify novel therapeutic interventions.

Technology

Scientists of the Max-Planck-Institute of Biochemistry have identified a unique cyclic molecule that diminishes extracellular matrix production thereby reducing tumor growth in cancer with no toxicity. Our scientists have validated the reduction of tumor growth in the presence of the molecule in two distinct models: breast cancer and melanoma.

Breast cancer



Melanoma

Metastatic breast cancer lesions were induced in mice. Administration of the peptide significantly reduced tumor size.



Toxicity studies in mice revealed that the molecule did not affect blood cell count, liver or kidney function. Therefore, it is a promising candidate in cancer therapy.



Patent Information

EP priority application was filed on 31.07.2019 followed by an international patent application PCT/EP2020/071319 that was filed on 28.07.2020.

Contact

Dr Ingrid Kapser-Fischer

Patent- & License Manager Nutritionist, M.Sc. Phone: +49 89 / 29 09 19-19 Email: kapser-fischer@max-planck-innovation.de