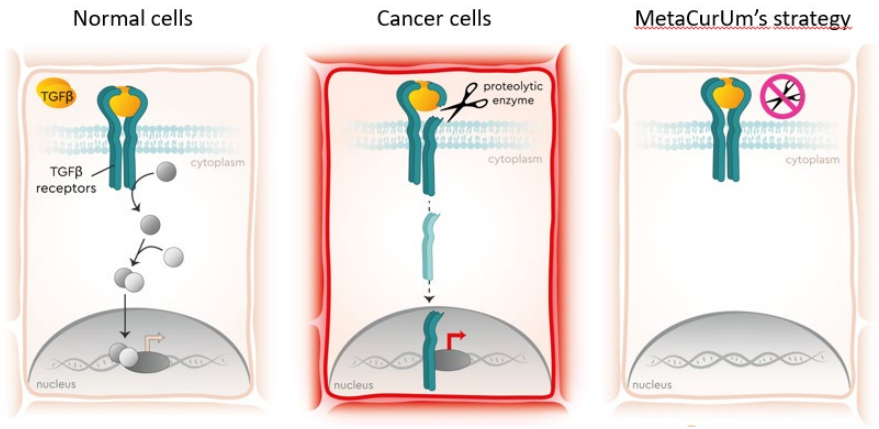
MetaCurUm Biotech AB

BLOCKING THE TGFB ONCOGENIC PATHWAY IN SOLID TUMORS



Market need and potential

MetaCurUm Biotech is developing a novel antibody treatment for aggressive and metastatic cancers that targets the transforming growth factor beta (TGFβ) signaling pathway in a unique way.

Patients with metastatic cancers have a poor prognosis and ninety percent of all cancer deaths are due to the spread of cancer to other parts of the body. There is therefore a great need for drugs that prevent or treat metastatic cancer.

Business idea

TGFβ plays fundamental roles in cell growth and differentiation. TGFβ is also associated with a number of pathological processes such as cancer and fibrosis. In cancer cells, aberrant and upregulated TGFβ signaling is associated with tumor progression and the formation of metastases.

MetaCurUm Biotech's antibody drug candidate targets an oncogenic TGFβ signaling pathway utilized by cancer cells to become invasive and to metastasize. Due to the unique mode of action, potential advantages compared to current treatment approaches could be fewer side effects leading to improved quality of life and overall survival.

MetaCurUm Biotech's drug development program is focused on TGFβ target driven cancers, with the aim to optimize the treatment paradigms in aggressive forms of cancer with high unmet medical need such as prostate, lung, kidney, and endometrial cancer. Other indications related to TGFβ such as fibrotic diseases will also be explored.

Competition

TGFβ has been thoroughly studied and several drug development programs are ongoing. In addition, several recent business collaborations and major licensing deals have been made for the PD-1/TGFβ combination approach, which constitutes a promising future treatment strategy.

There are currently around twenty drug candidates in clinical trials targeting the TGFβ pathway for multiple indications including cancer and fibrosis, but none of those focusing on the abberant oncogenic signalling pathway – expected to lead to a superior safety profile and efficacy compared to competitors. Drug candidates under development include NIS-793 (anti-TGFβ antibody by Novartis) and M7824 (bifunctional fusion protein targeting TGFβ and PD-L1 by GlaxoSmithKline and Merck).

There is one drug targeting the TGFβ pathway (Reblozyl®) approved by the FDA for the treatment of anemia in beta-thalassemia.

MetaCurUm Biotech's treatment strategy aims to:

- Prevent metastasis of cancer cells by blocking an oncogenic TGFβ signaling pathway
- Extend the overall survival for patients with aggressive cancer by offering a more efficacious stand-alone or combination treatment.

Companion biomarkers are also under development to facilitate patient selection and to monitor treatment effects.

Current status

A dose response *in vivo* proof of concept study has been performed using a humanized and affinity maturated mAb targeting the specific extracellular epitope where the TGFβRI is being cleaved by ADAM17/TACE. The antibody inhibits migration and invasiveness of tumor cells in vitro. The antibody has been confirmed to inhibit primary tumor growth and lymph node metastasis in an orthotopic prostate cancer model.

MetaCurUm Biotech

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IPR
Target patent granted: "Cleavage inhibitors of transforming growth factor beta type i receptor and uses thereof in cancer therapy", and several patents submitted and in pipeline.

Capital need
Raising up to 10 MEUR to get ready for first clinical trial in solid tumor patients in 2024

Partnership
We are interested to discuss investment and partnership/collaborations

Team

Maréne Landström, CSO and founder
MD. Ph.D. Professor in Pathology and expert on TGFβ signaling.

Maarten de Château, CEO
MD. Ph.D. Investor and extensive experience in developing oncology therapeutics.

Peter Frank, Project Manager
Experience from pharmaceutical development from various companies.

Background
MetaCurUm Biotech AB is a spin-off from the Department of Medical Biosciences at Umeå University, Sweden, based on unique discoveries made by Professor Maréne Landström and her collaborators.