

# SHORT PEPTIDES FOR TREATING GLIOMA

## PROBLEM DESCRIPTION

Glioblastomas (GBM) are considered to be one of the most difficult human malignancies to treat. Studies have shown that infiltration of malignant glioma tissue with brain resident macrophages may play a significant role to low anti-tumor response and a poor patients prognosis despite aggressive treatments. Intratumoral density of those cells increases during glioma progression and correlates with malignancy of the tumor. In order to effectively treat GBM, the pro-tumoral activity of the microenvironment must be targeted.

## STAGE OF DEVELOPMENT

DISCOVERY

VERIFIED IN ANIMAL MODEL

TOXICOLOGY DONE

PHASE I CT

PHASE II CT

## INNOVATION OF THE SOLUTION

A proposed therapy for the treatment of GBM utilizes short peptides that inhibit the activity of the GM-CSF molecule, which was shown to stimulate pro-tumoral macrophage activity in the malignant mass. Such potential drug enables the promising approach of switching off the macrophage support for tumour maintenance, growth and metastasis. Intended for post-surgery treatment or systemic administration and combination therapy.

## THE MOST IMPORTANT ADVANTAGES

Novel approach targeting mechanisms of GBM pathogenesis, enabling effective treatment.

No toxicity and immunogenicity in preliminary animal studies.

# PROJECT CORE TEAM

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# KEY PUBLICATION

Ellert-Miklaszewska A, et al. 2016. Oncogene. DOI: 10.1038/onc.2016.55  
Ellert-Miklaszewska A, et al. 2017. Future Med Chem. DOI: 10.4155/fmc-2016-0189  
Sielska M, et al. 2020. Br J Cancer. DOI: 10.1038/s41416-020-0862-2

# KEY WORDS



DRUG



BIOLOGICS



CANCER



NEW MECHANISM

# INTELLECTUAL PROPERTY STATUS

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