



# Scavidin: a fusion gene for the treatment of cancer

## **Results in Brief**

# Potential new therapy for gliomas

Development of effective anticancer therapies often involves combining innovative treatments with groundbreaking delivery systems.





The EC-funded SCAVIDIN project focused on a treatment against malignant glioma. The aim was to develop a target-specific delivery system, based on the fusion gene-therapy approach. The fusion gene that was cloned successfully by the project partners was termed Scavidin, containing avidin binding domains. The Scavidin protein acts as a

membrane spanning receptor, with extra- and intra-cellular domains.

The goal was to ensure that cells carrying the Scavidin protein on their membranes would be able to specifically bind biotinylated anticancer therapies. The overall system could ensure specific delivery to the target with reduced side-effect impact and increased efficiency.

Using gene therapy methods, target tumor cells were transfected with the Scavidin gene. Expression of the gene resulted in tumor cells carrying the avidin-binding domains. The Scavidin system could find application as a targeted therapy for malignant glioma and other neoplastic diseases.

Further application of the Scavidin approach might include in vivo purposes and studies related to biotin metabolism and functions. Researchers are seeking further collaboration on this patent-protected line of investigation in order to reap the full benefits of their approach.

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**Project Information** 

#### SCAVIDIN

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Project closed

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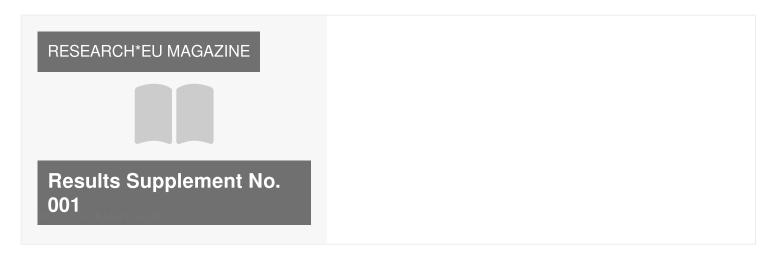
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Coordinated by UNIVERSITY OF KUOPIO Finland

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