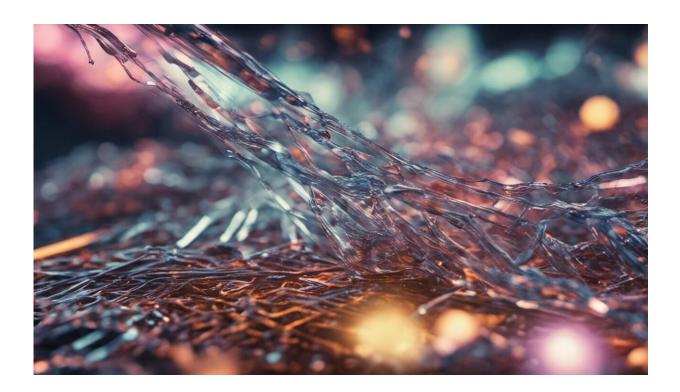


SMEs a presence in the medical world in developing cancer treatment

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Credit: AI-generated image (disclaimer)

Cancer treatment is one of the most important areas of research in the medical world today. With research predominately conducted in large pharmaceutical research organisations, it is rather significant to hear of small medium enterprises (SMEs) developing their own innovative treatment for cancer.



Two small research-based pharmaceutical companies BioInvent (the primary coordinator), in Sweden and Thrombogenics in Belgium, joined together with three other partners to form the ANGIOSTOP project, with EU-funding of nearly EUR 2 million. By forming a synergy between academic groups and SMEs a more focused streamlined development strategy, meant they avoided bureaucratic decision making that is an unavoidable handicap of <u>large networks</u> and pharmaceuticals.

Together they looked at the novel anti-angiogenic treatment for cancer, arthritis and ocular neovascularization based on the inhibition of placental growth factor (PlGF).

The main objective was to look at innovative forms of treatment, which can stop the growth of cancerous tumours through the inhibition of angiogenesis - the process by which new blood vessels are formed in the body.

In addition it was crucial to develop a safer and more effective antiangiogenic medicine that reduces the pathological <u>blood vessel</u> <u>formation</u> associated with solid <u>tumour growth</u>, ocular neovascularization (<u>diabetic retinopathy</u> and macular degeneration) and <u>rheumatoid arthritis</u>.

What the ANGIOSTOP project achieved was to develop an antibodies for clinical use, by studying an antibody that specifically targets PIGF. Thus a detailed programme was drawn up which outlined how the research team would develop the antibody for clinical use.

Following three years of research, there was a considerable effect from the antibody in tumour models in mice, with the toxicology study revealing it to be safe for human use and to continue into clinical studies.

As a result the data compiled produced such a breakthrough, that the



team gained the attention of Roche - the global pharmaceutical giant, and were subsequently able to sell their findings for EUR 50 million.

Furthermore, this amount could be increased to EUR 450 million, if the project reaches certain development milestones.

Overall. the project has enabled the initiation of clinical development with the lead candidate anti-PIGF antibody as set out in the objectives. This, coupled with the advancement of our understanding of pathologic angiogenesis and development of new models and strategies, will be of more general utility for the development of new medicines aimed at increasing or reducing blood vessel formation.

More information: Bioinvent <u>www.bioinvent.com/</u> Thrombogenics <u>www.thrombogenics.com/</u>

Provided by CORDIS

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