

*Press release*

*Helsingborg, Sweden, December 14, 2015*

**Glactone Pharma is awarded financing from VINNOVA**

**Glactone Pharma has been awarded financing from the VINNOVA, Sweden’s Innovation Agency, for a new innovation project. The project is aimed at developing methods to design novel synthetic analogs of the STAT3 inhibitor GPA500. Glactone Pharma is actively profiling novel small-molecule inhibitors of STAT3 for the treatment of prostate cancer and for the use in immuno-oncology areas where a STAT3 inhibitor has great potential to address large unmet medical needs and help patients.**

In hard competition, Glactone Pharma was one of 96 projects that were awarded financing from VINNOVA. The project was granted SEK 437 000 (approximately USD 51 500).

STAT3 is one of the most promising targets in cancer due to its involvement in many key disease processes including proliferation, tumor induced immunosuppression, drug resistance and metastasis. However, STAT3, which is a so called transcription factor, lacks the druggable characteristics of enzymes and cell receptors making it a very difficult drug target. Furthermore, it is an intracellular molecule and as such not amendable to be targeted by antibodies. Glactone Pharma has built a strong portfolio of small-molecule STAT3 inhibitors based on the naturally occurring STAT3 inhibitor GPA500. The innovators behind Glactone Pharma have previously demonstrated that GPA500 binds directly to STAT3 and that this prevents the function of STAT3 regardless of up-stream activators.

Martin Johansson, CEO of Glactone Pharma, said: “The financing from VINNOVA was awarded in strong competition from many projects and we see it as a recognition of the quality of the research we are conducting in Glactone Pharma and it helps to strengthen Glactone Pharma’s position as a leader in the discovery and development of direct small-molecule STAT3 inhibitors”.

Glactone Pharma is continuing to profile is proprietary small molecules in immuno-oncology models to determine the most effective ways of combining STAT3 inhibition with immunotherapies and in models of treatment resistant prostate cancer.

**Immuno-oncology**

Immuno-oncology therapies are drugs or vaccines that have the ability to activate the immune system to recognize cancer cells and destroy them. Immunotherapy has the potential to revolutionize cancer treatment. One strategy of immunotherapy involves targeting checkpoint molecules that act as brakes on immune cells with e.g. PD-1 and PD-L1 antibodies, thereby unleashing a more powerful immune response. However, a majority of patients treated with anti-PD-1/PD-L1 monotherapies do not achieve objective responses and most tumor regressions are partial. To increase the number of patients who benefit from immune checkpoint blockade combination treatments are necessary. Preclinical models have indicated possible targets for combination treatment including STAT3.

**Prostate cancer**

Prostate cancer (PCa) is the most common form of cancer in men in the developed world, and it ranks second in cancer-related deaths, with the vast majority of these fatalities resulting from metastatic disease. There is a great need to find novel drugs with increased efficacy and reduced toxicity that can be used to prolong the effect of androgen receptor antagonists or be used when the disease becomes resistant to androgen receptor antagonists.

**STAT3 and GPA500**

The transcription factor STAT3 (Signal Transducer and Activator of Transcription 3) is a protein that is involved in several mechanisms of carcinogenesis including the regulation of genes involved in cell proliferation, differentiation and metastasis. Constitutively active STAT3 is known to contribute to tumor progression and is considered a key factor in tumor induced immunosuppression and drug resistance. STAT3 is an ideal target for cancer therapy and inhibition of STAT3 represents a highly promising strategy in immuno-oncology.

GPA500 is a small molecule inhibitor of the transcription factor STAT3 with a unique mechanism of action. GPA500 directly inhibits STAT3 and reduces the proliferation of prostate cancer cells *in vivo* and *in vitro*. With GPA500 as a lead, Glactone Pharma has developed novel proprietary STAT3 inhibitors with improved drug-like properties.

**Glactone Pharma**Glactone Pharma is a biopharmaceutical company within PULS, a unique Swedish development company in life sciences, and is based on ground-breaking science from the University of Lund in Sweden. Glactone Pharma has developed a pipeline of novel potential drugs that target the STAT3 transcription factor for the use in immuno-oncology and for the treatment of castration resistant prostate cancer (CRPC). STAT3 is directly involved in tumor mediated immune suppression and resistance to androgen inhibition therapy making it an ideal target in combination treatments. To read more visit [www.glactone.com](http://www.glactone.com) and [www.pulsinvest.se](file:///C:\Users\Maklarhuset\Desktop\www.pulsinvest.se).

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