

New publication highlights A1M protein's role in regulating free hemoglobin

Scientists associated with A1M Pharma have published a scientific article that deepens the understanding of how free hemoglobin affects the function of the heart and the possibility to neutralize these effects with A1M, a protein that occurs naturally in the human body. The article was published on September 25 in the scientific journal *Free Radical Biology and Medicine*.

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A1M Pharma is developing treatments for pre-eclampsia and acute kidney injury, two indications where the damaging effects of free hemoglobin leaking into the bloodstream of the patient play a vital part. Until now it has not been established how and to what extent the heart is affected by the free hemoglobin.

According to the discoveries in the scientific article, co-authored by A1M Pharma's co-founders Bo Åkerström and Magnus Gram, the cells within the heart are affected negatively by the free hemoglobin, with impaired heart muscle contraction as a consequence. These negative effects can, however, be neutralized by the protein A1M which is the active substance in A1M Pharma's candidate drug.

– These new findings give us a better understanding of how the cells within the heart are affected by free hemoglobin and prove that A1M can potentially neutralize its damaging effects. This publication shows that A1M Pharma's scientists are at the leading edge in their research field, which further strengthens our future possibilities of using A1M within other therapeutic areas, in addition to the main indications pre-eclampsia and acute kidney injury, comments A1M Pharma's CEO Tomas Eriksson.

The scientific article is available via the following link:

<http://dx.doi.org/10.1016/j.freeradbiomed.2015.07.158>

About A1M Pharma

A1M Pharma develops a diagnostic method and treatment for pre-eclampsia, a condition that affects around 10 million pregnant women worldwide each year. This disorder is responsible for 76,000 maternal and 500,000 infant deaths each year and it is the cause of 15% of all premature births. Currently, there is no effective diagnostic method or curative treatment for impaired kidney function associated with pre-eclampsia. The only option is therefore to terminate pregnancy by inducing delivery which leads to premature infants and substantial health care costs. Several studies indicate that A1M Pharma's candidate drug, the protein A1M (alpha-1-microglobulin), restores the impaired kidney function by repairing damaged tissue and protect against oxidative stress. New findings indicate that the cells within the heart are protected in a similar way. Apart from the connection with pre-eclampsia, kidney injury is a condition often accompanying major surgery and transplantation and the company is therefore also developing a treatment for the closely related indication acute kidney injury. Acute kidney injury that can lead to permanent kidney damage affects 12 million people every year.

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