

## **Betagenon co-founder publishes new data showing reversal of gene expression, chromatin changes and expression of stress markers in beta cells in diet-induced obese mice by the pan-AMPK activator compound O304**

Betagenon AB, a Sweden-based company focused on development of AMPK activator compounds, today announced the publication by co-founder Helena Edlund of a new study demonstrating the prevention and reversal of gene expression and epigenetic changes to beta cells in diet-induced obese mice. Treatment with O304 prevented genome-wide gene expression changes associated with high fat diet and remodelled active and repressive chromatin markers in beta cells, the cells responsible for producing the body's insulin. Glucose control was restored in the animals and markers of stress were reduced and markers of function increased in the beta cells.

The data are published in Scientific Reports, a member of the Nature family of journals.

“Obesity and associated insulin resistance stresses our beta-cells. If this persists long enough it will lead to beta-cell failure and the body will not be able to produce and secrete insulin, resulting in the development of diabetes. Our work identifies changes at the genetic level as the beta cells become stressed and show that these changes can be prevented by treatment with O304” said Prof. Helena Edlund of the Umeå Centre for Molecular Medicine, and one of the senior authors of the study.

“A narrow window exists after diabetes onset when stressed beta cells can be rescued and their function normalized. These important results give us insight into the genetic changes involved in this process and are a key part in understanding the treatment potential of O304 in helping diabetic patients to remission” said Dr. James Hall, Betagenon CEO.

O304 is a first in class non-allosteric pan-AMPK activator. O304 sodium salt is in clinical development to treat Heart Failure, Renal Disease and Insulin Resistance.

Betagenon is a clinical stage company that develops its proprietary AMPK activators as therapies for diseases and conditions associated with the global epidemic in metabolic disorders and an aging population.

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