



Press release, December 22, 2016

Diamyd Medical prepares GMP-production of GABA

Diamyd Medical announced today that a first amount of GABA has been produced and that the manufacturing process is to be scaled up for GMP production. The Company also highlights that two recently published scientific articles support GABA's relevance in the treatment of diabetes.

Diamyd Medical has, as previously reported, expanded its operations to include type 2 diabetes and rheumatoid arthritis, where a significant part of the development plan is manufacturing of a proprietary GABA drug product. Diamyd Medical has during the autumn visited its selected manufacturer. GABA synthesis and the analysis process has proceeded according to plan and a first amount of GABA has been produced. The process will now be scaled up for future GMP production which will result in a drug product ready to be used for clinical trials in humans.

Diamyd Medical also highlights that two articles have been published in the scientific journal *Cell*, both of which point to the relevance of GABA and the treatment of diabetes (Othman et al., Li et al.). The scientific research has shown through various *in vivo* studies that administration of GABA and promotion of GABA signaling stimulates beta cell growth by transforming alpha cells to beta-like cells that can functionally replace the endogenous beta cells. Preclinical trials conducted by Diamyd Medical with GABA are in progress in type 1 and type 2 diabetes as well as in rheumatoid arthritis, and further studies are planned. The aim of these trials is to understand in more detail how the dose is connected to the various effects of GABA within the various disease models, and to make some comparisons with existing drugs.

"I'm glad to report that the GABA production proceeds smoothly and that we have taken the next step towards our own GABA-drug product," says Ulf Hannelius, President and CEO of Diamyd Medical. "The support the articles in *Cell*, one of the most prestigious scientific journals, provides for GABA's role in diabetes is also very positive. This shows the potential that could be found in a GABA-treatment with the aim to restore insulin production in individuals suffering from diabetes."

The articles "Long-Term GABA Administration Induces Alpha Cell-Mediated Beta-like Cell Neogenesis" and "Artemisinin Targets GABA_A Receptor Signaling and Impair α Cell Identity" are published on *Cells*' website (www.cell.com) and are available through the following links
<http://dx.doi.org/10.1016/j.cell.2016.11.002>
<http://dx.doi.org/10.1016/j.cell.2016.11.010>

About Diamyd Medical

Diamyd Medical is dedicated to finding a cure for diabetes and other serious inflammatory diseases through pharmaceutical development and investments in stem cell and medical technology.

Diamyd Medical develops the diabetes vaccine Diamyd[®], an antigen-specific immunotherapy based on the exclusively licensed GAD-molecule. Six clinical studies are ongoing with Diamyd[®]. GABA constitutes alongside with the diabetes vaccine a key asset in Diamyd Medical and the Company uses its GABA in-licensed technology to develop a proprietary GABA drug product. Diamyd Medical is one of the major shareholders in the stem cell company NextCell Pharma AB (former Cellaviva AB). Diamyd Medical also has holdings in the medtech company Companion Medical, Inc., San Diego, USA and in the gene therapy company Periphagen, Inc., Pittsburgh, USA.

Diamyd Medical's B-share is traded on Nasdaq Stockholm First North under the ticker DMYD B. FNCA Sweden AB is the Company's Certified Adviser.

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