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PRESS RELEASE

Selection of peg-liraglutide (QPG-1029) as the first drug project after successful pre-clinical results

QuiaPEG Pharmaceuticals Holding AB (publ) develops improved and patentable versions of clinically validated or approved drugs, known as biobetters. This is based on the company's proprietary patent-protected technology platform, Uni-Qleaver®, which allows selection of a release time for the drug through a controllable chemical coupling unit. After receiving positive pre-clinical trial results, the company has chosen its first drug project, peg-liraglutide (QPG-1029), which has blockbuster¹ potential for the indications diabetes and obesity.

QuiaPEG has now chosen its first drug project QPG-1029, which is an improved version of the original drug liraglutidE². LiraglutidE is an approved drug with annual sales of approximately USD 4 billion and a main patent that expires in 2022. LiraglutidE has been developed by the global pharmaceutical company Novo Nordisk and is sold under the brands Victoza™ and Saxenda™ for the indications type 2 diabetes and obesity. Liraglutide is injected daily while QPG-1029, based on the results obtained, indicates a possible weekly dose, i.e. a significant improvement for patients. Through testing with QPG-1029, both in vitro (in test tubes) and in vivo (in experimental animals), QuiaPEG has cemented the strength and potential of the Uni-Qleaver® platform as well as for development of new improved drugs.

The successful pre-clinical results show that QPG-1029 is:

- lacking biological activity prior to release of liraglutide, which makes it a so-called pro-drug³, and opens up the possibility of a simplified regulatory procedure
- cleavable in a predictable manner at the normal pH of the body
- has an adaptable cleavage time through the choice of coupling unit (chemical group) from the company's patented library of chemical groups (so called triggers) that opens up possibilities for many future drug projects with different requirements
- after cleavage liberates free liraglutide with full biological activity

- has a significantly longer half-life than the original form of liraglutide, in line with the desired design criteria, and now indicates a possible weekly dose of QPG-1029 instead of the original drug's daily dose - a major benefit to patients

The linking of PEG to liraglutide via Uni-Qleaver® has been performed at the company's laboratory in Uppsala, while analyzes and animal testing have been carried out at external research laboratories. The results confirm the potential of QuiaPEG's patent-pending Uni-Qleaver® technology platform and provide an excellent basis for ongoing and future discussions regarding licenses and collaborations.

- *"We are very pleased with the results of the latest animal experiments and an important milestone has now been achieved. Thanks to Uni-Qleaver® and its library of triggers, we have managed to increase half-life to a possible weekly dose while maintaining the effect of liraglutide," said scientist Marek Kwiatkowski.*
- *"A weekly dose increases patient benefit significantly. QPG-1029 has the potential to become a blockbuster drug and will be a very interesting and valuable project for drug companies focused on diabetes and obesity. We have several important milestones, both development and business, to look forward to in the next six months," says Marcus Bosson, CEO of QuiaPEG.*

The company is moving forward with its development through continued pre-clinical trials. The successful results also open up for additional drug projects in the internal pipeline, where Uni-Qleaver® enables improvements to existing drugs. The costs in the next six months are estimated to be relatively low due to working with a known substance. In parallel, discussions will continue with the pharmaceutical companies that indicated interest in QPG-1029.

For further information contact:

Marcus Bosson, CEO

Tel: +46 (0) 70 693 12 53

E-mail: marcus.bosson@quiapeg.com, www.quiapeg.com

This information is such that QuiaPEG Pharmaceuticals Holding AB (publ) is required to disclose under the EU Market Abuse Regulation. The information was provided, through the above contact person, for publication on November 28th, 2018.

¹ A drug that reaches over one billion dollars in annual sales.

² Liraglutide is a so-called GLP-1 analog (glucagon-like peptide) that binds to and activates the GLP-1 receptor, resulting in glucose-dependent, increased insulin secretion while reducing glucagon production. This leads to a blood sugar lowering effect. The blood glucose lowering mechanism also includes a minor retardation of stomach emptying. Liraglutide reduces body weight and body fat mass through mechanisms that reduce hunger and lower energy intake. (source: Medical Products Agency)

³ A pro-drug is an inactive drug in the form it is taken. Once the pro-drug has entered the body, it transforms into the active form. The conversion is done by changing some part of the chemical structure of the drug. (Source: Wikipedia)