



## PRESS RELEASE

## Adocia Announces Positive Topline Data From a Dose-Proportionality Study of BioChaperone<sup>®</sup> Combo in People with Type 2 Diabetes

- BioChaperone Combo is a 2-in-1 formulation of basal insulin glargine and prandial insulin lispro
- BioChaperone Combo displayed a proportional dose-exposure and a linear dose-response relationship when tested at 0.6; 0.8 and 1.0 U/kg in people with type 2 diabetes
- Study confirmed previous results that BioChaperone Combo acts significantly faster (prandial effect) and lasts significantly longer (basal effect) than HumalogMix<sup>®</sup>

**Lyon, France, January 25 2018** - 6 pm CET – Adocia (Euronext Paris: FR0011184241-ADOC), the clinical biopharmaceutical company focused on developing innovative formulations of approved proteins for the treatment of diabetes and other metabolic diseases, announced today positive topline results from a Phase 1b clinical trial evaluating the dose exposure and dose response relationships of BioChaperone<sup>®</sup> Combo 75/25 at three different doses in people with type 2 diabetes. BioChaperone Combo is a proprietary formulation combining basal insulin glargine (active ingredient in Lantus<sup>®</sup>, Sanofi and Basaglar<sup>®</sup>, Eli Lilly) and prandial insulin lispro (active ingredient in Humalog<sup>®</sup>, Eli Lilly and Admelog<sup>®</sup>, Sanofi). BioChaperone<sup>®</sup> technology enables this combination by solubilizing insulin glargine at neutral pH, where it is compatible with fast-acting insulin analogs.

*"These robust clinical results validate the potential of BioChaperone Combo to strongly perform against premix insulins, and to compete with Ryzodeg<sup>®</sup> (Novo Nordisk), the only next-generation insulin combo product approved to date."* commented Gérard Soula, CEO and Chairman of Adocia. *"Premix insulins are the primary insulin treatments in many high-growth diabetes markets, including, for instance, China, where they represent approximately 65% of insulin volume. We are exploring partnering opportunities for BioChaperone Combo with pharmaceutical companies who aim to deliver best-in-class, yet simple and affordable, medicines in these markets."*

This study aimed to document the dose exposure relationship of BioChaperone Combo in people with type 2 diabetes. In the double-blinded, randomized, four period crossover trial, using automated 30-hour euglycemic clamp, 32 participants with type 2 diabetes mellitus were randomly allocated to a sequence of four treatments, i.e. one of three single doses of

BioChaperone Combo 75/25 (0.6 U/kg; 0.8 U/kg or 1.0 U/kg) or one single dose of Humalog® Mix25™ at 0.8 U/kg.

*"These results establish a linear dose-response relationship for BioChaperone Combo, which is an important regulatory milestone for the development of a commercial insulin product. These results also further support the clinically advantageous pharmacokinetic and pharmacodynamic profiles of BioChaperone Combo compared to premix insulin in people with type 2 diabetes."* commented Dr. Stanislav Glezer, Chief Medical Officer of Adocia *"For people who require intensive insulin treatment, there is a medical need for simple treatment options that provide both efficient prandial control and 24-hour basal coverage while decreasing the risk of hypoglycemia. Based on the encouraging datasets from studies to date, we believe that BioChaperone Combo may be very well positioned to answer this need."*

The primary endpoints were the assessments of dose-proportionality for total insulin exposure ( $AUC_{total\_insulin\ 0-last}$ ) and maximal observed total plasma insulin concentration ( $C_{max}$ ) across three doses of BioChaperone Combo.

Both primary endpoints were met ( $AUC_{0-last}$  overall dose exposure slope 0.93; 95% confidence interval [0.58 ; 1.29];  $C_{max}$  overall dose exposure slope 0.80, 95%CI [0.43 ; 1.17]), and a dose-proportionality relationship was demonstrated for all exposure pharmacokinetic parameters assessed in the early, intermediate and basal phases.

Secondary endpoints included documentation of the dose-response relationship for the total metabolic effect (glucose infusion rate: GIR) and the comparison of the pharmacodynamic and pharmacokinetic profiles of BioChaperone Combo (0.8 U/kg) with those of Humalog Mix25™ (0.8 U/kg).

Dose-response linearity was established for the metabolic response across all three doses for all parameters assessed. Additionally, at 0.8 U/kg, BioChaperone Combo displayed a statistically faster early metabolic effect ( $AUC_{GIR\ 0-2h}$ ,  $p=0.0020$ ), a statistically lower late-prandial effect ( $AUC_{GIR\ 3-6h}$ ,  $p=0.0007$ ) and a statistically stronger late basal effect ( $AUC_{GIR\ 24-30h}$ ,  $p=0.0027$ ) than HumalogMix. The overall metabolic effect was similar for both treatments ( $AUC_{GIR\ 0-30h}$ , NS). These results were in line with pharmacokinetics and confirmed previously obtained results in people with type 2 diabetes.

All treatments were well tolerated. No new or unexpected safety findings were reported and no local reactions were seen on the site of administration for any treatment.

## About Adocia

Adocia is a clinical-stage biotechnology company that specializes in the development of innovative formulations of already-approved therapeutic proteins and peptides. Adocia's portfolio of injectable treatments for diabetes, featuring five clinical-stage products and two preclinical products, is among the largest and most differentiated of the industry. Adocia expanded its portfolio to develop treatments for obesity and short bowel syndrome.

The proprietary BioChaperone® technological platform is designed to enhance the effectiveness and/or safety of therapeutic proteins while making them easier for patients to use. Adocia customizes BioChaperone to each protein for a given application to address specific patient needs.

Adocia's clinical pipeline includes four novel insulin formulations for the treatment of diabetes: two ultra-rapid formulations of insulin analog lispro (BioChaperone Lispro U100 and U200), a rapid-acting formulation of human insulin (HinsBet U100) and a combination of basal insulin glargine and rapid-acting insulin lispro (BioChaperone Combo). An aqueous formulation of human glucagon (BioChaperone Human Glucagon) successfully completed a Phase 1 trial. Adocia also develops a prandial combination of human insulin with amylin analog pramlintide

(BioChaperone Pramlintide hIns), two combinations of insulin glargine with GLP-1 receptor agonists (BioChaperone Glargine Dulaglutide and BioChaperone Glargine Liraglutide), a ready-to-use aqueous formulation of teduglutide (BioChaperone Teduglutide) and a ready-to-use combination of glucagon and exenatide (BioChaperone Glucagon Exenatide), all of which are in preclinical development.

Adocia aims to deliver “Innovative medicine for everyone, everywhere.”

To learn more about Adocia, please visit us at [www.adocia.com](http://www.adocia.com)



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**Disclaimer**

*This press release contains certain forward-looking statements concerning Adocia and its business. Such forward-looking statements are based on assumptions that Adocia considers to be reasonable. However, there can be no assurance that the estimates contained in such forward-looking statements will be verified, which estimates are subject to numerous risks including the risks set forth in the “Risk Factors” section of the Reference Document filed with the French Autorité des marchés financiers on April 11, 2017 (a copy of which is available on [www.adocia.com](http://www.adocia.com)) and to the development of economic conditions, financial markets and the markets in which Adocia operates. The forward-looking statements contained in this press release are also subject to risks not yet known to Adocia or not currently considered material by Adocia. The occurrence of all or part of such risks could cause actual results, financial conditions, performance or achievements of Adocia to be materially different from such forward-looking statements. This press release and the information contained herein do not constitute an offer to sell or the solicitation of an offer to buy Adocia shares in any jurisdiction.*