



**ARECOR AWARDED £1.05M FROM INNOVATE UK TO SUPPORT THE ADVANCEMENT OF ITS DIABETES  
GLUCAGON PRODUCT TOWARDS CLINICAL TRIALS**

**Prototype liquid glucagon product shows stability and commercial viability**

**Partnership with Innovate UK to accelerate pre-clinical asset  
towards proof-of-concept & first-in-human trials**

**Cambridge, UK**, 2 February 2017: Arecor Ltd ("the Company"), a UK-based leading formulation technology company, focussed on developing superior biopharmaceuticals via the innovative reformulation of proteins and peptides enabling the improved treatment of diabetes and other conditions, is pleased to announce that it has been awarded a £1.05 million grant from InnovateUK\* to advance the Company's proprietary stable liquid glucagon product, towards proof-of-concept Phase 1 clinical trials.\*\*

Arecor's liquid glucagon is an important addition to its speciality diabetes pipeline and will offer a vastly superior glucagon rescue treatment for severe hypoglycaemia and may have further applications in enabling dual hormone artificial pancreas systems. Glucagon is a life-saving emergency treatment used to treat dangerously low blood glucose levels known as severe hypoglycaemia. Unfortunately, due to its low solubility and stability in liquid solution, Glucagon is currently only available as a powder for reconstitution, which in this highly stressful situation, can lead to handling errors, and critically, delayed administration. Utilising its formulation technology, Arecor has developed a stable liquid glucagon product that enables a ready-to-inject version of the product to be given to people living with type 1 and type 2 diabetes.

With support from InnovateUK, Arecor intends to accelerate the progression of this asset through its pre-clinical development and IND enabling studies. Once this study has completed, Arecor will be ready to move into Phase 1 human trials.

**Dr Sarah Howell, CEO of Arecor Limited, commented:**

*"We are delighted to receive this prestigious award from Innovate UK which will support the acceleration of our proprietary glucagon rescue treatment towards the clinic and first-in-human Phase 1 trials. Using Arecor's technology, we have been able to solve the very significant and elusive formulation challenge of developing a stable liquid glucagon product that will enable us to deliver a ready-to-use pen to 'rescue' a hypo more quickly and effectively. From our work with the JDRF and patient groups, we are confident that our development of a ready-to-inject liquid rescue glucagon solution has the potential to significantly improve and simplify the administration of this life saving treatment and reduce a major source of anxiety for those living with type 1 and 2 diabetes".*



\* Innovate UK is the UK'S innovation agency seeking to find and drive science and technology innovations that will grow the UK economy and to work with companies to de-risk, enable and support innovation. Its funding programme is awarded in a competitive process. Since 2007 InnovateUK has committed over £1.8 billion to innovation, matched by a similar amount in partner and business funding.

\*\*Arecor were awarded Early Stage funding in the Biomedical Catalyst 2016 competition. The results of this competition have been published on the web <https://www.gov.uk/government/publications/innovate-uk-funding-competition-winners-2016>"

**\*\*\* ENDS \*\*\***

**For more information, please contact:**

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#### **About Arecor**

Arecor Ltd is a leader in developing superior biopharmaceuticals through the application of an innovative formulation technology platform. Arecor is currently leveraging this platform to develop a portfolio of proprietary products that will enable improved treatments for diabetes via the innovative reformulation of approved proteins and peptides. Arecor's product portfolio also includes:

- Stable aqueous glucagon for emergency and artificial pancreas use,
- Novel insulin formulations to deliver ultra-rapid acting insulin analogs and;
- Ultra-concentrated rapid acting insulin to enable the miniaturisation of devices.

In addition to its internal product portfolio, Arecor partners with leading pharmaceutical and biotech companies to deliver superior reformulations of their proprietary products, which would otherwise not be possible using conventional formulation science.



### **About severe hypoglycaemia**

Severe Hypoglycaemia is an acute, life threatening emergency condition resulting from a significant drop in blood sugar levels and is an ever-present risk for type 1 and type 2 diabetics who are on insulin therapy. To treat this condition, glucagon must be administered to restore 'normal' blood sugar levels and glycemic control. Severe hypoglycaemia is a common problem for people living with diabetes with approximately 20% of type 1 patients experiencing at least one severe hypoglycemic event annually. The American Diabetes Association (ADA) recommends that all patients with type 1 and type 2 diabetes on insulin therapy carry a glucagon kit with them at all times [Center for Disease Control and Prevention 2011].

### **About glucagon and current gold standard glucagon rescue treatments**

Glucagon is a metabolic hormone secreted by the pancreas, which plays an important role in the control of blood sugar levels helping to release stored glucose into the blood stream to increase blood sugar levels. Administration of therapeutic glucagon as a rescue treatment for severe hypoglycaemia is safe and effective, however, its use is challenging due to the peptide's low solubility and very poor stability in liquid solution. Thus, currently available glucagon treatments (rescue kits) are only available in the form of a lyophilized powder, which requires the caregiver to perform a complex multi-step reconstitution procedure prior to administration. Under this highly stressful situation, the reconstitution procedure can and does lead to handling errors and delayed administration of glucagon, resulting in sub-optimal treatment. This is a significant barrier to the use of these rescue kits with recent usability studies demonstrating that more than 80% of people failed to reconstitute properly and inject the recommended dose of glucagon. As a result, only 10-20% of high-risk patients own a glucagon emergency kit. Arecor's proprietary stable and ready-to-inject liquid glucagon has the potential to significantly de-risk and simplify the administration of this life-saving treatment with an estimated 25million insulin users worldwide (*Source: International Diabetes Federation, Diabetes Atlas, 2015*).