

## A NON-INVASIVE METHOD TO SELECT PATIENTS FOR BARIATRIC SURGERY

A research group from CIBER, IISPV, IMIM, IDIBELL and URV has identified a new non-invasive biomarker related to bariatric surgery that could help to decide the type of bariatric surgery by predicting type 2 diabetes remission and thereby improving financial and health outcomes.

### The Need

Bariatric surgery has emerged as an effective treatment for obesity, but there is limited evidence regarding the optimal candidate for each surgical procedure and remission rates of type 2 diabetes observed across published series vary. New tools are needed to better predict diabetes remission according to the surgical procedures in order to avoid unnecessarily aggressive surgeries and improve health outcomes.

### The Solution

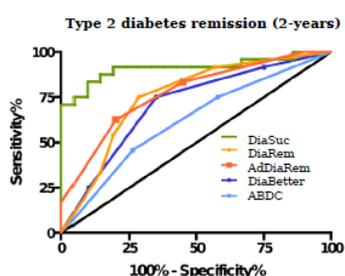
The technology DiaSuc provides a method for selecting a bariatric surgical procedure for a patient, as well as an informative biomarker for predicting, before bariatric surgery, type 2 diabetes remission after bariatric surgery in a patient suffering from type 2 diabetes.

### Innovative Aspects

The main innovative aspect of the method is that it is based on a single circulating metabolite that can be easily measured in blood. It is a single measurement that can be used independently of previously described pre-surgical factors and improves the current available scores to guide the decision on the type of bariatric surgery to achieve type 2 diabetes remission.

### Stage of Development:

The method has been described in a cohort of 45 subjects and confirmed in an independent validation cohort of 88 patients from a different centre.



The receiver operating characteristic (ROC) curves for DiaSuc compared to other existing scores



Evolution of type 2 diabetes status throughout the 2-year clinical follow-up, before, 1 year and 2 years after bariatric surgery. The cohort is distributed according to cut-off point of circulating baseline succinate and the type of surgery (restrictive/malabsorptive). Percentage values are represented versus the number of patients for each group. Green represents achieving complete diabetes remission (CDR) and no diabetes remission (NDR) during the post-surgery follow-up

### Intellectual Property:

- Priority European patent application filed (July 2nd, 2019)
- Suitable for international extension (PCT application)

Ceperuelo-Mallafré V, Llauredó G, (...), Vendrell J, Fernández-Veledo S. Preoperative Circulating Succinate Levels as a Biomarker for Diabetes Remission After Bariatric Surgery. *Diabetes Care*. 2019 Oct;42(10):1956-1965

### Aims

Looking for a partner interested in a license and/or a collaboration agreement to develop and exploit this asset.

### Contact details