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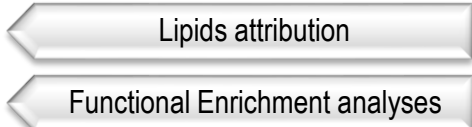
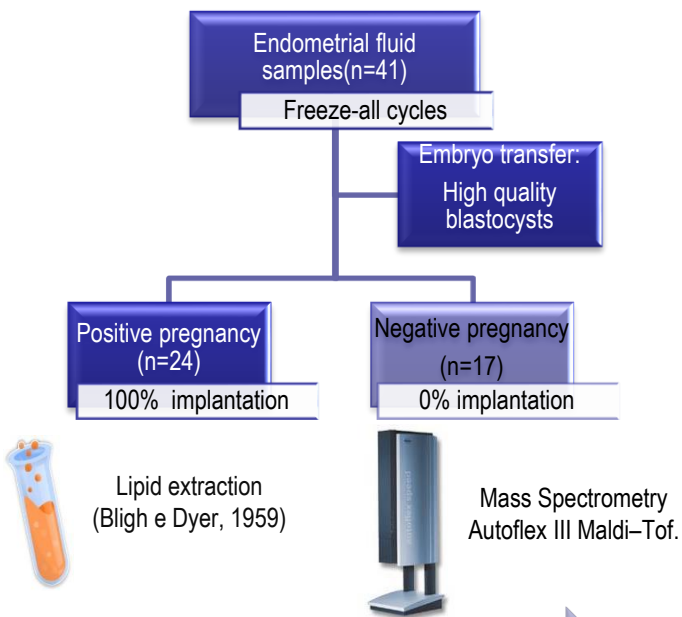
WHAT IS KNOWN ALREADY

Embryo implantation depends on the proper embryo development and the acquisition of a receptive endometrium. The embryo is unable to adhere to it through most of the menstrual cycle, except during a short, self-limited period, the window of implantation (WOI). Predictors of the uterine receptivity are needed to better understand the causes of endometrial-based infertility, and help women with recurrent implantation failure due to a possible dyssynchrony, between embryo and endometrium, to achieve pregnancy.

OBJECTIVE

To identify lipid biomarkers capable of differentiating receptive from non-receptive endometrium.

MATERIALS AND METHODS



RESULTS

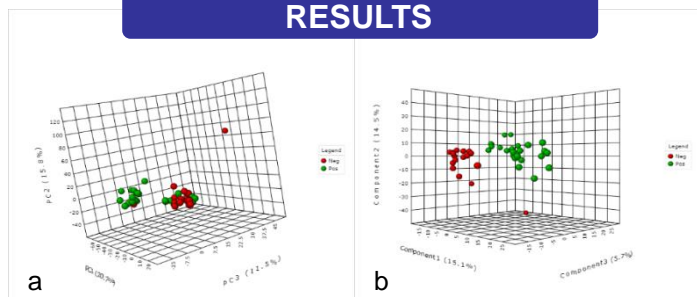
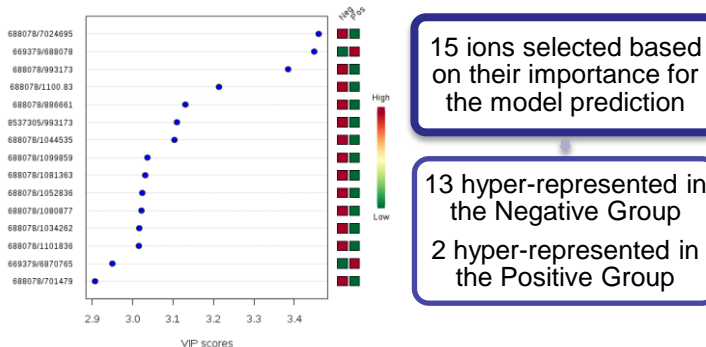


Figure 1: a: Variance among groups according to PCA, without considering group division. b: Variance among groups according to PLS-DA score plot, considering group division.



15 ions selected based on their importance for the model prediction

13 hyper-represented in the Negative Group
2 hyper-represented in the Positive Group

Figure 2: Ions with higher contribution for the difference among the groups.

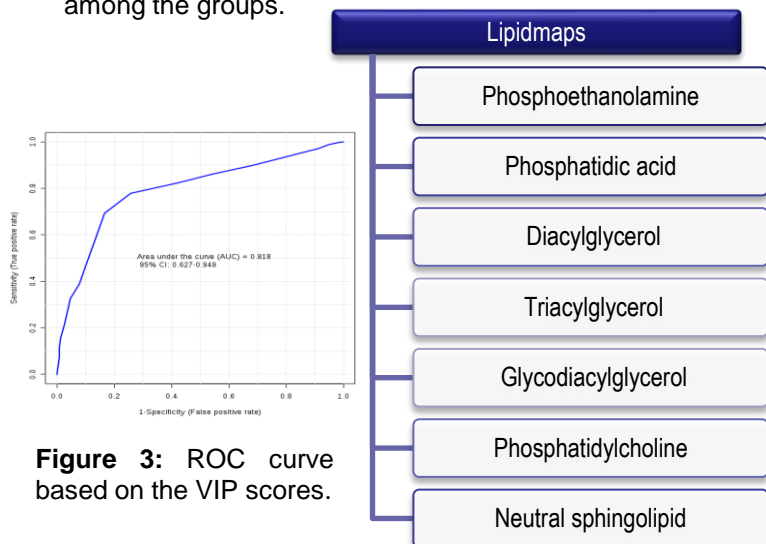


Figure 3: ROC curve based on the VIP scores.

CONCLUSION

Endometrial fluid lipidomics may be a powerful approach to defining the exact time of the WOI. This would be important for determining the right time for embryo transfer and diminish the incidence of recurrent implantation failure, a substantial challenge in assisted reproduction.