

# SERUM METABOLOMIC PROFILING AS A NOVEL APPROACH FOR THE DIAGNOSIS OF GRADE III AND IV ENDOMETRIOSIS

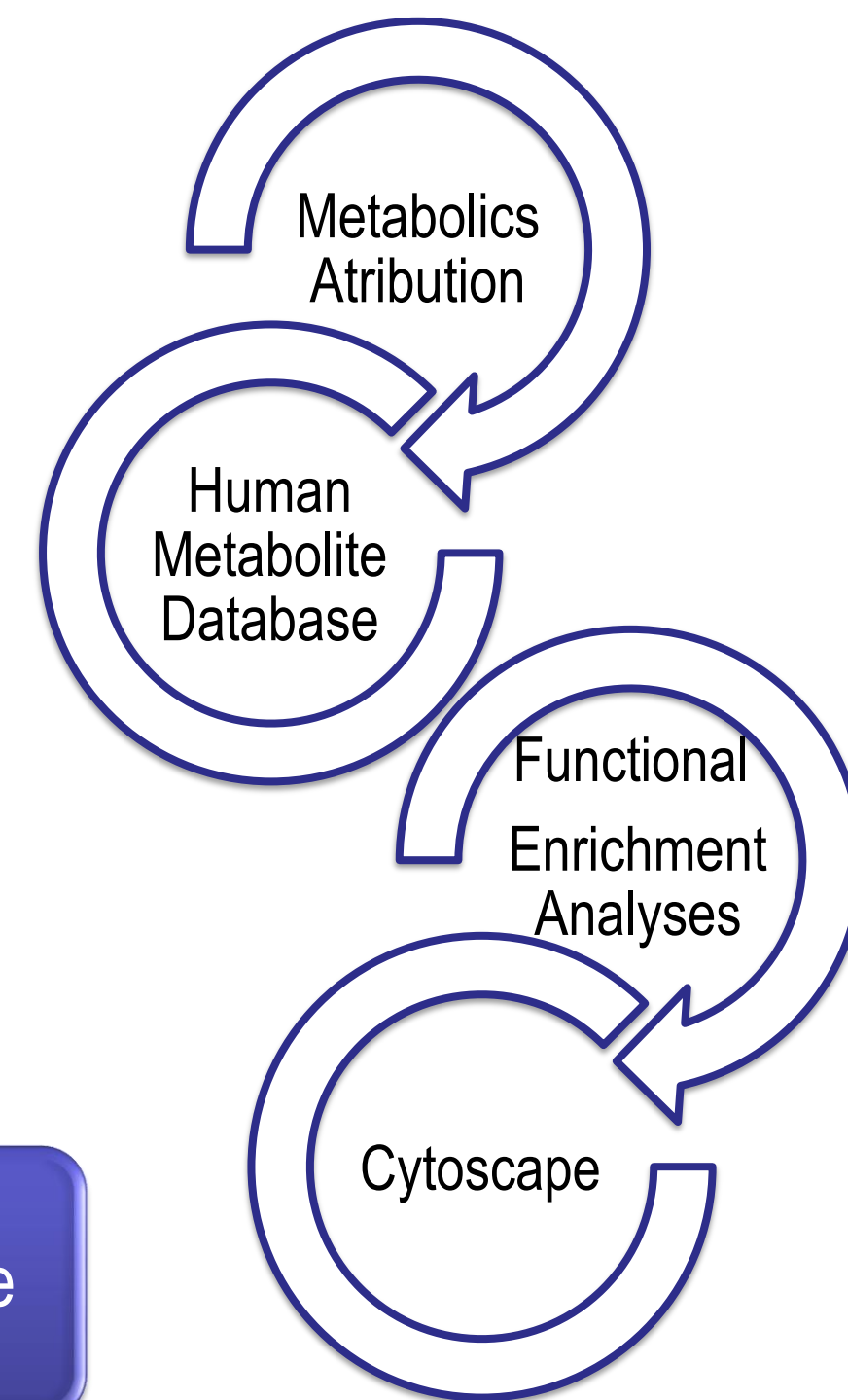
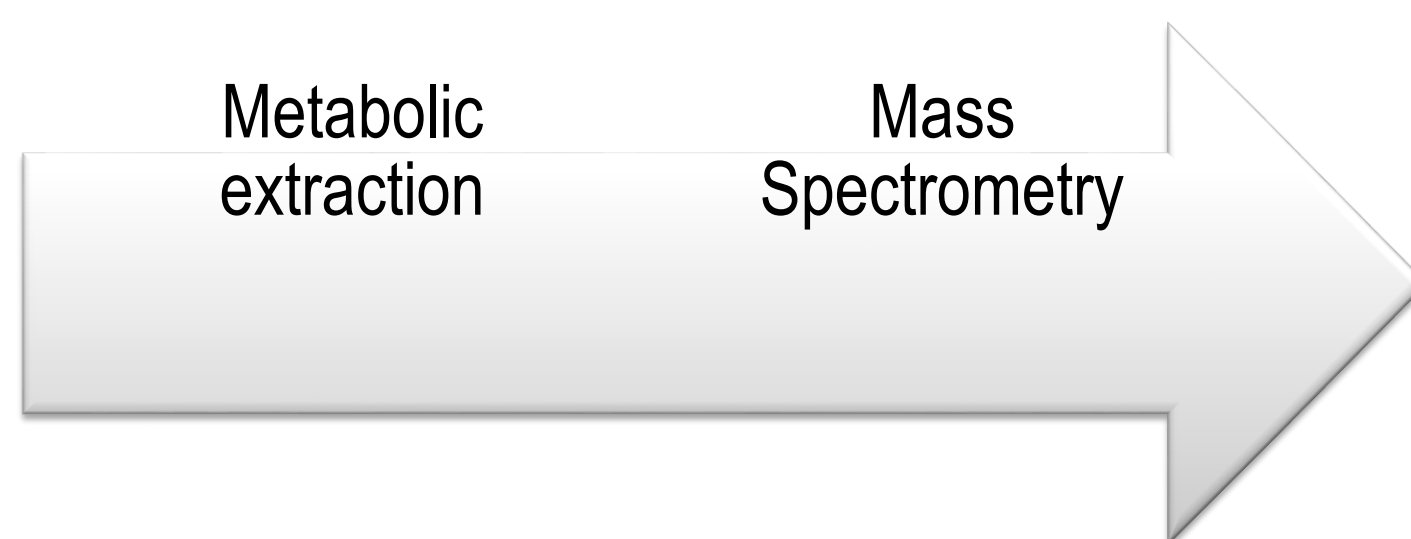
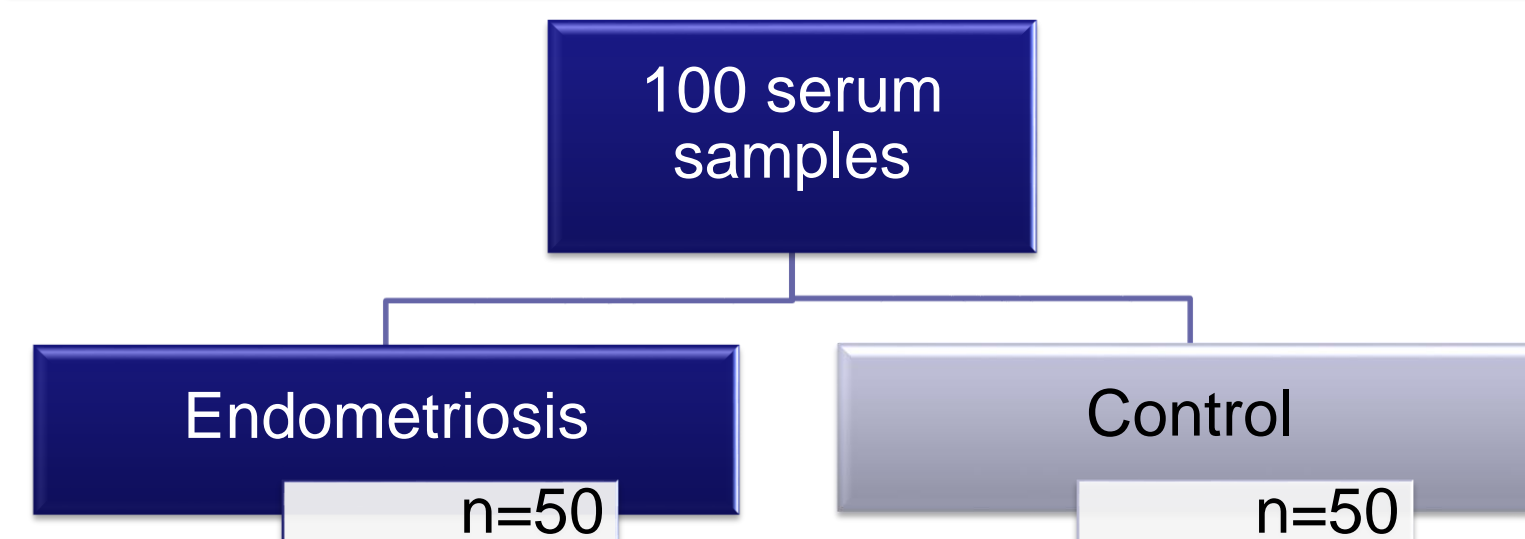
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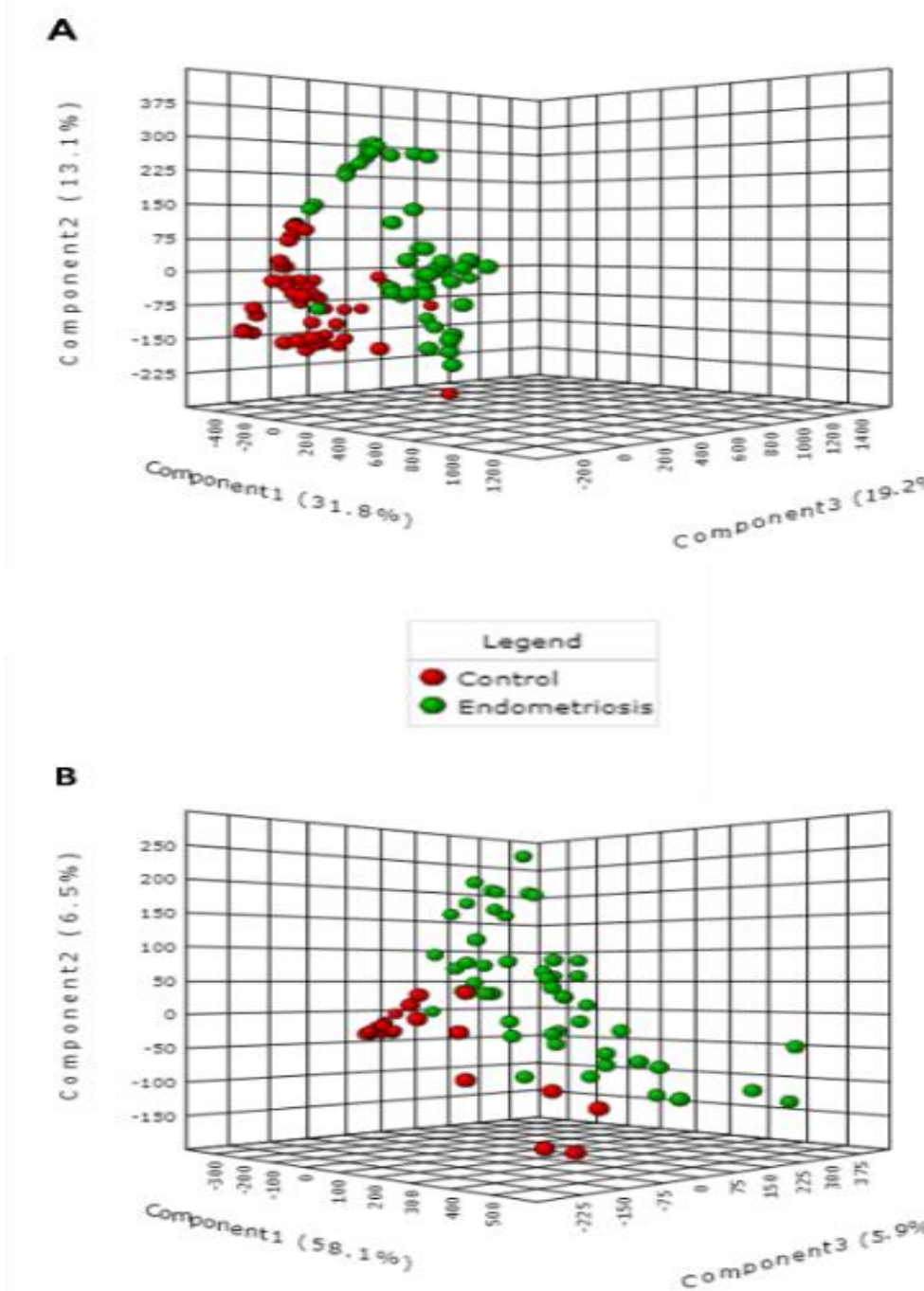
## OBJECTIVE

In the last decade, studies have focused on the identification of potential metabolic biomarkers of endometriosis on follicular fluid, blood, urine, and even endometrial tissues, however these potential biomarkers have not been properly validated. Therefore, the goal for the present study was to make use of the analytical power of mass spectrometry to develop an adjuvant toll for the diagnosis of grades III and IV endometriosis, in infertile patients.

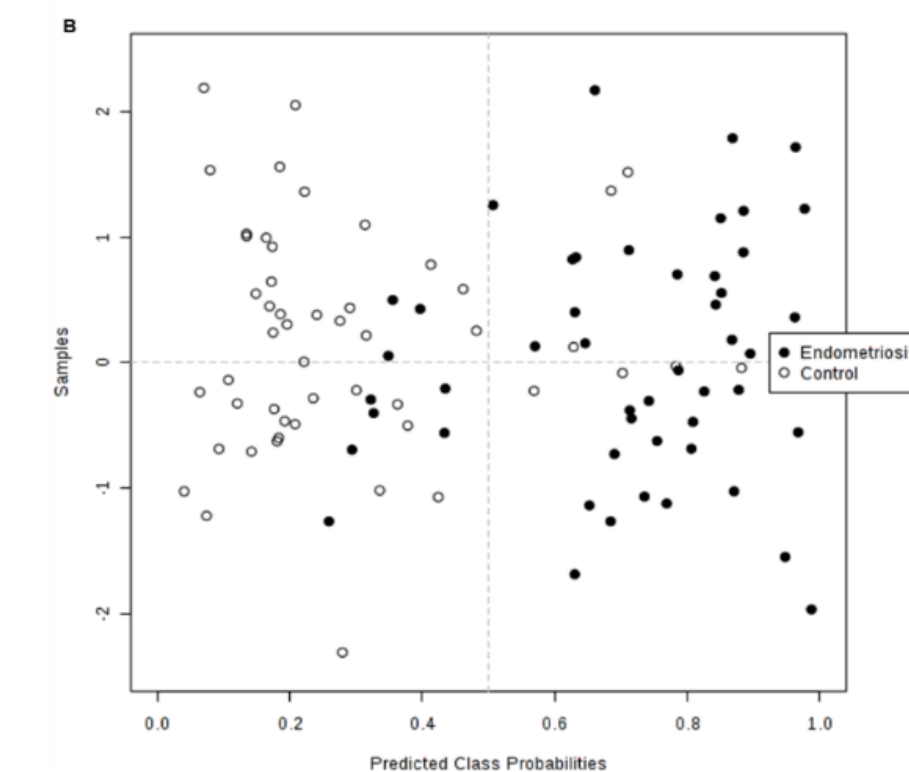
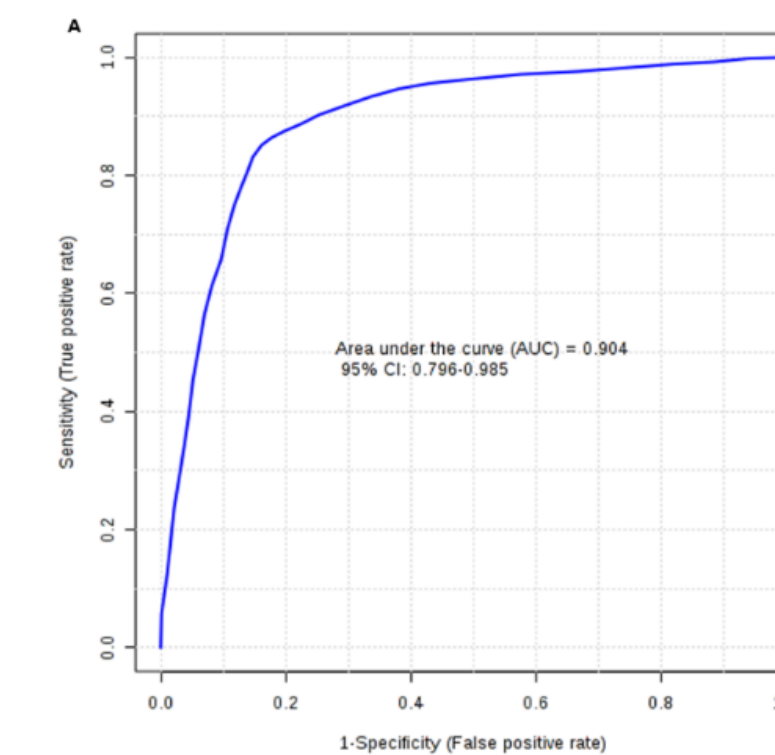
## MATERIALS AND METHODS



## RESULTS



Variance among groups (Endometriosis in red and Control in green) according to the PLS-DA, for the + (A) and - (B) modes.



**A.** ROC curve considering the ions selected by PLS-DA. **B.** Sample classification based on the ROC curve analysis, in which 84% of samples were correctly classified.

Abundance average of the compounds in each group and metabolites identification based on their respective m/z.

m/z	Identification	Group average (Intensity)	
		Control	Endometriosis
782.7239	Triacylglycerol	3443.86	11624.00
215.1182	α – amino acid	3049.46	9079.76

## CONCLUSION

These evidences suggest that serum metabolomics may be a valuable approach for the diagnosis of endometriosis and may be used as an adjunct toll for the selection of patients who must undergo laparoscopy for a definitive diagnosis