

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

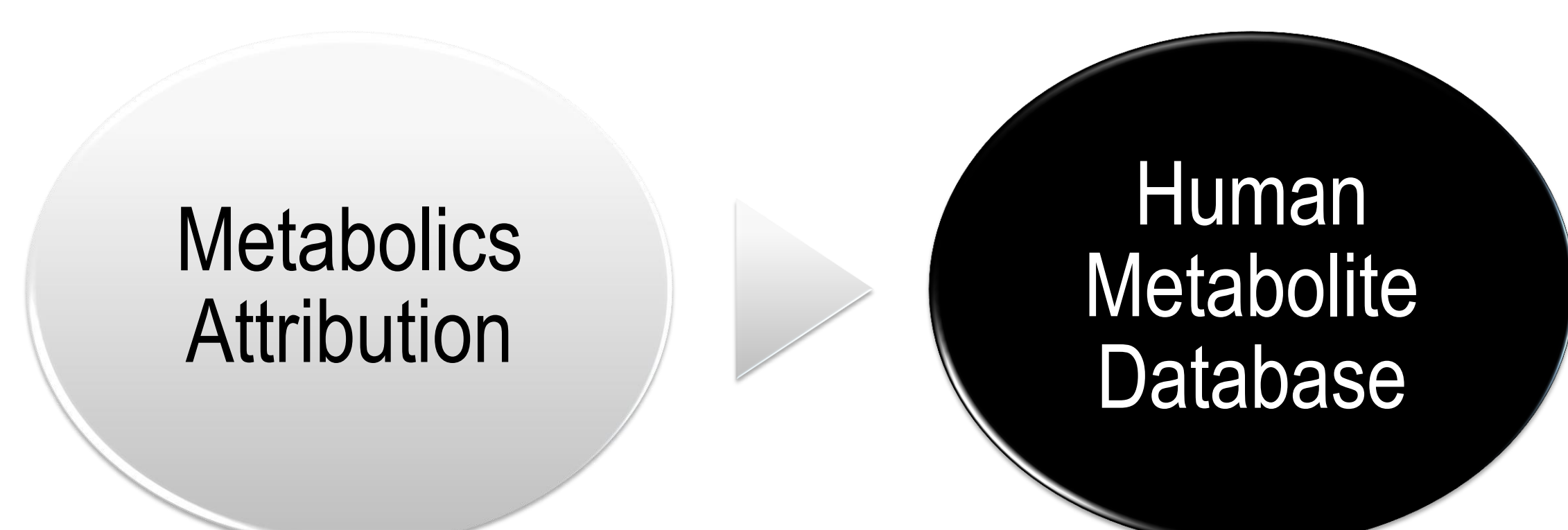
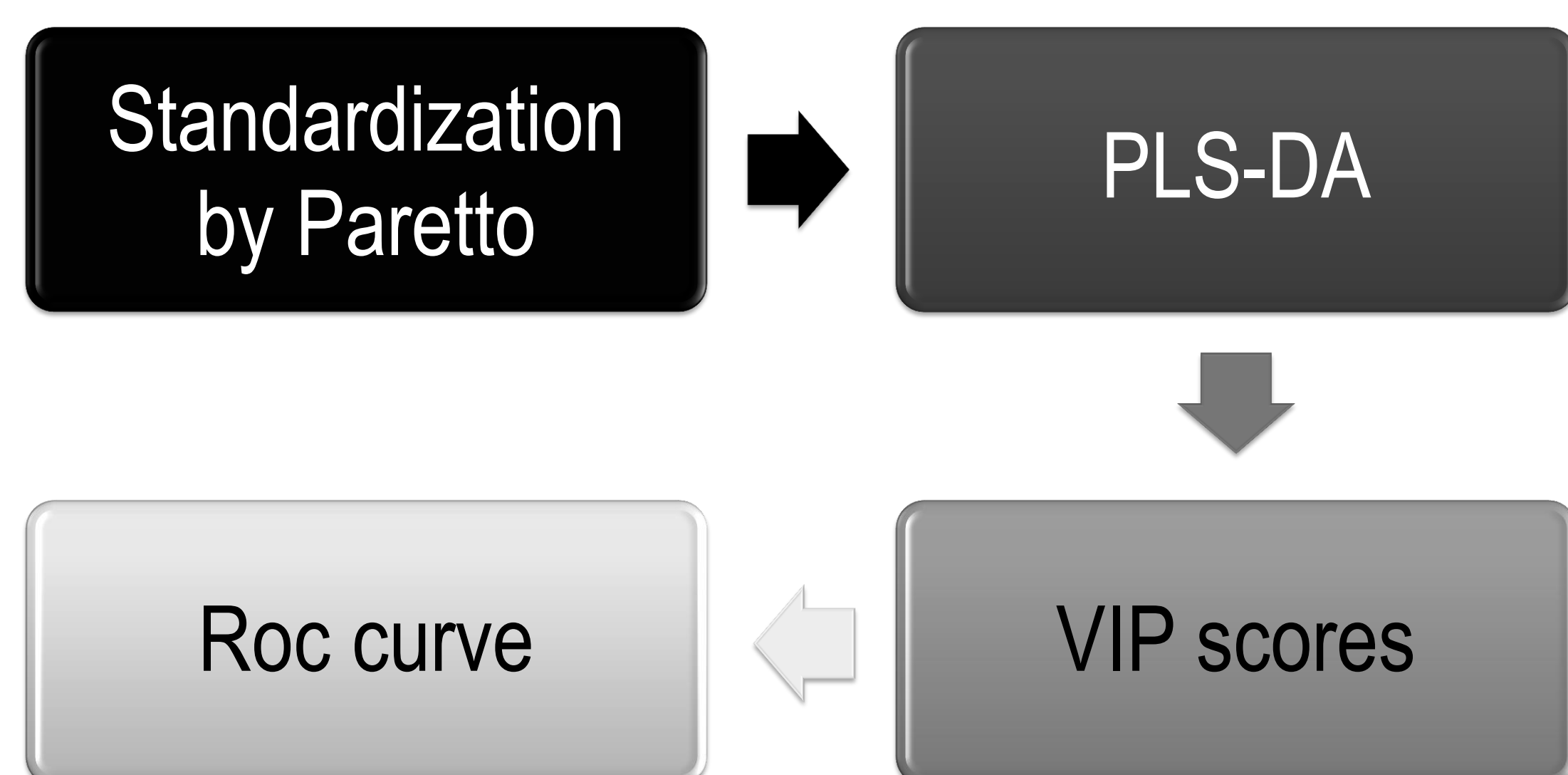
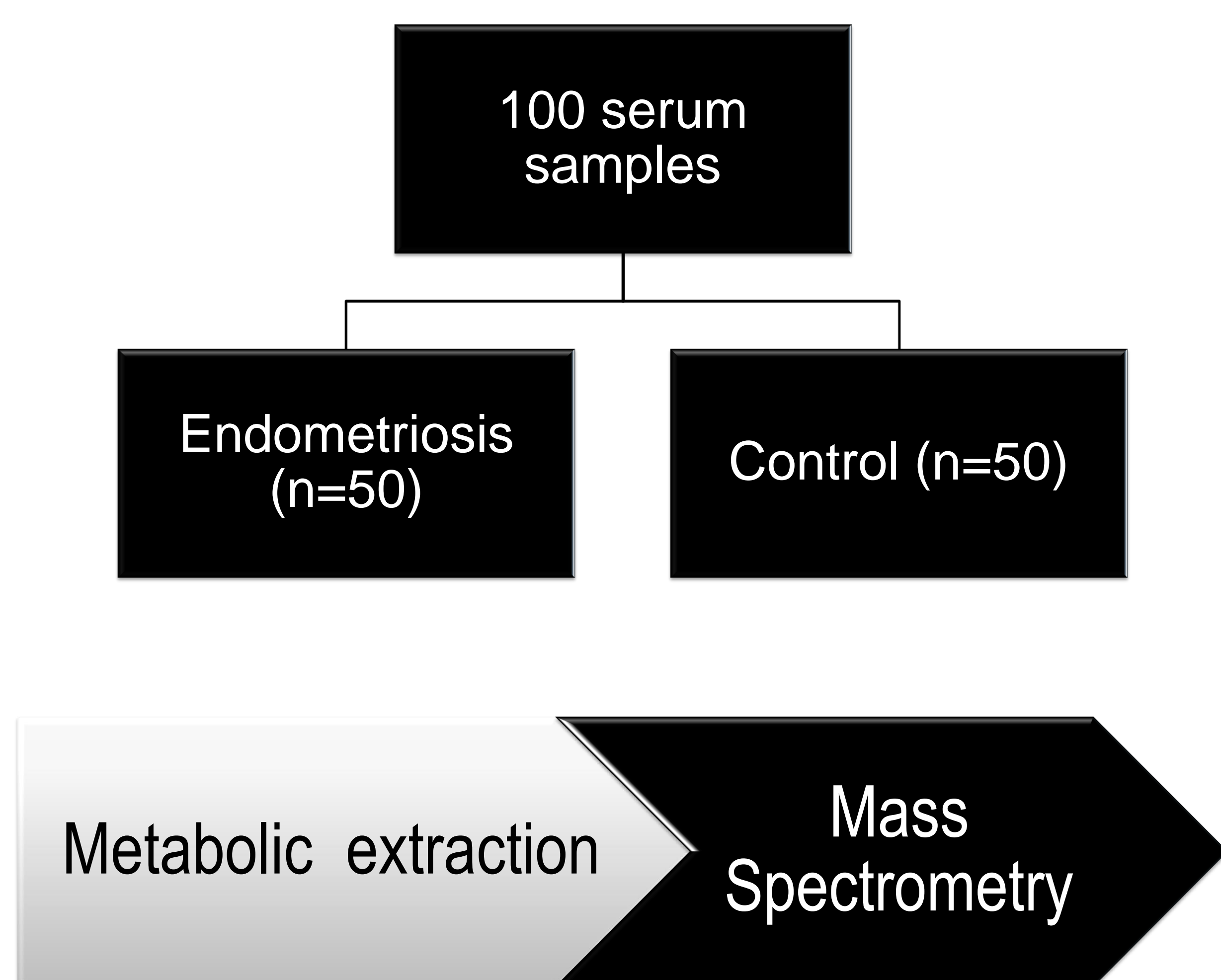
Daniela Paes de Almeida Ferreira Braga^{1,2}, Daniela Antunes Montani³, Amanda Souza Setti^{1,2}, Assumpto Iaconelli Jr.^{1,2}, Diogo de Oliveira Silva³, and Edson Borges Jr^{1,2}

¹Fertility Medical Group, ²Instituto Sapientiae - Centro de Estudos e Pesquisa em Reprodução Assistida, ³Instituto de Ciências Ambientais, Químicas e Farmacêuticas – UNIFESP
São Paulo - Brazil

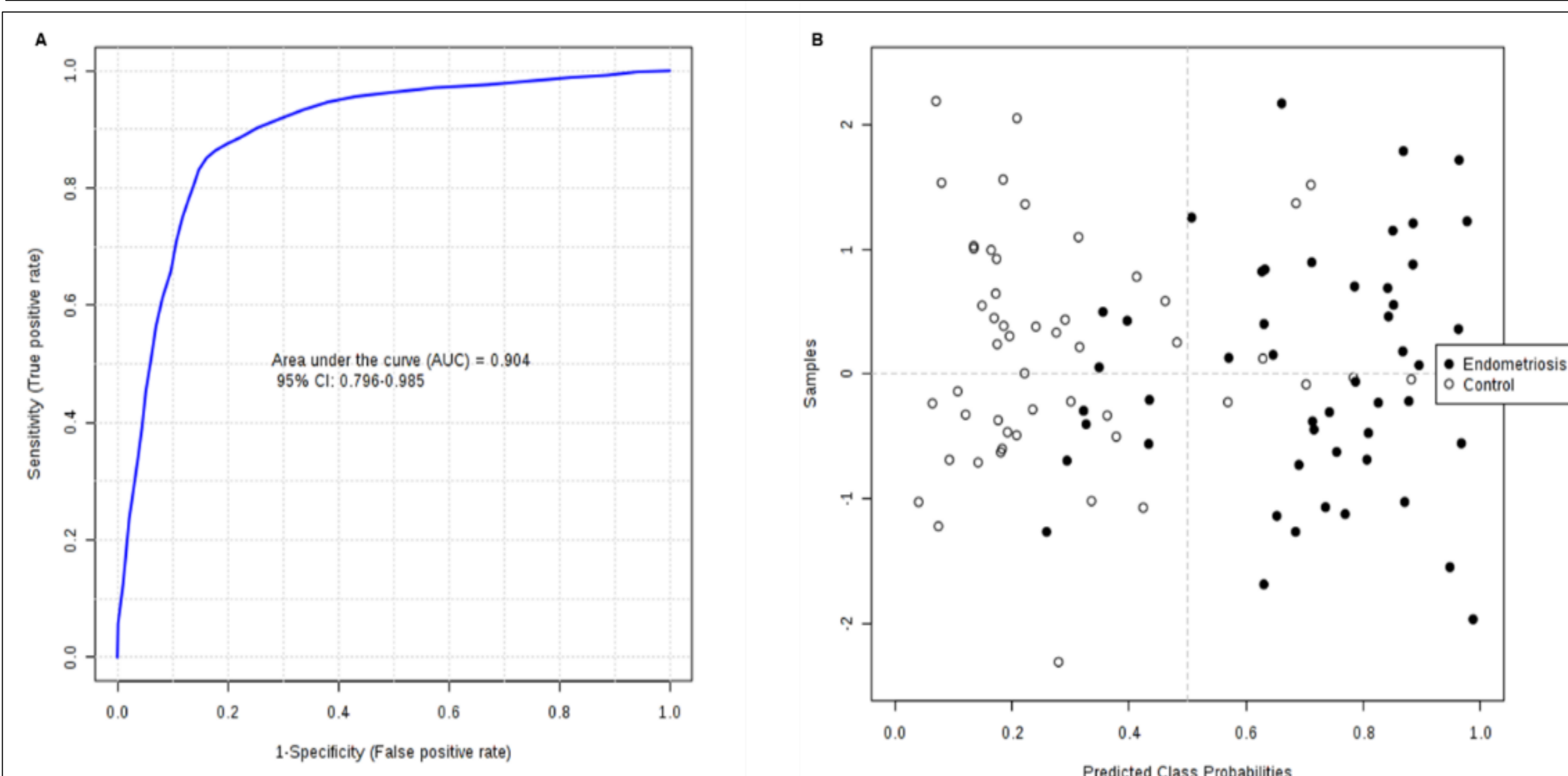
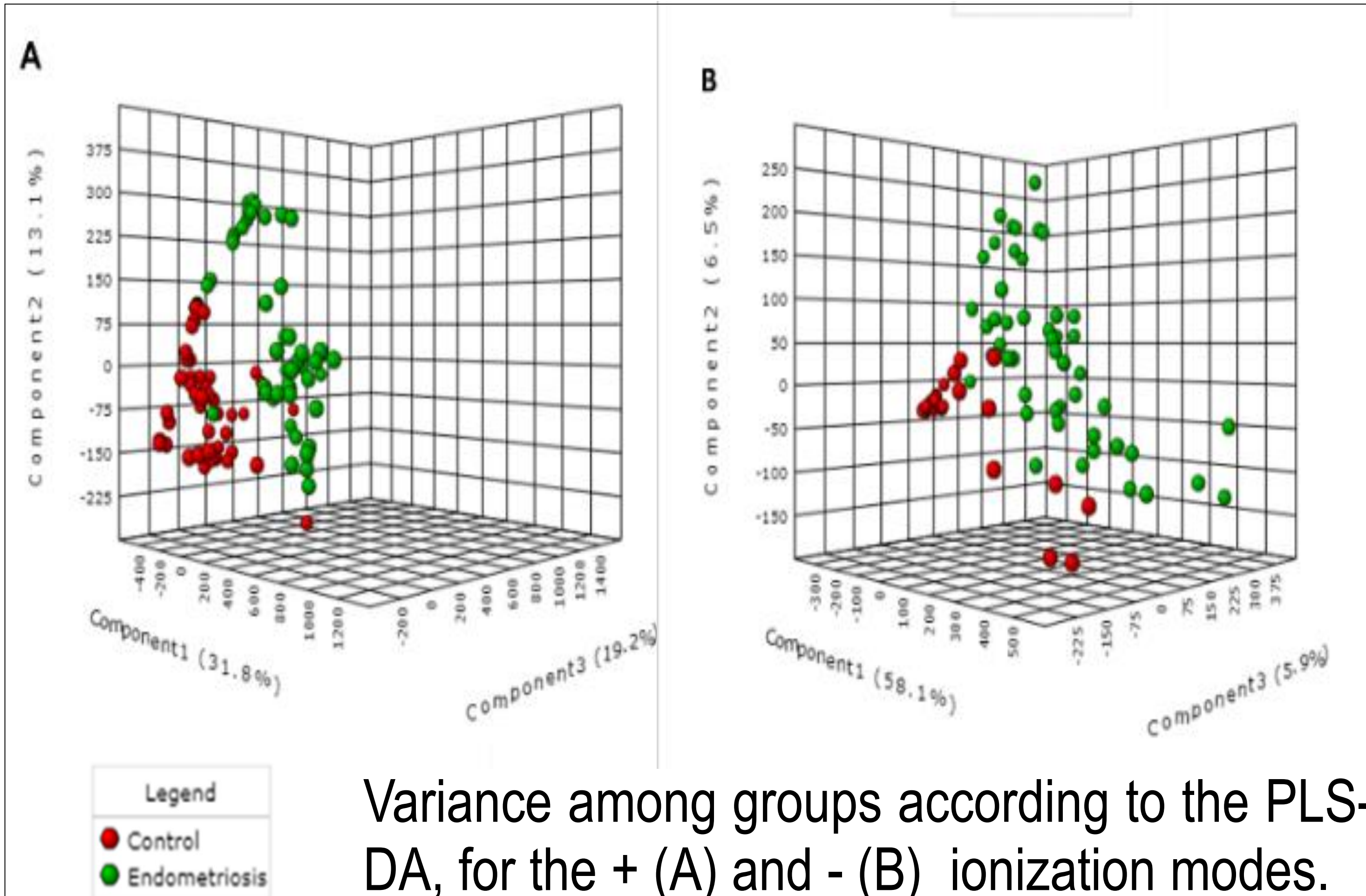
OBJECTIVE

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 mass spectrometry to develop an adjuvant tool for the diagnosis of grades III and IV endometriosis.

MATERIALS AND METHODS



RESULTS



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

Serum metabolomics may be a valuable adjunct tool for the selection of patients who must undergo laparoscopy for a definitive endometriosis diagnosis.