

DNA RECOVERY FROM VAGINAL SMEAR SLIDE IN RIO DE JANEIRO STATE-BRAZIL FOR FORENSIC CASEWORK ANALYSIS

D.A. Silva¹, J.J. Carvalho², and F.F. Carvalho¹

¹*DNA Laboratory, Biophysics Department, Biology Institute, Rio de Janeiro State University, Brazil*

²*Histology and Embryology Department, Biology Institute, Rio de Janeiro State University, Brazil*



Generally in sexual assault cases, swabbings (vaginal, oral, and rectal) are taken from a victim and suspects. These swabbings are smeared onto laboratory slides for further examination, such as the identification of sperm. When DNA analysis needs to be conducted on such cases, the original swabbings themselves serve as the source for DNA profiles analysis. Unfortunately, in Rio de Janeiro State Medical Legal Institute these swabbings do not occur routinely and several times for DNA profile analysis we have just the evidence fixed in the slides. This procedure causes a reduction of the number of the cells, because more manipulative extraction protocols are needed in order to get cells fractions free of paramount and stain reagent used on to slides mounting.

The purpose of this work was to develop a method that addresses the extraction of DNA recovered from vaginal smear slides samples under normal forensic casework conditions and evaluate the performance of the STR DDD/FFv/CTT multiplexes systems for such samples.

This study has demonstrated that typing of those multiplexes can be realized with confidence, allowing reliable, interpretable results to be applied during routine forensic analysis.

The specific means of analysis (extraction methods, tests performed, etc.) for these cytological specimens, as well as the typing results, will be presented in detail at the Symposium.

Granted by FAPERJ and Rio de Janeiro Public Safety Secretary.