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MarkPap® Technology New Developments

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INTRODUCTION: MarkPap® System was presented at the Experimental Biology 2004 as a biomarker-based technology improving the accuracy of the conventional Pap test and liquid-based Pap test for cervical cancer screening. For the first time, automated version of MarkPap test was described. At Experimental Biology 2005, we presented the results of clinical trials indicating that the biomarker improved the detection of abnormal cells and decreased false-negatives. In this presentation, we highlight the preliminary results with the second generation products: MarkPap Self, and the Cervical Cell Bank.

METHODS: In a pilot study, we tested stability of the biomarker in vaginal fluids and in the MarkPap® Solution using MarkPap test. (www.bioscicon.com/markppproducts.html).

RESULTS: The biomarker was more stable than cellular morphology in the vaginal fluids. It was clearly detectable in cells with morphological signs of degeneration. The short-term stability of marker-labeled cells stored in MarkPap solution at -20°C and at -196°C in liquid nitrogen indicates to a possibility for cell banking.

CONCLUSION: MarkPap technology opens a prospective of self-sampling for cervical cancer screening that would dramatically increase the number of participating women participating in cervical in both industrialized and developing countries. This is important because only 6.5% of women at risk in the world receive cervical cancer screening, which results in high mortality and morbidity of this preventable disease. The cervical cell bank, when developed may become a new resource for further investigation of the role of the biomarker in cervical carcinogenesis and biomarker utilization in the development of new therapies.

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