Malignancy Biomarker through Amantadine Acetylation
Early cancer screening & monitoring

BIOMARK’S MISSION
To revolutionize the way that cancers are researched, screened, diagnosed and ultimately treated. By utilizing a novel assay technique that will ultimately lead to the introduction of a new platform of portable screening tools and reader devices.

ADVANTAGES OF USING BIOMARK TECHNOLOGIES
• Ease of use
• Minimal preparation procedures
• Non-invasive
• Reliable
• Cost effective

CURRENT DETECTION PROBLEMS
No Reliable Early Cancer Detection Tools Available

Abstract PI - 12

Background: Amantadine acetylation occurs only by spermine/spermidine acetyltransferase, an enzyme induced in tumor tissue.

Methods: We conducted a phase 2 clinical trial on 109 patient volunteers with cancer and at various treatment stages. Ages: 30-83 years (median 62 yr; 64M; 45F). Urine was collected and in 7 cases saliva. Samples were analyzed for amantadine and its acetyl metabolite.

Results: All specimens contained amantadine, and 9 urine samples and 2 saliva samples contained acetylamantadine. Positive saliva samples were not concordant with respective urine specimens. Diagnoses for patients positive for acetylamantadine included lung cancer (4/43), head and neck cancer (4/12), multiple myeloma (1/1), pancreatic cancer (1/2), and a neuroendocrine tumor (1/1).

Conclusions: Positive saliva samples suggest that timing of specimen collection may be critical, and that saliva may represent a more convenient biological fluid to investigate this metabolic association more critically.