

## **P22. EVALUATION OF DNA DAMAGING POTENTIALS OF LUMINOL, HEMASCEIN AND BLUESTAR USING THE COMET ASSAY**

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One of the most important problems in the field of forensic sciences is the perfectly protection of DNA in order to obtain suitable DNA fingerprints from biological samples. Therefore it is critically important to minimize the effects of physical and chemical factors which could cause DNA degradation during sampling processes.

The regants such as Luminol, Hemascein and BlueStar are used to determine the presence of blood. The heme-group of hemoglobine acts as a catalyst and reacts with hhdrogen peroxide to produce blue light. The single-cell gel electrophoresis (SCGE), also known as the Comet Assay, is a sensitive and simple technique used to measure deoxyribonucleic acid (DNA) strands breaks in eukaryotic cells. Electrophoresis of lysed cells results in comet-like images, observed and scored under fluorescene microscope.

In this study, the DNA damaging effects of Luminol, Hemascein and Bluestar were evaluated on human blood samples using the Comet Assay.