



## Criminalistics Section – 2010

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### **A101 Internal Validation a Florescent Labeling System: A New Spermatozoa Identification Method**

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After attending this presentation, attendees will have gained an understanding of how a new spermatozoa identification method works and a sample validation process.

This presentation will impact the forensic science community by providing an example of an internal validation for the new spermatozoa identification method and showing some of the expected results.

Common sources of evidence for DNA analysis come from sexual assaults. These samples often require identification of semen stains and the presence of spermatozoa. The current method for spermatozoa identification is Kernechtrot Picoindigocarmine (KPIC) staining. While this method is effective, the time required to search slides is considerable, particularly, when the slide contains a significant amount of cellular debris. A kit utilizing florescent labeling of spermatozoa allows for faster and more accurate slide screening. This internal validation included studies in cell type specificity, substrate, sensitivity, and previously KPIC stained slides. In each of these studies the florescent labeling system was shown to be specific and sensitive to sperm heads without incorrect labeling.

#### **Florescent Labeling, Internal Validation, Sperm Identification**