

National Institute of Justice

Award Title: Detection and remediation of PCR inhibition using real time PCR melt curves as a diagnostic tool.

Award Description:

This project builds on previously NIJ funded work to examine and characterize mechanisms for degradation and inhibition of DNA samples. The goal of this proposal to examine the capability of a commercially available real-time PCR system (Plexor HY) to assess and identify classes of inhibitors a priori through the use of melt curve effects. Researches propose to look at ways to enhance the capability of Plexor to detect inhibition by modifying the chemistry of the reaction mixture. Based on data generated from previous work, researchers also propose to develop better internal positive control sequence (IPC) probes that are more efficient at detecting inhibitors that bind DNA. Using this data researchers will categorize various inhibitors based on their effect on amplification of Identifiler and Powerplex 16, and ultimate plan to assess various methods to relieve inhibition including sample dilution, spin filtration, and magnetic bead based extraction.

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Awardee Name: Florida International University	Award Number: 2010-DN-BX-K204
Solicitation Title: NIJ FY 10 Forensic DNA Research and Development	Fiscal Year: 2010
Amount: \$294,800.00	Earmark: No
Recovery Act: No	State/Territory: FL
County: Dade	Congressional District: 21
Award Status: Open	