ADAPTING AFDIL'S POWERPLEX® 16 INTERPRETATIONAL GUIDELINES FOR USE WITH THE FSS-i³™ EXPERT SYSTEM

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Due to an increasing data review bottleneck and the move to the BioMek® 2000 optimized extraction platform using DNA IQ™, AFDIL has created a high throughput environment amenable to the implementation of an expert system. FSS-i³™ is comprised of a collection of programs which function together to evaluate data quality (i-STRess), including mixture deconvolution (i-STReam), and the detection of potential cross-contamination within a plate (i-ntegrity). The i-STRess system includes 23 "rules" which evaluate the overall quality of sample data. These rules have been prioritized and optimized to reflect AFDIL's validation of the PowerPlex® 16 system, thus creating an expert system congruent with the existing PowerPlex® 16 interpretation guidelines.