

## BECKMAN COULTER HUMAN ID SOLUTIONS

Mary Blair, Beckman Coulter, Inc., Fullerton, CA

Human identification (Human ID) can be a manually labor intensive process that is daunting for under-staffed and over-worked forensic laboratories. Automation can provide those laboratories with standardized methods for nucleic acid extraction, quantitation and normalization, and reaction setup for improved throughput, data consistency, and greater traceability while helping to eliminate user errors.

The Biomek<sup>®</sup> 3000<sup>1</sup> provides a low throughput solution to forensic sample preparation with flexibility and a small footprint. After initial setup, no user intervention is required for complete automated processing per method. The Biomek 3000 can process a full 96-well plate through quantitation and normalization in about an hour generating amplification-ready nucleic acid samples.

Higher throughput and greater efficiency can be achieved using the Biomek NX<sup>P</sup> Span-8. An example of this is a quantitation and normalization method for a full 96-well plate that can be processed in less time than the Biomek 3000 with no user intervention when an integrated plate reader such as the PARADIGM<sup>™</sup> plate reader<sup>2</sup> is incorporated. Tube-to-plate and individual well to well transfers are easily and rapidly accomplished with the 8 independent pipetting channels

The greatest throughput can be achieved with the Biomek FX<sup>P</sup> dual-arm system. The multi-channel head provides whole plate processing while the Span-8 allows for pipetting flexibility. The hybrid Biomek FX<sup>P</sup> provides the maximum speed for sample processing by allowing the two arms to work independently of each other on a large 24 position deck. Full plate sample processing at its fastest can be achieved with the MC head processing all wells at once while the Span-8 allows for reagents to be dispensed to individual wells to cut cost.

<sup>1</sup> Biomek systems are for Laboratory Use Only; not for use in diagnostic procedures.

<sup>2</sup> Paradigm systems are for Research Use Only; not for use in diagnostic procedures.