

## **THE SPECTRUM COMPACT CE SYSTEM – FRAGMENT ANALYSIS**

Cynthia J. Sprecher<sup>1</sup>, Robert S. McLaren<sup>1</sup>, Jin Matsumura<sup>2</sup>, Michiru Fujioka<sup>2</sup>, Isao Haraura<sup>2</sup>, Asami Terakado<sup>2</sup> and Douglas R. Storts<sup>1</sup>

<sup>1</sup>Promega Corporation

<sup>2</sup>Hitachi High-Technologies Corporation

The Spectrum Compact CE System was developed as a collaborative project between Promega Corporation and Hitachi High-Technologies Corporation. This four-capillary, 32 sample instrument features touch-screen operation and all the ancillary consumables (36cm capillary array, anode and cathode buffer cartridges, polymer cartridges [Polymer 4 and Polymer 7], and a strip well tube retainer) required to perform fragment analysis or nucleic acid sequencing. The consumables can be exchanged in a few minutes. The capillary array will support at least 200 injections. The pre-filled reagents and capillary array are labeled with barcodes for tracking. Total electrophoresis time for fragment analysis and fast sequencing applications is approximately 30 minutes. We will present data demonstrating the Spectrum Compact CE System is backwards compatible for existing STR systems with performance comparable to current capillary electrophoresis instruments. The instrument is capable of detection up to 6-colors and can be used to detect and analyze samples using GeneMapper® ID-X or GeneMarker®HID Software for Spectrum CE System.