

Microfluidic technologies for the point of care-beyond lateral flow

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The cost constraints and needs in the point of care market require technology solutions that provide the sophistication for multiple analyte addition, quantitation and multiplexing, while offering a path to low cost high volume manufacture. Roll to roll processes provide low cost of manufacture at high volume and are currently used for glucose sensor manufacture. Yet proof of concept and development work is not suited to roll to roll processing because of tooling and set-up costs. In this paper, we discuss a batch process that provides the on-board microfluidic functions for complex assays, and which has the reliability and manufacturability to meet the need for low cost high volume manufacture.

Biography

Leanna M. Levine received her Ph.D. degree in Biophysical Chemistry from Washington University, St. Louis in 1986. She founded ALine, Inc. in 2003 to address market need for high quality microfluidic prototypes that could be made inexpensively and with rapid turnaround. The business was started in the garage, and was boot strapped through client projects and a small injection of owner capital. The business became cash flow positive in three years, developing capabilities that have a clear focus on the needs of the life science and *in vitro* diagnostic clients who seek to shorten the product development timeline while creating a superior product solution. She conceived and developed ALine's unique and proprietary enabling fabrication platform that permits rapid prototyping and volume manufacture of complex microfluidic and lab on a chip devices. This has significantly lowered the cost of product development and enables the use of complex, higher functionality devices that are robust and disposable. In 2009, ALine was honored as the supplier to the Medical Design Excellence Award winner. ALine was among a selected few finalists for the 2012 Innovation Award sponsored by Patrick Soon Shiong and LA Business Journal. In 2012, ALine achieved ISO 9001:2008 certification and has located to larger facilities.

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