

Fluidic Biomolecular Array

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MicroDysis is developing a patent pending Fluidic Biomolecular Array (FBA) technology for rapid, flexible, and reliable clinical genetic analysis and diagnosis.

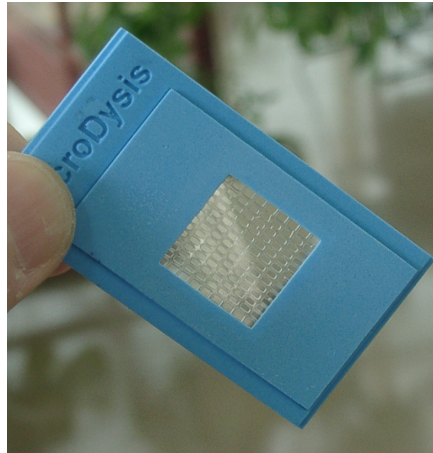
Microarray technology has become a powerful tool for

research and is now finding a role in biomolecular diagnostics, although concerns remain regarding data consistency and reproducibility.

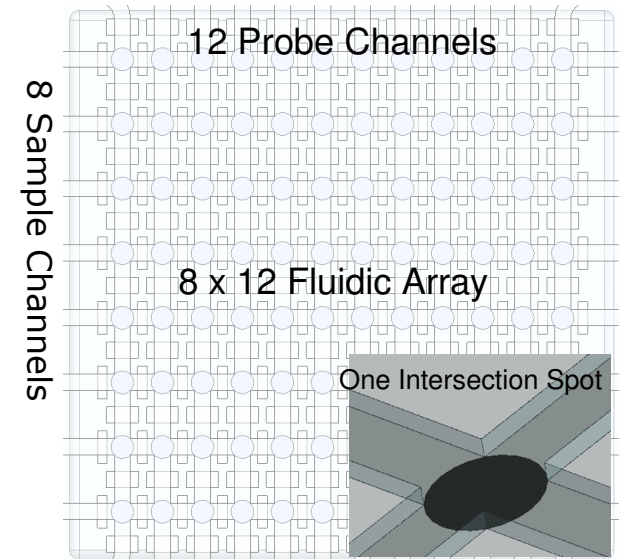
MicroDysis' FBA platform resolves deficiencies in current technology.

- Current Microarray technology provides parallel analysis of thousands or hundreds of genes, proteins, or cells on a single assay, but can only test one biological sample at a time.
- Current processes for manufacturing array platforms fail to provide cost-effective customization.

- FBA core consists of a sophisticated fluidic channel network, fluidic interfaces, and an array of spots in an integral PDMS body, made from MicroDysis' unique microfabrication technology – 3 Dimensional Micromold.
- Biological or genetic probes are configured to each spot and a different sample can be passed through each channel in the network.
- Polymer and nano-material substrate at the spot can capture DNA, protein, biomolecules, or cells specifically and effectively.
- FBA platform can be configured by the number of targets to be interrogated or the number of samples to be analyzed.



- Assay is based on independent Yes/No answers that indicate the presence or absence of each selected target.
- Allows use of multiple probes resulting in an unprecedented degree of stringency on the test assay.
- FBA is ideally suited for clinical diagnostics where testing for a limited number of genes and proteins is sufficient, but where simultaneous testing of multiple and duplicate samples is preferable.



- MicroDysis is presently applying FBA for detection of gene mutations and glutathione S-transferase protein in collaboration with the Center of Applied Genomics, at UMDNJ, for further FBA validation.
- Seed funding awarded by the NJ Commission on Science and Technology.
- MicroDysis is presently seeking equity financing, planned to be in place by second half of 2008.