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Use of Microarrays as Molecular Diagnostic Tools

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It has been more than 10 years since DNA chips have been commercialized as invaluable research tools in biopharmaceutical industries. Now, many major pharmaceutical companies and even large research focused universities have genomics group that integrates the usage of DNA chips in daily research. However, still the relative high cost and poor quality (reproducibility and accuracy) of chips have hindered wide adoption of these tools, thus limiting the growth opportunity. We believe that in order for microarray market to reach the multi billion dollar market potentials, DNA chips need to be repositioned as molecular diagnostic devices. As diagnostic devices, DNA chips will require much higher quality control processes and ease of manufacturing. Because of these inherent qualities, many IT companies, including Samsung, have entered into this exciting market. I will outline the recent developments in the DNA chip field and SAIT's approaches to DNA chip development.