

COMPANY PROFILE FORM	
Name	Cambridge BioMagnetics (CBM)
Short profile	<p>Cambridge BioMagnetics (CBM) was established to offer products for the high throughput screening of vast numbers of biochemical compounds with unrivalled flexibility and versatility. CBM's proprietary technology leverages the power of Digital Magnetic Tagging to offer low cost, miniature analysis systems for multiplex assays, by enabling a huge number of biological or chemical compounds to be simultaneously identified and continuously monitored. Our product is a <i>magnetic lab-on-a-chip</i>, serving a plethora of applications in pathogen detection, clinical diagnostics, drug discovery and industrial chemistry. The company's mission is to bring innovative magnetics to the pharmaceutical, health care, biotech and agrochemical industries. The core technology is based on magnetic microtags which carry unique codes that identify the biomolecular species attached onto them. The magnetic lab-on-a-chip device combines magnetic sensors with microfluidic channels in which the tags are encoded and decoded during flow. The unique differentiator between our technology and all others currently on the market, is the ability to stably encode each tag with a unique <i>magnetic</i> 'bar code' and to re-write additional coding information onto the tag as and when is necessary. This enables tags to be encoded with information that records the 'history' of the synthesis of each and every compound of a chemical library on every tag. Our magnetic lab-on-a-chip platform overcomes the limitations of optical techniques that are currently used in conventional systems, offering the following benefits:</p> <ul style="list-style-type: none"> • Low Cost: (i) no need for optics or mechanical parts, therefore the product is miniaturised, (ii) manufacturability – the core is a fully integrated chip, (iii) huge volume batch fabrication of tags. • Multiplexing: (i) 2^N codes available for N bit tag, (ii) scalability. • Error free, rapid, digital detection: (i) no background interference, (ii) no photobleaching which limits the life-time of currently employed optical tags. <p>Flexibility: (i) fully customisable products, (ii) a single tag design serves a variety of applications, (iii) reprogrammability during analysis, enabling <i>both</i> synthesis <i>and</i> in-situ screening of biochemical compounds to be performed simultaneously.</p>
Research and Development Activity:	1 Development of magnetic microchips for clinical diagnostics and high throughput screening
Partner search with activity in the following research areas:	1 Bioassay and content developers 2 Developers of biomarkers 3 Multiplex molecular diagnostics 4 High throughput screening and early stages of drug discovery
CONTACT	
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