



Single cell analysis systems for therapeutic discovery

Corporate Description:

Sphere Fluidics Ltd has developed **unique systems for discovery of therapeutics from single cells** and provides novel R&D services in this area. We have patented novel biochip technology that permits ultra-high throughput (*i.e.* millions of) single cell assays per day in picolitre to nanolitre volumes called picodroplets (see Image below):



This enabling approach provides operational benefits for:

- **Biopharmaceutical discovery and development.**
- **Bioproduction and synthetic biology.**
- **Cell therapy engineering, analysis and isolation.**
- **Single cell disease research.**
- **Metagenomics.**
- **Single cell disease diagnostics and prognostics.**

Products:

- Biochips* (see Image 1 below).
- Specialist chemicals* (see Image 2 below).
- Research-based, picodroplet single cell encapsulation systems.
- Research-based, picodroplet single cell analysis and isolation systems (see Image 3 below).
- Interfaces to enable high-throughput miniaturised mass spectrometry with picodroplets (see Image 4 below).
- Patent licenses (a portfolio of 59 international patents) with international freedom-to-operate (FTO) in select Fields. We are one of the Top UK IP100 firms.
- Technology Access Programs (see next page).

Commercial Strategy:

Sphere Fluidics is an ISO 9001:2015 biotechnology tools company that sells its products (biochips, specialist chemicals and research-based, picodroplet assay systems) to over 200 organisations worldwide.

The Company is now also developing Cyto-Mine®. This is a unique Single Cell Analysis and Monoclonality Assurance System for biopharmaceutical discovery and development. This "industrial platform" will be launched in March 2017. Other single cell platforms for therapeutic discovery are currently in a research phase.

Companies and research organisations can access our technology either through collaborative R&D services on a co-development project or opt to fully outsource their single cell analysis project(s) to our innovative and professional technical team at Sphere Fluidics.

We are also interested in collaborating or forming strategic alliances with other technology providers.

**Can be purchased on-line via the Sphere Fluidics' E-commerce web site at:*

<http://www.spherefluidics.com/store/>



***Note:** Other new products are also being developed, so please contact us for up-to-date information.*



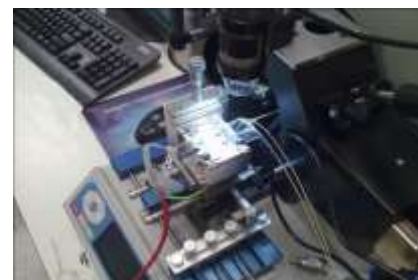
1



2



3



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Cyto-Mine®:

Sphere Fluidics is now developing Cyto-Mine® - a Single Cell Analysis and Monoclonality Assurance System. This is a fully automated and integrated system which (using picodroplet technology and microfluidics) performs novel functional and binding assays on single cells and cell-cell combinations. This instrument is specially designed for the biopharmaceutical discovery and development market. In a few hours, the platform can analyse Ab production from around one million primary B-cells or hybridomas. It can also isolate and dispense single cells that produce the most specific or highest yield of Ab into individual wells of microtitre plates with unrivalled monoclonality assurance. The system also delivers significant time and cost savings.



R&D Collaborative Services:

Sphere Fluidics rapidly works with clients to initially help scope a project and perform patent FTO searches. Once a project outline and FTO is approved, and a commercial collaboration agreement signed, we then work closely with a client to rapidly deliver them the desired results. Project timelines vary from 1-12 months depending on complexity.

We have entered into around 20 collaborations with a number of Top 10 pharma and biopharma companies, US and European biotechnology companies, leading academic institutes and technology providers.



CONTACT US TO DISCUSS YOUR SPECIFIC NEEDS

Management:

Frank F. Craig PhD MBA (Chief Executive Officer).

Frank is an experienced serial entrepreneur who was a co-Founder of Aurora Biosciences (San Diego, USA), which had a peak market capitalization of £1.8 billion five years after formation. He was also a co-Founder and CEO of Smart Holograms (Cambridge, UK) - once the UK's Fastest Growing Company, a Vice-President of R&D at Amersham Biosciences and a Senior Scientist at GlaxoSmithKline.

Rob Marchmont PhD (Commercial Director). Rob brings more than 25 years' experience in the Life Sciences industry with a proven track record in business development and marketing; gained from GE Healthcare, NanoInk and NonLinear Dynamics.

Marian Rehak PhD (R&D Director). Marian has over 20 years' experience in Life Sciences R&D. After post-doctoral research at the University of Tokyo, the Weizmann Institute and the University of Cambridge, Marian has held a number of senior R&D roles at several biotechnology companies, such as Akubio, Unipath and DxTech.

Board of Directors:

Frank F. Craig PhD MBA (Chief Executive Officer). See biography to left.

Andrew Mackintosh PhD (Chairman). Previously, Chief Executive of the Royal Society Enterprise Fund and the CEO of Oxford Instruments PLC.

Ian Gray BCom (Director). Chartered Accountant, member of the 24Haymarket angel syndicate and previously Managing Director of Candover. Ian was an early investor and long-serving Board member of Inveresk Research, which sold for over £600 million.

Amanda Wooding PhD (Director). Deputy Head of Life Sciences at Cambridge Enterprise and an expert in spin-out creation.

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