

**PRESS RELEASE - EMBARGOED UNTIL 25<sup>th</sup> April 2019**

## **EMV Capital invests in leading San Francisco-based liquid biopsy company Vortex Biosciences Inc**

- **Vortex is a leader in liquid biopsy of circulating tumor cells (CTCs)**
- **The Vortex Biosciences VTX-1 instrument is fully automated, providing highly purified, intact CTCs in approximately 1 hour**
- **These CTCs are available for downstream fluorescence, genomics, cell culture, PDOX and single cell analysis**

**25<sup>th</sup> April 2019, London**

Today EMV Capital announces the acquisition of a controlling stake in Bay Area-based Vortex Biosciences, and a further investment package to accelerate the company's development.

Robert Englert, CEO of Vortex Biosciences, commented "We will apply this new funding to achieve an expanded menu of downstream integration. Our vision at Vortex is to improve Cancer detection and therapy by providing the best CTC sample workflow from a standard tube of blood. The VTX-1 instrument has demonstrated outstanding performance in the hands of our customers and collaborators, such as the research we support on human and murine model CTC investigations and new research on single cell drug testing methods."

EMV Capital MD Dr. Ilian Iliev said "As an IP-focused venture investor we understand the value that has been created by the Vortex team. We were impressed with the Vortex team's vision on the central role they can play in the growing liquid biopsy market which is forecast to reach \$8bn by 2023. Our support will help the company accelerate their growth in the North American and European markets, and expand the functionalities of the platform"

Vortex Biosciences provides an automated, label-free, benchtop solution for isolation and purification of Circulating Tumor Cells (CTCs) from a standard 8ml tube of blood. The VTX-1 instrument rapidly processes the sample through micro vortices to enrich the CTCs and delivers these highly purified cells into a choice of collection formats. These samples are easily integrated into downstream genomics, protein markers testing, single cell analysis and staining techniques. The blood tube can be processed to also preserve the ctDNA content of the sample for downstream NGS analysis.

There is increasing recognition that pathology will move towards greater use of decision-support tools and systems, and Vortex is in a good position to provide a solution to this growing market. The global liquid biopsy market is forecast to grow from \$3Bln in 2018 to \$8Bln by 2023, with the CTC isolation and enrichment market in particular expected to grow by a CAGR of 18.2% between 2017 and 2023. There are currently more than 500 clinical trials focused on CTCs as identified in [clinicaltrials.gov](http://clinicaltrials.gov).

### About Vortex Biosciences ([www.vortexbiosciences.com](http://www.vortexbiosciences.com))

Vortex Biosciences is a spin-out from UCLA's prestigious Microfluidic Biotechnology Laboratory and was founded by Dini Di Carlo, PhD and Elodie Sollier, PhD. Vortex has developed this technology into the VTX-1 instrument with market leading purity, efficiency and automation. Below are some scientific literature citations referencing Vortex Biosciences technology

1. **M. Dhar et al., Nature Sci. Rep. (2018), 8(1):2592.** *Evaluation of PD-L1 expression on vortex-isolated circulating tumor cells in metastatic lung cancer.* <https://www.ncbi.nlm.nih.gov/pubmed/29416054>
2. **E. Kidess et al., Oncotarget (2016).** DOI: 10.18632/oncotarget.13350. *Enumeration and Targeted Analysis of KRAS, BRAF and PIK3CA Mutations in CTCs Captured by a Label-free Platform: Comparison to ctDNA and Tissue in Metastatic Colorectal Cancer.* <https://www.ncbi.nlm.nih.gov/pubmed/27863403>
3. **H. Liu et al., Nature Genomic Medicine (2017), Nature Genomic Medicine, 2, 34.** DOI: 10.1038/s41525-017-0034-3. *Workflow optimization of whole genome amplification and targeted panel sequencing for CTC mutation detection.* <https://www.nature.com/articles/s41525-017-0034-3>
4. **C. Renier et al., Nature Precision Oncology (2017), 1, 15.** DOI: 10.1038/s41698-017-0015-0. *Label-free isolation of prostate circulating tumor cells using Vortex microfluidic technology.* <https://www.nature.com/articles/s41698-017-0015-0>
5. **J. Che et al., Lab Chip (2017), 17(8):1452-1461.** DOI: 10.1039/C7LC00038C. *Biophysical isolation and identification of circulating tumor cells.* <https://www.ncbi.nlm.nih.gov/pubmed/28352869>

### About EMV Capital ([www.emvcapital.com](http://www.emvcapital.com)):

EMV Capital Ltd (EMVC) is a London-based early-stage venture investor focused on B2B companies in the industrial high-tech, energy, circular economy, smart cities and transportation sectors and healthcare. EMVC's investments in Europe, Israel and the US cover a range of technologies including robotics and AI, machine learning, materials science, IoT, advanced engineering, power electronics and medical devices. EMVC's model is to develop a customized investment strategy for each company, combining its network of investors from Family Offices, Wealth Managers, Institutional VC investors and Corporate VC funds. EMVC recognizes the benefits of corporate engagement for early-stage technology companies, with EMVC's team having led and structured investments alongside some of the world's leading corporations, including ABB, Philips Lighting (Signify), Evonik Industries, Mitsubishi and Flex. Where appropriate, EMVC can help companies fast-track their investment readiness through its ecosystem of advisors and service providers.

Founded by Dr. Ilian Iliev, EMVC has a unique multidisciplinary team with expertise in venture investment, industry engagement, corporate development, corporate finance and M&A. EMVC understands the importance and value of environmental sustainability and ethical investment principles, reflecting this within its investment thesis.

EMV Capital Limited is an appointed representative of Sapphire Capital Limited, which is authorised and regulated by the Financial Conduct Authority. EMV Capital is also exclusive advisor to the EMVC Evergreen EIS Fund.

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