# **About Biolidics Limited**

Incorporated in 2009, **Biolidics** is a Singapore-based medical technology company focusing on the development of cell enrichment systems which, when combined with other analytical tests, have a wide range of applications for cancer diagnosis, prognosis, treatment selection and treatment monitoring.

**Biolidics** has developed the ClearCell® FX1 System, a fully automated IVD medical device which relies on a novel patented technology to separate and enrich cancer cells from blood.

**Biolidics**' ClearCell® FX1 System allows users of the system to perform liquid biopsies to test for the presence of cancer cells (specifically circulating tumour cells, or CTCs) in blood samples or perform further analysis on cancer cells.

Liquid biopsies (i.e. analysis of the circulating tumour cells in blood samples) have many applications throughout the various stages of a patient's cancer journey, from cancer screening and staging to personalised treatment, and post-cancer monitoring.

**Biolidics**' quality assurance capabilities have been recognized through its ISO certification. Europe: CE-marked. North-America: The ClearCell® FX1 System is registered with the US FDA Class 1 medical device. The ClearCell® FX1 Run Kits are for "Research Use Only" – not for use in diagnostic procedures.

### **Ordering Information**

### **Biolidics Limited**

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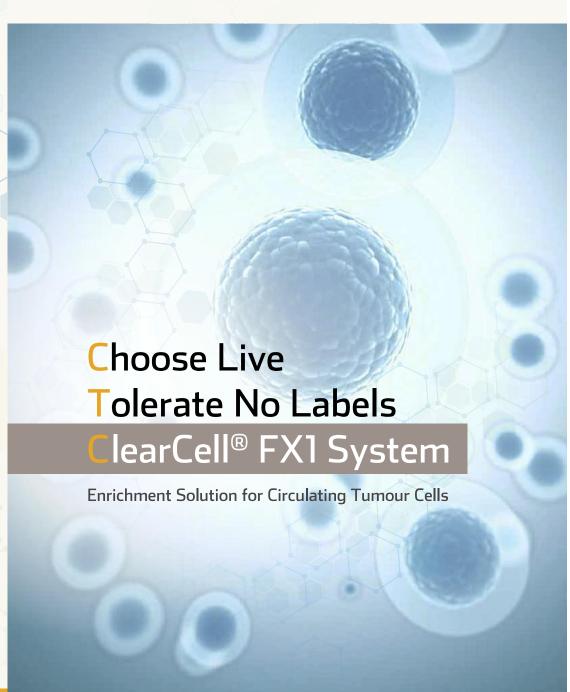


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# **Bringing Clarity to Cancer**

### **Technology**

Liquid Biopsy is a **simple and minimally invasive** alternative to surgical biopsies which enables doctors to obtain more information about the disease with a simple blood draw. The information obtained from the blood draw including circulating tumors cells can provide valuable information for cancer patient disease management. It enables the understanding of cancer heterogeneity in a patient, providing more holistic information about the disease.

The ClearCell® FX1 System, a fully automated cell enrichment medical device for cell retrieval that can separate and enrich wholly intact and viable Circulating Tumour Cells, or CTCs from whole blood. This results in high consistent recovery.



# Outlets Blood

### Principle:

The ClearCell® FX1 System is driven by CTChip® FR which enrich CTCs based on size and deformability.

Through the process of Dean Flow Fractionation (DFF), cell relocate and distribute themselves within the channel of the CTChip® FR1. The formation of the Dean vortex flows present in the biochip results in larger cells to be located along the inner wall and the smaller cells along the outer wall. The enrichment process is completed by siphoning the large cell stream into our collection outlet as the enriched circulating tumor cell fraction.

Therefore the ClearCell FX1 offers a high purity, continuous separation solution for CTC enrichment.

### Workflow

Sample Collection



7.5ml blood sample is collected in EDTA/Streck blood collection tube

**RBC Lysis** 



Red blood cell lysis is performed

**CTC Enrichment** 



CTC enrichment is performed on the ClearCell® FX1 System

**Enriched CTC Sample** 



Enriched CTC output ready for downstream analysis

## **Downstream Applications**

The potential downstream applications of the CTCs enriched using ClearCell® FX1 System include the following:



Cell culture Experimental therapeutics



Cellular examination of microscope level



Genomics DNA/RNA genetic analysis



Cytopathology



Cytogenetics

Detection of genetic anomaly by FISH

