Researchers report ScreenCell® usage for Colorectal Cancer - CTC Biomarker

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In a recent paper, Cancer Biomarkers (Cancer Biomarkers 14 (2014) p.145–150), researchers at Rouen University Hospital, Rome University Hospital-La Sapienza, and University of Medicine and Pharmacy, Cluj-Napoca, Romania report on the use of the ScreenCell Cyto device to capture and characterize Circulating Tumor Cells (CTCs) from patients with colorectal cancer (CRC). This is the first preliminary report on the use of ScreenCell with samples from CRC patients.
The authors describe the issue with using antibody capture methods for separation of CTCs: "CTCs undergo EMT (epithelial-mesenchymal transition); thus, it is important to choose the right antibody for their characterization. This finding could also explain why microfiltrating approaches seem to be more efficient than technologies based on immunomagnetic or microfluidic separation, which rely on the presence of EpCam antigen at the surface of the CTC."
Regarding the basis of separation incorporated in ScreenCell technology: "Circulating blood cells are among the smallest cells in the body. Filtering the blood through a membrane…can eliminate them. After filtration, the remaining cells present on the membrane are then morphologically analyzed to assert their tumoral nature. This simple and rapid technique does not require expensive equipment (a single use device) and can be used easily in routine practice."
The authors also state: "This fast and efficient method identifies CTCs and also isolates cells in EMT, which explains its high efficiency compared to technologies based on immunomagnetic and microfluidic separation reliant on EpCAM presence on the cell surface."Results: "Presence of CTCs was identified in 23/36 patients with mCRC (64%). Cytokeratin antigen was mainly lost in CTC probably due to EMT. EpCam and moreover CDX2 were detected on CTC, confirming their digestive origin."

ScreenCell's CEO David Znaty commented, "We are exceptionally pleased to learn from researchers about the results of ScreenCell for improving therapies and management of CRC cases. We are committed to help cancer researchers address these challenges."

Contact:

John Lindsay
VP Marketing and Sales ScreenCell
+1 978 692 9049
jlindsay@screencell.com
contact@screencell.com

About ScreenCell

ScreenCell, headquartered in Paris, France is a privately held company dedicated to provide products, protocols and training support for cancer research facilities to characterize Circulating Tumor Cells and other rare cells in biological specimens. For more information please visit www.screencell.com