

## SUPPLEMENTARY DOCUMENTATION

### **Liquid Biopsy using the Nanotube-CTC-Chip: Capture of Invasive CTCs with High Purity using Preferential Adherence in Breast Cancer Patients**

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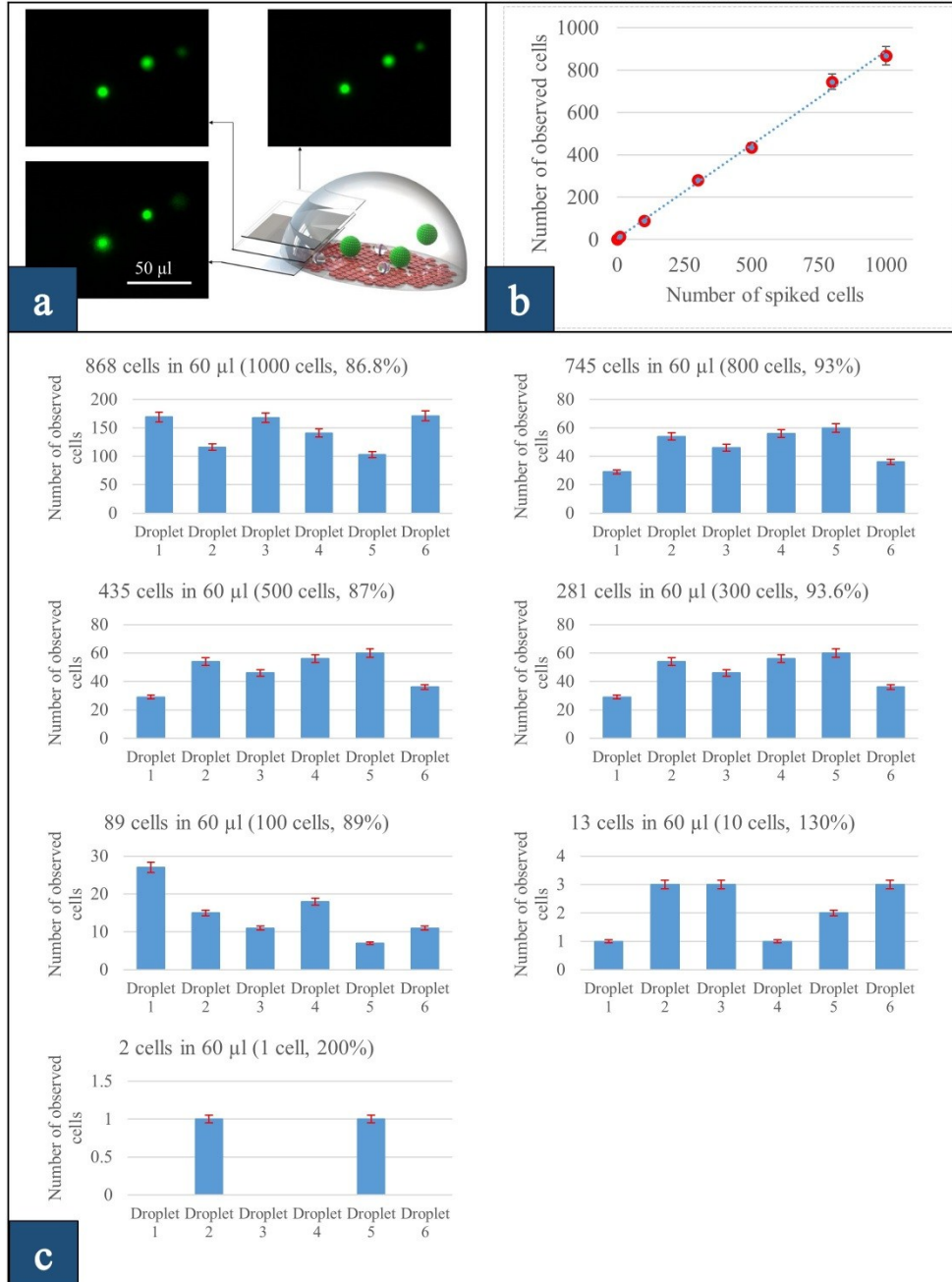
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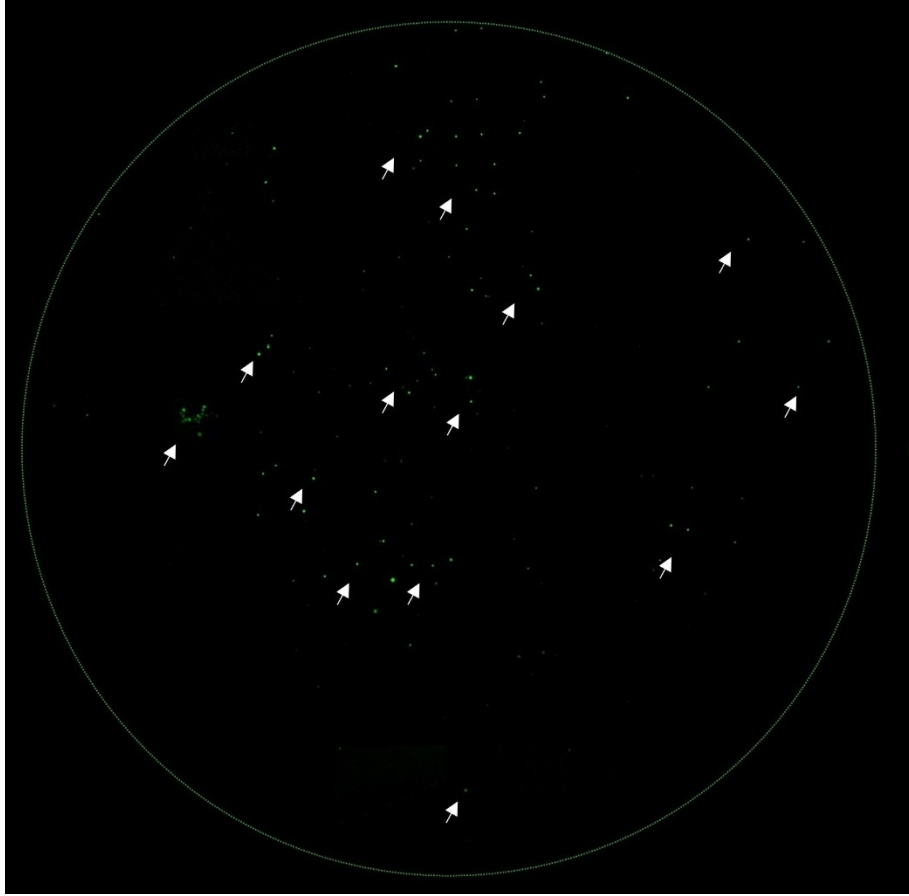
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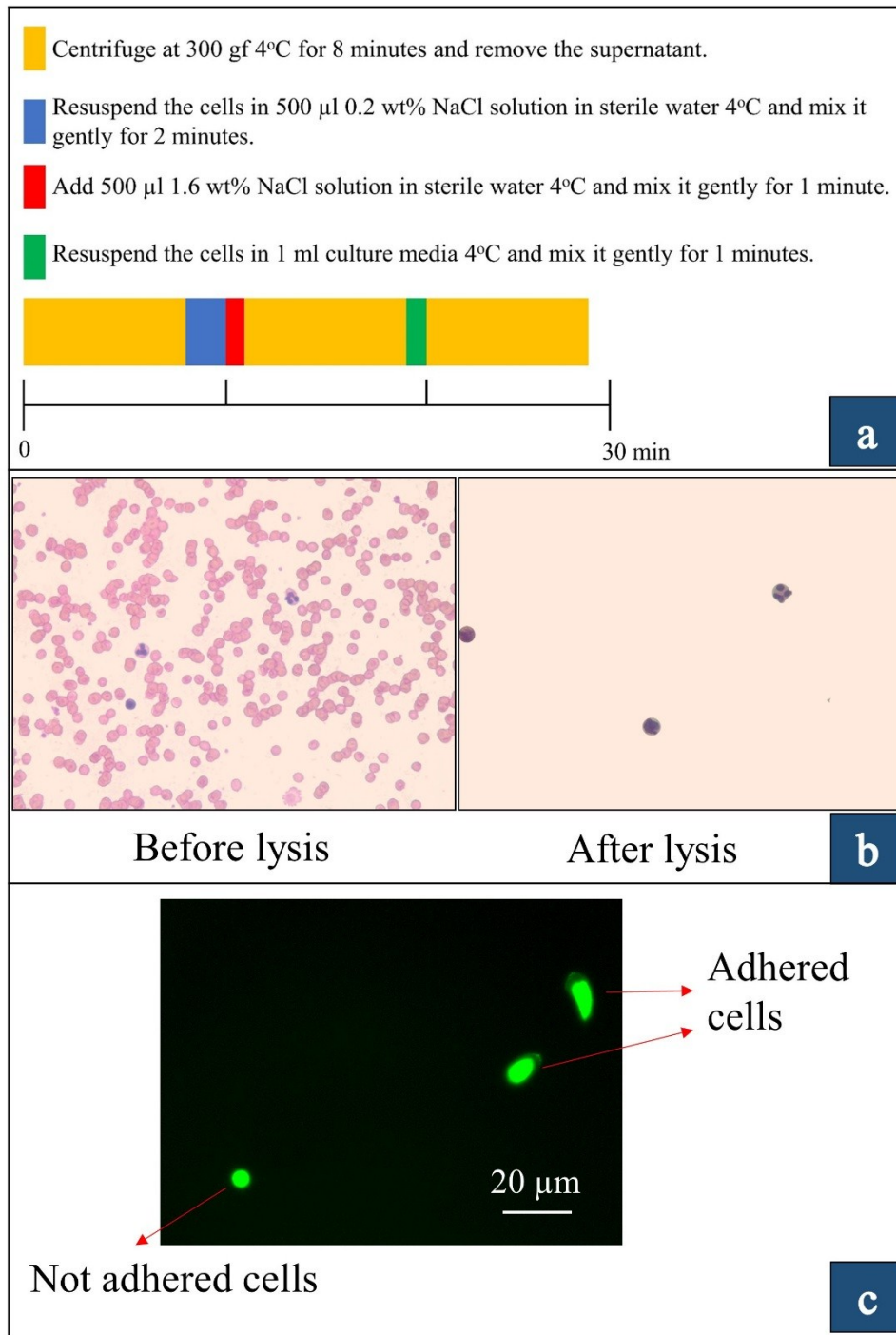
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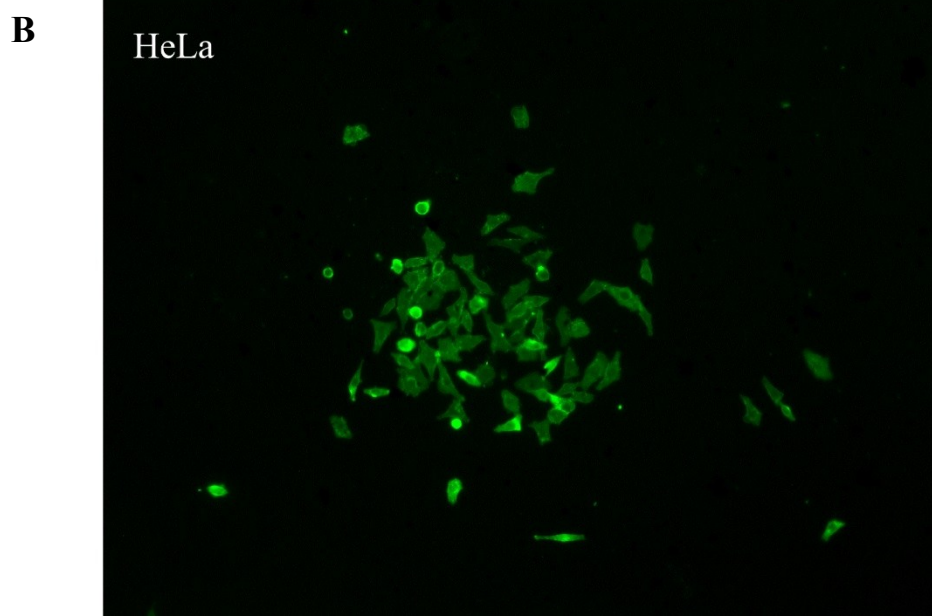
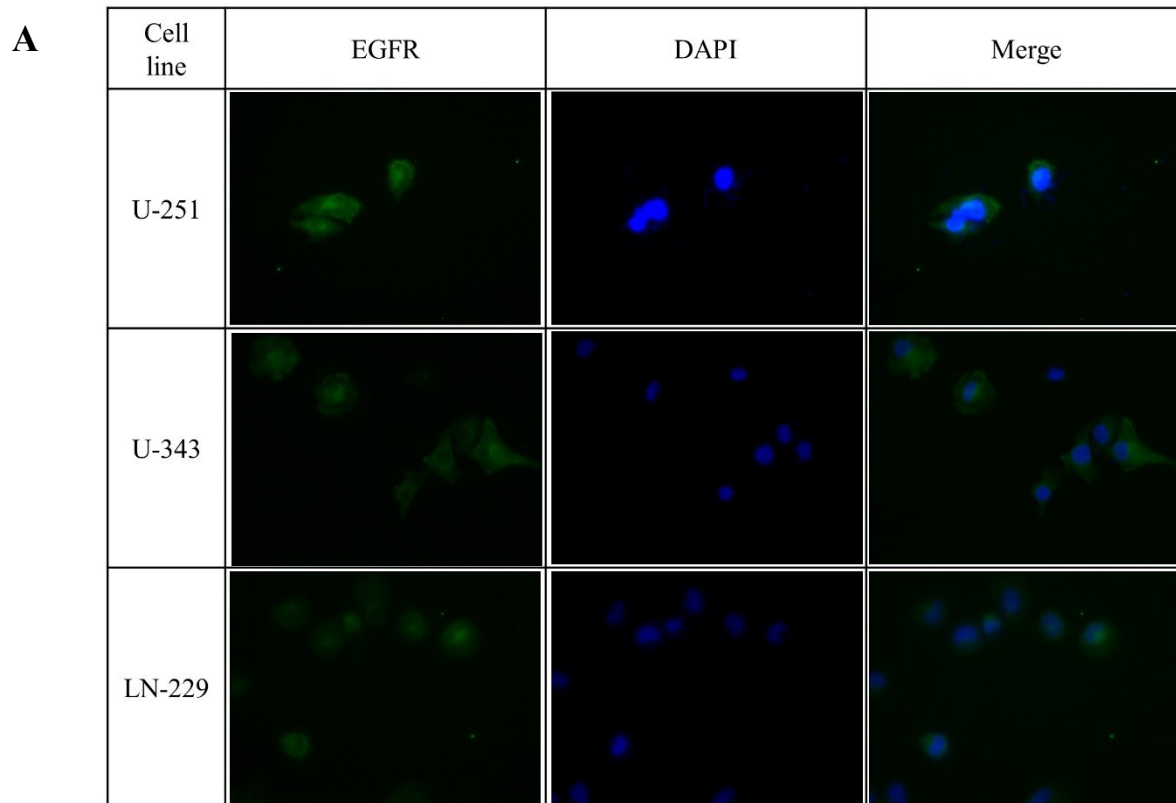
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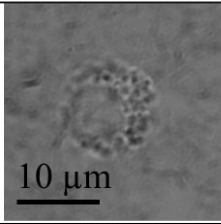
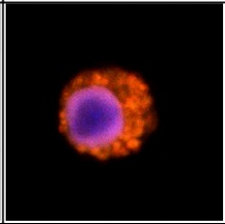
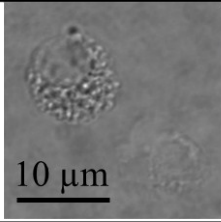
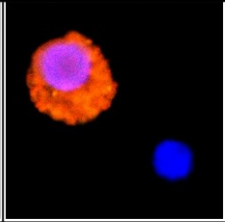
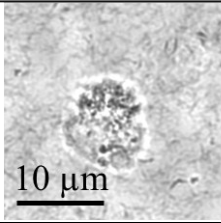
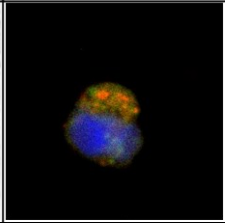
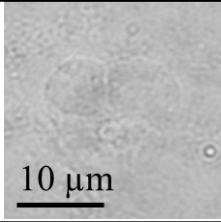
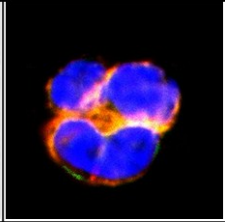
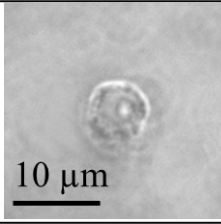
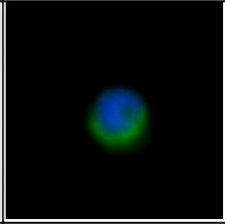
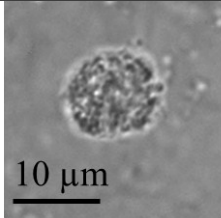
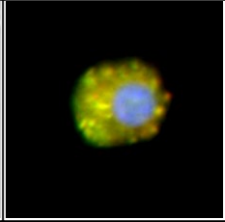
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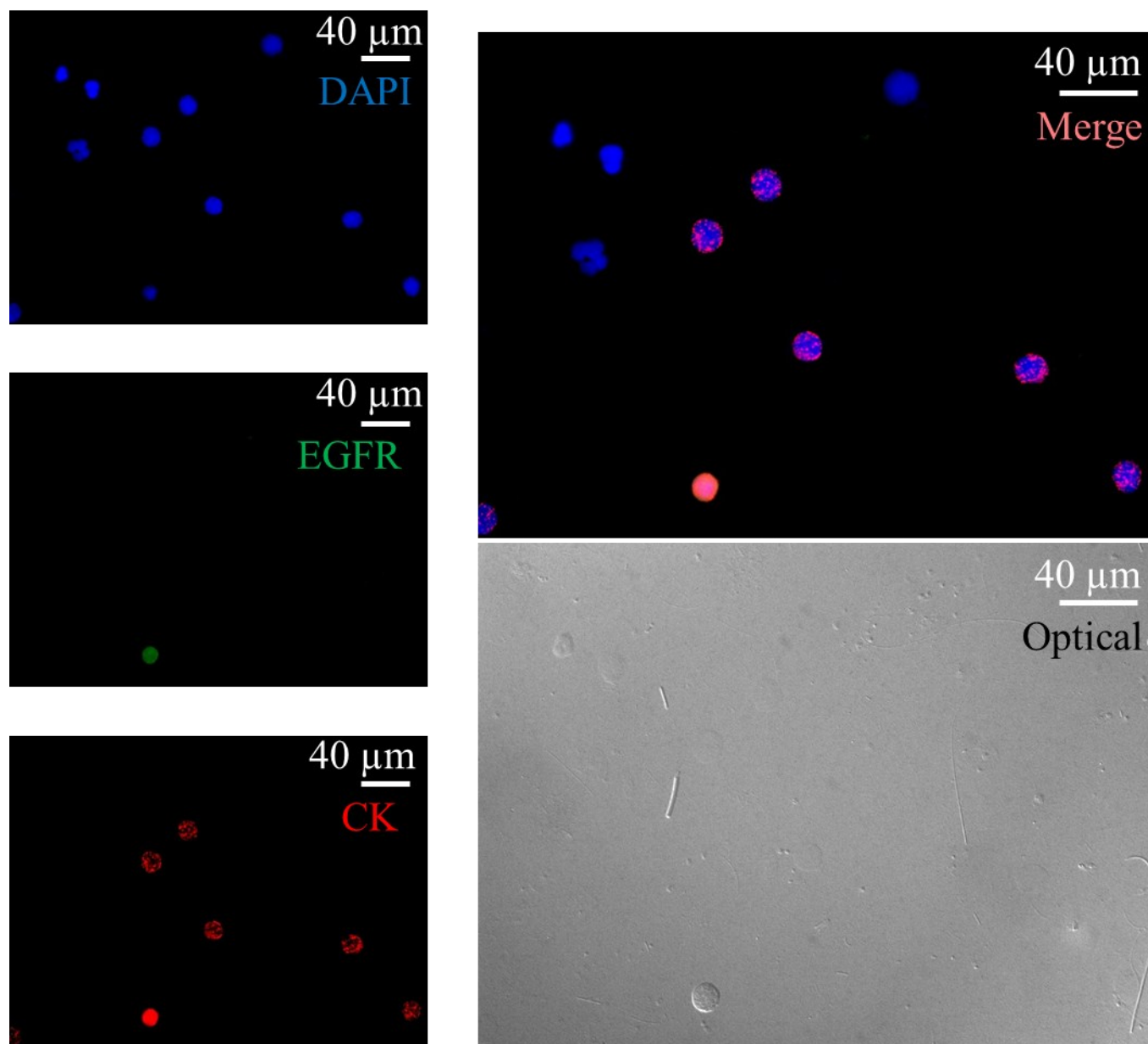
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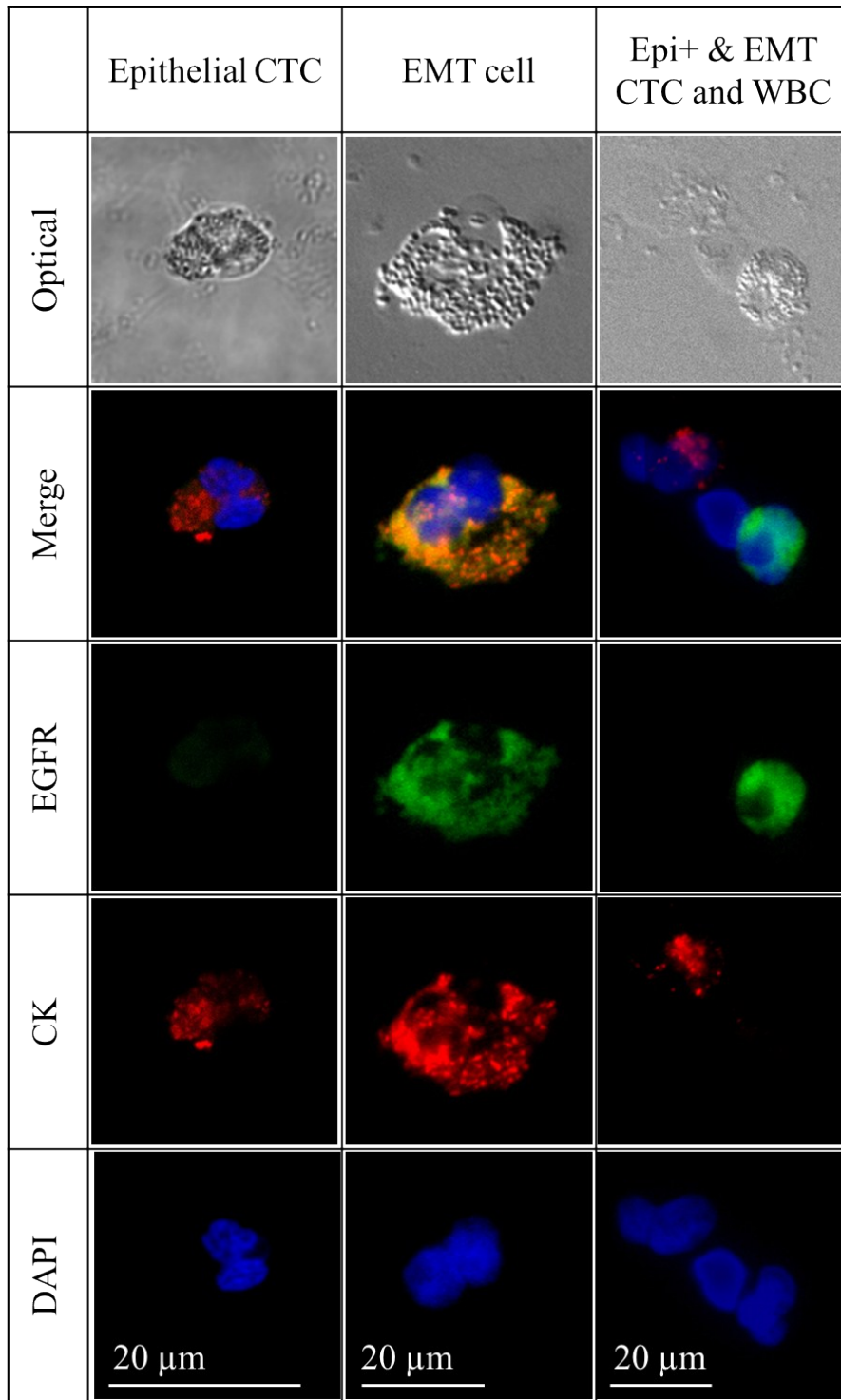
	Optical	Composite
Patient 1		
Patient 2		
Patient 3		
Patient 4		
Patient 6		
Patient 7		

**Figure S<sub>5</sub>:** Optical images and merge images of patient samples.



**Figure S<sub>6</sub>:** Heterogeneous CTCs and WBCs on the same chip; optical, DAPI, EGFR, CK and merge images. A single CTC is seen at the bottom of each image suggesting this CTC was positive for DAPI, CK, EGFR suggesting multiple phenotypes on the same cell.





**Figure S7:** Epithelial, mesenchymal and EMT related CTCs along with WBCs (DAPI only)

**Table S<sub>1</sub>:** Antibodies, manufacturer and dilutions

Antibody	Manufacturer	Host	Clone	Used dilution (µg/ml)
Cytokeratin 8/18	Thermofisher (#180213)	Mouse	Zym5.2 (UCD/PR.10-11)	1:100
EGFR	CellSignal (#4267S)	Rabbit	D38B1	1:50
Her2	Thermofisher (#MA5-14057)	Mouse	e2-4001, 3B5	1:100
CD45	Thermofisher (#MA5-17687)	Rat	YAML501.4	1:500
DAPI	CellSignal (#4083S)	-----	-----	0.1 µg/ml