# Lung Oncotrail RGCC ™

Results





Analysis on a patient test patient 1 suffering from Lung carcinoma stage II.



The sample that was sent to us for analysis was a sample of 20ml Blood that contains anti-coagulant, and packed with an ice pack.

## **Laboratory Process**

Isolation of malignant cells using flow cytometry with which the circulating tumor cells are enumerated and immunophenotyped

The results during the isolation procedure are presented below

#### Table of markers

## Significant CD45 positive cells (Hematologic origin cells)

Nanog	Positive			
OKT-4	Negative			
Sox-2	Dim			
CD15	Positive			



#### CD45 negative cells (non Hematologic origin) Positive (25% of all CTC) Nanog OKT-4 Negative Sox-2 Dim MUC-1 Positive (50% of all CTC) **EpCam** Negative EpCAm+ve: 2.7 cells/ml **CD133** Dim c-MET Positive (75% of all CTC) **CD31** Negative PanCK Dim SCCA-1 Positive (25% of all CTC) Negative **CD56**



## Index of markers

CD133, Sox-2*, OKT-4*, Nanog*	Tumor stem cell marker
c-MET*	Membrane antigen that regulates the mesenchymal to epithelial transition
CD34*	Hematological stem cell and blast cell marker, Epithelioid
CD45	Hematologic origin cell
BCR-ABL, CD30	Hematologic malignancy marker
CD44	Tumor stem cell marker
CD15	Hematological malignancy marker
CD19	(CD45 negative cells – Non Hematologic origin cells) lung neuroendocrine malignancy
	(CD45 positive cells – Hematologic origin cells) Hematological malignancy
CD31	Endothelial cell membrane antigen
CD63	Melanoma cell marker
CD99	Sarcoma marker
EpCam	Epithelial origin marker
MUC-1	Breast cancer antigen
PSMA	Prostate specific cancer stem cell membrane antigen
VHL mut	Renal carcinoma marker
panCK	Epithelial origin cell marker

<sup>\*</sup> Significant markers



The final results after the isolation procedure are presented below:

We notice that after isolation procedure there are remaining malignant cells.

The concentration of these cells was isolated 3.3 cells/ml, SD +/- 0.3cells.

### Index of circulating cells number

If over limit: Advanced or progression of disease. If less than limit: Early disease or disease is responding to a treatment plan.

Breast Cancer	< 5 cells / 7.5 ml
Prostate Cancer	< 20 cells / ml
Sarcoma	< 15 cells / 6.5 ml
Colon Cancer	< 5 cells / ml
Lung Cancer	( Lc=0, r=0.99):< 10 cells / ml

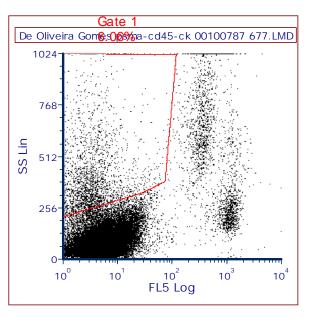
All cancer types other than those listed above should be < 5 cells / ml

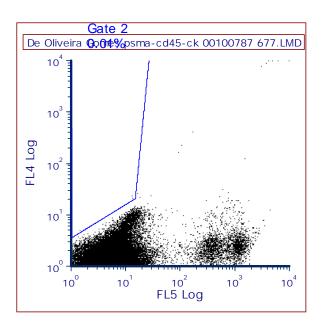
#### **Disclaimers**

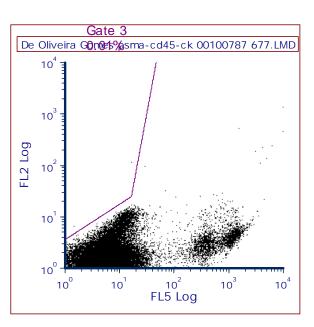
\*This test will NOT DETECT cancers of the brain or other cancers that have been "encapsulated" by the body, not releasing circulating tumor or stem cells (CTC, CSC) into the blood stream or if any of these cells are dormant. We still recommend the use of biopsy, blood markers and/or various scans with this test when cancer is suspected or known to exist. No test is 100% accurate.

\*The methodology has a sensitivity of 86,2% and specificity of 83,9%

Sincerely,







Overlay #	Filename	Gate	#of Events	X Geometric Mean	Y Geometric Mean	%of gated cells	%of all cells
1	De Cliveira Corres psma-cd45-ck00100787 677.LMD	Nane	50000	6.79	1.58	100.00	100.00
1	De Cliveira Comes psma-cd45-ck00100787 677.LMD	Gate 1	3030	2.58	1.43	6.06	6.06
1	De Cliveira Gomes psma-cd45-dk00100787 677.LMD	Gate 2	3	6.38	13.34	0.01	0.01
1	De Cliveira Gomes psma-cd45-ck00100787677.LMD	Gate 3	4	2.23	4.07	0.01	0.01