

Patient NAME Mr John Doe	DATE OF BIRTH 1992-Jun-12	DISEASE Prostate	STAGE II	Physician NAME Administrator
SPECIMEN	VIAL IDs 4			

## REPORT SUMMARY

**CTCs COUNT: Isolated 3.4 cells/ml , SD +/- 0.3 cells**

### NATURAL SUBSTANCES SENSITIVITY

#### Class I

##### Cytotoxic Agents

Artecina, Artesunate, Bio D Mulsion  
NuMedica D3, Butyric Acid, DCA  
(dichloroacetate), Doxycycline,  
Frankincense, Lycopene

#### Class II

##### Immunostimulants / Immunomodulators

Boswellia Serratta, Fucoidan

#### Class III

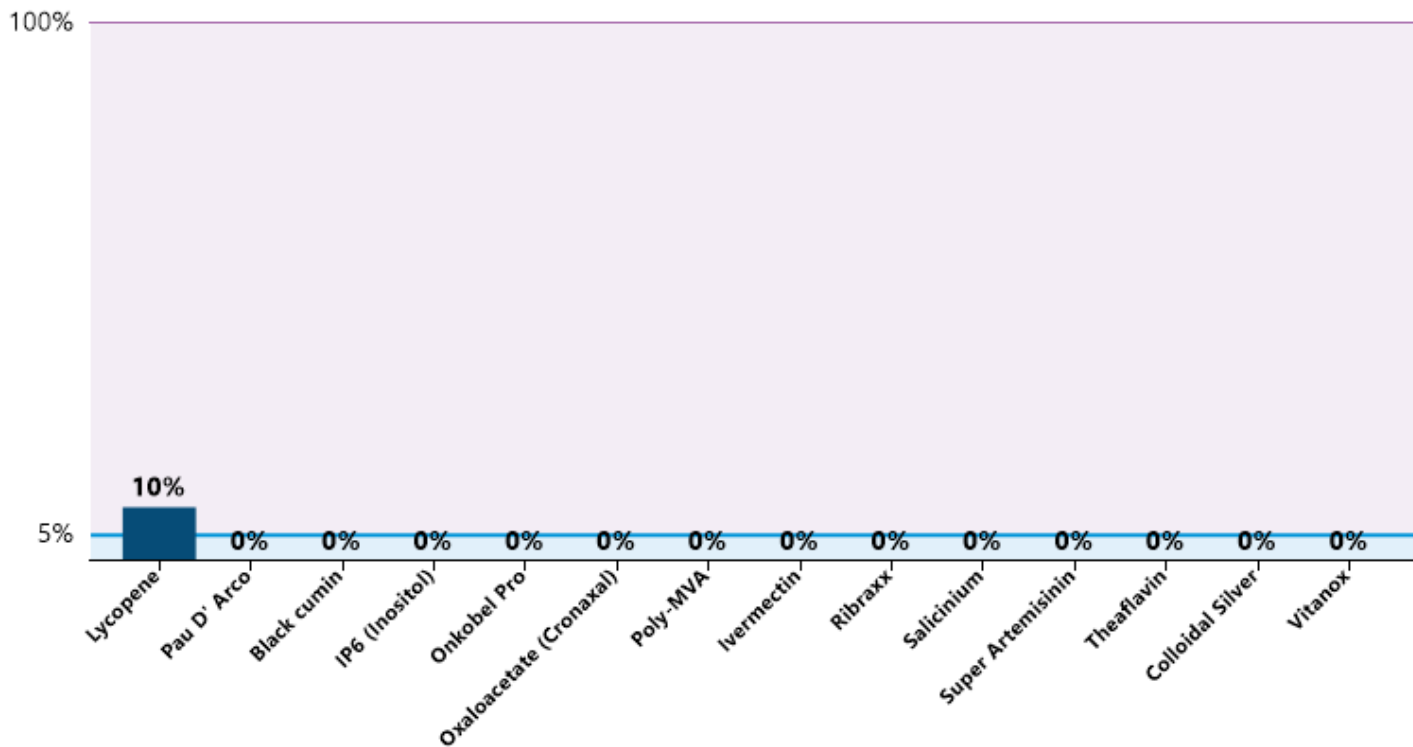
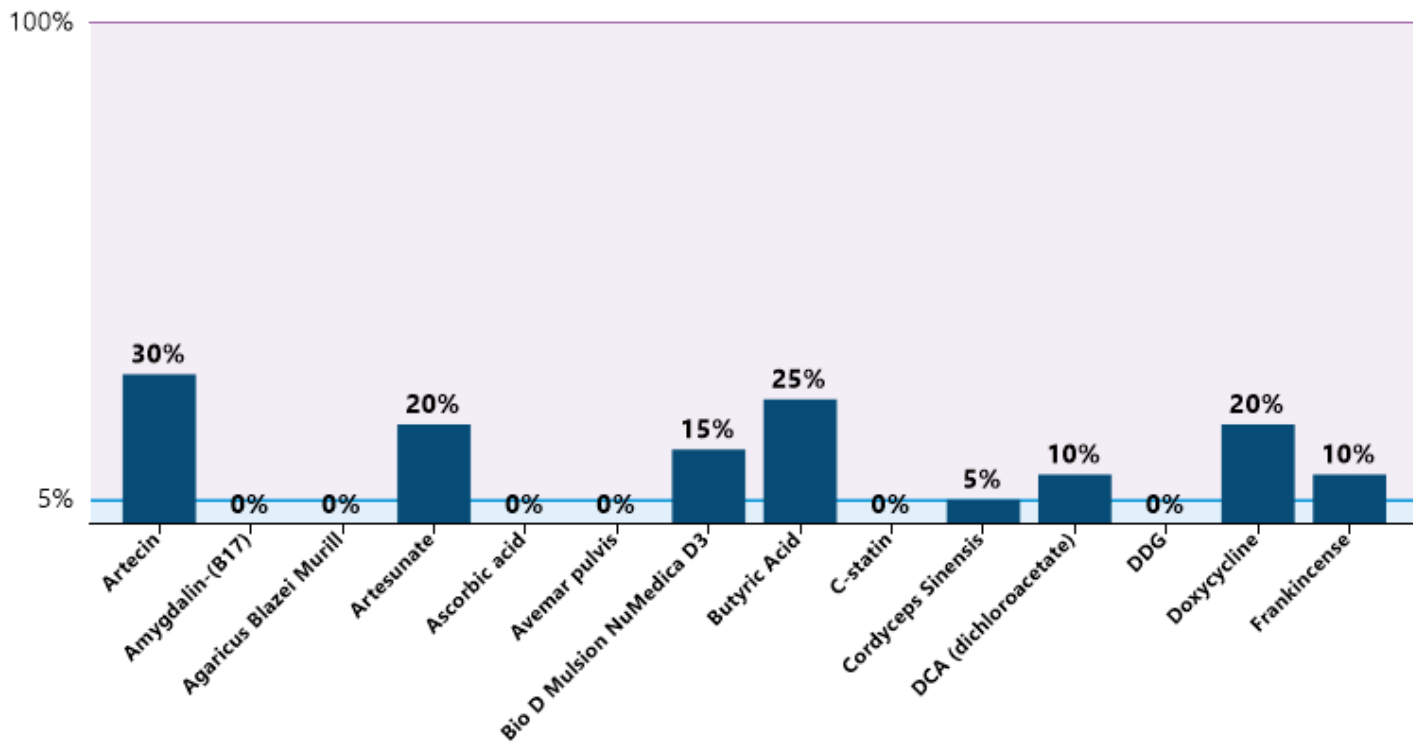
##### PK Inhibitors

Apigenin, Indol 3 Carbinol, Melatonin

\* Disclaimer! The natural substances that are tested in our lab facilities are not bonded from restriction for medical use.

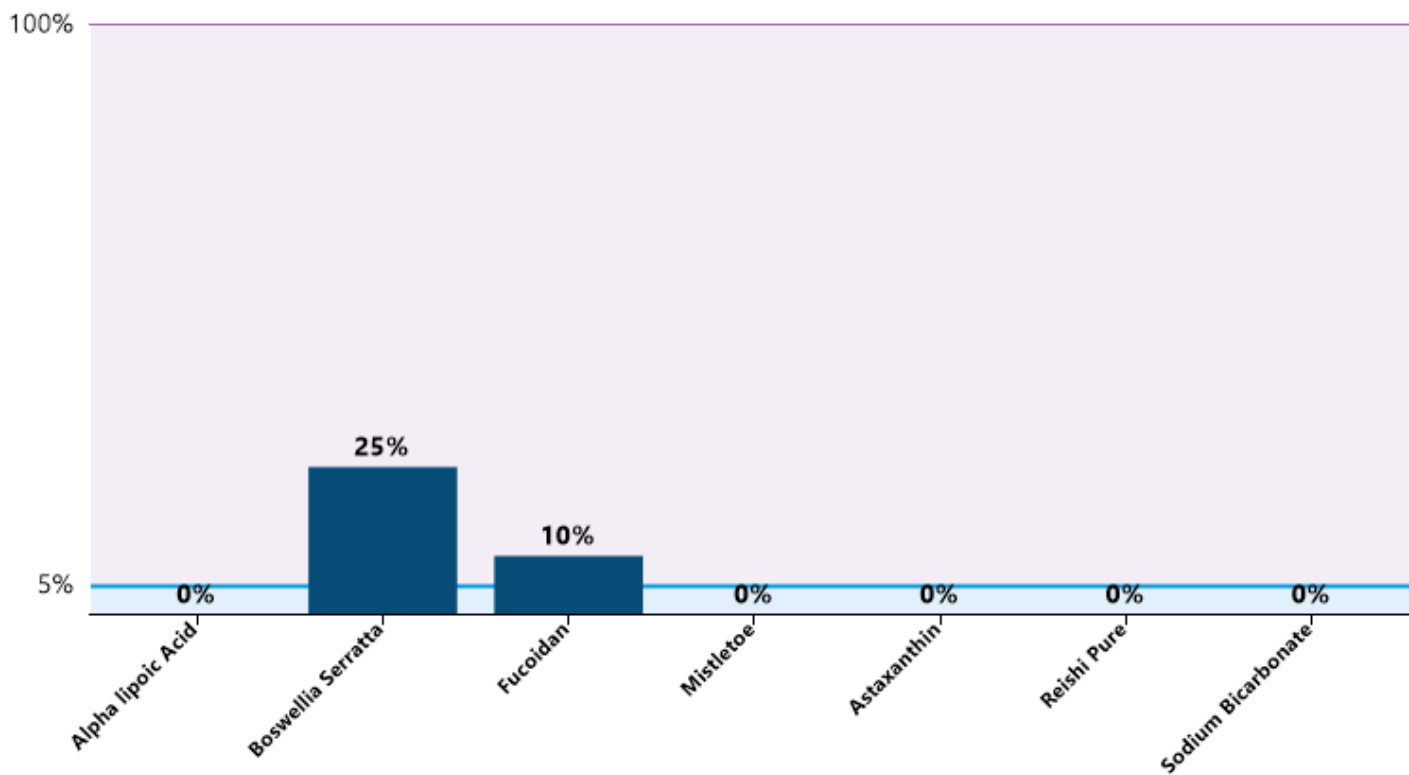
No sensitivity Sensitivity

### Class I (Cytotoxic Agents)

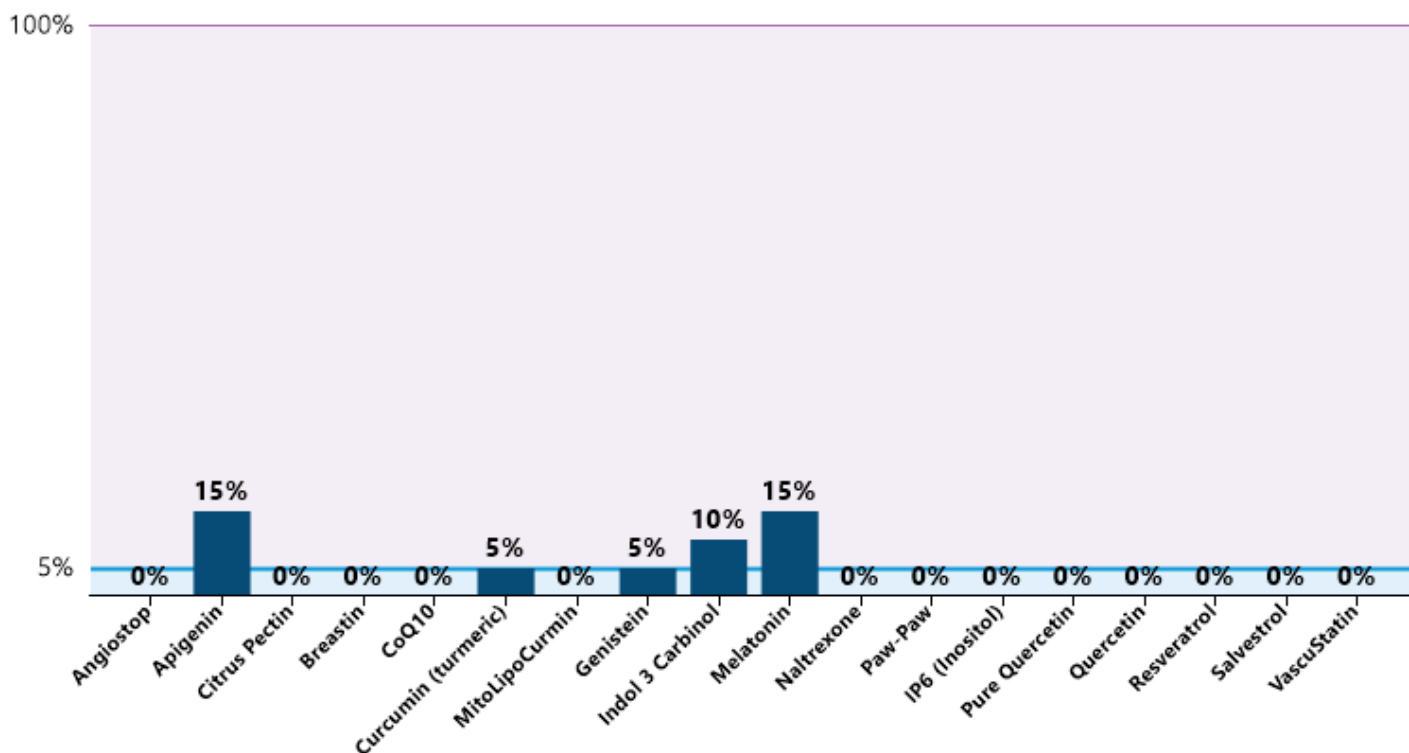


— No sensitivity — Sensitivity

### Class II (Immunostimulants / Immunomodulators)



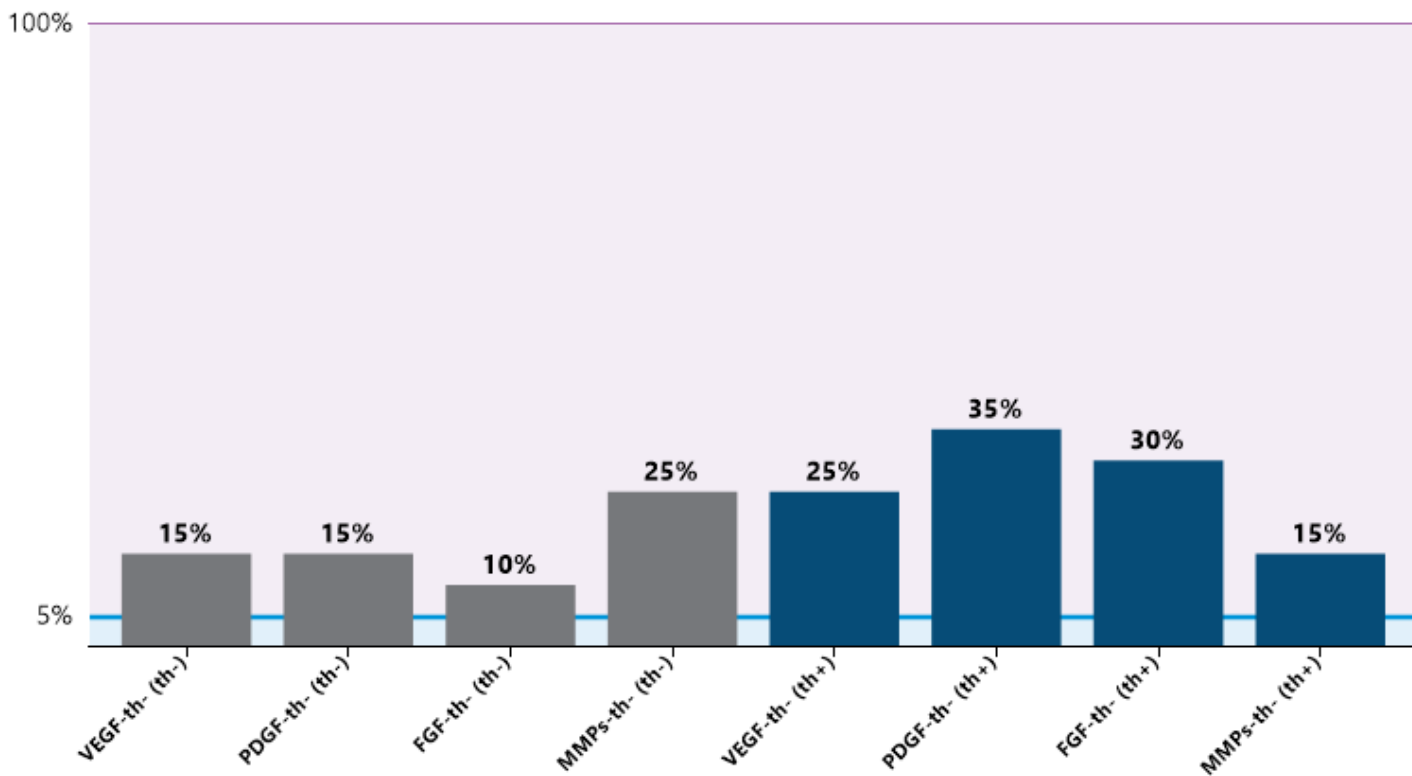
### Class III (PK Inhibitors)



No sensitivity Sensitivity

### Malignant Cells - Thalidomide

th- th+



## Information

## Laboratory Process

- Isolation of malignant cells using Oncoquick with a membrane that isolates malignant cells from normal cells
- Centrifugation at 350g for 10 min and we collected the supernatant with the malignant cells
- Isolation of malignant cells from mononuclear cells by negative selection
- Developed 46 cell cultures in a fetal calf serum media. In each culture of the well plate we added a biological modifier substance Class I - cytotoxic Agents, Class II - Immunostimulants / immunomodulators & Class III - PK inhibitors (details in the graphics below) that is used in clinical application
- Then we developed those cultures and we harvested a sample every 24 hours and made the following assays
- In the culture that contains all the substances we measure the apoptotic ability using the oncogen apoptosis kit
- In the culture that contains the ukrain we measure the inhibition of tyrosine kinase catalytic ability from the growth factor receptors (EGF-r, IGF-r) and the production of cytokines PMBC
- In the culture that contains quercetin we measure the inhibition of EGF and IGF
- In the culture that contains indol-3-carbinol we measure the inhibition of VEGF and FGF and PDGF
- In the culture that contains the mistletoe we measure the inhibition of tyrosine kinase catalytic ability from the growth factor receptors (EGF-r, IGF-r) and the production of cytokines and the increase of PMBC
- In the culture that contains the ascorbic acid we measure the catalytic activity of GSH and GSSG (redox reaction) and the induction of cytochrome C (apoptosis)
- In the culture that contains the PolyMVA we measure the catalytic activity of GSH and GSSG (redox reaction) and the induction of cytochrome C (apoptosis)
- In the culture that contains the super artemisinin we measure the catalytic activity of GSH and GSSG (redox reaction for free radical since super artemisinin binds free radicals with the iron molecule), the inhibition of VEGF, FGF and PDGF (since it acts to the angiogenesis cascade reactions) and the induction of cytochrome C (apoptosis)

This Test report is issued based on testing the sample / specimen examined by the Laboratory. Modification of data, selective breeding and using portions of this test report is forbidden. The laboratory assumes no liability for improper use or improper interpretation of the results.

Sincerely,

Dr. Ioannis Papasotiriou MD, PhD, SCym

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- c. Toloudi M, Apostolou P, Chatziioannou M, Papisotiriou I. Correlation between Cancer Stem Cells and Circulating Tumor Cells and Their Value. *Case Rep Oncol.* 2011 Jan 29;4(1):44-54. doi: 10.1159/000324403. PMID: 21526006; PMCID: PMC3082489.
- d. Dong S, Guo X, Han F, He Z, Wang Y. Emerging role of natural products in cancer immunotherapy. *Acta Pharm Sin B.* 2022 Mar;12(3):1163-1185. doi: 10.1016/j.apsb.2021.08.020. Epub 2021 Aug 21. PMID: 35530162; PMCID: PMC9069318.
- e. Ling T, Lang WH, Maier J, Quintana Centurion M, Rivas F. Cytostatic and Cytotoxic Natural Products against Cancer Cell Models. *Molecules.* 2019 May 26;24(10):2012. doi: 10.3390/molecules24102012. PMID: 31130671; PMCID: PMC6571673.
- f. Toloudi M, Ioannou E, Chatziioannou M, Apostolou P, Kiritsis C, Manta S, Komiotis D, Papisotiriou I. Comparison of the growth curves of cancer cells and cancer stem cells. *Curr Stem Cell Res Ther.* 2014 Mar;9(2):112-6. doi: 10.2174/1574888x0902140121163539. PMID: 24359142.
- g. Gairola K, Gururani S, Bahuguna A, Garia V, Pujari R, Dubey SK. Natural products targeting cancer stem cells: Implications for cancer chemoprevention and therapeutics. *J Food Biochem.* 2021 Jul;45(7):e13772. doi: 10.1111/jfbc.13772. Epub 2021 May 24. PMID: 34028051.