

Cell Cycle Progression of Jurkat (Leukemia) and LA-N-5 (Neuroblastoma) Cell Lines under the Influence of Taheri Consciousness Fields

Mohammad Ali Taheri¹, Sara Torabi², Shima Roshani³,
Hadis Gharacheh⁴, Farid Semsarha^{5*}

* Correspondence: Farid Semsarha Ph.D., Institute of
Biochemistry and Biophysics (IBB), University of Tehran,
P.O. Box: 13145-1384, Tehran, Iran
Tel.: +98-9121786577
Email: Semsarha@alumni.ut.ac.ir

1-Sciencefact R&D Department, CosmoIntel Inc. Research
Center, Ontario, Canada

2-Department of Plant Biology, School of Biology, College
of Sciences, University of Tehran, Tehran, Iran

3-Department of Animal Biology, Faculty of Natural
Sciences, University of Tabriz, Tabriz, Iran

4-Department of Chemical and Materials Engineering,
New Jersey Institute of Technology, University Heights,
Newark, NJ, USA

5-Institute of Biochemistry and Biophysics (IBB),
University of Tehran, Tehran, Iran

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Abstract

Mohammad Ali Taheri has introduced T-consciousness as a third element of the universe, in addition to matter and energy. There is a wide variety of Taheri Consciousness Fields (TCFs) that cannot be measured directly. However, it is possible to investigate their effects on various subjects. Previously, survival and death of different kinds of cancer cell lines have been evaluated under influence of TCFs. This experiment was designed with the aim of reproducing obtained results and investigating the effects of two types of TCFs (1 and 2) on this behavior of Jurkat cell line with lymphoblast morphology and LA-N-5 cell line with fibroblast morphology, which cause leukemia and neuroblastoma, respectively. To do this, after 48 hours, cell cycle analysis was done using flow cytometry. The obtained data showed that TCF1 caused a remarkable increase in G2/M in Jurkat, offering enhanced mitosis. The cell cycle analysis of LA-N-5 revealed that TCF2 treatment resulted in a remarkable increase in percentage of S phase cells. This enhancement was followed by a decrease in G2/M phase, which may indicate that cells were arrested in the S phase. However, TCF1 did not make a significant change. This observation offers that applying various TCFs can lead to different results.

Keywords: Taheri Consciousness Field; Neuroblastoma; Flow cytometry, LA-N-5; Jurkat; Leukemia

Introduction

The Jurkat cell line is an immortal T lymphocyte cell line derived for the first time from the peripheral blood of a boy with T-cell leukemia. This cell line has often been used as a primary T cell line to study several events in T cell biology, including T cell signaling and molecular events in the HIV life cycle (Schneider et al., 1977). Many of the most common childhood cancers diagnosed with brain tumors such as Wilms' tumor, rhabdomyosarcoma, and high-risk neuroblastoma have very low survival rates (ACS Special Report 2014).

Neuroblastoma is the most common extracranial solid tumor in children. The prevalence of this disease is 1 in 8000 to 10,000 births and the 5-year survival rate is more than 95% for children in low-risk and moderate groups (Maris et al., 2007). These tumors are highly metastatic and resistant to conventional treatments like radiation or chemotherapy, and the LA-N-5 cell line is one of the cellular models of these tumors (Shastry et al., 2001). Previously, the effects of TCFs on cancer cell lines *in vitro* have been evaluated (Taheri et al., 2022 a, b). In this study, the effect of the TCFs 1 and 2 on the LA-N-5 cell line causing neuroblastoma and Jurkat cell line causing leukemia was investigated.

Materials and Methods

TCFs application

In this study, samples were under influence of TCFs for 48 hours and the TCFs were allocated once every 24 hours during the whole study time. Control in this study is as follows: negative control is the Jurkat cells which are untreated with no TCFs and drug, and positive control is the Jurkat cells are treated with temozolomide.

Cell culture, flow cytometry and cell cycle analysis

These methods were performed according to general considerations.

Results and Discussion

In this study, following previous studies on different types of cancer cell lines using TCF1 and TCF2, Jurkat cell line with lymphoblast morphology which causes of leukemia was selected.

The obtained data from cell cycle analysis can be observed in Table 1. TCF1 treatment led to an increase in G2/M phase.

Table 1. The Cell cycle analysis of the Jurkat cell line under the influence of Taheri Consciousness Fields (TCFs).

Samples	Cell cycle percentage		
	G1	S	G2/M
Control (-)	75.11	21.16	3.73
TCF1	72.78	18.23	8.99
TCF2	73.15	21.61	5.24

Moreover, TCFs affected cell cycle progression of LA-N-5 (Table 2). Particularly, TCF2 treatment led to a significant increase in S phase

(around 16%) and a notable decrease in G2/M phase cells by about 60%.

Table 1. Cell cycle analysis of LA-N-5 cell line under Taheri Consciousness Fields (TCFs) compared to control.

Sample	Cell cycle percentage		
	G1	S	G2/M
Control (-)	71.32	22.61	6.7
TCF1	68.71	24.17	7.12
TCF2	71.11	26.18*	2.71*

*: p-value<0.05

As it has been mentioned in the introduction section, there are a wide variety of TCFs with specific functions introduced by Taheri. In prior studies, their influences have been demonstrated frequently (Taheri et al., 2022c). According to this theory, the subjects under study, such as cell lines in the current experiment, receive information upon exposure to the TCFs. Based on Taheri's theory, in addition to the physical body, considered as hardware, the cells possess software to manage and guide hardware.

Changing the behavior of the cell lines in this research suggests that they have received information from TCFs. It is also worth mentioning that the effects of TCFs were investigated in double-blind way and without

any kinds of physical intervention. This methodology makes results of the study less likely to be biased and with adequate repetitions exhibits the influence of TCFs. In this study, before describing the mechanism of TCFs, the observed results have been reported. Further research is necessary to be designed for gaining a better insight into how these fields affect cell behavior.

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References

- American Childhood Cancer Organization (2014). Special Section: *Cancer in Children & Adolescents. ACS Special Report, 25–42*
- ^aTaheri, M. A., Mahdavi, M., Afsartala, Z., Amani, L., & Semsarha, F. (2022). The Influence of Faradarmani Consciousness Field on the Survival and Death of MCF-7 Breast Cancer Cells: An Optimization Perspective. *Journal of Cosmointel, 1(6)*, 8–21.
- ^bTaheri, M. A., Torabi, S., & Semsarha, F. (2022). Screening the Effect of Faradarmani Consciousness Field on the Ex vivo Controlled Microenvironment on Solid 4T1 Tumors. *Journal of Cosmointel, 1(6)*, 46–53.
- ^cTaheri, M. A., Torabi, S., & Semsarha, F. (2022). The Effect of Taheri Consciousness Fields on the ATP Production in HEK-293 Cell Line by Measuring Luciferase Activity. *Journal of Cosmointel, 1(9)*, 34-55.
- Maris, J. M., Hogarty, M. D., Bagatell, R., & Cohn, S. L. (2007). Neuroblastoma. *Lancet (London, England)*, 369(9579), 2106–2120. [https://doi.org/10.1016/S0140-6736\(07\)60983-0](https://doi.org/10.1016/S0140-6736(07)60983-0)
- Schneider, U., Schwenk, H.U. and Bornkamm, G. (1977) Characterization of EBV genome negative “null” and “T” cell lines derived from children with acute lymphoblastic leukemia and leukemic transformed non-Hodgkin lymphoma. *Int J Cancer*, 19: 621 – 626.
- Shastry, P., Basu, A., & Rajadhyaksha, M. S. (2001). Neuroblastoma cell lines--a versatile in vitro model in neurobiology. *The International journal of neuroscience, 108(1-2)*, 109–126. <https://doi.org/10.3109/00207450108986509>