Evaluation of the Influence of Faradarmani Consciousness Field on Viral Growth

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ABSTRACT

Taheri Consciousness Fields are non-material and non-energetic Fields with the ability to have reproducible effects in laboratory and experimental environments. Previous studies related to studying the effects of Faradarmani Consciousness Field (CF) on plant characteristics and animal disease models reveal that Faradarmani CF functions in optimizing the system under study. Significant effects of Faradarmani CF on bacterial and cellular population growth led us to investigate the effect of Faradarmani CF on viral titer. For this, we stratified various viruses into enveloped or non-enveloped as well as DNA and RNA types. This study aims at assessing the influence of Faradarmani CF on four types of virus combinations using the TCID50 assay. We tested the effect of Faradarmani CF on pre-determined titers of selected viruses and found that Faradarmani CF changed the viral titers by 0.4 to 1.85 logs compared to the control group. As the results suggest, the physical structure of the viruses and their genome type have notable effects on their response to Faradarmani CF.

Keywords: Cytopathic effects, Faradarmani Consciousness Field, Taheri Consciousness Fields, TCID50, Viral quantification

INTRODUCTION

The virus was discovered at the end of the 19th century by Dmitri Ivanovsky. Specifically, the tobacco mosaic virus was the first pathogen identified as a virus and with it, many fundamental virology concepts were developed related to viral purification (Zaitlin, 1998). Viruses are too small and cannot pass through filters that bacteria can (Van Regenmortel, 2008). In the late 1930s, with the invention of the electron microscope, the biological study of viruses, and in particular, bacteriophages, became possible (Luria et al., 1943). Viral genomes consist of DNA or RNA only, and not both simultaneously. DNA or RNA contribute to diverse characteristics in viruses. They can be double-stranded or single-stranded, linear, or circular, and range from 2 kb to 2500 kb in length (O'Carroll and Rein, 2016). The protein shell, known as the capsid, protects the nucleic acid (Pal, 2019). Viruses come in various shapes and sizes and are classified based on morphological features, for example, based on the kind of nucleic acid, capsid symmetry, presence or absence of envelope, and additional characteristics of the capsid (Norrby, 1983).

Viruses exist wherever life is found, and they are the most abundant biological entities (Suttle, 2005, Louten, 2016). It has been reported that there are 10^{31} viruses on Earth. They can infect all types of life forms, including animals, plants, bacteria, and archaea (Koonin et al., 2006; ; Mushegian, 2020). Viruses are not considered being alive because they can only replicate inside host cells (López-García, 2012) and as such are described as 'organisms at the edge of life' (Rybicki, 1990). Recently, it has been reported that whether or not 'viruses are alive' de-pends on the definition of life. For instance, al co-hol-based hand sanitizers kill viruses, so they are clearly not dead, as one cannot kill something that is not alive (Koonin and Starokadomskyy, 2016). Similarly, Pearson (2008) suggests the term 'virophage' for viruses as living beings.

Within the last four decades, we have witnessed various viral pandemics like HIV, SARS-CoV, influenza A (A/H1N1), MERS-CoV, Ebola virus, SARS-CoV-2 and finally the Coronavirus Disease 2019 or COVID-19 as novel challenges (Roychoudhury et al., 2020). Scientists put a significant effort into understanding how to prevent pandemics. According to the CDC, apart from getting vaccinated and taking medicine, nonpharmaceutical interventions (NPIs) are the strategies that people, and communities can take to help slow the spread of respiratory viruses like influenza (e.g., staying home when ill, washing hands) especially when vaccines are not yet available.

Despite prevention efforts, pandemics appear to be increasing, particularly because of the increasing emergence of viral diseases that jump to humans from animals (Madhav et al, 2017).

The nature of consciousness and its place in science has received much attention in the current century. Many philosophical and scientific theories have been proposed in this area. In the1980s, Mohammad Ali Taheri introduced novel fields with a non-material/non-energetic nature named Taheri Consciousness Fields (TCFs). In this perspective, T-Consciousness is one of the three existing elements of the universe apart from matter and energy. According to this theory, there are various TCFs with different functions, which are the subcategories of a networked universal internet called the Cosmic Consciousness Network (CCN). The major difference between the theory of TCFs and other theoretical concepts about consciousness is related to the practical application of the TCFs. These

fields can apply to all living and non-living creatures, including plants, animals, microorganisms, materials, etc.

Mohammad Ali Taheri, the founder of Erfan Keyhani Halqeh, a school of thought, introduced a new science in 2020 as a branch of this school. He coined the term Sciencefact for this new science because it utilizes scientific investigations to prove the existence of T-Consciousness as an irrefutable phenomenon and a fact. Although science focuses solely on the study of matter and energy and Sciencefact, by contrast, explores the effects of the [non-material/non-energetic] TCFs, Sciencefact has provided a common ground between the two by conducting reproducible laboratory experiments in various scientific fields, and it has used the scientific approach in proving TCFs.

The influence of the TCFs begins with the Connection between CCN as the Whole Taheri Consciousness of the universe and the subjects of study as a part. This Connection called "Ettesal" is established by a Faradarmangar's mind (a certified and trained individual who has been entrusted with the TCFs). The human mind has an intermediary role (Announcer) which plays a part by fleeting attention to the subject of study and then the main achievement obtained as a result of the effects of the TCFs. These fields cannot be directly measured by science, but it is possible to investigate their effects on various subjects through reproducible laboratory experiments (Taheri, 2013).

The research methodology in the study of T-Consciousness has been founded on the process of *Assumption, Argument, and Proof*, in which the basic Assumption is: The Cosmos was formed by a third element called T-Consciousness that is different from matter and energy.

The Argument: The existence of TCFs can be demonstrated by their effects on matter and energy (e.g., humans, animals, plants, microorganisms, cells, materials, etc.)

The Proof is the scientific verification of the effects of TCFs on matter and energy (according to the Argument) through various reproducible scientific experiments.

Accordingly, to investigate and verify the existence, effects, and mechanisms of TCFs, the following five research phases (Phases 0 through 4), and the aims of each phase are outlined below.

Phase-0 studies aim to prove the existence of TCFs by observing their effects. The nature of T-Consciousness and what it is will not be addressed in this phase. Phase-1 explores the varied effects of different TCFs. Phase-2 examines the reason behind the varied effects of these fields. Phase-3 investigates the mechanism of TCFs effects on matter and energy. Finally, Phase-4 draws significant conclusions, particularly with regard to the *mind and memory of matter* and their relation to the T-Consciousness, etc.

In previous research, we observed that Faradarmani CF reduced the growth rate of various types of bacteria; in addition, we saw that Faradarmani CF treatment increased the survival of a larger and healthier population (Taheri et al., 2021a). Further details about the theory of TCFs are discussed in recent articles (Taheri et al, 2020a). In this way, it has been reported that Faradarmani CF alleviated the adverse effects of salt stress on wheat plants (Torabi et al., 2020). Other observations that have used this method include the effects of Faradarmani CF in changing cancer cell growth patterns (Taheri et al., 2020b), behaviors and biochemical alterations of Alzheimer's disease rat models (Taheri et al., 2021b), and the electrical activities of the brain (Taheri, et al.,

2020c). In order to investigate these concepts in other organisms, we designed an *in vitro* model to evaluate the effect of Faradarmani CF on the growth characteristics of a panel of viruses with different morphogenetic properties.

MATERIALS AND METHODS

In this study, we investigated the influence of Faradarmani CF on the titer of representative viruses in four categories: (1) prototype viruses, (2) permissive cells for specific virus, (3) exposure of the cells infected with specific viruses to Faradarmani CF and (4) calculation of virus titers using 50% tissue culture infectious dose (TCID50).

Virus selection

Viruses are mainly divided into two major groups of enveloped and non-enveloped entities. We chose prototype viruses from these two categories and investigated the role of Faradarmani CF on them. Enveloped viruses used in our study include Vesicular Stomatitis Virus (VSV) and Herpes Simplex Virus 1 (HSV1) and non-enveloped viruses include Encephalomyocarditis Virus (EMCV) and Reovirus. The properties of the selected viruses are summarized in Table 1.

Faradarmani CF application

TCFs were applied to the subjects of this study according to the protocols mentioned on the website of the TCFs research center (www.cosmointel.com). Obtaining an announcement (Connection to the CCN) is free of charge (in the "Assign Announcement" section). In order to study at any time and place, the researchers are asked to introduce the test specifications including the number of samples and their assigned names to the guidance center. It should be noted that this study was conducted in a double-blinded way, meaning that the experts were completely unfamiliar with TCFs theory. Also, the person who established the T-Consciousness Connection was unfamiliar with the details of this study.

In this study, the Faradarmani CF treatment was assigned to the viruses, every hour during 72 hours of the study, from exposure to the host cell to proliferation in it.

CALCULATION OF VIRUS TITERS USING TCID50

Titering of selected virus stocks

The titering of stocks of viruses was calculated using the Reed and Muench method (Reed and

Table1. Model viruses used in the present study.

Virus	Family	Genome type	Genome size / (kb)	Structure	Weight (MDa)	Size (nm)	Host	Reference
VSV	Rhabdoviridae	(Negative) Single strand RNA	11	Enveloped	265.5	70	Animal	Rodriguez et al 2002
EMCV	Picornaviridae	(Positive) Single-strand RNA	7.8	Non-enveloped	8.6	30	Animal	King et al 2011
HSV1	Herpesviridae	Double strand DNA	152	Enveloped	200	125	Human	William et al 1965
Reovirus	Reoviridae	Double strand RNA	18.2-30.5	Non-enveloped	130	80	Human	MacLachlan and Dubovi 2017

Munech 1938). The method of Reed and Muench is widely used to calculate the 50% endpoint. By accumulating the infected and non-infected test units over the whole dilution range, the effective test population is enlarged beyond the actual number of test units on either side of the 50% endpoint.

Titer of selected viruses exposed to Faradarmani CF

The permissive cells were cultured in 96-well plates at 90-100% confluency. Vero cells were inoculated with VSV and HSV1 whereas EMCV and Reovirus were used to inoculate the L929 cell line. The selected viruses were inoculated under the influence of Faradarmani CF. Ten-fold dilutions from the selected viruses were prepared using DMEM followed by infection of the permissive cells at 37 °C for 1 hour, enough time for viruses to be adsorbed to the cells. Second plates were incubated with the same selected viruses as positive control and were placed on a different level inside the same CO_2 incubator. Faradarmani CF was started at the time of virus inoculation of the host cells up to 72 hours post-infection (hpi). The plates were incubated up to 72 hours post-infection (hpi) at 37 °C in a CO2 incubator. Subsequently, the cells were stained with Giemsa dye controlled by inverted light microscopy (Labomed TCM400) for cytopathic effect (CPE). The TCID50 of the viruses was calculated by the method of Reed and Muench with the formula below:

proportionate distance (PD) = ((% above 50%) - 50%)) / ((% above 50%) - (% below 50%))

log TCID50= (log dilution above 50%) + (PD x log dilution factor)

RESULTS

Virus titer:

Virus titers in the plates inoculated with the selected viruses treated with Faradarmani CF were calculated and compared with the inoculated plates with the virus types without Faradarmani CF treatment as a positive control at 72 hours post-infection. The development of the CPE was observed using an inverted microscope. Representative results of the CPE induction in both Faradarmani CF treated cells, as well as control cells, are depicted in Figure 1. The EMCV plates stained with Giemsa dye are presented in Figure 2 as a representative and used to calculate virus titer.

As reported in Table 2, the change in viral titers for the selected viruses was different in Faradarmani CF compared to control. We observe a decrease from 0.4 to 1.85 in log difference for all RNA viruses in the present study, and a slight increase of about 0.5 log difference for Hsv1, the only DNA virus in the present study.

Table2. TCID50 of the selected viruses of the present study.

Virus	Permissive cell	Virus titer in the control sample (TCID50/ml)	Virus titer in Faradarmani CF treated sample (TCID50/ml)	Log Difference -: decrease +:increase
VSV	Vero	10^8	10^7	-1
EMCV	L929	10^9	$10^{7.15}$	-1.85
Hsv1	Vero	$10^{4.4}$	$10^{4.9}$	+0.5
Reovirus	L929	$10^{9.9}$	$10^{9.5}$	-0.4

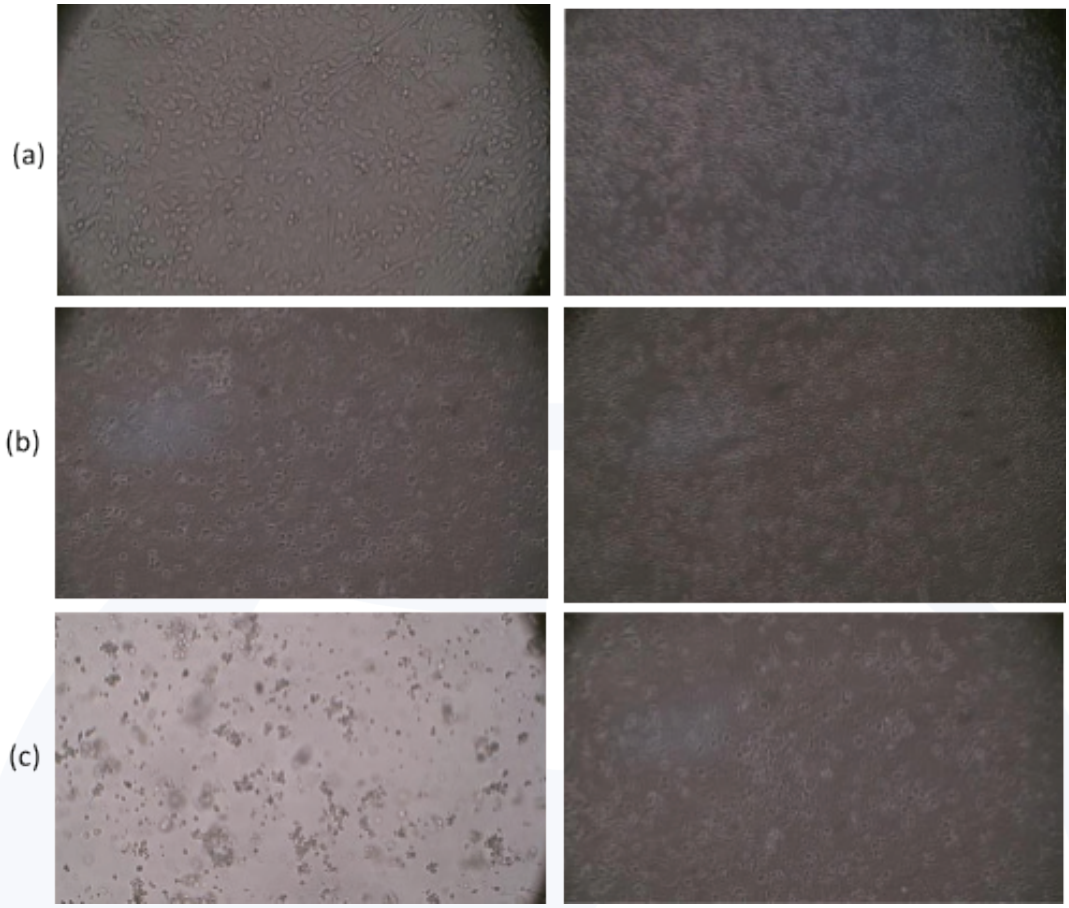

Figure1. Vero (Left) and L929 (Right) cell (a) before VSV/EMCV titration, (b) CPE induction in control without Faradarmani CF treatment, and (c) cells infected with VSV/EMCV with Faradarmani CF treatment. The images present original magnification x40

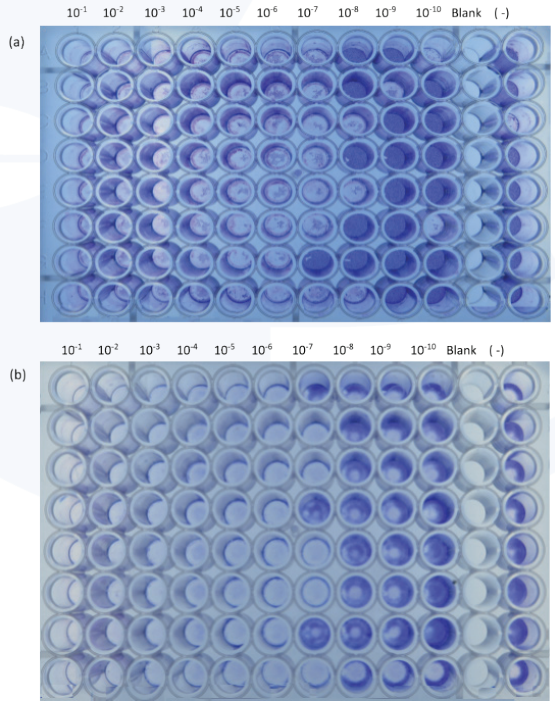

Figure2. 96-well plate used for titration of EMCV as (a) positive control and (b) treated with Faradarmani CF. The infected cells are not stained with Giemsa dye. Serial dilutions from the virus are indicated from left to right for each plate. The first column in the right is used as negative control (mock-infected). The number of infected wells is reducing with increasing dilution from left to right.

DISCUSSION

In this preliminary study, we investigated the role of Faradarmani CF on four viral types for the first time. We observed that the RNA virus titers were significantly decreased under Faradarmani CF treatments. The presence of envelopes in RNA viruses as well as the size of their genome can seemingly affect their response to Faradarmani CF (as shown in comparisons between EMCF and VSV).

The DNA and RNA viruses respond differently to Faradarmani CF, as shown in the Hsv1 results, which are different from the other RNA viruses used in this study. This response may be due to the fact that the DNA viruses (Hsv1) employ a different mechanism for survival and replication in the host cell.

According to Taheri, Faradarmani CF is effective in repairing and modifying the system under study in order to achieve its optimal conditions; changes that occur in the software or the infrastructure of the system under study. In contrast to the impact of Consciousness Fields, the conventional methods of intervention in the systems under study are considered "hardware intervention". An example of this intervention type, in the context of the present study, is the death or inactivation of the microbes under influence of antimicrobial substances. However, what is observed in this study is changes (decrease and increase) in the viral population that indicate exposure to a different factor from known antimicrobial agents.

In summary, we show that firstly Faradarmani CF exerts an effect on virus titers and secondly, Faradarmani CF changes viral counts in concordance with the types. That is, the virus titers are different in enveloped or non-enveloped viruses or in RNA versus DNA viruses. Based on the preliminary results in this study, we recommend further investigations to decipher the underlying mechanisms of viral structure and function as well as their interactions with respective host cells under Faradarmani CF. Viruses are ideal models to delineate the role of FCF both prior to entry in living host cells and after entry.

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